Moongate Associates

Analyzing the Value Chain for Apparel Designed in the United States and Manufactured Overseas

Executive Summary

Millions of American Workers Rely on and Contribute to Apparel Global Value Chains

It is widely known that most apparel sold in the United States is assembled overseas. What is less well known is the fact that millions of American jobs are included in the global value chains (GVCs) that design, produce, and market clothing sold in the United States. American consumers and policymakers tend to look at the finished apparel product and put it into one of two categories: imported or made in the United States.   But the reality is that GVCs have made this simplistic judgment usually outdated and inaccurate.

Today's GVCs utilized by U.S. apparel brands, manufacturers, and retailers, include the full range of activities that firms and workers do to bring a product from its conception to the final consumer. An original study was undertaken in 2011 to analyze where and how American workers contribute to the apparel GVCs, and quantified the value-added that these U.S. workers bring to apparel manufactured abroad. A follow-up study was commissioned in 2017 to update and validate the findings of the initial study. As policymakers look to enact policies to promote U.S. jobs and economic activity in the textile, apparel, and retail sectors, these studies will provide factual information to educate policymakers on how millions of American workers rely on and contribute to GVCs.

The total value-added to apparel presented below, and recently validated, has many U.S. components and represents jobs in a myriad of occupations and includes part-time or hourly employees as well as salaried professionals. U.S. workers are employed to design and manage the production of apparel overseas; U.S. carriers are sometimes involved in the transport of goods by air, sea or land; and a variety of U.S.

> **Findings**
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> This study based on 2016 data, both public and proprietary, strongly supports the conclusion that the U.S. value-added found in the initial study of 70.3% of the retail price has likely increased since 2011. The new data and surveys suggest conservatively that the new value added rose several percentage points, perhaps even above 75%.

professionals are employed to handle Customs clearance and compliance issues related to GVCs for apparel products. Once the garment is landed in the United States, numerous U.S. workers manage warehousing and distribution; still more U.S. professionals market apparel products on television, in print media, online, and through social media. Finally, there are many American workers employed in retail and customer service activities whether the apparel products are sold in stores, through catalogues, or online.

This study based on 2016 data, both public and proprietary, strongly supports the conclusion that the U.S. value-added found in the initial study of 70.3% of the retail price that has likely increased since 2011. The new data and surveys suggest conservatively that the new value added rose several percentage points, perhaps even above 75%. As demonstrated in both studies, the total value-added by these U.S. workers far exceeds the value-added overseas in manufacturing activities even when the yarn and/or fabric is acquired abroad. Moreover, the level of U.S. value-added varies little regardless of the kind of apparel product or the company involved.

Introduction

Although today's global value chains utilized by U.S. apparel brands, retailers and manufacturers include the full range of activities that firms and workers do to bring a product from its conception to the final customer, the consumer tends to look at the finished apparel product and put it into one of two categories: imported or made in the United States. Few consumers understand that globalization has made this simplistic judgment usually outdated and inaccurate.

As explained in a recently published book: <u>Global Value Chain Development Report 2017: Measuring and Analyzing the Impact of GVCs on Economic Development:</u>

World production is now structured into global value chains (GVCs) in which firms source parts, components, and services from producers in several countries and in turn sell their output to firms and consumers worldwide. The typical "Made in" labels in manufactured goods have become archaic symbols of an old era. Today, most goods are "Made in the World."[1]

This use of a global value chain is not unique to apparel products. Indeed, there are numerous examples from a wide

U.S. Global Value Chain Coalition

The U.S. Global Value Chain (USGVC) Coalition is on a mission to educate policymakers and the public about the American jobs and the domestic economic growth our companies generate through their value chains.

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[1] Forward by Pol Antras, in <u>The Global Value Chain Development Report 2017</u> - co-published by the World Bank, WTO, OECD, Institute of Developing Economies (IDE-JETRO) and the Research Centre of Global Value Chains (RCGVC).

variety of industries that shed light on the importance of global value chains. Studies by Dedrick, Kraemer, and Linden[2] addressed the question of who benefits financially from the sales of iPods and certain notebook PCs, which like garments, are often manufactured or assembled abroad with components sourced in numerous countries. Who benefits has become an increasingly relevant question, as there has been a shift by firms in many globally competitive industries to focus on core competencies and outsource other activities. This has created global production networks or value chains that cross corporate and national boundaries.[3]

The answer to the question of who benefits financially includes both jobs and profits. Consumers often focus on the assembly or manufacture of products in industries that utilize global value chains and are not aware of the myriad professionals working in the United States both before and after the product is manufactured. As shown in the graphic below, while production may be the single largest component, the sum of all the other associated activities is far larger than the value-added in the single stage of production.

Global Value Chain Curve

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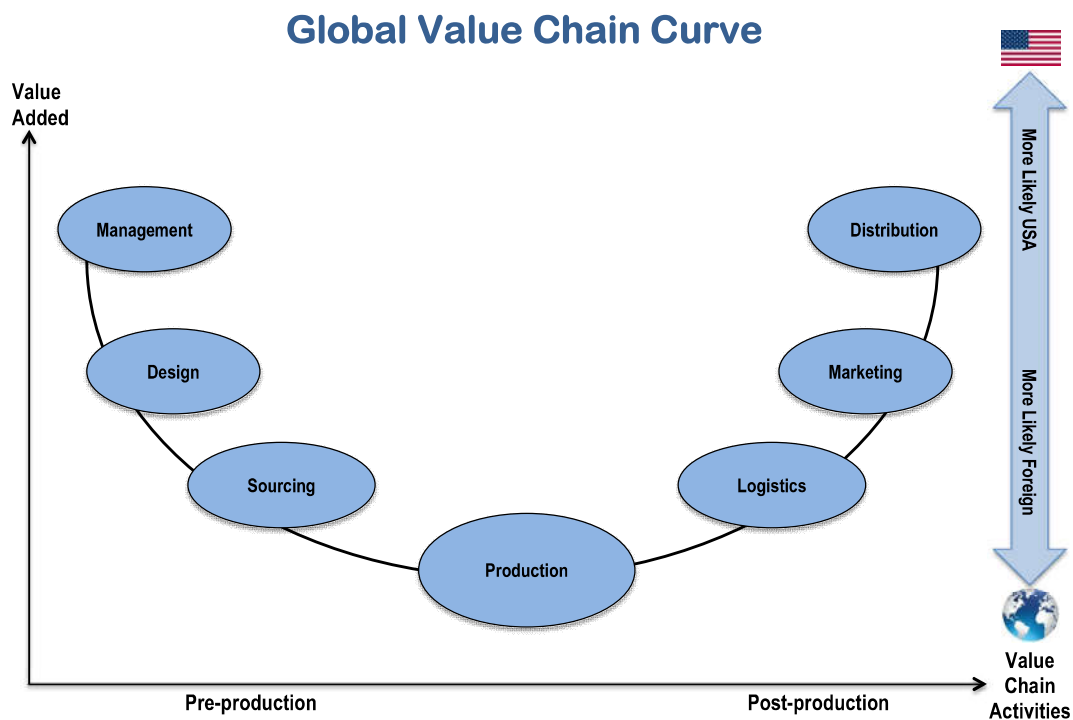
[2] *Who Profits from Innovation in Global Value Chains? A Study of the i-Pod and notebook PCs*, http://web.mit.edu/is08/pdf/Dedrick_Kraemer_Linden.pdf, May 2008.
[3] Dedrick, J., & Kraemer, K. L. (1998). *Asia's Computer Challenge: Threat or Opportunity for the United States and the World?* New York: Oxford University Press; Gereffi, G., Humphrey, J. & Sturgeon, T. (2005). The Governance of Global Value Chains. *Review of International Political Economy*, 12 (1), 78-104.

Not only are there many U.S. jobs from design to distribution that support the sale of apparel manufactured abroad, but the U.S. jobs tend to be higher skilled and better paid than the jobs overseas. Indeed, in the iPod study cited above, the U.S. had one-third of the total jobs and two-thirds of the professional jobs, as well as twice the total wages of the non-U.S. workers. Global value chains also benefit consumers by offering the best value at different price points for the retail product.

This study was commissioned by the U.S. Global Value Chain Coalition to update and validate an earlier study that determined, based on data provided by certain U.S.–headquartered apparel and retail companies, what share of value-added occurred in the United States for apparel products manufactured overseas[4].

Methodology of the Original Study

The goal of the initial study was to capture the actual experience of American companies to determine the U.S. value captured for specific apparel products. Other studies looking at global value chains, including the iPod study cited above, made use of publicly available data and estimates by those knowledgeable of the industry being studied. In contrast, this study used proprietary company data for calendar year 2011. This eliminated the need for multiple assumptions and allowed us to capture what actually happened.   The global supply chain for specific products designed and sold by American-headquartered apparel companies was broken down into multiple steps so that data could be gathered and correctly assessed. These data were supplemented by public data from the Bureau of Labor Statistics to identify jobs and estimate salaries and from the USITC DataWeb to look at imports in these product categories.

> **This analysis was based on proprietary company 2011 sales data for the following products and HTS numbers:**
>
> - Men's cotton knit shirts..................... 6110.20.2069
> - Women's cotton knit shirts…………….. 6110.20.2079
> - Men's woven cotton trousers………….. 6203.42
> - Women's woven cotton trousers……… 6204.62
> - Women's man-made fiber outerwear….6202.93.4500/5011

A questionnaire was developed to gather information at each step of the global value chain from the first stage, design and product development, through to the last stage, purchase by the consumer. Data were gathered on five specific products: men's and women's cotton knit shirts, men's and women's woven cotton trousers (including denim and non-denim), and women's man-made fiber outerwear (including water-resistant and non-water-resistant).

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[4] *Disclaimer: This report has been commissioned by the U.S. Global Value Chain Coalition; however, the views expressed remain those of Moongate Associates and are not necessarily shared by the U.S. Global Value Chain Coalition or its members.*

The data were aggregated across companies to arrive at the value-added for each of the identified products, and then for the 20 company-product combinations. Not all companies provided information on all products.

Results

The findings of this study were consistent with recent academic studies and OECD and WTO Reports.[5] Moreover, the results were consistent across seven companies and five products (20 total company-product combinations) with only small variances.

This study found that the U.S. value-added as a percent of the final retail price for the 20 products combined was 70.3%. The average value-added by product ranged from a low of 65.8% for women's man-made fiber outwear to a high of 75.4% for women's cotton knit shirts. The value-added for men's cotton knit shirts was 69.5%, for men's woven cotton trousers 71.2%, and for women's woven cotton trousers, the value-added was 72.1%.

The chart below presents the value-added for each of the 20 company-product combinations analyzed. The blue line across the chart shows the combined average of 70.3%.

U.S Value Added as a Portion of Retail Apparel Purchase

U.S Value Added as a Portion of Retail Apparel Purchase

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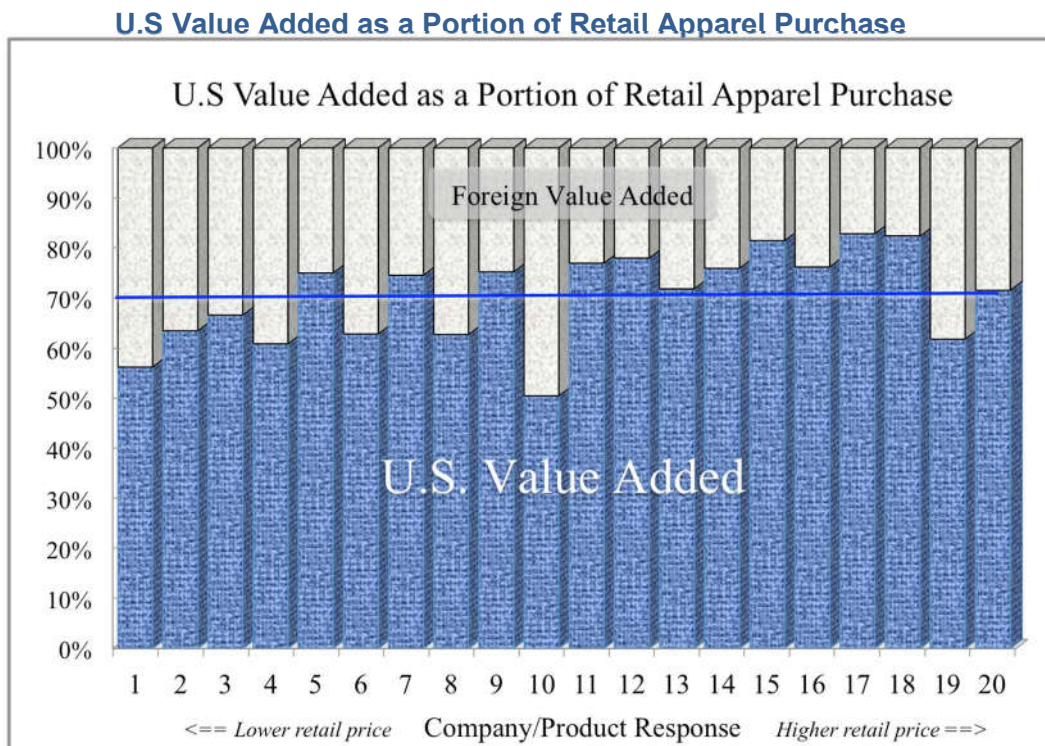
[5] See for example, *The Global Textile and Garments Industry: The Role of Information and Communication Technologies (ICTs) in Exploiting the Value Chain*, Enlightenment Economics, June, 2008, www.infoDev.org.

An examination of the data on a product-by-product level suggests that the value-added is influenced by the discount eventually taken on the final sales. All garments begin with a suggested retail price, but many are eventually discounted to arrive at the final selling price that was used in this analysis to determine value-added. Because this discount affects the profit margin, and the higher the profit, the greater the U.S. value-added, a steep discount reduces the value-added, in some instances significantly. This was the case with the lowest U.S. value-added products in the chart on the previous page.

The initial study included seven companies that sell at a variety of price points exclusive of the very highest and very lowest. In spite of that range, the standard deviation across products for all companies was only 3.5 percentage points, suggesting a competitive market for these apparel products. The standard deviation for products within an individual company was 4.4 percentage points, implying a narrow range but also reflecting the fact that some products are more profitable than others for a particular company.

The determination of the value-added for U.S. and foreign components was done on a stage-by-stage basis. In a few instances, where a specific company failed to provide an element of the value-added calculation, proxy data were used based on the responses of the other companies.

For most companies determining foreign value-added was relatively straightforward. The first component was manufacturing costs because by definition all manufacturing was done abroad. The next most common component was material input costs. For most of the responding companies, the majority of the value-added was foreign including fiber, yarn, fabric, trims, and finishing; for some companies there was U.S. value-added in this category, and this was assigned accordingly.

The other foreign value-added varied from company to company according to their business practices and sourcing systems. Depending on the company responding there were minor amounts of foreign value-added in design and product development, management, logistics (primarily freight to the United States), and compliance and security to support the supply chain. In cases where information was not explicit or where U.S. versus foreign freight could not be broken out, a conservative approach was taken, and the value-added was assigned to the foreign share. Nonetheless, these components are small and would not affect overall results significantly.

Once the foreign value-added was determined, the U.S. value-added was the residual of the final retail garment price. The components and weights varied company by company depending again on their structure and organization. For some companies there was considerable value-added at the first stage of design and product

development. This varied by the sophistication of the product and the material inputs. The cost of logistics, including air, sea, land transportation and port clearance were minor and varied little across companies or products.

More U.S. value-added occurred in the compliance and security stage including testing costs, certification costs, monitoring of quality, social, environmental and labor compliance, Customs and C-TPAT compliance as well as corporate costs for legal support. After the garments were landed in the United States, there was significant value-added in a myriad of activities.   The first step involved U.S. transportation to distribution centers for processing and re-shipping.[6]

Jobs in the Apparel Global Value Chain

Inspiration	Creation	Production		Importation	Distribution	Transaction
Idea	Product Design	Product Development	Materials Production	Import Compliance	Receiving	Wholesale Sales Team
Fabric Development	Business Unit Directors	Sourcing	Cut and Sew	Customs Clearance	Warehousing	Online Sales
Materials Development	Marketing	Production Management		C-TPAT	Quality Assurance	Catalog Sales
Advanced Construction Research	Quality Assurance	Social Compliance		Logistics	Shipping	Retail Stores
		Quality Assurance				Web Development
						Customer Service

U.S. apparel companies sell to consumers through a multitude of channels, as did the companies participating in this study. Some sold through stores that bear their names; some acted as wholesalers and sold to third parties, some sold through stores operated under franchise agreements; while others sold apparel in specialty stores, through catalogs or online. More often than not, apparel companies sell through multiple channels to final consumers. This selling activity, supported by brand marketing on television, in print media, and through social networks, represents significant U.S. value-added and millions of U.S. jobs. The retail apparel sector employed 2.5 million workers in 2016; total U.S. apparel employment from

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[6] A systematic comparison of some components was not possible because of the differences in the way the companies reported their cost data.

the beginning of the value chain through sales to the consumer totaled 2.7 million employees during the same year.[7]

The final stage calculated for U.S. value-added was profit. This return to capital ultimately supports millions of U.S. jobs across all 50 states. An analysis of publicly available data for the respondent companies in the original study revealed single digit profit margins for all companies and a group average of 4%, suggesting a highly competitive industry. When branded apparel companies were examined as a subset, the margin was somewhat higher reflecting the additional value of a brand.[8]

Many of these U.S.-headquartered American apparel companies are also major exporters as their American brands have international recognition and demand. Moreover, this study does not take into account the value captured in the U.S. for these products when they are both manufactured and ultimately sold abroad. Considering both the survey data received and public reports, this value-added is substantial.

Representativeness of the Results

In an effort to validate the results of the survey, the average first costs (the cost the foreign vendor charges to produce a product) of men's cotton knit shirts, for example, were compared to the Customs value of men's cotton knit shirts (6110.20.2069) imported into the United States from China, India, and Vietnam during 2011.[9] As seen in the chart below, the average unit value from China was $5.95, from India, $4.10, from Vietnam, $4.50, and from the companies in this survey, $5.06. The range seems reasonable given the brands and price points represented by the responding companies. Note also that similar to our survey results, the additional cost attributed to insurance and freight is very low: $.19 for Vietnam, $.20 for India, and $.17 for China.


Men's Cotton Knit Shirts

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[7] Retail Employment, Apparel Wholesale Employment, Apparel Manufacturing Employment, *Current Employment Statistics*, Bureau of Labor Statistics (BLS), www.bls.gov .

[8] A review of recent company financials indicates that these margins have increased several percentage points since 2011.

[9] Data from USITC DataWeb at www.usitc.gov.

This finding is consistent across other products as well. In the case of women's cotton trousers (6204.62) the average unit value from Vietnam was $6.07, from Indonesia, $6.35, from China $5.91 and from the companies in this survey, $8.37. Similarly, given the brand status and price points of the responding companies, this range seems credible.

Even if this study were enlarged to include companies whose price points were both higher and lower than the companies in this survey, we might find a slightly wider range of U.S. value-added, with less value-added at the lower price points balanced by higher value-added at the most expensive price points. In the end it is likely we would arrive at a similar average as the one found in this study and in other reports that used non-proprietary data
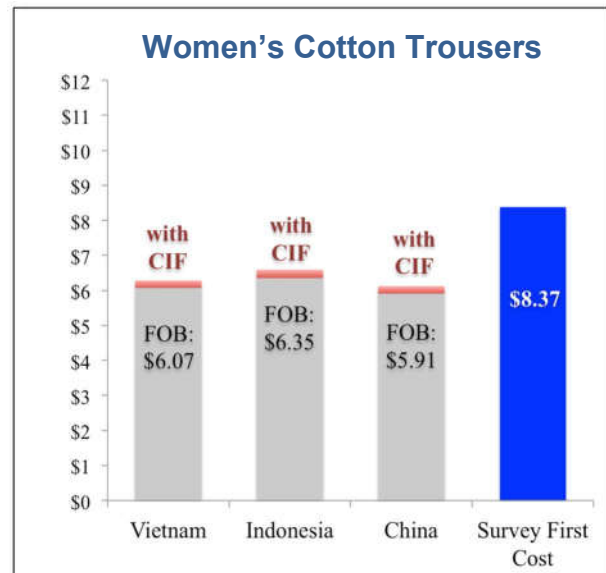
Methodology of the Study Update

In an effort to update the original study, a two-prong approach was used to determine whether the conclusions reached in the previous study, which was based on 2011 data, remain valid. The first prong considered whether publicly available data on apparel import values and U.S. final sales values suggest that the share of U.S. value-added in domestically sold apparel has remained at or above the average 70-percent level. The second prong relied on proprietary survey results to ensure that that the public data were not misleading by, for example, masking potentially important changes in the structure of apparel value-added chains in recent years. As discussed below, the results of this two-prong approach strongly indicate that the earlier conclusions do indeed remain valid.

Indications of publicly available data. Setting aside the exact percentage of U.S. value-added in total apparel sales, public data can provide evidence to answer the question of whether the U.S. share of total value-added *has risen, fallen, or stayed roughly constant* since the 70-percent estimate was made based on proprietary 2011 data. If the average sales value of apparel products *rose* in the U.S. market while the average import value of those same apparel products *declined*, then it *strongly suggests* that the share of foreign value-added has fallen, implying a rising share of U.S. value-added.

As shown in the table below, this is indeed exactly what happened between 2011 and 2016: U.S. sales values rose as average import values fell, with the widening gap suggesting a rising U.S. share of total value-added.

2016 Study Summary of Public Data			
	2011	**2016**	**Change**
Men's Apparel			
Consumer Price Index			
Men's & Boy's Apparel	114.7	118.8	**3.6%**
Import Average Unit Value (USD)			VS.
Men's' Cotton Knit Shirts 6110.20.2069	2.90	2.79	**-3.8%**
Men's woven cotton trousers 6203.42	7.04	6.53	**-7.3%**
Women's Apparel			
Consumer Price Index			
Women's & Girls' Apparel	109.2	111.2	**1.9%**
Import Average Unit Value (USD)			VS.
Women's cotton knit shirts 6110.20.2079	3.95	3.50	**-11.2%**
Women's woven cotton trousers 6204.62	6.24	5.61	**-10.2%**

Specifically, the top half of the table compares the 3.6 percent rise in the Consumer Price Index for "Men's and Boys' Apparel"[10] sold in the U.S. market with the decline in import values[11] for two of the products investigated in the original study: "Men's cotton knit shirts" (-3.8 percent) and "Men's woven cotton trousers" (-7.3 percent). Similarly, the bottom half of the table shows that while final retail values of "Women's and Girls' Apparel" rose 1.9 percent, there were double-digit declines in import-values for both "Women's Cotton Knit Shirts" and "Women's woven cotton trousers." (Note that this result is not unexpected, with domestic inflation being tame but positive, while the value of the U.S. dollar rose between 2011 and 2016, which would tend to lower per-unit import values.)

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[10] Source: Consumer Price Index (CPI): U.S. Department of Labor, Bureau of Labor Statistics (http://www.bls.gov).

[11] Average unit values calculated as CIF (cargo, insurance, freight) divided by first unit of import quantity for the top ten origin countries, which account for a very large share of all imports, consistent with the previous study. See supporting tables for complete product definitions and Customs coding.

Although these 2011-2016 results cannot provide a precise numerical update to the roughly 70-percent U.S. value added found from the 2011-based study, the results do strongly suggest U.S. value-added share has increased over the period. Nonetheless, these results cannot stand alone to demonstrate definitively that the foreign value-added share indeed declined. It is theoretically possible, for example, that the import values in 2011 contained more U.S.-based value added than those values did in 2016 -- after all, the complexity of global value-added chains means that import values recorded at borders are not identical to the true value of foreign value added. Thus, to rely on this growing gap between final sales value and reported import value, it is important to establish that the U.S. versus foreign shares of value added *within* the import values did not shift substantially. This is the role of the proprietary-survey prong of this study's approach.

Results of surveys from participating companies. The second prong of this study examined whether there have been changes in value-added structures in apparel trade that would weaken the conclusions that could be drawn from publicly available data on U.S. final sales and import values. A questionnaire was developed for the participating companies; five of the seven companies completed the follow-up survey. The survey was designed to determine what changes, if any, had occurred in each company's global value chain for the products examined in the first study.

Changes investigated included those related to:
- Products produced
- Country of manufacture
- Material sourcing
- Location of design and development
- Transportation, Customs clearance, and compliance activities
- Retail activities and channels of distribution.

Products produced: all companies reported that they were still producing and selling the same garments that they had supplied data for in the initial study.

Country of manufacture: there were minor changes in the country of production for some companies; others reported no changes. In some cases the changes reported were to take advantage of lower duties under trade agreements. Import data confirm minor changes for the U.S. market, but none that would result in a change in the value added.

Material sourcing: with one exception, companies reported no changes in the sourcing of materials for these apparel products.

Location of design and development: as reported previously, design and development work is done almost exclusively in the United States.

Transportation, Customs clearance, and compliance activities: no changes were reported for transportation, but there were changes reported for compliance and Customs activities. The changes reported varied by company but all involved increased effort in this area and would therefore support a higher average value-added for the U.S. component.

Retail activities and channels of distribution: the most significant change reported across all companies was the increased use of e-commerce. This suggests that the pattern of distribution may have changed somewhat, but the overall value-added would not be affected. It also implies the possibility of a change in job descriptions; for example, fewer retail salespersons and more e-commerce managers and shipping and distribution employees. In addition, some companies reported opening more stores in the United States and expanding into additional international markets.

Survey results indicate no significant change in value-added structures in apparel trade. Therefore, the conclusions of the two prongs support each other and strongly suggest that the U.S. share of value-added in apparel has increased from the 70-percent average result with 2011 data to something higher in 2016. The new data and surveys suggest conservatively that the new value added rose several percentage points, perhaps even above 75%.

U.S. Value-Added: What does it mean for U.S. jobs?

The components of the apparel global value chain described above that contribute to the U.S. value-added are all supported by American workers. For example, according to the Bureau of Labor Statistics, the U.S retail industry has approximately:

- 211,000 management jobs
- 101,000 business and financial jobs
- 114,000 designers, and
- 51,000 computer and math/science jobs.[12]

The job categories that support the value chain represent high-quality American jobs. Most of the lowest skilled jobs are done overseas, leaving the more highly skilled professional employment concentrated in the United States. These jobs are spread throughout the stages of U.S. value-added beginning with fashion designers (average salary $79,040), and fabric and apparel patternmakers ($57,310), and continuing with transportation, storage, and distribution managers ($94,615), compliance officers ($66,420), software developers ($84,540), and sales managers ($161,665). Moreover, there are high-quality blue-collar jobs throughout the chain; for example, production, planning, and expediting clerks ($45,137), industrial

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[12] 2016 BLS data for NAICS 44-45 (Retail Trade) minus figures for auto dealers and gas stations, available at www.bls.gov .

machinery mechanics ($48,855)[13], railroad employees ($86,200)[14], and longshore workers ($71,062)[15]

Conclusion

The firms participating in these studies are large companies whose brands are familiar to American consumers, as well as to those in many other countries. Although they are headquartered in the United States, their operations span the globe. Like many members of the apparel global value chain, they are following the pattern of various industries to focus on core competencies in the United States and to outsource lower skilled activities in an effort to offer consumers the best value and the widest variety of products.

The studies reported on here quantified and validated, using public data and proprietary company data, the amount of U.S. value added in apparel products designed in the

Study Respondents 2016

Respondents include five U.S.-headquartered apparel and retail companies that together employ more than 400,000 people globally and almost 300,000 in the United States. Their combined sales in 2016 totaled $82 billion.

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[13] Id.; note that salaries are often the average of NAICS 31-33 manufacturing, NAICS 42 wholesale trade, and NAICS 44-45 retail trade, consistent with the company activities in this study.

[14] https://www.aar.org/Documents/SOTI%20PDFs/AAR%20State%20of%20the%20Inudstry%20Report%202%20Final.pdf, p. 8.

[15] https://www.payscale.com/research/US/Job=Longshoreman/Hourly_Rate

United States and manufactured abroad. Using confidential company data to document the dollars associated with each stage of the global value chain for apparel, the initial study found that the U.S. average value-added exceeded 70% for the 20 product-company garments studied. The follow-up study, again using proprietary data paired with public data, confirmed that the U.S. value added has in all likelihood increased in the interim period between 2011 and 2016. The new data and surveys suggest conservatively that the new value added rose several percentage points, perhaps even above 75%.

Other papers have attempted to calculate the U.S. value-added figure using publicly available data, but this study went a step further to capture the actual experience of companies utilizing global value chains in their sourcing strategies. Gathering the kind of data necessary for this analysis was challenging for the respondent companies particularly on a product-specific basis. Each company has its own system to track costs, and these systems involve multiple managers and staff. Every effort was made to understand the data and to be certain they were being interpreted and used correctly. Nonetheless there are certain to be small errors in one direction or another.

However, stepping back and looking at the value captured at each stage of the value chain, it is clear across all companies that the activities carried on in the United States in support of manufacturing abroad dwarf the value-added in foreign countries. These "commercial" components (*i.e.,* excluding material inputs, manufacturing, and shipping), all necessary to design and sell garments manufactured abroad, include U.S. activities in design and product development, marketing retail sales and customer service, management, and profit. These commercial components were as high as three times the value-added abroad, but in all cases, these components were far greater than the value of manufacturing and associated material input costs and other small amounts of foreign value-added activities.

This ratio of U.S. value-added to foreign value-added translates directly into U.S. jobs. These jobs are primarily medium- to high-skilled positions, and many are professional and managerial. Making use of the global marketplace for the 98 percent of the apparel sold in the United States[16] enables American companies to offer consumers the widest variety of apparel at the best prices. Unfortunately, tariffs routinely applied to apparel imports are among the highest levied on any industry, and can result in higher prices for consumers. Free trade agreements that do provide tariff relief often erode those gains through restrictive rules of origin or burdensome Customs requirements that still impose costs on the final product. Policies that recognize the benefits to consumers and workers of these global value chains would lower prices to consumers and thus increase demand and therefore jobs and profits all along the apparel global value chain including in the United States. Efforts to support these global strategies by American apparel

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[16] American Apparel and Footwear Association: www.aafaglobal.org

companies will contribute to their success and growth, and these will in turn lead to a more competitive marketplace for apparel consumers and new high-quality U.S. jobs throughout the global value chain.

Men's Cotton Knit Shirts   61 1020 2069

		2010	2011	2012	2013	2014	2015	2016	2011	2016	2011	2016
Volume (millions of dozens)									**Share**		**Cumulative**	
1	Honduras	15.0	13.2	9.5	7.6	8.6	10.1	8.8	17.3%	13.1%	17.3%	13.1%
2	Vietnam	4.4	3.1	4.6	6.1	6.8	8.6	8.7	4.1%	13.1%	21.4%	26.2%
3	China	9.3	8.4	9.2	9.4	8.7	8.4	8.4	11.0%	12.5%	32.4%	38.7%
4	Haiti	9.1	12.9	10.4	8.1	7.7	7.9	6.1	16.9%	9.1%	49.3%	47.8%
5	India	4.0	3.3	3.9	5.0	4.3	4.9	5.4	4.4%	8.1%	53.6%	55.9%
6	Nicaragua	5.5	4.9	3.9	5.7	6.1	6.1	5.0	6.4%	7.5%	60.0%	63.4%
7	Bangladesh	4.3	3.2	2.9	3.6	3.5	3.8	3.9	4.1%	5.9%	64.2%	69.3%
8	El Salvador	5.8	4.4	2.8	2.1	1.8	2.7	3.6	5.8%	5.4%	70.0%	74.7%
9	Guatemala	3.3	3.8	4.3	3.7	3.6	3.4	3.0	5.0%	4.6%	75.0%	79.3%
10	Dominican Rep	2.9	3.5	2.7	1.9	3.0	3.3	2.8	4.6%	4.2%	79.6%	83.5%
	Subtotal	63.7	60.8	54.2	53.4	54.0	59.4	55.8				
	Total World	80.4	76.4	68.6	67.0	66.7	71.3	66.8				
	Subtotal share	79.2%	79.6%	79.0%	79.7%	81.0%	83.3%	83.5%				
AUV (per item)									**%Change**		**$Change**	
1	Honduras	1.66	2.11	2.11	2.12	2.08	2.02	2.02	-4.4%		(0.09)	
2	Vietnam	3.73	4.67	3.70	3.40	3.24	3.09	3.11	-33.3%		(1.56)	
3	China	4.98	6.13	5.64	5.47	5.86	5.61	5.13	-16.3%		(1.00)	
4	Haiti	1.31	1.53	1.54	1.50	1.58	1.52	1.46	-5.0%		(0.08)	
5	India	3.64	4.30	3.45	3.38	3.86	3.72	3.31	-23.1%		(0.99)	
6	Nicaragua	1.51	2.49	2.26	1.98	1.95	1.78	1.73	-30.3%		(0.75)	
7	Bangladesh	2.32	2.68	2.61	2.68	2.74	2.86	2.68	-0.2%		(0.00)	
8	El Salvador	1.85	2.39	2.32	2.48	2.46	2.82	2.42	1.4%		0.03	
9	Guatemala	2.59	3.06	2.84	2.98	3.15	3.28	3.08	0.7%		0.02	
10	Dominican Rep	1.27	1.60	1.44	1.54	1.39	1.34	1.38	-13.7%		(0.22)	
	Subtotal	2.44	2.90	2.90	2.96	2.98	2.86	2.79	-3.8%		(0.11)	
	Total World	2.64	3.16	3.15	3.18	3.21	3.05	3.00	-5.2%		(0.16)	
	Subtotal ratio	92.4%	92.0%	92.2%	93.2%	92.8%	93.9%	93.2%				
CPI: "Men's & Boy's Apparel"												
	Average (1982-84 =100)	111.91	114.70	119.53	121.59	120.60	119.62	118.83	3.6%			

Men's Woven Cotton Trousers   62 0342

		2010	2011	2012	2013	2014	2015	2016		2011	2016		2011	2016
	Volume (millions of dozens)									**Share**			**Cumulative**	
1	Bangladesh	17.7	17.1	16.7	19.6	18.9	20.2	21.1		26.6%	31.6%		26.6%	31.6%
2	China	15.2	12.8	12.9	14.1	13.1	12.8	12.9		19.8%	19.4%		46.3%	51.0%
3	Mexico	12.6	12.2	12.2	12.3	12.0	11.6	11.2		18.9%	16.8%		65.3%	67.8%
4	Vietnam	3.9	3.7	4.0	4.2	4.3	4.1	4.9		5.7%	7.3%		71.0%	75.1%
5	Nicaragua	2.0	2.4	2.2	2.2	2.2	2.2	2.1		3.7%	3.2%		74.7%	78.3%
6	Pakistan	2.7	2.2	2.2	2.3	2.1	2.2	2.1		3.5%	3.1%		78.1%	81.4%
7	Indonesia	2.0	2.1	1.8	1.9	1.8	1.9	1.8		3.2%	2.6%		81.4%	84.0%
8	Cambodia	2.5	2.2	2.0	2.2	1.8	1.6	1.5		3.5%	2.2%		84.8%	86.3%
9	Egypt	2.3	2.4	2.5	2.2	2.0	1.9	1.5		3.7%	2.2%		88.5%	88.5%
10	Kenya	0.6	0.3	0.6	0.6	0.9	1.1	1.3		0.5%	2.0%		89.0%	90.4%
	Subtotal	61.5	**57.4**	57.2	61.5	59.1	59.6	**60.3**						
	Total World	69.8	**64.5**	64.0	68.1	65.8	66.6	**66.7**						
	Subtotal share	88.1%	**89.0%**	89.4%	90.3%	89.8%	89.5%	**90.4%**						
	AUV (per item)									**%Change**			**$Change**	
1	Bangladesh	5.03	6.04	6.15	5.96	5.97	5.80	5.53		-8.3%			(0.50)	
2	China	6.16	6.92	6.91	6.61	6.63	6.77	6.21		-10.2%			(0.71)	
3	Mexico	7.51	8.54	8.73	8.59	8.68	8.74	8.10		-5.1%			(0.43)	
4	Vietnam	5.81	6.64	6.27	6.52	7.02	6.65	6.44		-3.0%			(0.20)	
5	Nicaragua	6.32	7.76	8.42	8.39	8.34	8.12	8.15		5.1%			0.39	
6	Pakistan	5.66	6.59	6.22	6.36	6.20	6.67	7.22		9.4%			0.62	
7	Indonesia	5.13	6.54	7.19	7.21	7.14	7.34	7.20		10.2%			0.67	
8	Cambodia	6.62	7.73	7.72	7.71	8.02	7.11	7.20		-6.8%			(0.53)	
9	Egypt	6.67	7.73	7.55	7.28	7.84	8.17	8.48		9.7%			0.75	
10	Kenya	3.64	3.96	4.73	4.32	4.94	4.68	4.82		21.5%			0.85	
	Subtotal	6.05	**7.04**	7.10	6.91	6.98	6.89	**6.53**		-7.3%			(0.51)	
	Total World	6.34	7.35	7.43	7.23	7.30	7.18	6.85		-6.8%			(0.50)	
	Subtotal ratio	0.95	**0.96**	0.96	0.96	0.96	0.96	**0.95**						
	CPI: "Men's & Boy's Apparel"													
	Average (1982-84 =100)	111.91	**114.70**	119.53	121.59	120.60	119.62	**118.83**		3.6%				

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		2010	2011	2012	2013	2014	2015	2016		2011	2016		2011	2016
										Share			Cumulative	
Volume (millions of dozens)														
1	Vietnam	18.8	16.8	15.8	17.0	20.3	18.2	17.8		16.4%	23.6%		16.4%	23.6%
2	China	29.7	25.6	24.6	26.6	23.6	20.7	17.8		24.9%	23.6%		41.3%	47.2%
3	Indonesia	13.6	13.2	13.0	12.5	10.4	9.4	8.6		12.9%	11.4%		54.2%	58.6%
4	Guatemala	9.5	8.9	6.2	5.6	5.6	5.4	4.8		8.7%	6.3%		62.8%	64.9%
5	Cambodia	8.6	8.4	8.4	7.1	5.8	5.6	4.6		8.2%	6.1%		71.0%	71.0%
6	Nicaragua	5.3	5.5	7.6	6.9	3.5	3.6	4.0		5.4%	5.3%		76.4%	76.3%
7	India	5.2	4.4	3.2	3.5	3.4	3.4	3.5		4.2%	4.7%		80.7%	81.0%
8	Bangladesh	2.3	1.8	1.8	2.0	2.0	2.8	3.3		1.7%	4.4%		82.4%	85.4%
9	El Salvador	1.9	2.3	2.3	2.1	1.8	2.1	1.6		2.2%	2.2%		84.6%	87.5%
10	Honduras	2.8	3.4	3.1	3.0	2.9	2.4	1.6		3.3%	2.1%		87.9%	89.6%
	Subtotal	97.7	**90.2**	85.9	86.3	79.3	73.5	**67.7**						
	Total World	114.3	**102.6**	95.6	95.6	88.7	83.4	**75.5**						
	Subtotal share	85.4%	**87.9%**	89.9%	90.3%	89.4%	88.1%	**89.6%**						
AUV (per item)										%Change			$Change	
1	Vietnam	3.37	3.78	3.54	3.59	3.45	3.51	3.40		-10.1%			(0.38)	
2	China	4.98	5.44	5.00	4.99	4.97	4.94	4.64		-14.8%			(0.80)	
3	Indonesia	3.22	3.48	3.23	3.32	3.36	3.41	3.20		-8.1%			(0.28)	
4	Guatemala	2.51	2.58	2.54	2.50	2.57	2.73	2.47		-4.0%			(0.10)	
5	Cambodia	2.80	3.31	3.00	3.25	3.22	2.96	2.58		-22.2%			(0.73)	
6	Nicaragua	2.88	3.33	2.90	2.86	3.58	2.90	2.72		-18.2%			(0.61)	
7	India	3.68	4.45	4.76	4.69	4.87	4.75	4.45		-0.1%			(0.00)	
8	Bangladesh	2.40	2.85	2.54	2.75	2.99	2.70	2.61		-8.5%			(0.24)	
9	El Salvador	2.16	2.48	2.00	2.04	2.31	2.20	2.04		-17.6%			(0.44)	
10	Honduras	1.94	2.39	2.15	2.45	2.55	2.49	2.60		8.8%			0.21	
	Subtotal	3.61	**3.95**	3.66	3.77	3.81	3.73	**3.50**		-11.2%			(0.44)	
	Total World	3.60	3.97	3.71	3.80	3.85	3.78	3.61		-9.0%			(0.36)	
	Subtotal ratio	1.00	**0.99**	0.99	0.99	0.99	0.99	**0.97**						
CPI: "Women's & Girl's Apparel"														
	Average (1982-84 =100)	107.08	**109.17**	112.99	113.34	114.36	111.21	**111.24**		1.9%				

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		2010	2011	2012	2013	2014	2015	2016	2011	2016	2011	2016
Volume (millions of dozens)									Share		Cumulative	
1	China	35.6	29.5	34.2	35.2	29.6	30.8	31.9	44.3%	47.6%	44.3%	47.6%
2	Bangladesh	8.5	8.3	8.3	10.0	8.4	9.0	10.0	12.4%	14.8%	56.7%	62.5%
3	Vietnam	6.5	5.7	5.7	6.8	6.8	7.2	7.5	8.5%	11.1%	65.3%	73.6%
4	Indonesia	3.4	3.2	3.1	3.9	3.1	2.9	2.4	4.9%	3.6%	70.1%	77.2%
5	Pakistan	1.7	1.6	2.1	2.3	2.0	2.0	2.2	2.4%	3.3%	72.5%	80.4%
6	Cambodia	3.5	3.1	2.5	2.2	2.0	1.9	2.0	4.7%	3.0%	77.2%	83.5%
7	Jordan	1.2	1.2	1.3	1.6	1.4	1.5	1.4	1.8%	2.1%	79.0%	85.6%
8	Mexico	3.2	2.7	2.0	1.8	1.6	1.4	1.4	4.0%	2.1%	83.0%	87.6%
9	India	2.6	2.1	1.8	1.9	1.5	1.4	1.3	3.2%	2.0%	86.2%	89.7%
10	Sri Lanka	1.7	1.5	1.5	1.6	1.5	1.5	1.3	2.2%	2.0%	88.4%	91.7%
	Subtotal	67.9	**58.8**	62.5	67.3	58.2	59.7	**61.4**				
	Total World	77.5	66.6	70.1	74.3	64.4	65.2	67.0				
	Subtotal share	87.6%	**88.4%**	89.2%	90.6%	90.3%	91.6%	**91.7%**				
AUV (per item)									%Change		$Change	
1	China	5.53	6.12	5.92	5.88	5.57	5.35	4.97	-18.8%		(1.15)	
2	Bangladesh	4.73	5.52	5.61	5.38	5.58	5.72	5.52	0.0%		(0.00)	
3	Vietnam	5.60	6.28	6.28	6.52	6.38	6.16	6.15	-2.0%		(0.13)	
4	Indonesia	5.78	6.60	7.30	7.20	7.40	7.39	7.59	15.0%		0.99	
5	Pakistan	5.75	7.06	7.32	7.66	7.55	7.61	7.55	7.0%		0.50	
6	Cambodia	5.89	6.83	7.17	7.07	7.00	7.23	6.62	-3.0%		(0.20)	
7	Jordan	6.97	8.59	8.61	8.46	8.20	8.15	8.17	-4.9%		(0.42)	
8	Mexico	8.50	9.90	9.77	10.58	11.23	11.18	11.22	13.4%		1.32	
9	India	6.27	6.84	6.52	6.39	6.55	6.96	6.76	-1.1%		(0.08)	
10	Sri Lanka	7.58	8.74	8.86	8.45	8.48	7.90	8.29	-5.1%		(0.45)	
	Subtotal	5.49	**6.24**	6.11	6.10	6.02	5.84	**5.61**	-10.2%		(0.64)	
	Total World	5.81	6.57	6.46	6.43	6.33	6.20	5.94	-9.5%		(0.63)	
	Subtotal ratio	0.94	**0.95**	0.95	0.95	0.95	0.94	**0.94**				
CPI: "Women's & Girl's Apparel"												
	Average (1982-84 =100)	107.08	**109.17**	112.99	113.34	114.36	111.21	**111.24**	1.9%			

October 14, 2017

Moongate Associates

Susan Hester, Ph.D.
Managing Partner, Moongate Associates, Inc.

With extensive experience in the formulation and analysis of international trade policy and practice, Susan Hester's career has encompassed work in the public and private sectors, as well as education and training in more than a dozen countries. Her public sector experience includes working as an international trade specialist in the Office of Textiles and Apparel in the Department of Commerce, as well as an international economist in DOC's Trade Policy Information Division. After teaching and doing research at Cornell University, Dr. Hester returned to Washington to join the international trade practice of Dewey Ballantine where she analyzed trade issues in a variety of industries, including textiles and apparel, for more than 15 years.

As the Managing Partner of Moongate Associates, her policy work in developing countries includes trade, finance, labor, agriculture, ICT, and energy sectors. Dr. Hester has provided technical support in the analysis of trade agreements such as the European Partnership Agreement (EPA). Her private sector experience with small, medium, and large enterprises includes competitiveness assessment and training. Her marketing and product development expertise spans both developed and developing economies.

Dr. Hester has an established record of research, writing and publication. She has written on such topics as the impact of trade agreements, textile protection in the United States, and balancing U.S. trade interests, in journals such as the *International Marketing Review*, *International Trade Journal,* and *Business Economics*. Jointly published research includes: *Semiconductors in China, The Limits of the GATT: Private Practices in Restraint of Trade, A Study on the Appropriate Exchange Rate Regime for a Competitive Export-Led Growth Strategy for Ghana,* and *The Microstructure of Ghana's Foreign Exchange Market.*

Susan B. Hester, Ph.D.
Moongate Associates
1128 37th Ave.
Seattle, WA 98122
206 329-2557
202 344-0363 (mobile)
susan.hester@moongateassociates.com