U.S. Textile Manufacturing and the Proposed Trans-Pacific Partnership Agreement

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Summary

Textiles are a sensitive sector in the Trans-Pacific Partnership (TPP), an agreement that would establish a free-trade zone across the Pacific if it is approved by Congress and foreign governments. Because the TPP includes Vietnam, a major apparel producer that now mainly sources yarns and fabrics from China and other Asian nations, the agreement could shift global trading patterns for textiles and demand for U.S. textile exports. Canada and Mexico, both significant regional textile markets for the United States, and Japan, a major manufacturer of high-end textiles and industrial fabrics, are also TPP members.

U.S. textile manufacturers produce yarn, thread, and fabric for apparel, home furnishings, and various industrial applications. In 2015, the U.S. textile industry generated some $55 billion in shipments and directly employed about 232,000 Americans, accounting for approximately 2% of all U.S. factory jobs. More than a third of U.S. textile production is exported, with the bulk of the exports going to Western Hemisphere nations that are members of the North American Free Trade Agreement (NAFTA), the Dominican Republic-Central America Free Trade Agreement (CAFTA-DR), and the Caribbean Basin Initiative (CBI). These free-trade agreements provide that certain exports from member countries may enter the U.S. market duty-free only if they are made from textiles produced in the region. This has encouraged manufacturers in Mexico and Central America to use U.S.-made yarns and fabrics in apparel, home furnishings, and other products. Exports to the NAFTA and CAFTA-DR countries contributed to a U.S. trade surplus of $1.6 billion in yarns and fabrics in 2015.

The proposed TPP would eliminate some tariffs on textiles and apparel immediately, and phase out others over a decade or more. The agreement has the potential to affect U.S. textile exporters in at least three ways:

- It could enable some Asian apparel producers, principally Vietnam, to export clothing to the United States duty-free. This would eliminate much of the advantage now enjoyed by Western Hemisphere apparel producers in the U.S. market, and, because Vietnamese manufacturers make little use of U.S.-made textiles, could reduce demand for U.S. textile exports.
- The TPP would allow Western Hemisphere apparel manufacturers to use yarn and fabric made anywhere in the TPP region and still enjoy preferential access to the U.S. market. Thus, an enlarged Vietnamese textile industry could, at some future time, compete with U.S. exporters in Mexico and Central America.
- The U.S. manufacturers of industrial textiles may experience more direct competition from Japan, also a leading producer of industrial textiles. On the upside, U.S. exports of these products could increase because the agreement would eliminate tariffs on industrial fabrics that are currently as high as 20% in some TPP countries.

Responding to concerns from domestic textile manufacturers, the proposed TPP agreement includes a "yarn-forward" rule of origin that would allow a garment to enter the United States duty-free only if yarn production, fabric production, and cutting and sewing of the finished garment all occur within the TPP region. However, nearly 190 fibers, yarns, and fabrics in short supply in TPP-member countries could be sourced from outside the region, including China. This provision was a concession to U.S. retailers and apparel brands that wanted maximum flexibility to source yarns and fabrics from non-TPP countries.

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Introduction

The Trans-Pacific Partnership Agreement (TPP) is a regional free-trade agreement (FTA) signed by trade ministers of 12 member countries, including the United States, on February 4, 2016.[1] Several countries are seeking to ratify the agreement this year.[2] If the proposed agreement enters into force for the United States, the TPP will over time eliminate all tariffs on textile and apparel products with yarns and fabrics made in the TPP region.[3] Provisions concerning textile trade were a major point of contention during the TPP negotiations, attracting considerable congressional attention and debate. This report examines the potential implications of the proposed TPP agreement for U.S. textile manufacturing.

The TPP marks the first FTA for the United States since the complete end of quotas on textile and apparel trade in 2005.[4] Duty-free access to the U.S. market under TPP could be of considerable benefit to Asian manufacturers, which now face U.S. import duties on textiles and apparel of up to 32%. It also could change the competitive position of Western Hemisphere apparel suppliers in the U.S. market, with consequences for U.S. textile exports to those countries.

The U.S. Textile Industry and Its Markets

With $18 billion in value added in 2015, textile manufacturing, which produces yarns and fabrics from raw materials such as cotton and various man-made fibers, is a supplier industry to three industrial sectors.[5] The apparel industry, which transforms textiles into clothing, consumed 11% of U.S.-manufactured fibers in 2014. About 40% of domestic textile output went into home textiles and floor coverings, while half was used in technical textiles such as conveyor belts and automotive floor coverings.[6]

Textile manufacturing occurs largely in highly automated factories. Apparel manufacturing, which is far more labor-intensive, is characterized by decentralized, globally dispersed production networks coordinated by lead firms that control design, branding, and other activities. Many of the world's largest apparel retailing and marketing firms are headquartered in the United States, but the United States imports far more clothing than it makes domestically. Today, more than 60%

[1] The TPP partners are Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam. Of these countries, Canada, Mexico, and Japan are major exporters of textiles to the United States. Japan became a TPP member in July 2013. Several other countries have shown interest in joining, including South Korea, the third-largest exporter of textile products to the United States in 2015.

[2] The TPP must be ratified by all parties to enter into force within two years of its 2016 signing. Thereafter, the agreement will enter into force as soon as six countries accounting for 85% of TPP GDP accede to it, but only for those countries that complete the accession process. On August 12, 2016, the Office of the United States Trade Representative sent Congress the draft Statement of Administration Action for the TPP. See CRS Report R44489, *The Trans-Pacific Partnership (TPP): Key Provisions and Issues for Congress*, coordinated by Ian F. Fergusson and Brock R. Williams.

[3] Congress must approve implementing legislation for U.S. commitments under the agreement to enter into force. The Bipartisan Comprehensive Trade Priorities and Accountability Act of 2015 (P.L. 114-26) sets the procedures governing congressional consideration of the proposed TPP. See CRS In Focus IF10000, *TPP: An Overview*, by Brock R. Williams and Ian F. Fergusson.

[4] The Agreement on Textiles and Clothing (ATC) ended in 2005, but China remained subject to textile and apparel quotas through the end of 2008. The other FTAs had been initially concluded and signed by the end of that year.

[5] U.S. Bureau of Economic Analysis (BEA), Gross Domestic Product by Industry, http://www.bea.gov/industry/gdpbyind_data.htm.

[6] "End Use Survey," 2010-2014, *Fiber Organon*, vol. 86, no. 10 (October 2015), Table 2, p. 188.

of clothing and other textile products purchased by U.S. consumers is produced outside the United States.[7] U.S. apparel value added totaled about $11 billion in 2015, when apparel manufacturers directly employed about 135,200 workers (see **Appendix A**).

Unlike textile manufacturers, most U.S.-headquartered apparel firms have limited or no U.S. manufacturing capabilities. Some manufacture through a combination of facilities they own and third-party arrangements, often with foreign factories. Others rely entirely on arrangements with third-party suppliers, mostly in Asia. Large retailers frequently contract directly with apparel sourcing companies, which in turn portion out the production work to independent manufacturers. The United States was responsible for 1.3% of the $483 billion of global apparel exports in 2014, according to statistics from the World Trade Organization (WTO).[8] China, Vietnam, Bangladesh, Indonesia, and Mexico were the top five apparel suppliers to the United States in 2015.[9] Beyond manufacturing, countless other functions related to apparel are performed domestically, such as design, branding, and marketing of finished products.[10]

The U.S. home furnishings industry has fared far better against import competition than the apparel industry, mainly because manufacturing of carpets, curtains, and tablecloths is highly automated. For example, the development of larger, faster carpet-tufting machines contributed to a decline in employment at U.S. carpet and rug mills, from 49,200 workers in 2005 to 31,300 in 2015.[11] The health of the carpet and rug mills industry is tied in large part to conditions in domestic housing and commercial building construction, raw material prices, and competition from foreign producers.[12]

The output of technical textile mills is used across various industrial sectors. According to one estimate, automotive manufacturers in the United States used about 330 million square yards of fabric in 2015 for headliners, fabric seats, airbags, seat belts, door panels, engine filters, and trunk liners.[13] *Textile World*, an industry trade publication, estimated the U.S. market value of technical textiles at $32.5 billion in 2015.[14]

The Textile Manufacturing Process

Textile manufacturing begins with fiber, which can be harvested from natural resources (e.g., cotton, wool, silk, or ramie), manufactured from cellulosic materials (e.g., rayon or acetate), or

[7] Leslie Meyer and Stephen MacDonald, *Cotton and Wool Outlook: Global Cotton Stocks Decrease in 2015/16*, U.S. Department of Agriculture (USDA), CWS-15j, October 14, 2015, p. 8.

[8] World Trade Organization (WTO), International Trade Statistics, 2014, WTO statistics database, updated August 11, 2016, http://stat.wto.org/Home/WSDBHome.aspx?Language=E.

[9] CRS analysis of data from U.S. Department of Commerce, Office of Textiles and Apparel Trade (OTEXA), http://otexa.trade.gov/msrpoint.htm.

[10] Karina Fernandez-Stark, Stacey Frederick, and Gary Gereffi, *The Apparel Global Value Chain*, Duke University, Center on Globalization, Governance & Competitiveness, November 2011, pp. 7-16, http://www.cggc.duke.edu/pdfs/2011-11-11_CGGC_Apparel-Global-Value-Chain.pdf.

[11] Bureau of Labor Statistics (BLS), Quarterly Census of Employment and Wages (QCEW), Carpet and Rug Mills (NAICS 31411), accessed August 11, 2016, http://www.bls.gov/cew/.

[12] Zeeshan Haider, "Carpet Mills in the US—Rug Burn: High Competition Will Lead to a Minor Decrease in Revenue," IBISWorld Industry Report 31411, June 2016, pp. 7-11.

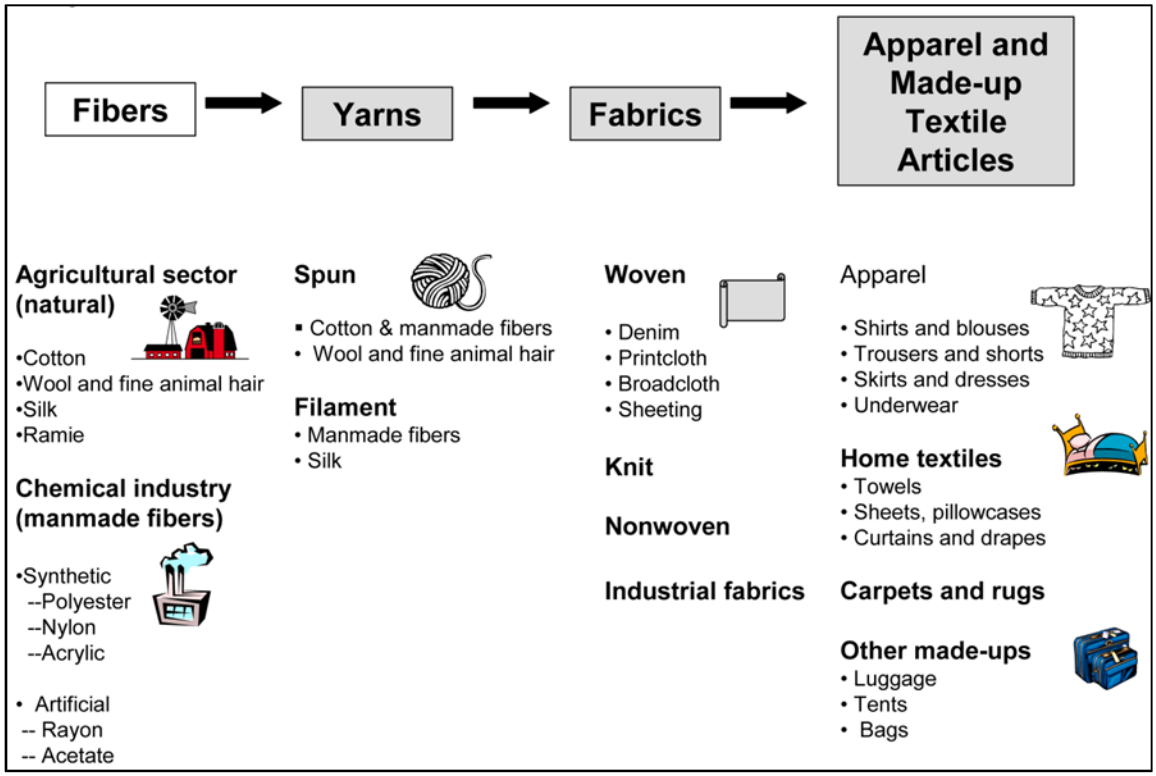
[13] According to *Textile World*, 28 square yards of textiles, including woven, nonwoven, and knit fabrics, are used in an average vehicle. In 2015, the United States produced 11.9 million light vehicles, according to data from *Automotive News*. See Stephen M. Warner, "2016 State of the U.S. Technical Textiles Industry," Part 1, *Textile World*, April 4, 2016.

[14] Stephen M. Warner, "2016 State of the U.S. Technical Textiles Industry," Part 2, *Textile World*, May 23, 2016.

made of man-made synthetic materials (e.g., polyester, nylon, or acrylic). After the raw fibers are shipped from the farm or the chemical plant, they pass through four main stages of processing (see **Figure 1**):

- yarn production, in which fiber is spun into filament or yarn;
- fabric production, in which filaments and yarns are made into textile fabrics, primarily by weaving or knitting;
- finishing, which prepares the textiles for further use by processes such as bleaching, printing, dyeing, and mechanical or wet finishing; and
- fabrication, where the finished cloth is converted into apparel, household textiles, or industrial products.

Figure 1. Major Products of the Fiber, Textile, and Apparel Industries



Source: U.S. International Trade Commission (USITC), *Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market*, Volume 1, Investigation No. 332-448, Publication 3671, Figure 1-1, January 2004.

Worldwide, in 2015, the textile industry produced 94.9 million metric tons of textiles. Man-made fibers accounted for more than two-thirds of total production, up from about half in the 1990s.[15] Most of the global growth in man-made textile manufacturing has taken place in China, which by 2015 accounted for about two-thirds of total production. The United States was responsible for about 4% of global production of man-made fibers in 2015. No other country produced more than

[15] Andreas Englehardt, *Fiber Year 2016*, World Survey on Textiles and Nonwovens, May 2016, p. 91.

4% of the world's man-made fibers in 2015. Other important producers are India, Taiwan, Indonesia, South Korea, Turkey, and Japan.[16]

Cotton is the most important natural fiber.[17] In the 2015-2016 marketing year, India ranked as the world's largest producer of cotton, at nearly 5.8 million metric tons, followed by China and the United States.[18] Pakistan, Brazil, Uzbekistan, and Turkey are also large cotton producers. Many of the leading cotton producers are also leading mill users of raw cotton. The top four consumers of cotton are China, India, Pakistan, and Turkey, which together account for more than two-thirds of world consumption. Mexico and the Central American and Caribbean countries are the leading customers for U.S. cotton. [19] Consumption of cotton by U.S. textile mills peaked in 1997.[20] Since then, U.S. mill use of cotton has dropped about 70% due to the decrease in domestic textile production caused by competition from imported textile and apparel products.[21]

As for other natural fibers, two TPP negotiating partners, Australia and New Zealand, are among the world's leading wool-growing nations.[22] Vietnam is a top-10 producer of silk, but accounts for only a small share of global production, well behind China and India.[23]

Domestic Textile Production

U.S. textile output has not recovered from the severe downturn in 2008 and 2009. Production at textile mills remains about 25% below the 2007 level, and production at textile product mills is approximately 28% less than in 2007.[24] The value of shipments totaled about $55 billion in 2015, down 1% from a year earlier. This amounted to 1.2% of total U.S. manufacturing shipments (see **Appendix A**).

According to U.S. government data, there were 2,242 fewer establishments manufacturing textiles in 2014 than in 2004.[25] Domestic manufacturers have invested heavily in technology to reduce operating costs. For example, modern industrial looms incorporate air-jets to weave at speeds of 2,000 picks per minute (compared with 200 picks in 1980, which at the time was considered fast).[26] Some modern textile mills have become almost completely automated, churning out thousands of square yards every hour with as few as 10 or 20 employees. According

[16] Ibid. Table 10.13, Production of Manmade Fibers by Country, p. 184.

[17] Of total fiber production in 2015, according to *Fiber Year*, cotton represented around 30% and wool 1%.

[18] USDA, *Cotton: World Markets and Trade*, July 2016, Table 01, Cotton World Supply, Use, and Trade, p. 9.

[19] James Johnson, Stephen MacDonald, and Leslie Meyer, et al., *The World and United States Cotton Outlook*, USDA, February 26, 2016, p. 7, http://www.usda.gov/oce/forum/2016_speeches/Cotton_Outlook_2016.pdf.

[20] Daryll E. Ray and Harwood D. Schaffer, *Most U.S. Cotton Production Traditionally Went to Domestic Mills, Now It Goes Abroad*, Agricultural Policy Analysis Center, University of Tennessee, Knoxville, September 27, 2013, http://agpolicy.org/weekcol/687.html.

[21] Leslie Meyer, *The World and United States Cotton Outlook for 2016/17*, USDA, Agricultural Outlook Forum 2016, February 26, 2016, pp. 7-10, http://www.usda.gov/oce/forum/2016_speeches/meyer.pdf.

[22] *Fiber Year 2016* reports eight countries (Australia, China, New Zealand, India, South Africa, Argentina, Uruguay, and the United Kingdom) account for more than half of global wool output (p. 52).

[23] Food and Agricultural Organization (FAO), Statistical Division, http://faostat.fao.org/site/339/default.aspx.

[24] Federal Reserve Board, Release G. 17, Industrial Production and Capacity Utilization, for NAICS 313 and 314 (textiles), accessed August 15, 2016.

[25] U.S. Census Bureau, *County Business Patterns*, data for NAICS 313 and 314.

[26] John Varrasi, *Transforming the Textile Industry*, ASME, April 2012, https://www.asme.org/engineering-topics/articles/manufacturing-processing/transforming-the-textile-industry.

to the U.S. Census Bureau, the U.S. textile industry invested $14.2 billion in plants and equipment between 2005 and 2014.[27]

Because yarn and fabric production are capital- and scale-intensive, they demand higher worker skills than apparel production. As a consequence, the textile industry has been less prone to relocation to lower-wage countries than apparel manufacturing. Significant production remains in the United States, Japan, and South Korea, where skilled labor is available and manufacturers can raise the capital to finance weaving mills costing an estimated $12 million to $25 million and spinning mills costing $50 million to $70 million.[28]

Among all U.S. manufacturing industries, textiles rank near the top in productivity increases. This can be attributed both to automation and to the closure of less efficient mills. While imports of textiles and apparel undoubtedly have contributed to lower industry employment, over the past decade more than 200,000 textile manufacturing jobs have been lost due to automation, according to private estimates.[29]

The yearly declines in textile industry employment began to level off around 2009, and the most recent year has shown a modest rebound. At the end of 2015, the domestic textile industry employed about 232,000 workers, accounting for about 2% of the 12.3 million domestic factory jobs (see **Appendix A**). Average annual pay was approximately $41,500 in 2015, far below the average of $64,300 for all manufacturing. [30] **Figure 2** shows employment has declined by two-thirds since 1990. Over time, employment has fallen most rapidly during economic downturns, but has failed to return to prerecession levels during the ensuing recoveries. In 2015, textile manufacturers added more than 1,100 jobs over the previous year, the first significant employment gain in 20 years. Sustained industry employment growth will likely be hindered by factors such as automation, consolidation, and import competition. The Bureau of Labor Statistics predicts the overall employee count in textile manufacturing to shrink to around 174,000 by 2024.[31]

Domestic textile production is primarily located in the southeastern states and in California, although every state has some textile manufacturing. In 2015, more than one-third of all textile jobs were located in Georgia and North Carolina. **Appendix B** compares textile employment in the top 10 states, which accounted for more than two-thirds of all textile jobs, in 2005 and 2015.

[27] CRS analysis of annual capital expenditures survey data from the U.S. Census Bureau, https://www.census.gov/econ/aces/. The most recent statistics were released on February 23, 2016.

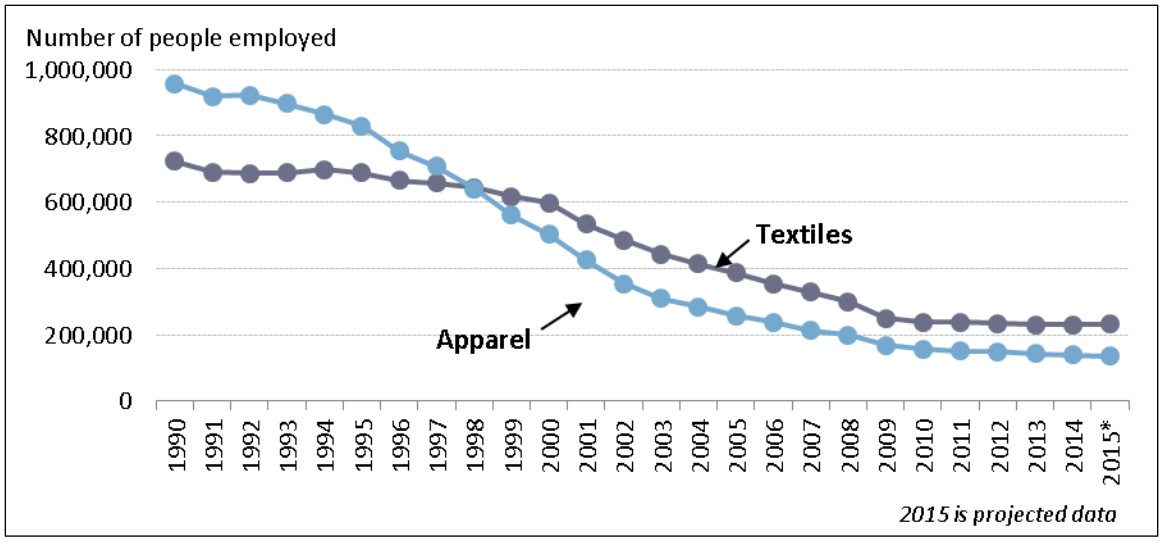
[28] Nathan Associates, *Bringing Hope to Haiti*'s *Apparel Industry*, World Bank, November 2009, p. 6.

[29] Marsha Mercer, "Textile Industry Comes Back to Life, Especially in South," *USA Today*, February 2014, http://www.usatoday.com/story/news/nation/2014/02/05/stateline-textile-industry-south/5223287/.

[30] BLS, Quarterly Census of Employment and Wages (QCEW), accessed August 15, 2016, at http://www.bls.gov/cew/.

[31] Richard Henderson, "Industry Employment and Output Projections to 2024," *Monthly Labor Review*, p. 16, December 2015.

Figure 2. Textile and Apparel Manufacturing Employment



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages for North American Industry Classification System (NAICS) 313 and 314 (textiles) and NAICS 315 (apparel).

In apparel manufacturing, employment has shrunk every year for more than two decades, as clothing manufacturers have transferred much of their production abroad, resulting in 820,000 fewer U.S. apparel manufacturing jobs in 2015 than in 1990 (see **Figure 2**).[32] More than 90% of apparel sold in the United States is imported. Some companies maintain U.S. manufacturing of high-value products or products requiring quick delivery.

Global Textile Trade Shifts

For more than 40 years, developed countries, including the United States and the European Union, sought to protect their textile and apparel sectors from developing countries' exports through two multilateral agreements, the Multi-Fiber Arrangement (MFA) and the Agreement on Textiles and Clothing (ATC). Quotas on imports from more than 70 countries limited the quantities of textiles (such as cotton yarns and synthetic fabrics) and particular garments (such as T-shirts and sweaters) that could enter the United States and the European Union every year. The quota system made it necessary for buyers of textile and apparel products to source from countries for which quotas for particular products were available. This spread manufacturing to an ever-increasing number of countries, instead of concentrating it where production was cheapest.

The expiry of the ATC on January 1, 2005, eliminated all textile and apparel quotas for members of the WTO, but did not eliminate import tariffs.[33] Tariffs on textile and apparel imports vary considerably from country to country, governed by bilateral and regional arrangements discussed in greater detail below. The average U.S. tariff rate in 2014 was 7.9% for textiles and 12.0% for clothing, but rates on particular products could be as high as 32% (see **Appendix C**).[34]

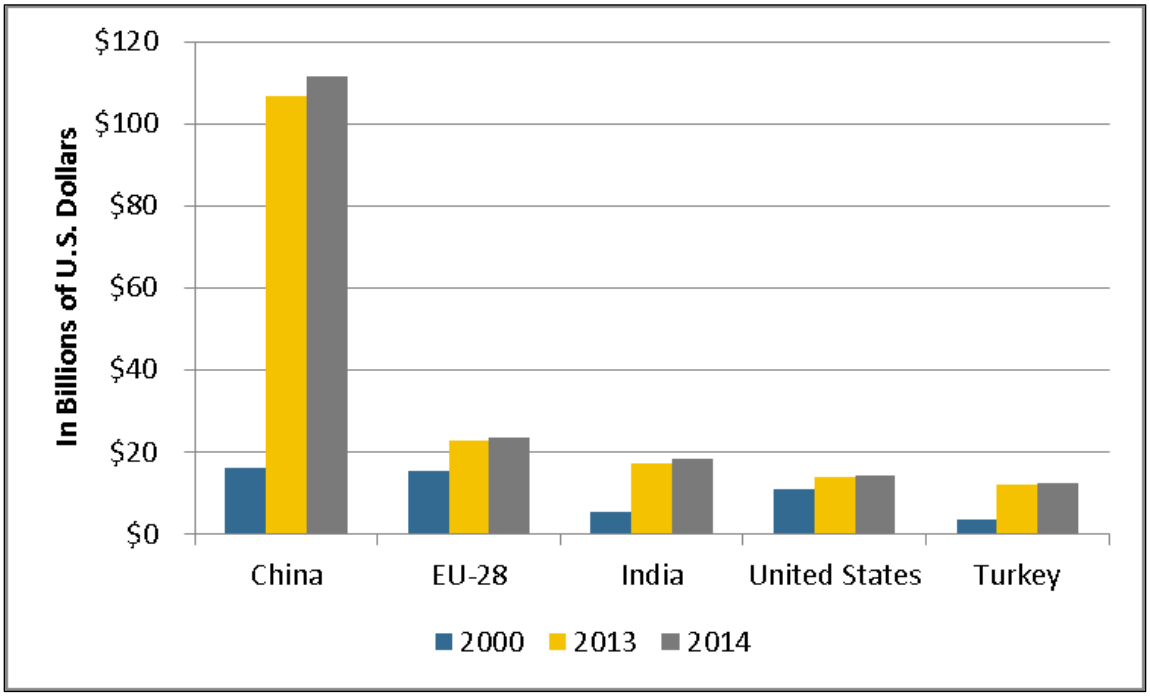
[32] BLS QCEW program, accessed August 15, 2016, http://www.bls.gov/cew/.

[33] Tuna N. Amobi, *Textiles, Apparel & Luxury Goods*, S&P Global, July 2016, p. 52.

[34] World Trade Organization (WTO), *World Tariff Profiles 2015*, p. 170, https://www.wto.org/english/res_e/publications_e/world_tariff_profiles15_e.htm.

According to the WTO, China was by far the world's largest exporter of textiles in 2014, with about a 35% global market share at $112 billion (see **Figure 3**). Chinese export growth accelerated following its 2001 accession to the WTO and the expiry of the ATC. Now, more than 50,000 textile mills operate in China.[35] The European Union, the United States, China, Vietnam, and Hong Kong were the world's top five importers of textiles in 2014.[36]

Figure 3. Top Global Textile Exporters



Source: WTO, International Trade Statistics, 2015 Statistics Database.

Notes: Figures for the EU-28 include only exports to the rest of the world. If internal trade were included, EU countries' combined textile exports totaled $74.8 billion in 2014, second to China's $112 billion.

Apparel trade is more diversified than textile trade, as many nations have been able to develop export-oriented apparel industries without having large domestic textile production. China, the EU-28, Bangladesh, Hong Kong, and Vietnam ranked as the top clothing exporters in 2015. Central America, the Caribbean, and Africa, and countries throughout Asia, including Malaysia, also export large quantities of apparel.[37]

[35] "Top Clothing Brands Linked to Water Pollution Scandal in China," *China Dialogue*, September 9, 2012, https://www.chinadialogue.net/blog/5203-Top-clothing-brands-linked-to-water-pollution-scandal-in-China/en.

[36] WTO, International Trade Statistics, 2015,WTO statistics database, updated August 15, 2016, http://stat.wto.org/Home/WSDBHome.aspx?Language=E.

[37] According to merchandise trade statistics from the WTO, in 2014, Pakistan, Malaysia, Mexico, Thailand, Morocco, Honduras, Tunisia, South Korea, El Salvador, and Panama ranked among the world's 25 largest apparel-exporting countries by value.

U.S. Trade in Textile Products

In 2015, approximately one-third of U.S. textile production was exported, with a value of $17.6 billion (see **Table 1**). The United States has a strong export position in yarns and fabrics, posting a modest trade surplus in these products for two decades. When made-up textile articles (e.g., sheets and towels) are included, the United States ran a textile trade deficit of $20.5 billion in 2015. Import penetration—the share of U.S. demand met by textile imports—reached approximately 40% in 2015, from 35.5% in 2010 (see **Appendix A**).

Table 1. U.S. Exports of Textile Mill Products to the World

(in millions of U.S. dollars, by selected years)

	Fabric	Yarn	Made-Up Articles[a]	Textile Mill Products Total	Fabric and Yarn Total
1990	$2,903	$2,141	$1,232	$6,276	$5,044
1995	$4,770	$2,818	$1,727	$9,315	$7,588
2000	$7,420	$3,130	$2,258	$12,808	$10,550
2005	$8,810	$3,271	$2,586	$14,667	$12,081
2010	$7,637	$4,444	$3,152	$15,233	$12,081
2015	$9,041	$4,911	$3,677	$17,629	$13,952

Source: U.S. Department of Commerce, Office of Textiles and Apparel Trade (OTEXA).

Note: Export Market Report, accessed August 11, 2016.

a. Made-up articles include home furnishings and other consumer goods such as towels, tablecloths, and bedsheets.

As **Table 2** shows, the majority of the $14 billion in yarns and fabrics exported from the United States is sold to NAFTA, CAFTA-DR, and CBI countries.[38] U.S. exports are often more expensive than those from other countries. Despite this cost differential, apparel producers in the NAFTA, CAFTA-DR, and CBI countries use U.S.-made textiles in products that are exported to the United States because the goods enter the United States free of tariffs. Mexico is the U.S. textile industry's largest foreign market, with exports of $4.7 billion in 2015. More than $700 million of U.S.-made yarns and fabrics was exported to other prospective TPP member countries such as Japan, Vietnam, Malaysia, and Australia in 2015.

[38] The North American Free Trade Agreement (NAFTA), approved by Congress in P.L. 103-182, has been in effect since 1994. The Dominican Republic-Central America Free Trade Agreement (CAFTA-DR; P.L. 109-53) was signed in 2004, first with five Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua) and then with the Dominican Republic. The United States is also a member. CAFTA-DR was implemented on a rolling basis between 2006 and 2009. The Caribbean Basin Initiative (CBI) was initially launched in 1983 through the Caribbean Basin Economic Recovery Act (P.L. 98-67), and expanded in 2000 through the Caribbean Basin Trade Partnership Act (CBTPA). The CBI was expanded again in the Trade Act of 2002 (P.L. 107-201). The CBI provides beneficiary countries with duty-free access to the U.S. market for most goods, including apparel products. The United States has bilateral FTAs with the Latin American countries of Chile, Colombia, Panama, and Peru.

Table 2. U.S. Yarn and Fabric Exports, by Countries or Region

(in millions of U.S. dollars, by selected years)

	1990	1990 % Share	2000	2000 % Share	2015	2015 % Share
World	$5,044		$10,550		$13,952	
Mexico	$478	9%	$3,726	35%	$4,683	34%
CAFTA-DR[a]	$235	5%	$760	7%	$2,606	19%
Canada	$1,029	20%	$2,328	22%	$1,683	12%
EU-28	$1,372	27%	$1,506	14%	$1,540	11%
China	$163	3%	$210	2%	$880	6.3%
CBI[b]	$109	2%	$74	1%	$67	0.5%

Source: U.S. Department of Commerce. OTEXA, accessed August 14, 2016.

a. CAFTA-DR consists of Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua.

b. The Caribbean Basin Initiative (CBI) includes Antigua, Aruba, Bahamas, Barbados, Belize, the British Virgin Islands, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Netherlands Antilles, Panama, St. Kitts-Nevis, St. Lucia, St. Vincent/Grenadines, and Trinidad and Tobago.

In the apparel sector, import penetration reached more than 90% of U.S. demand in 2015, up from 88% in 2010 (see **Appendix A**). The U.S. trade deficit in apparel products was $82 billion in 2015.[39] Nearly 40% of imported apparel came from China. Vietnam, a fast-growing source of apparel for the U.S. market, furnished 12% of imports, and Mexico accounted for 4% in 2015. Other TPP participants shipped only small quantities of apparel to the United States. Almost all U.S. apparel imports from Central America, the Caribbean, Mexico, and Canada are made with textiles produced in the United States. Collectively, they accounted for 15% of U.S. apparel imports in 2015, down from one-third in 2000.

Sourcing in the Western Hemisphere

Central America, Mexico, and the Caribbean have limited textile production, but ample cut, make, and trim apparel assembly capacity, or CMT production, as it is known in the industry. CMT is a low-value-added production system, whereby a manufacturer produces garments for a customer by cutting fabric provided by the customer, sewing the cut fabric, trimming the thread, and packaging the garments according to the customer's specifications. Canada's higher-value-added textile sector differs substantially from the CMT operations in Latin America. U.S. textile exports to Canada, mainly specialty and industrial fabrics, totaled $1.7 billion in 2015.[40]

In Central America, virtually all fibers are imported. Several U.S. textile manufacturers have established manufacturing capabilities in Central America, as have companies from South Korea, Taiwan, and China. For example, the U.S.-based fabric maker Unifi is expanding its production

[39] OTEXA Textile and Apparel Trade Balance Report, accessed August 18, 2016, http://otexa.ita.doc.gov/tbrbal.htm.

[40] International Trade Administration, *2016 Top Markets Report: Technical Textiles, A Market Assessment Tool for U.S. Exporters*, May 2016, pp. 19-22, http://trade.gov/topmarkets/pdf/Textiles_Top_Markets_Report.pdf.

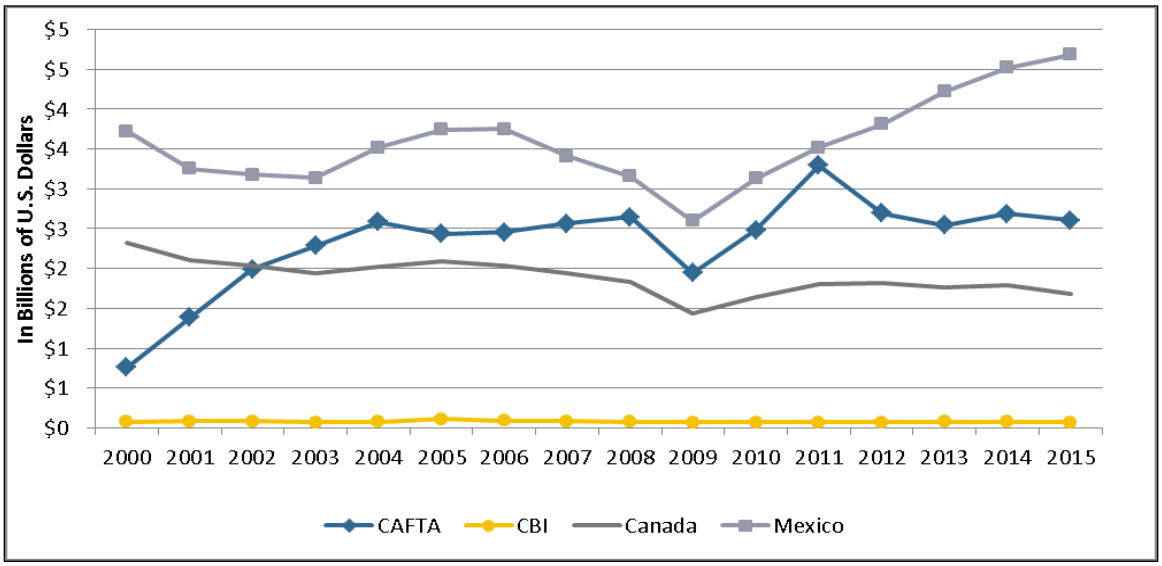
of man-made yarns in El Salvador.[41] In addition, a few South Korean textile and apparel producers, including Hansae and Sae-A, operate factories in Central America.[42]

Among the regional apparel suppliers that have free-trade agreements with the United States, Mexico is the only significant producer of fabric and the only significant source of yarn.[43]

Mexico's apparel industry relies almost entirely on the U.S. market for exports. Its cut and assembly operations often use U.S.-made fabrics to produce basic garments such as denim jeans and T-shirts, which are then exported to the United States. Competition from countries with lower wages appears to be reducing the competitiveness of Mexican apparel in the U.S. market. U.S. clothing imports from Mexico dropped to $3.7 billion in 2015, from $6.3 billion in 2005.[44]

For U.S. textile exporters, Honduras, the Dominican Republic, El Salvador, and Guatemala represent the biggest yarn and fabric markets in the CAFTA-DR region (see **Figure 4**). At $1.4 billion, Honduras was the largest of the four in 2015, absorbing nearly 10% of total U.S. yarn and fabric exports. Cotton (yarn/woven fabric) and man-made fibers, which are used to make basic apparel such as T-shirts, socks, and underwear, are among the top export categories from the United States to Honduras.[45] The Dominican Republic, El Salvador, and Guatemala are also major assemblers of basic apparel for the U.S. market.

Figure 4. U.S. Fabric and Yarn Exports to the Western Hemisphere



Source: U.S. Department of Commerce, OTEXA.

[41] "Unifi Announces Polyester Texturing Capacity Increase," *Textile World*, May 19, 2015.

[42] Jae Sung Kwak, "Backward Linkages of Korean Multinationals to Local Small and Medium-sized Enterprises in the Automobile and Textile Sectors in Brazil and Guatemala," in *Rising Concentration in Asia-Latin American Value Chains*, ed. Osvaldo Rosales, Keiji Inoue, Nanno Mulder (Santiago, Chile: Economic Commission for Latin American and the Caribbean, 2015), pp. 110-121.

[43] "Mexico is Ready to Dress the World!," *Mexico News Network*, May 1, 2015, http://www.mexiconewsnetwork.com/news/mexican-denim/.

[44] OTEXA, Textile and Apparel Trade Balance Report, accessed August 15, 2016, http://otexa.ita.doc.gov/msrpoint.htm.

[45] CRS analysis of export data for Honduras compiled from Global Trade Atlas, August 29, 2016.

Apparel manufacturers in the Caribbean region also have preferential access to the U.S. market under the Caribbean Basin Initiative (CBI), now called the Caribbean Basin Trade Preference Act (CBTPA) program. Because production of yarn and fabric in the Caribbean is extremely limited, the region's cut and assembly factories mostly rely on U.S.-made fabrics and yarns, with U.S. exports totaling $69 million in 2015. Most textile production in the Caribbean is located in the Dominican Republic (also a CAFTA member).[46] Other Caribbean countries such as Haiti have no domestic textile industries, but use U.S.-made textiles to produce apparel for the U.S. market.

U.S. retailers source most of their garments from Asia, especially from China, Vietnam, India, Indonesia, and Bangladesh.[47] They tend to use Western Hemisphere producers for quick replenishment, especially if time is a critical factor.[48] The major products sourced within the Western Hemisphere region are basic, low-value knitwear garments such as shirts, pants, underwear, and nightwear, with a focus on men's and boys' wear. U.S. imports of industrial fabrics from the CAFTA-DR region are relatively minimal, at $2.5 million in 2015.[49]

Apparel producers in the Western Hemisphere have two main comparative advantages in serving the U.S. market. One is geographic proximity, which confers lower transportation costs and faster delivery; transit times from the CAFTA-DR region to a U.S. port range from two to seven days,[50] rather than about two weeks to a month from Asia.[51] The other advantage is duty-free access for apparel manufactured from U.S. textiles. For example, manufacturers of cotton T-shirts or cotton twill trousers can avoid a 16.5% import duty if U.S. inputs are used.[52]

Tariff preferences appear to be important in keeping apparel producers in the Western Hemisphere competitive in the U.S. market, and thereby preserving export markets for U.S.-made textiles. If the proposed TPP agreement is implemented, it has the potential to change this situation. The Central American-Dominican Republic Apparel and Textile Council estimates the CAFTA-DR region could see a contraction of 15%-18% in industrial employment resulting from lost production orders in the first year after the TPP agreement is implemented.[53] If apparel produced in Asian TPP countries gains duty-free access to the U.S. market, it could displace apparel manufactured with U.S. fabric in the Western Hemisphere, adversely affecting U.S. textile exports. Also, should Vietnam develop a larger textile industry, U.S. textile exports could be hurt, as the proposed TPP allows apparel producers in countries such as Mexico and Peru to use textiles made in any TPP member country and still enjoy duty-free access to the U.S. market.

[46] Fair Labor Association, *The Apparel Industry in the Dominican Republic After the MFA*, Report and Recommendations of an FLA Mission, p. 12, June 2007.

[47] Sheng Lu, *2016 Fashion Industry Benchmarking Study*, United States Fashion Industry Association, June 2016, p. 10.

[48] Tuna N. Amobi, *Textiles, Apparel & Luxury Goods*, S&P Global, July 2016, p. 46.

[49] Various types of technical fabrics are found in OTEXA Category 229 (special purpose fabrics).

[50] Transit times obtained from Maersk Line, http://www.maerskline.com, August 2016. See also Alfonso Hernandez, "Central America as a Sourcing Option," The Cotton Forum, June 2012.

[51] Department of Commerce, Assess Costs Everywhere, http://acetool.commerce.gov/shipping.

[52] The 2016 Normal Trade Relations (NTR) duty rate is 16.5% of value for cotton T-shirts (HTS 6109.10.00) and 16.6% for men's woven cotton pants (HTS 6203.42.40). Tariff savings for other products can be found on the U.S. International Trade Commission (USITC) website at http://dataweb.usitc.gov/scripts/tariff_current.asp.

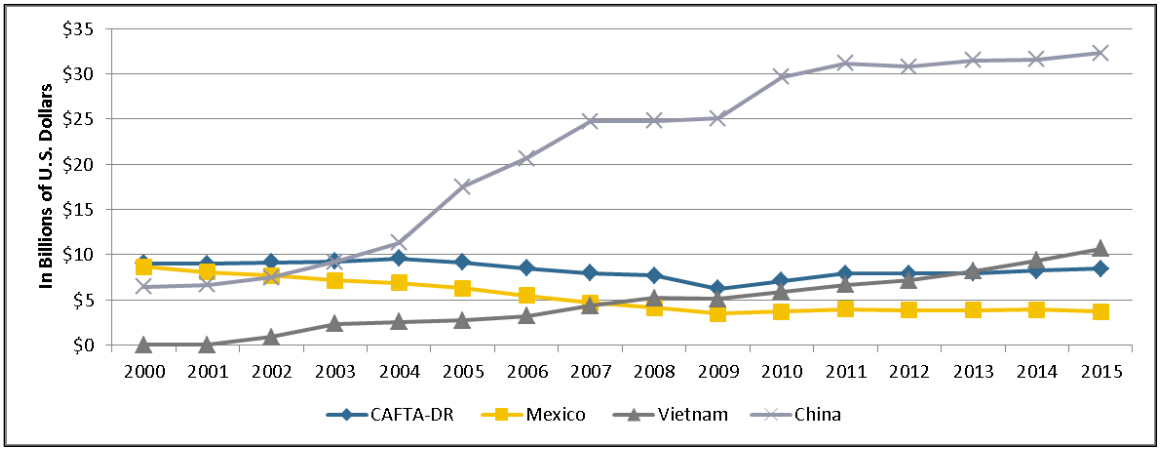
[53] Written submission of the Central American-Dominican Republic Apparel and Textile Council to the USITC, February 15, 2016.

TPP and Sourcing from Vietnam

Vietnam, which had a small garment manufacturing sector a decade ago, is now the second-largest exporter of apparel to the United States, behind China (see **Figure 5**).[54] U.S. imports of industrial fabrics from Vietnam have also expanded in recent years, totaling $195 million in 2015.[55] Among the Asian countries in the proposed TPP, Vietnam is the only one with significant apparel trade with the United States.

Figure 5. U.S. Apparel Imports

by Selected Countries



Source: U.S. Department of Commerce, OTEXA.

Generally, the main competitors to Vietnam in the U.S. clothing market are not Mexico and the CAFTA-DR nations, but China and other Asian nations. Vietnam tends to sell fewer basic apparel products (e.g., T-shirts and trousers) and more shirts, suits, and overcoats in the United States than do trading partners in the Western Hemisphere. For example, in 2015, Vietnam provided more than a fifth of total U.S. imports of women's or girls' blouses, shirts, and suits, both knitted and woven.[56]

Vietnam's apparel sector imports the majority of its yarns and fabrics from non-TPP nations, including China.[57] However, Vietnam's Ministry of Trade and Industry has set a development strategy aiming to increase fabric production to 2 million metric tons by 2020.[58] Fiber production is targeted to increase to 650,000 metric tons by 2020. Investment in textile manufacturing has

[54] Vietnam became a WTO member in 2007, entitling it to lower U.S. tariffs. The United States also removed all quotas on textile and clothing imports from Vietnam. In 2014, Vietnam's applied duties were 9.6% for textiles and 19.8% for apparel.

[55] Vietnam accounted for 8% of the $2.4 billion of industrial fabrics (HS 59) imported into the United States in 2015. China was the largest supplier at $459 million, accounting for about one-fifth of imports, followed by Canada and Mexico.

[56] CRS analysis based on Global Trade Atlas data, HTS 6104 (women's or girls' suits and ensembles) and HTS 6106 (women's or girls' blouses and shirts).

[57] "Trade: 80% of Apparel Materials in Vietnam Bought from Non-TPP Countries: VITAS," *Vietnam News*, June 22, 2016.

[58] WTO, *Trade Policy Review Vietnam*, August 13, 2013, p. 123, http://www.wto.org/english/tratop_e/tpr_e/s287_e.pdf#page=1&zoom=auto,0,842.

been rising, particularly in spinning and weaving.[59] Manufacturers based in China, Japan, and South Korea have already established textile mills in Vietnam.[60] In 2015, Vietnam's textile industry consisted of 104 spinning mills, 388 weaving mills, 100 knitting mills, 177 dyeing and finishing mills, and 9 nonwoven mills.[61] Nevertheless, Vietnamese garment producers are said to obtain only about a fifth of fabrics and other inputs from domestic sources.[62]

The Vietnam National Textile and Garment Group, or Vinatex, is Vietnam's largest textile and garment producer.[63] Vinatex, partially state owned,[64] had nearly three dozen yarn, textile, and garment projects either completed or under way in 2015.[65] Vinatex also plans to develop a cotton farm, with the aim of expanding production to 76,000 hectares by 2020 from 30,000 hectares in 2015.[66] Investments in chemical plants to generate the basic feedstocks required for the production of synthetic fabrics may follow.

According to *Vietnam Investment Review*, "a trend of increasing investment capital and expanding production scale among foreign-invested enterprises in Vietnam has arisen as investors become more aware of the benefits that the garment and textile sector will receive from the TPP and Vietnam's free trade agreement with its partners."[67] According to one news report, in 2015 Vietnam has issued investment licenses for 30 textile and garment projects, and foreign investment is expected to continue to increase in anticipation of a TPP agreement.[68] Foreign manufacturers invested an estimated $2 billion in Vietnam's textile and garment sectors in 2015, according to government data.[69] Major Chinese companies, such as Texhong, have already opened new textile plants in Vietnam, partly attracted by lower labor costs and lower tariffs under the proposed TPP.[70] Textile and garment manufacturers based in Japan, Hong Kong, South Korea,

[59] U.S. International Trade Administration, *2016 Top Markets Report: Technical Textiles*, Vietnam: Country Case Study, 2016, p. 1, http://www.trade.gov/topmarkets/.

[60] "TPP Yarn Forward Rules Indirectly Benefit Vietnam Textiles," *Voice of Vietnam*, May 4, 2016.

[61] CRS received 2015 production figures from the Vietnam Textile and Apparel Association (VITAS) by email on August 30, 2016. Vietnam's textile industry developed in the 1980s in the framework of bilateral economic cooperation agreements with other communist countries, but many of these plants were abandoned in the 1990s.

[62] Tom Wright, "Fabric of a Trade Deal: U.S. Asks Vietnam to Cut Out Chinese Textiles," *Wall Street Journal*, June 24, 2015.

[63] European Commission, *2011 Report on Vietnam*, May 2011, pp. 15-17, http://eeas.europa.eu/delegations/vietnam/documents/eu_vietnam/greenbook_11_en.pdf.

[64] An overview of Vinatex is available at http://www.vinatex.com. The National Council of Textile Organizations (NCTO) has identified 11 different subsidy programs by the Vietnamese government to support its domestic textile and apparel sector, including low-cost loans, energy, and research and promotion. See NCTO, *The U.S. Textile Industry and TPP*, April 17, 2013, p. 3.

[65] Huong Ly, "Cooperation in Building Supply Chains in Garment and Textile Industry," *Vietnam Business Forum*, June 27, 2016.

[66] Vietnam Ministry of Planning and Investment Foreign Investment Agency, *Vietnam: Swimming Upstream Opportunities in Textile Manufacturing*, November 5, 2015, p. 6, http://fia.mpi.gov.vn/tinbai/3127/Viet-Nam-Swimming-Upstream-Opportunities-in-Textile-Manufacturing; also see, "Vinatex to Invest $71 Min in Quang Nam Complex," *Vietnam News*, January 14, 2015.

[67] Phuong Thu, "TPP Benefits Lure Fabric Investments," *Vietnam Investment Review*, October 10, 2015.

[68] "Vietnam's Textile-Garment Industry in the Post-TPP Period," *Vietnm.net*, March 3, 2016.

[69] Vo Thanh Kiet, *Vietnam Cotton and Products Annual Commodity Report 2016*, USDA Foreign Agricultural Service, April 1, 2016, p. 2, http://gain.fas.usda.gov/Lists/Advanced%20Search/AllItems.aspx.

[70] "China's Texhong Pushes for Expansion in Vietnam Ahead of TPP," *Vietnam News*, August 24, 2016.

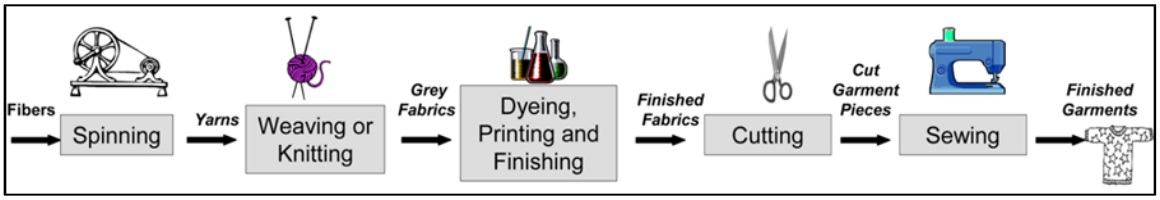
Taiwan, Austria, and Australia are also setting up new production or have expanded current production in Vietnam.[71]

Arguably, preferential access to the Vietnamese market under the proposed TPP agreement could result in new business opportunities for U.S. fiber, yarn, and fabric producers.[72] To date, however, Vietnam is not a significant market for U.S-made yarns and fabrics, with U.S. exports of such products totaling $95 million in 2015. The United States' main textile-related export to Vietnam is raw cotton. Vietnam's current tariff rate on cotton yarn is 5%, which would be phased out immediately upon entry into force of the TPP. The U.S. Department of Agriculture projects that U.S. cotton exports to Vietnam will climb by 20% in the 2016-2017 marketing year.[73]

TPP Provisions Affecting Textiles and Apparel

Most of the bilateral and regional FTAs and trade preference programs negotiated by the United States over the past two decades, including the proposed TPP agreement, have extensive rules for textiles and apparel. The key stipulation is typically rules of origin, which specify how much of the content of textile and apparel products must come from the region in order for the products to qualify for duty-free access.[74] Rules of origin for textile and apparel products are usually based on the production process as shown in **Figure 6**.

Figure 6. Major Production Steps for the Textile and Apparel Sector



Source: International Trade Commission, *Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market*, Volume I, Investigation No. 332-448, Publication 3671, Figure 1-3, January 2004.

Rules of origin generally stipulate how much processing must occur within the region if a product is to obtain trade benefits. The major distinctions in textile and apparel are the following:

- **Fiber Forward.** Fiber must be formed in the FTA member territory. Natural fibers such as wool or cotton must be grown in the territory. Man-made fibers must be extruded in the trading area.
- **Yarn Forward.** Fibers may be produced in any country, but each component starting with the yarn used to make the textiles or apparel must be formed within the free-trade area. This rule is sometimes called "triple transformation," as it

[71] Foreign companies such as South Korea's Hyosung Corporation (the largest spandex producer in the world) and Kyungbang Group, Japan's Toray International and Mitsui Corporation, Hong Kong's TAL Group and Haputex Development Austria's Lenzing, and Australia's Woolmark Company are investing in Vietnam's textile and apparel sector.

[72] USITC, *Trans-Pacific Partnership Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors*, Publication 4607, May 2016, pp. 260-1.

[73] Vo Thanh Kiet, *Vietnam Cotton and Products Annual Commodity Report 2016*, USDA Foreign Agricultural Service, April 1, 2016, p. 10-11, http://gain.fas.usda.gov/Lists/Advanced%20Search/AllItems.aspx.

[74] CRS Report RL34524, *International Trade: Rules of Origin*, by Vivian C. Jones.

requires that spinning of the yarn or thread, weaving or knitting of the fabric, and assembly of the final product all occur within the region.

- **Fabric Forward.** Producers may use fibers and yarns from any country, but fabric must be knitted or woven in FTA member countries.
- **Cut and Sew.** Only the cutting and sewing of the finished article must occur in FTA member countries, providing maximum flexibility for sourcing.[75]

Textile and apparel tariffs differ considerably among TPP countries, but are generally far higher than those on other types of products. (See **Appendix C** for a list of textile and apparel tariff rates in various countries.) In general, tariffs increase with each stage of manufacturing. As a result, duty rates are usually higher on apparel than on yarn or fabric inputs.

Under the TPP, tariffs on textile and apparel would either be eliminated immediately or phased out in various stages over a decade or more.[76] According to an analysis by the National Council of Textile Organizations (NCTO), the United States will phase out its tariffs over 10 to 12 years on the majority of the textile and apparel products it imported from Vietnam in 2012.[77] The phase-out period is meant to give manufacturers in the CAFTA-DR region and other U.S. FTA partner countries in Latin America sufficient time to adapt before the most sensitive textile and apparel products can be shipped to the United States duty-free.[78] If the proposed agreement is approved by Congress and foreign governments, the TPP will require that textiles and apparel meet a yarn-forward rule to qualify for duty-free treatment.

In January 2016, the NCTO endorsed the TPP agreement largely because it included the yarn-forward rule.[79] Several TPP members, including Vietnam, had opposed U.S. demands for a yarn-forward requirement, supporting instead a "cut-and-sew" rule that would allow them to enjoy preferential access for apparel that has been cut and sewn from fabric made in China or other countries not included in the TPP.[80] Since U.S. apparel companies and retailers purchase the bulk of their garments from Asian countries outside the TPP, they favored the immediate elimination of tariffs upon implementation of the TPP agreement and more liberal rules of origin for textiles and apparel.[81] Despite the inclusion of the yarn-forward rule, the leading apparel and retail industry trade groups, including the American Apparel and Footwear Association and the National Retail Federation (NRF), announced their support of the TPP agreement in February 2016.[82]

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[75] U.S. Customs and Border Protection, *What Every Member of the Trade Community Should Know About: Textile and Apparel Rules of Origin*.

[76] The United States has eight different tariff phaseout schedules for textiles and apparel. The longest phaseout periods apply to the most sensitive products, such as certain men's and boys' overcoats and some women's and girls' blouses, which will be fully eliminated at the end of year 10 or 12, after an initial reduction of 50% or 55% on day one of the agreement, following the date of the entry into force of the pact.

[77] See letter from Augustine Tantillo, NCTO, to Lisa R. Barton, secretary to the U.S. International Trade Commission, February 15, 2016, p. 3.

[78] OTEXA, Vietnam, U.S. Export Markets, February 22, 2016, http://otexa.trade.gov/exports/e5520.htm.

[79] NCTO, "U.S. Textile Manufacturers Endorse Trans-Pacific Partnership," press release, January 21, 2016, http://www.ncto.org/u-s-textile-manufacturers-endorse-trans-pacific-partnership/.

[80] American Apparel & Footwear Association, *Trans-Pacific Partnership (TPP) Workshop*, May 14, 2014, https://www.wewear.org/assets/1/7/TPP_AAFA_Workshop_HCMC_May_2014.pdf.

[81] Their preferred rule would have required only that the sewing of a garment be done in a TPP country to get duty-free status. This would have permitted use of yarns and fabrics from China and other countries in garments qualifying for duty-free access to all TPP countries.

[82] See, for example, American Apparel and Footwear Association (AAFA), "Apparel & Footwear Association Releases (continued...)

Similar to other FTAs such as NAFTA and CAFTA, the proposed TPP provides exceptions to the yarn-forward requirement, allowing limited quantities of fibers, yarns, and fabrics to be sourced from outside the TPP partner countries under certain conditions. For instance, the TPP provides an exception for products that are considered to be in short supply, or "not commercially available," in the region. With a handful of exceptions, the 187 items on the short supply list could be sourced permanently from non-TPP countries like China. Five years after the date of the entry into force of the TPP, eight products would be removed from the short supply list. [83] Some in the apparel and retail industries have expressed concern about the permanence of the short supply list, which would not allow for new yarns and fabrics that may be developed in future years.[84]

The TPP pact includes a program called the Earned Import Allowance Program (EIAP) to encourage the use of American fabrics in Vietnamese-manufactured jeans and khaki pants. The provision exempts some U.S. apparel imports from Vietnam from the TPP yarn-forward rule, provided Vietnam imports a specific quantity of U.S. fabrics. This would allow a limited amount of apparel cut, sewn, and assembled in Vietnam to enter the United States duty-free even if the garments include fabric from China and other non-TPP countries.[85]

Like most FTAs, the proposed TPP includes a textile and apparel safeguard that will allow the United States, or any other TPP member, to reimpose tariffs if import surges cause or threaten to cause serious damage to domestic industry. This option will be available only for up to five years after the agreement enters into force, and each safeguard action may last only for two years with a possible two-year extension. In addition, the United States may unilaterally suspend future tariff phaseouts after five years of implementation if it determines that Vietnam has failed to allow independent labor unions and granted them the right to strike by that time.[86]

Specific customs procedures to enforce each TPP country's commitments are also included in the proposed TPP. Under the TPP, a Committee on Textile and Apparel Matters would be established. This would allow industry to raise concerns and resolve issues on trade in these products.

(...continued)

Statement of Support for the Trans-Pacific Partnership," press release, February 1, 2016.

[83] OTEXA, *An Overview of the Rules of Origin and Market Access Commitments for Textiles and Apparel*, pp. 15-16, February 2, 2016; Also see, Annex 4-A, Appendix 1 of the TPP for the list of short supply products, https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text.

[84] USITC, *Trans-Pacific Partnership Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors*, Publication 4607, May 2016, pp. 269-270.

[85] EIAP programs are included in the CAFTA-DR FTA and Haiti Trade Preference Programs. TPP's proposed EIAP is described in Appendix E of the U.S. tariff schedule, https://ustr.gov/sites/default/files/TPP-Final-Text-US-Appendix-E-Earned-Import-Allowance-Program.pdf.

[86] See Letter from Ambassador Michael B.G. Forman, United States Trade Representative, to The Honorable Vu Huy Hoang, Minister of Trade and Industry, November 2015, https://ustr.gov/sites/default/files/TPP-Final-Text-Labour-US-VN-Plan-for-Enhancement-of-Trade-and-Labor-Relations.pdf.

Conclusion

According to the U.S. International Trade Commission (USITC), which produces the official U.S. government estimates of the potential effects of proposed trade agreements on the U.S. economy, the effect of the TPP on the domestic textile industry is likely to be negligible.[87] U.S. imports of textiles are predicted to climb 1.6% by 2032 if the agreement enters into force in 2017. Over the same 15-year period, exports of U.S.-made textiles are predicted to rise 1.3%. The USITC forecasts that under the TPP, both output and employment in the domestic textile industry will shrink by 0.4% from 2017 to 2032.

Whatever the actual effects of the TPP on the U.S. economy, it is imaginable that the proposed TPP agreement could result in apparel made in Vietnam displacing apparel from the Western Hemisphere in the U.S. market, weakening the export markets now served by U.S. textile producers in Mexico and other countries in Latin America and the Caribbean. An alternative scenario is that any TPP member country could over time shift sourcing of textile inputs from the United States to Japan, the one Asian TPP participant that currently has the textile production capacity to supply other TPP producers in this way, or to Vietnam should it develop a robust textile industry, and still enjoy duty-free access to the U.S. market.

If the proposed agreement is implemented, those segments of the U.S. textile industry that supply industrial textiles are likely to face greater competition from Japan, the subsector where U.S. manufacturers are most internationally competitive. According to one industry expert, Vietnam and other Asian TPP members are likely to source textiles, including industrial textiles, from Japan rather than the United States.[88] The largest export markets for U.S. industrial fabrics in 2015 were Mexico and Canada; Vietnam accounted for less than 1% of the $2 billion in shipments of technical fabrics from the United States to the world. In 2015, Japan's largest export markets for industrial fabrics were China, Vietnam, and the United States.[89] Although Vietnam has been expanding its reach into certain industrial fabrics, including tire cord and coated fabrics, it seems unlikely to be a significant global competitor in industrial fabrics in the near future.[90]

[87] USITC, *Trans-Pacific Partnership Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors*, Publication 4607, May 2016, pp. 262-268.

[88] Sheng Lu, "Does Japan's Accession to the Trans-Pacific Partnership Mean an Opportunity or a Threat to the U.S. Textile Industry: A Quantitative Evaluation," *The Journal of the Textile Institute*, vol. 106, no. 5 (May 27, 2014), p. 541.

[89] CRS analysis of export data from Global Trade Atlas, accessed August 29, 2016

[90] Letter from Ruth A. Stephens, Executive Director, U.S. Industrial Fabrics Institute, to Ambassador Ron Kirk, United States Trade Representative, March 26, 2012.

Appendix A. Textile Industry Overview

	2010	2014	2015	2010-2015
Total U.S. manufacturing employment (all industries)	11,487,496	12,156,537	12,290,293	7%
Textile mills (NAICS 313)	119,385	116,560	116,738	-2%
Textile product mills (NAICS 314)	119,145	114,385	115,339	-3%
Total textile employment	238,530	230,945	232,077	-3%
Apparel (NAICS 315)	157,587	139,457	135,196	-14%
All textiles and apparel (T&A)	396,117	370,402	367,273	-7%
T&A employment as % of total mfg. employment	3.4%	3.0%	3.0%	
Total value of shipments, in millions of U.S. $				
Total U.S. manufacturing	$4,914,673	$5,881,415	$5,622,680	14%
Textile mills (NAICS 313)	$29,654	$31,694	$30,915	4%
Textile product mills (NAICS 314)	$21,412	$24,325	$24,511	14%
Total textile shipments	$51,066	$56,019	$55,426	9%
Apparel manufacturing (NAICS 315)	$13,157	$11,762	$12,078	-8%
All textiles and Apparel (T&A)	$64,223	$67,781	$67,504	5%
T&A shipments as % of total mfg. shipments	1.3%	1.2%	1.2%	
U.S. imports for consumption				
Textile mills (NAICS 313)	$6,525	$8,247	$8,398	29%
Textile products (NAICS 314)	$15,825	$19,037	$20,221	28%
Total textile imports	$22,350	$27,284	$28,619	28%
Apparel imports (NAICS 315)	$75,411	$86,499	$89,509	19%
All textiles and apparel	$97,761	$113,783	$118,128	21%
U.S. Exports				
Textile mills (NAICS 313)	$7,833	$9,149	$8,745	12%
Textile products (NAICS 314)	$2,582	$3,001	$2,907	13%
Total textile exports	$10,415	$12,150	$11,652	12%
Apparel exports (NAICS 315)	$3,070	$3,269	$3,178	4%
All textiles and apparel	$13,485	$15,419	$14,830	10%
Apparel imports share of U.S. market	88.2%	91.1%	91.0%	
Textile imports share of U.S. market	35.5%	38.3%	39.5%	

Source: CRS, with data from U.S. Department of Labor, Quarterly Census of Employment and Wages; Census Bureau, Manufacturers' Shipments, Inventories, and Orders, and USITC Dataweb. All data updated in August 2016.

Appendix B. Top 10 States in Textile Employment

	2005 Textile Employment	2015 Textile Employment	% Change	# Change
United States	385,985	232,077	-40%	-153,908
Georgia	72,774	47,544	-35%	-25,230
North Carolina	67,680	34,506	-49%	-33,174
South Carolina	39,757	18,759	-53%	-20,962
California	27,780	16,966	-39%	-10,815
Alabama	22,322	9,489	-57%	-12,833
Texas	11,304	8,286	-27%	-3,018
Pennsylvania	12,560	7,426	-41%	-5,134
New York	11,939	7,367	-38%	-4,572
Virginia	14,322	7,032	-51%	7,290
Tennessee	9,724	5,842	-40%	-3,882
Top 10 states employment total	290,163	163,253	-44%	-126,910
Other 40 states plus DC	95,822	68,842	-28%	-26,998
Top 10 states % of total employment	75%	70%		

Source: CRS, with data compiled from U.S. Bureau of Labor Statistics, Quarterly Census on Employment and Wages, accessed August 2016.

Notes: Textile employment data cover two NAICS codes, 313 and 314. The 50 states and Washington, DC, do not sum to the national total because the national total includes suppressed data and Puerto Rico.

Appendix C. Selected Apparel and Textile Duties

Ad Valorem[a] Tariff Ranges						
Country	**Yarn**	**Woven Fabric**	**Knit Fabric**	**Non-Woven Fabric**	**Industrial Fabric**	**Apparel**
FTA Member Countries						
Australia	0%-5%	0%-5%	5%	5%	0-5%	0-5%
Chile	6%	6%	6%	6%	6%	6%
Colombia	0%-15%	0%-10%	0%-10%	0%-10%	0%-10%	10%
Israel	0%-6%	0%-6%	0%-6%	0%-6%	0%-6%	0%-6%
Jordan	0%-20%	0%	0%	0%	0%-20%	0%-20%
Morocco	2.5%	2.5%-17.5%	10%-17.5%	2.5%	2.5%-25%	2.5%-25%
Panama	0%-15%	0%-15%	0%	0%	0%-15%	0%-15%
Peru	0%-11%	0%-11%	0%-11%	0%-6%	0%-11%	6%-11%
South Korea	0-8%	2%-13%	10%	8%	8%-10%	8%-13%
CAFTA-DR						
Costa Rica	0%-5%	0%-9%	0%-9%	0%	0%-9%	0%-14%
Dominican Republic	0%	0%-14%	0%-8%	0%	0%-20%	3%-20%
El Salvador	0%-5%	0%-10%	0%-10%	0%	0%-10%	0%-15%
Guatemala	0-5%	0%-10%	0%-10%	0%	0%-10%	0%-15%
Honduras	0%-5%	0%-15%	0%-10%	0%	0%-10%	0%-15%
Nicaragua	0%-5%	0%-10%	0%-10%	0%	0%-10%	0%-15%
NAFTA[b]						
Mexico	0%-10%	10%-15%	0%-10%	10%	0%-10%	20%
Canada	0%-8%	0%	0%	0%	0%-18%	0%-18%
Other TPP Negotiating Partners						
Brunei	0%	0%	0%	0%	0%-10%	0%
Japan	0%-6.9%	2.5%-12.5%	4%-9.8%	0%-4.3%	2.8%-6.6%	4.4%-12.8%
Malaysia	0%-30%	0%-10%	15%	20%	0%-20%	0%-20%
New Zealand	0%-5%	0%-5%	0%-5%	5%	0%-5%	0%-10%
Vietnam	0%-10%	12%	12%	12%	0%-12%	5%-20%
United States	0%-13.2%	0%-25%	0%-18.5%	0%	0%-14.1%	0%-32%

Ad Valorem[a] Tariff Ranges						
Country	**Yarn**	**Woven Fabric**	**Knit Fabric**	**Non-Woven Fabric**	**Industrial Fabric**	**Apparel**
Other Countries						
China	5%-9%	6%-18%	10%-12%	10%	8%-14%	14%-25%
European Union[c]	0%-5%	3%-8%	6.5%-8%	4.3%	4%-8%	6.3%-12%
Philippines	1%-10%	1%-10%	1%-10%	15%	0%-15%	1%-15%
Thailand	1%-5%	5%-17.5%	5%	5%	1%-30%	10%-30%

Source: CRS, with information from U.S. Department of Commerce, Office of Textiles and Apparel (OTEXA), updated August 19, 2016.

a. Ad valorem tariff rates are based on the value of the goods.

b. Textile and apparel goods manufactured in the United States enter Canada and Mexico duty-free under NAFTA if they qualify under the rules of the agreement.

c. Members of the European Union apply the EU common external tariff to goods from non-EU countries.

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