

Regional trade agreements and export competitiveness: the uncertain path of Nicaragua's apparel exports under CAFTA

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The Central American Free Trade Agreement (CAFTA) has been a mixed blessing for economic development. While exports to the US economy have increased, dependency may hinder economic growth if countries do not diversify or upgrade before temporary provisions expire. This article evaluates the impact of the temporary Tariff Preference Levels (TPLs) granted to Nicaragua under CAFTA and the consequences of TPL expiration. Using trade statistics, country- and firm-level data from Nicaragua's National Free Zones Commission (CNZF) and data from field research, we estimate Nicaragua's apparel sector will contract as much as 30–40% after TPLs expire. Our analysis underscores how rules of origin and firm nationality affect where and how companies do business, and in so doing, often constrain sustainable export growth.

Keywords: apparel value chain, trade dependence, economic upgrading, CAFTA, Nicaragua, TPLs

JEL Classifications: F63, L22, L67

Introduction

Over a 10-year period beginning in 1995, the international regime that regulated trade in textile products—the Multifibre Arrangement (MFA)—was phased out under the World Trade Organization's Agreement on Textiles and Clothing. Experts predicted that liberalisation would result in a dramatic shift of textile and apparel manufacturing to Asia, and especially to China ([Appelbaum, 2004](#); [Nordas, 2004](#)). Among those expected to be negatively

impacted by changing trade patterns were apparel-exporting countries in Latin America, as well as their traditional suppliers, US textile companies. It was in this context of multi-lateral trade liberalisation that regional trade agreements took on increased importance for textile and apparel producers in the Americas. These include the North American Free Trade Agreement (NAFTA), which was implemented in 1994, and the Dominican Republic-Central American Free Trade Agreement (CAFTA),

which was signed into US law in 2005. Regional trade agreements establish ‘yarn-forward’ rules of origin that primarily benefit upstream producers in the region able to supply yarn, who are mainly located in the USA. For US producers of yarn and fabric, the rules help consolidate a market for their products among apparel manufacturers in Latin America. These garment manufacturers, in turn, receive duty-free access to the US market for qualifying products—a source of competitive advantage vis-à-vis their Asian counterparts.

In light of the particularly acute need to stimulate job growth and export revenues in the poorest CAFTA country, Nicaragua also received a special trade preference under the agreement. These benefits, known as Tariff Preference Levels (TPLs), are essentially import licenses that permit a certain quantity of apparel sewn in Nicaragua to enter the US duty-free, even if the products are made from yarn and/or fabrics manufactured outside the CAFTA region (for example, China). By exempting a portion of the country’s exports from CAFTA’s rules of origin, the TPLs have helped Nicaragua expand its apparel industry. Yet because the TPLs granted under CAFTA were temporary, and set to expire at the end of 2014, it is unclear how the loss of this benefit will affect the future competitiveness of the country’s apparel sector or its links with upstream suppliers of yarn and fabric.

In a post-TPL environment, manufacturers in Nicaragua will confront the same challenge as their counterparts in the other CAFTA countries: pay duty on garment exports to the US market that use non-originating textiles or find textile manufacturers in the region that can provide qualifying inputs. From the perspective of enhancing the global competitiveness of regional exporters, the latter strategy is preferable since it maximises the advantages of duty-free access and market proximity for apparel manufacturers in the Americas.

Indeed, the development of regional supply chains is precisely the outcome that rules

of origin are intended to promote: by making market access contingent on the use of originating inputs, rules of origin are supposed to stimulate backward linkages to upstream suppliers and encourage intra-regional trade. Potentially, they can also promote industrial upgrading by expanding the manufacturing base of qualifying inputs in the region. This was one of the arguments made by the Nicaraguan government when lobbying for the TPL benefit during the CAFTA negotiations. The TPL was presented as a stopgap measure, which would generate much needed garment sector employment in the short-term, while giving Nicaragua, and the region more broadly, an opportunity to cultivate upstream links in the chain, especially fabric production. In the absence of regionally integrated supply chains, however, rules of origin that prevent producers from accessing globally competitive inputs prove a liability (see also the papers by Curran and Nadvi, and Azmeh in this volume).

In this article, we evaluate the importance of the TPL policy to Nicaragua’s role in the CAFTA-era apparel value chain and the likely implications of TPL expiration for the country’s garment export sector using three kinds of data: (i) international trade statistics, primarily from the U.S. Department of Commerce Office of Textiles and Apparel; (ii) country- and firm-level data collected by the Nicaraguan government’s Secretariat of the National Free Zones Commission (CNZF); and (iii) primary data gathered by the authors during semi-structured interviews with apparel manufacturers in Nicaragua in 2010–2011, and in 2014, as well as with a number of their clients and suppliers in the USA. The data collection and analysis reported here was carried out by the authors for a study commissioned by CNZF with three objectives: first, to assess the strengths and weaknesses of the Nicaraguan apparel industry; second, to identify prospects for improving its competitiveness and sustainability, particularly in the context of the CAFTA-DR trade agreement with the USA; and third, to estimate the likely consequences of TPL expiration.

The upshot of our analysis is that Nicaragua's apparel sector will contract as much as 30–40% after the TPL expires. However, we also find that the effect of this regulatory shift is contingent on a number of firm-level factors. The central factors for the Nicaraguan case are firm ownership (North American versus Asian) and the geographic scope of the parent company's operations (regional versus global). Overall, our analysis underscores the degree to which rules of origin affect the decisions of firms regarding where and how they do business, and in so doing, also shape the prospects of countries to compete in global markets. More broadly, Nicaragua's predicament highlights the challenge of building globally competitive supply chains in a region that has pursued trade-dependent export strategies based on preferential market access.

The apparel value chain in the post-quota era

Historically, the geography of textile and apparel production was strongly linked to trade policy. Although this continues to be true, the way that trade policy matters is changing. The primary effect of the quota system established by the MFA was to disperse production globally, since importers managed quantitative import restrictions largely by shifting orders across a range of countries according to quota availability (Rosen, 2002). The phaseout of quotas occurred over a 10-year period stretching from 1995 to the end of 2004. With the exception of short-term measures such as transitional safeguards, all quantitative restrictions on imports were eliminated as of 1 January 2005 (Gereffi and Frederick, 2010).

Since the elimination of quotas, Asian countries such as Bangladesh, Vietnam, Indonesia and especially China have gained US import market share. Table 1, which shows US apparel imports from leading global suppliers, underscores the growth in Asia's share of the US market in the post-quota environment. China's \$29.8 billion in apparel exports to the USA in

2013 represented more than one-third of US apparel imports. While China's exports far outpace those of any other supplier in absolute terms (increasing \$6.3 billion between 2009 and 2013), China's growth has slowed in recent years, and its share of the US market appears to have stabilised at just below 40% in 2013. Southeast Asian countries posted the most significant gains over the past decade. Vietnam is a dramatic case in point; although the country's exports to the USA were minimal in 2000, by 2013, Vietnam's \$8.1 billion in exports made it the second largest supplier of apparel to the USA, behind China. In this latter year, the value of Vietnam's exports surpassed the combined value of exports from all CAFTA countries.

By contrast, producers in the Western hemisphere have seen their exports decline in the post-MFA period. The share of the US import market claimed by regional exporters—Mexico, the CAFTA countries and Haiti—fell from 23% in 2005 to 15% in 2013. Mexico experienced the sharpest contraction, with apparel exports dropping by 39% between 2005 and 2013, while CAFTA countries saw a more modest decline of 13%.

While Table 1 suggests that preferential agreements with the USA have not enabled apparel manufacturers in the Americas to regain import market share from Asia, the benefits provided by these regimes may well have prevented an even more significant deterioration of their position. Although the value of apparel exports from both Mexico and the CAFTA countries fell substantially between 2005 and 2009 in the immediate aftermath of the MFA phaseout, the latter's performance improved between 2009 and 2013, with exports increasing 28%. This rate of increase put the region just ahead of China (27% growth over the same period), and just behind Indonesia at 29%, but far off the pace set by Vietnam (60%) and Bangladesh (45%). Overall, Asia's share of the US import market appears to be levelling off, and the landscape of the global garment

trade is becoming more settled in the wake of the tumultuous post-MFA shake-out.

These trade patterns and the general trend of declining (if stabilising) exports from the Americas belie substantial variation within the region (see Table 2). Mexico, the Dominican Republic, Costa Rica and Guatemala have all seen apparel exports fall between 2000 and 2013. The dollar value of exports from Honduras and El Salvador increased over this period,

although their market share declined. The only two countries in the Americas to see their market shares increase in the post-MFA period are Haiti and Nicaragua. Haiti's exports—at \$803 million in 2013, still quite modest—have nevertheless tripled in value between 2000 and 2013.

Among the CAFTA countries, Nicaragua experienced the most dramatic growth in exports over the same period—exports doubled between 2005 and 2013 and grew 60% between

Table 1. *US apparel imports: regional and Asian suppliers, by value, 2000–2013.*

Partner	Value (\$US billions)				Share of US imports (%)				% Change	
	2000	2005	2009	2013	2000	2005	2009	2013	2005–2009	2009–2013
World	572	68.7	63.1	79.8					–8%	26%
China	4.5	15.1	23.5	29.8	8	22	37	37	55%	27%
Vietnam	0.0	2.7	5.1	8.1	0	4	8	10	86%	60%
CAFTA	9.0	9.1	6.1	7.9	16	13	10	10	–33%	28%
Indonesia	2.1	2.9	3.9	5.0	4	4	6	6	34%	29%
Bangladesh	2.1	2.4	3.4	4.9	4	3	5	6	44%	45%
Mexico	8.4	6.1	3.4	3.7	15	9	5	5	–44%	9%
India	1.8	3.0	2.8	3.2	3	4	5	4	–4%	13%
Cambodia	0.8	1.7	1.9	2.6	1	2	3	3	9%	37%
Haiti	0.3	0.4	0.5	0.8	0	1	1	1	26%	57%
US regional	17.6	15.6	10.0	12.4	31	23	16	15	–36%	23%

Source: OTEXA (1989–2013); imports by country by MFA Category 1: all apparel. US regional includes CAFTA-DR countries, Mexico and Haiti.

Table 2. *US apparel imports from regional suppliers, by value, 2000–2013.*

Country	Value (\$US millions)				Share of US imports (%)				% Change	
	2000	2005	2009	2013	2000	2005	2009	2013	2005–2009	2009–2013
World	57,232	68,713	63,105	79,797					–8%	26%
CAFTA	8,973	9,104	6,145	7,880	15.7	13.2	9.7	9.9	–33%	28%
Honduras	2,323	2,622	2,032	2,498	4.1	3.8	3.2	3.1	–23%	23%
El Salvador	1,583	1,619	1,298	1,859	2.8	2.4	2.1	2.3	–20%	43%
Nicaragua	336	716	892	1,429	0.6	1.0	1.4	1.8	25%	60%
Guatemala	1,487	1,816	1,103	1,314	2.6	2.6	1.7	1.6	–39%	19%
Dominican Republic	2,425	1,849	613	673	4.2	2.7	1.0	0.8	–67%	10%
Costa Rica	819	482	206	106	1.4	0.7	0.3	0.1	–57%	–48%
Mexico	8,413	6,078	3,391	3,682	14.7	8.8	5.4	4.6	–44%	9%
Haiti	251	406	513	803	0.4	0.6	0.8	1.0	26%	57%
US regional total	17,636	15,589	10,049	12,365	30.8	22.7	15.9	15.5	–36%	23%

Source: OTEXA (1989–2013); imports by country by MFA Category 1: all apparel. US regional includes CAFTA-DR countries, Mexico and Haiti.

2009 and 2013. In addition to being the lowest-cost countries in the Americas, Nicaragua and Haiti also benefit from special trade preferences with the USA that are not enjoyed by the other economies in the region. In the next section, we describe the regulatory environment shaping intra-regional trade before turning to an analysis of how these policies are affecting actors within the apparel value chain.

Mapping the trade policy landscape in the Americas

The current era of preferential trade agreements in the Americas began in 1994, when NAFTA went into effect. A key provision of any such agreement are the rules of origin that govern which products qualify as ‘originating’ within the trade bloc. In the case of NAFTA, a garment assembled in one of the member countries (Canada, the USA and Mexico) is eligible for duty- and quota-free treatment in another NAFTA market as long as it contains yarn and fabrics produced in any of the three signatory countries. The special access to the US market that Mexico enjoyed after NAFTA led to a dramatic increase in Mexico’s profile among leading apparel exporters, as well as some investment in new textile mills (Bair and Gereffi, 2001). In the late 1990s, Mexico even briefly eclipsed China as the number one supplier of apparel to the USA. Yet despite NAFTA’s success in stimulating intra-regional trade within North America, many US textile producers strongly opposed the agreement, at least initially, because they feared NAFTA’s regional rules of origin would cause garment producers in Mexico to replace US-made textiles with fabrics knitted or woven in Mexico.

Meanwhile, manufacturers in Central America and the Caribbean worried that exclusion from NAFTA would hurt the competitiveness of their garment exports, which unlike Mexico’s were still subject to tariffs. The efforts of the Caribbean Basin countries to secure ‘NAFTA parity’ resulted first in the passage of

the USA–Caribbean Basin Trade Partnership Act in May 2000, and finally in the successful negotiation of the Dominican Republic–Central America Free Trade Agreement, which was concluded in 2004 (Heron, 2006). The countries participating in CAFTA—the USA, Costa Rica, Dominican Republic, Honduras, Guatemala, El Salvador and Nicaragua—ratified and implemented the treaty individually, which meant it became operative in different countries at different times. In Nicaragua, CAFTA entered into force in April 2006. As with NAFTA, the CAFTA agreement established a yarn-forward rule of origin. This means that CAFTA countries enjoy preferential access to the US market for all apparel that is sewn in a member country from fabric either woven or knit from yarn extruded within the CAFTA region.

Although some textile groups opposed CAFTA, two industry associations—the National Council of Textile Organizations and the National Cotton Council—both supported the agreement (Minchin, 2012). The 10 years between NAFTA and CAFTA were sufficient to convince many in the US textile industry that regional trade agreements were the best strategy available to US yarn and fabric manufacturers looking to compete with China, especially in the context of multilateral trade liberalisation. Moreover, when CAFTA was signed, there was limited availability of both knit and woven fabric in Central America, and virtually no yarn production in the region. For this reason, many assumed that exporters in the small Central American countries would have to purchase US inputs in order for their apparel to qualify as originating under CAFTA.

Yarn-forward rules of origin are meant to protect upstream producers in the USA, yet they arguably dampen the competitiveness of regional garment exporters by increasing the opportunity cost of using Asian-made inputs, which tend to be lower cost, more readily available and in some cases better quality. While the

price differential varies according to the particular type of fabric, textiles made in Asia can cost as much as 30% less than those made in the Americas (World Bank, 2012). In order to ensure that the rules of origin did not impede job growth in CAFTA's least-developed economy, an additional provision of the agreement allows Nicaragua to receive preferential access to the US market for a certain quantity of apparel sewn in Nicaragua from materials that do not qualify as originating. Nicaragua was the only CAFTA country to receive a significant allocation of these TPLs; the maximum amount of non-originating garments permitted to enter the USA under the TPLs is 100 million square meter equivalents (SMEs) per year. CAFTA also specified that TPLs would be a temporary benefit extended only through 2014.

To ensure a benefit in return for its concession on the TPLs, the US negotiators, at the urging of domestic textile manufacturers, added a condition known as the 'one-to-one' rule to the TPLs for trousers made of woven fabrics. Under this rule, each shipment of pants made from woven fabrics (either cotton or man-made fibre [MMF]) imported under Nicaragua's TPL allowance must be matched with a shipment of pants made from cotton fabric woven in the USA from yarns extruded in the USA. The quantity of pants subject to the one-to-one rule gradually increased from the first 20 million SMEs in 2006 to the first 50 million SMEs in 2014. Any shortfall in the commitment is then charged against the TPL for the succeeding year.

In 2012, about 78% of Nicaragua's exports by volume (measured as million SMEs) to the USA entered the country duty-free under a variety of special trade regimes: 24% were granted TPLs, and another 53.5% qualified under CAFTA's rules of origin. In terms of dollar value, Nicaragua's dependence on TPLs was more pronounced. Non-qualifying apparel receiving TPLs covered 42% of the country's exports to the USA, while 39% of exports qualified as regional under CAFTA's rules of origin.

The country's reliance on TPLs has declined somewhat in recent years. In 2012, TPLs covered 42% of Nicaragua's exports, down from 47% in 2009.

The ability of Nicaragua's apparel manufacturers to import yarn and fabric from Asia, and, thanks to the TPL, still receive duty-free access to the US market for these non-qualifying products, is an important factor explaining the recent dynamism of that country's apparel sector. As early as 2010, the looming expiration of Nicaragua's TPLs in 2014 created uncertainty for apparel importers in the USA, who were unsure how the elimination of this preference would affect their sourcing decisions. The implications of the TPL expiration for US textile manufacturers are also unclear. One scenario is that apparel manufacturers in Nicaragua will increase their purchases of US yarns and fabric once they can no longer use TPLs to gain duty-free access to the US market for garments incorporating inputs from Asia. But it is also plausible that the loss of the TPLs will lead the clients of Nicaragua's apparel manufacturers—US retailers and brands—to shift their orders elsewhere, causing a contraction in Nicaragua's export sector and a decline in US textile exports to that country. This second scenario is buttressed by the fact that a number of the largest manufacturers in Nicaragua already have factories in Asia that could absorb whatever business is relocated from Nicaragua.

The impact of the TPL expiration on Nicaragua is further clouded by the even more generous trade preferences that Haiti's apparel industry enjoys. In 2006, the U.S. Congress approved the Haitian Hemispheric Opportunity through Partnership Encouragement (HOPE) Act, which was intended to create jobs in Haiti's apparel sector by granting the country's manufacturers TPLs for woven garments. In 2008, the HOPE Act was amended to deepen and extend the benefits created in the initial legislation. The resulting programme, known as HOPE II, expanded Haiti's TPL allocation to include knit products and extended the timeframe for the

TPLs. Up to 400 million SMEs of non-originating apparel can enter the US market from Haiti each year (a TPL benefit four times greater than Nicaragua's) through 2018.

The possibility of a sharp contraction in apparel exports is particularly worrisome for Nicaragua, given the centrality of garment production within the country's export-processing zones (EPZs) or 'zonas franca'/free zones as they are known in Nicaragua. According to a 2012 World Bank report, Nicaragua has 35 registered EPZs—more than any other CAFTA country but the Dominican Republic, which has 51.¹ The approximately 100,000 workers employed in Nicaragua's EPZs at the time represented 6.7% of the country's active labour force, the highest percentage in the region. The majority of these workers are employed in garment factories (approximately 70% in 2012). The only other significant source of industrial employment in the EPZs beyond apparel was a factory manufacturing wire harnesses for motor vehicles. Nicaragua's EPZs generate approximately 65% of the country's exports, a share comparable to Honduras and the Dominican Republic, but unlike its neighbouring countries, this percentage has increased substantially over the course of the decade. In 2001, exports from free trade zones accounted for just about one-third of Nicaragua's exports (CNZF, 2013b; World Bank, 2012). Here, too, the apparel industry has been the main motor of growth, with garments accounting for more than half of all exports over this period.

In short, given the centrality of apparel manufacturing to the country's export sector, any sizable contraction of Nicaragua's industry is likely to be significant. While there is little doubt that TPL expiration will affect the apparel value chain, both in Nicaragua and in the Americas more broadly, it is difficult to estimate the magnitude of this regulatory shift. Determining the quantitative and qualitative contours of its impact requires a comprehensive methodological approach combining country- and firm-level data with the analysis

of intra- and inter-regional trade flows. We now turn to this analysis.

The Nicaraguan apparel industry: CAFTA plus TPLs equals growth

In 2012, Nicaragua's free trade zone sector hosted 71 establishments dedicated to the production of textiles and apparel, which represented 43% of the total number of establishments in the country's EPZs (compared with 60% in 2007) (CNZF, 2013a, 2013b; see Table 3). Of these, 26 companies focused on knitted apparel, 19 on woven apparel (three of which were engaged in woven apparel finishing), 7 produced both knit and woven apparel, 8 engaged in screen-printing, and 5 were involved in trim (thread, embroidery and labels). On the textile side, there was one woven fabric finisher (an importer of greige goods that finishes the fabric into twill for pants) and one idle woven fabric manufacturing plant (though this facility was purchased in 2013 and was supposed to resume production in 2014) (Bair and Gereffi, 2013a, 2013b; CNZF, 2012).

In 2012, the apparel industry employed 70,687 people—a historic high for Nicaragua—and generated more than two-thirds of employment in the country's free trade zones (CNZF, 2013a, 2013b). The vast majority of these workers were employed as sewing machine operators. Factories manufacturing knit apparel are the mainstay of the sector in terms of employment. In 2013, almost two-thirds of the garment workers in Nicaragua's free trade zone were sewing garments made from knit fabrics; of these, 18,529 were employed by the three largest companies.

Nicaragua's apparel export profile

The USA received 96% of Nicaragua's apparel exports in 2012. Knit shirts and trousers account for 87% of Nicaragua's US apparel exports (up from 75% in 2000), with knit shirts making up 58% of the total. The single largest export

Table 3. *Nicaragua's apparel industry and free zone import and export profile.*

	2002	2004	2006	2008	2010	2012	2002–2012 % change
Establishments	35	54	71	70	74	71*	103%
Employees	32,220	40,940	61,532	50,712	59,681	70,687	119%
T&A Imports (\$US million)	257	407	550	771	687	871	239%
T&A Exports (\$US million)	322	485	698	762	1013	1368	326%
T&A Share of All Free Zone Imports	96.1%	92.2%	85.0%	63.6%	65.3%	57.6%	
T&A Share of All Free Zone Exports	92.7%	81.3%	77.9%	61.4%	64.4%	58.8%	

Source: CNZF (2013a); *official statistics report 71; however, 11 did not have employment or exports in 2012.

product is cotton knit shirts for women and girls (W&G), representing more than a quarter of the country's clothing exports (up from 12% in 2000). The share of knit shirts in Nicaragua's export profile has more than doubled over the last 12 years, whereas trousers' share has declined. The majority of US apparel imports from Nicaragua are cotton-based (71%). While still relatively small, the share of MMF products has grown from 18% in 2000 to 29% of US imports in 2012 (Table 4).

Nicaragua's export profile is similar to that of the CAFTA region as a whole. Knit shirts account for almost half (49%) of apparel exported to the USA from the CAFTA countries. The only major supplier in Asia or the Americas with a higher concentration in that product category is Haiti (56%). Overall, the CAFTA countries are less focused on trousers than their competitors in Southeast Asia; while only 16% of CAFTA's exports are trousers, the corresponding percentages for Bangladesh, Cambodia and Vietnam are 45%, 29% and 23%, respectively. Asian suppliers (especially India, Bangladesh and Indonesia) also supply more of the woven shirts imported into the USA, while CAFTA countries and Haiti are more important producers of intimate apparel (see Figure 1).

Within the CAFTA region, export trends provide insight into the rapidity with which production can shift between countries in response to changes in the policy environment. For example, US imports of knit shirts from

regional suppliers declined by 5% between 2005 and 2012. However, at the country-level, Nicaragua and Haiti collectively registered an increase in exports of 133% over the same period, while imports from Mexico, Guatemala, the Dominican Republic, El Salvador and Costa Rica declined by 29%. Nicaragua's export growth in this category was particularly brisk during the first part of this period. Between 2005 and 2009, Nicaragua's exports of knit shirts increased 124%, as compared with 48% between 2009 and 2012. This slowing rate of growth in exports from Nicaragua coincided with an increase in exports from Haiti, following the 2008 expansion of the HOPE Act (HOPE II).

Nicaragua's textile import profile

Nicaragua's imports of textiles *from* the USA largely mirror the country's exports of clothing *to* the USA. In 2012, Nicaragua represented 1.2% of US textile exports, almost entirely in fabric (as opposed to yarn). Yarn exports to Nicaragua are trivial (0.04%), and their value has declined by 18% between 2002 and 2012 (U.S. Census Bureau, 2002–2012b).² US fabric exports to Nicaragua totalled \$106 million in 2012. While still a tiny market for the US textile industry, fabric exports to Nicaragua have increased by 313% over the last decade. This growth reflects the success of Nicaragua's apparel exports under CAFTA and the incentives created by the 'TPL plus one-to-one' provision. Moreover, Nicaragua

Table 4. Top 10 US import categories from Nicaragua by value and year, 2000–2012.

OTEXA MFA description	OTEXA MFA category	Value (\$US million)				Share of all apparel (%)		Years in top 10 or % change
		2000	2005	2010	2012	2000	2012	
Textiles and Apparel	0	336	716	1018	1349			
Apparel	1	336	716	1017	1348			302%
W&G Knit Shirts: Cotton	339	42	153	292	358	12%	27%	2000–2012
M&B Knit Shirts: Cotton	338	28	69	163	210	8%	16%	2000–2012
M&B Trousers: Cotton	347	103	176	146	226	31%	17%	2000–2012
M&B Knit Shirts: MMF	638	—	—	74	152	—	11%	2007–2012
W&G Trousers: Cotton	348	66	106	78	84	20%	6%	2000–2012
M&B Trousers: MMF	647	5	35	37	63	2%	5%	2000–2012
W&G Knit Shirts: MMF	639	3	12	41	62	1%	5%	2000–2012
M&B Woven Shirts: Cotton	340	29	23	28	38	9%	3%	2000–2012
Bras; Body Support: MMF	649	25	41	—	21	7%	2%	2000–2012
M&B Other Coats: MMF	634	—	—	23	21	—	2%	2010–2012
Underwear (Knit): Cotton	352	—	—	46	—	—	—	2010
M&B Woven Shirts: MMF	640	17	16	—	—	1%	—	2000–2007
W&G Trousers: MMF	648	4	26	—	—	5%	—	2000–2007
Top 10 share of total						96%	92%	—
Cotton and MMF Knit Shirts		73	78	570	782	22%	58%	966%
Cotton and MMF Trousers		178	210	275	391	53%	29%	119%
Knit shirts and trousers						75%	87%	366%
Cotton Apparel	31	271	561	764	957	81%	71%	253%
MMF Apparel	61	62	151	253	391	18%	29%	534%

Source: OTEXA; top 10 categories in 2000, 2005, 2010 and 2012. Trousers includes breeches and shorts. M&B: Mens' and Boy's and W&G: Womens' and Girl's. Woven represented by 'non-knit'. — indicates category was not in the top 10 in the given year or not applicable.

is a leading market for US-manufactured denim. In 2011, US exports to Nicaragua were primarily broadwoven fabric (65%), followed by knitted fabric (27%) and narrow fabrics (6%).

Knitted fabric exports to Nicaragua were \$449 million in 2012, with Asian countries accounting for over half of the value (59%), primarily China and South Korea. Regional suppliers provided the remaining 41%, with the majority coming from Honduras (28%), USA (6%), Guatemala (4%) and El Salvador (2%).³ The USA exported \$29 million in knitted fabric to Nicaragua, accounting for 2.7% of all US knitted fabric exports (UNSD, Various; U.S. Census Bureau, 2002–2012a; USITC, 1995–2012). Consistent with its status as the only CAFTA country to receive the TPL benefit, Nicaragua imports more knit fabric from non-regional suppliers than other CAFTA countries. For example,

Honduras received around 79% of its knit fabric from regional sources, including the USA (53%) and El Salvador (18%).⁴ El Salvador received 85% of knit fabric from regional sources (USA, 70% and Guatemala, 16%).⁵

After knitted fabric, Nicaragua's second most important textile import is woven fabric. In 2012, Nicaragua imported \$219 million in woven fabric, of which 26% came from the USA. Nicaragua accounted for approximately 2.8% of all US woven fabric exports (UNSD, Various; U.S. Census Bureau, 2002–2012a; USITC, 1995–2012). Mexico is the second largest regional supplier, with much smaller shares coming from Guatemala (3%) and El Salvador (2%). Woven fabric manufacturers in Mexico include domestic companies (for example Kaltex), as well as mills owned by companies from Europe (for example Tavex), Asia (for

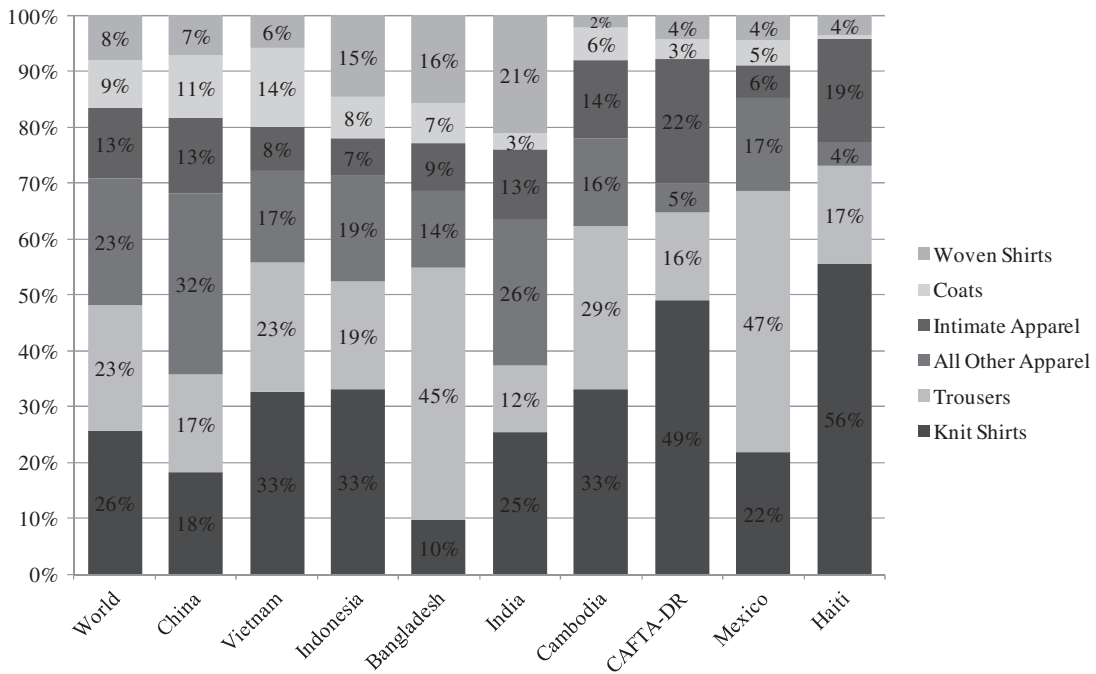


Figure 1. US imports by product categories from leading suppliers, by value, 2012.

Source: OTEXA; Imports by country by MFA category (by value); product categories collectively represent all U.S. apparel imports by the listed countries. CAFTA-DR: El Salvador, Guatemala, Honduras, Nicaragua, Costa Rica and the Dominican Republic.

example Nien Hsing) and the USA (for example International Textile Group). The main Asian suppliers of woven fabric were China (35%), Pakistan (8%) and Hong Kong (6%).

Nicaragua's imports of woven fabric reflect the 'one-to-one' proviso of the TPLs. Although the value of Nicaragua's regional imports was equivalent to or exceeded that of Asian imports in 2011, the percentage of regional imports has, for the most part, held steady since the implementation of CAFTA. The lack of perfect equivalence between regional and non-regional suppliers reflects the fact that the matching requirements for the 'one-to-one' rule are based on volume (SMEs), while the shares are based on value of imports. The lengthening segments in the bar graph (Figure 2) show the increased use of regional fabric compared to Asian sources; this increase has been both modest and uneven.

Negotiating the transition to yarn-forward: estimated effects of TPL expiration

In this final section, we look more in depth at the possible scenarios for the future of Nicaragua's industry by examining the 20 largest apparel companies (by employment) in Nicaragua. As of November 2013, this set of firms accounted for 80% of employment and 87% of exports in the apparel sector.⁶ For this analysis, we triangulated data on employment, exports and TPL usage, which is provided regularly to the CNZF, with primary data we gathered during interviews with this set of firms in 2010 and 2013. The company-level interviews provided rich data regarding the company's product and client profile; recent trends in employment and/or production volumes at the company and/or factory level; the scope of the company's

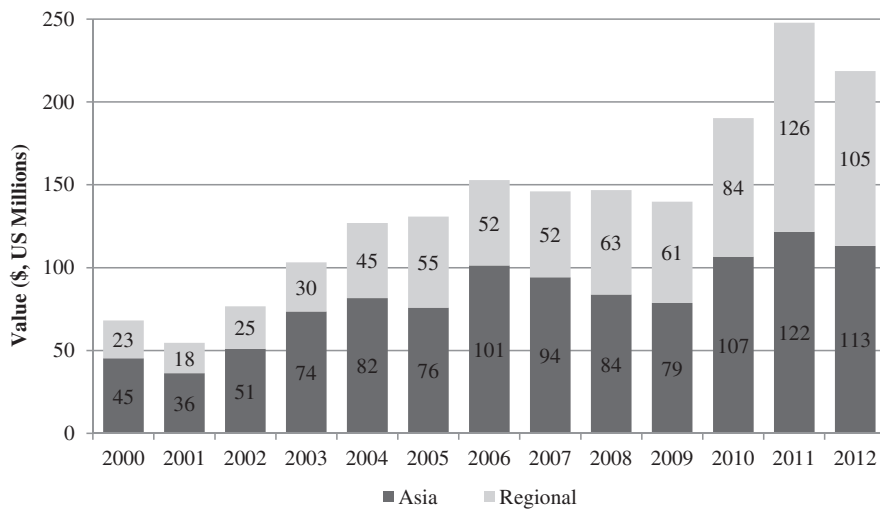


Figure 2. Woven fabric exports to Nicaragua from Asian versus regional sources, 2000–2012.

Source: UNCOMTRADE; HS as Reported; exports from specific countries to Nicaragua; retrieved 12 January 2013.

Note: Asia includes China, Pakistan, Hong Kong, India, Malaysia, Vietnam, Indonesia, South Korea and Thailand. Regional includes USA, Mexico, CAFTA countries, Panama and Canada.

manufacturing operations, such as whether it owns or subcontracts to other factories in the Americas and/or elsewhere; and, its practices with regard to sourcing key inputs, especially fabric. We also conducted interviews with a small number of major importers (US brands and retailers) sourcing from Nicaragua, as well as with a half dozen US textile companies (for example yarn and fabric manufacturers) supplying apparel producers in Nicaragua, in order to learn about their connections to Nicaragua and the region.

We then grouped the 20 companies into six categories based on what we consider to be the most likely impact of TPL expiration, assuming that no additional trade preference is given to Nicaragua above and beyond the CAFTA rules.⁷ On the basis of these criteria, we differentiated among high risk (Groups 1 and 6), moderate risk (Groups 2 and 5) and low risk (Groups 3 and 4) companies (see Table 5):

- High risk: these companies appear to be highly dependent on TPL benefits and will

likely leave Nicaragua if the TPL provision expires. This category accounted for 24% of Nicaragua's employment in 2013.

- Moderate risk: these companies use TPLs, yet several have increased employment and exports in recent years and have other regional manufacturing locations. Further research is needed on a case by case basis, but we estimate roughly half of these companies may leave or reduce production in Nicaragua. This category accounted for 32% of Nicaragua's employment in 2013.
- Low risk: these companies will most likely stay in Nicaragua. They may use some TPLs, but this is not the focal point of their investment in Nicaragua, as they have established regional production networks or long-term investments in Nicaragua. This category accounted for 25% of Nicaragua's employment in 2013.

We estimate that employment in Nicaragua's largest companies may be reduced by as much as 50% following the expiration of the TPL

benefit at the end of 2014. Given that the top 20 companies listed in Table 5 account for 80% of Nicaragua's employment, this would be equivalent to a contraction of 40% for the entire textile and apparel industry.

Companies in Groups 1–3 in Table 5 manufacture exclusively or predominantly knitted apparel, while those in Groups 4–6 produce woven apparel. Because the post-TPL viability of Nicaragua's garment sector depends on the ability of producers to develop supply chains that comply with CAFTA's yarn-forward rules of origin, and because knit fabrics and woven fabrics represent two different supply chains, we use the knit versus woven distinction as a first cut for categorising Nicaraguan manufacturers. However, while the products being manufactured by the firms in Groups 1–3 and Groups 4–6 are similar, there is nevertheless significant variation within each set of firms. The characteristics of the six groups and our risk estimates for each are discussed briefly below.

Groups 1 and 2: Asian-owned, multinational manufacturers

The seven knit apparel producers listed in Groups 1 and 2 are subsidiaries of Asian firms. Several are Korean-owned companies that have sewing facilities (i) in Nicaragua, (ii) in at least one other country in the CAFTA region and (iii) in Asia. They primarily produce fairly basic knitted apparel for large mass merchant retailers including Walmart, Target, Kohl's and JC Penney. Most of the raw materials they use are imported from Asia, and as such, this set of companies has been heavily reliant on TPLs. When the TPLs expire, these companies will pursue one or more of the following strategies: (i) stay in Nicaragua and forego duty-free access to the US market for goods that contain non-originating materials; (ii) stay in Nicaragua and replace Asian inputs with qualifying inputs sourced from the CAFTA region, including the USA; (iii) relocate to or expand in Haiti, which will continue to benefit from TPLs for

non-qualifying knit fabrics under the HOPE initiative; (iv) consolidate operations to other facilities in the CAFTA region; or (v) shift activities from the CAFTA region to Asian facilities to take advantage of lower labour costs and proximity to textile suppliers.

The companies in *Group 1* have production facilities elsewhere in the region (Guatemala or Honduras) as well as Vietnam. Firms with operations in Vietnam have a higher likelihood of shifting manufacturing away from Nicaragua and the CAFTA region, particularly if a proposed trade deal involving more than a dozen countries on three continents (the Trans-Pacific Partnership) goes forward (Platzter, 2012). We believe the continued presence of these companies in Nicaragua to be at risk following the expiration of the TPLs. The three manufacturers in this group accounted for 18% of employment and 23% of Nicaragua's textile and apparel exports in 2013.

The companies in *Group 2* are 'at risk' for contraction or relocation based on the fact that they also have a significant level of reliance on TPLs (around 35%). For three of the four companies, sufficiently detailed information regarding other production locations and sourcing strategies is lacking to make a confident prediction. These companies are less likely to contract or close in a post-TPL environment because they have developed (or are in the process of developing) regional supply chains for textiles, and/or they have a somewhat different product mix than companies in group one, which may allow them to better weather the loss of the TPL benefit. These four manufacturers accounted for 19% of employment and 28% of Nicaragua's textile and apparel exports in 2013.

Group 3: North American-owned, mostly regional manufacturers

The parent companies of *Group 3* firms are located in North America. They have sewing facilities in Nicaragua and Honduras and the majority of their textiles come from the

Table 5. *Nicaragua apparel company groups based on potential TPL expiration impact.*

Co.	Product	Ownership	Emp. 2013 (November)	Fabric source	Main client (%)	Other production loca- tions
Group 1 Knit						Employment and Export Share: 18 and 23%
1	Knit shirts (80%)/ pants	Korea	4808	Asia (60%); Honduras (40%)	MM retailer (60%)	Honduras, Vietnam, Indonesia
3	Knitwear, mostly shirts	Korea	4194	Asia (100%)	MM retailer (50%)	Guatemala, Vietnam, Indonesia
2	Knit shirts/pants	Korea	3384	Asia (70%); Honduras (30%)	Brand marketer (50%)	Guatemala, Vietnam, Indonesia, Cambodia, Philippines
Group 2 Knit						Employment and Export Share: 19 and 28%
4	Knit tops	Korea	6794	Asia; regional	MM retailer (52%)	Guatemala, Haiti, Vietnam, Indonesia, Cambodia
5	Knit shirts	Korea	2742	N/A	N/A	N/A
6*	Knit and woven garments	Taiwan	2156	Asia	Brand marketer	N/A
7*	Knit shirts	Korea	1890	Guatemala	Specialty retailer (45%)	Indonesia
Group 3 Knit						Employment and Export Share: 15 and 20%
8	Knitwear; underwear	Canada	6927	Honduras (100%; US yarn)	N/A	Honduras (textiles/sew- ing), DR (textiles/sewing), Haiti (sewing contractor), USA (yarn), Bangladesh (textiles/sewing)
9*	Athletic wear	USA	2146	El Salvador and Honduras (USA and Asian yarn)	Brand marketer (80%)	Honduras
10	Knit shirts	USA	1270	USA and Honduras (USA and Asian yarn)	MM retailer (50%)	USA (knitting)
Group 4 Woven						Employment and Export Share: 10 and 6%
11	Pants	USA	2735	USA, Mexico, China	Brand marketer (>50%)	N/A
12	Pants (uniforms)	USA	2212	USA (50%); China (50%)	Brand marketer	None
13	Pants (twill)	USA	1994	USA; Asia	Brand marketer (80%)	None
Group 5 Woven						Employment and Export Share: 12 and 7%
14	Pants (denim and twill)	USA	2323	USA	MM retailer (55%)	Mexico, Bangladesh (subcontractor)
15	Pants (denim and twill); shirts	Mexico/ USA JV	1777	USA, Mexico, Asia	Brand marketer (33%)	El Salvador, Mexico and Columbia

Table 5. Continued

Co.	Product	Ownership	Emp. 2013 (November)	Fabric source	Main client (%)	Other production locations
16	Pants (denim and twill)	USA	1623	USA (50%); Asia (50%)	N/A	Mexico, Honduras (owned); Cambodia, Bangladesh, Pakistan (contractors)
18	Launderer (pants)	Mexico	1470	N/A	Brand Mfg. (100%)	Mexico
17	Pants	USA	1257	USA (50%); China (50%)	MM retailer (40%)	Honduras
Group 6 Woven						Employment and Export Share: 6 and 3%
19	Shirts	Taiwan	2867	Asia (100%)	N/A	None
20	Pants	Taiwan	1604	Asia	MM retailer (40%)	Cambodia

Sources: Fabric sources, production locations and main client (Bair and Gereffi, 2013a; Gereffi and Bair, 2010; and company websites); employment data (CNZF, 2010–2013); MM, Mass Merchant; * indicates company is producing garments from MMF or more complex garments.

CAFTA region (predominately Honduras) and the USA. These three companies accounted for 15% of employment and 20% of Nicaragua's apparel exports in 2013. They already produce under regular CAFTA rules of origin and are not as reliant on TPL benefits as Groups 1 and 2. However, all but one of the companies in this group used TPLs in 2010. Importantly, this included firms with knitting operations in Honduras using non-originating yarn from Asia. When the TPLs expire, these companies will either (i) stay in Nicaragua or (ii) consolidate operations elsewhere in the CAFTA region. The second option would negatively affect Nicaragua's apparel industry in the form of declining exports and employment, but there would be a minimum impact on the US textile industry since these companies are already purchasing US yarn.

Compared with the knitwear companies, manufacturers of woven apparel (with one exception) have more regionally focused production networks. They are more likely to stay in Nicaragua and/or the region, although the limited availability of cost-competitive woven fabrics produced in the Americas will remain a challenge. The fortune of these companies

may be affected by the reopening of a local denim mill that was built by the US company Cone Denim (now part of International Textile Group), but which closed within a year of initiating operations. After multiple attempts to sell the facility, the factory was finally sold to the large vertically integrated Honduran apparel manufacturing company, Grupo Karim. If some of the fabric produced in the Nicaraguan mill is marketed (as opposed to being converted into garments by Grupo Karim), it may benefit manufacturers of woven garments looking to source qualifying fabric locally.

Group 4: US-owned, single location twill bottom manufacturers

Established between 1993 and 2000, the three US-owned companies in *Group 4* were among the first to begin producing in Nicaragua's free trade zones. These companies do not have a manufacturing presence outside Nicaragua, and several migrated to Nicaragua after producing elsewhere in the region, including the Dominican Republic and Honduras. Their focus is more on uniforms and workwear, and customers include companies such as Cintas

and Dickies. Under the ‘one-to-one’ matching corollary, these manufacturers use textiles from the USA and China, though they also purchase some twill fabric that is finished in Nicaragua (which may require TPL, depending on the origin of the yarn). These companies accounted for 10% of employment and 6% of Nicaragua’s apparel exports in 2013. Employment in these firms has been relatively stable over the last several years and we predict these companies will likely stay in Nicaragua.

Group 5: regional jean & twill manufacturers

These companies have facilities in Mexico or Honduras and primarily came to Nicaragua between 2007 and 2009. They produce jeans and twill bottoms for Levi’s, Walmart and JC Penney. Consistent with the current ‘one-to-one’ programme, about half of the fabric they sew is imported from China, with the remainder coming from the USA (and a negligible amount from Mexico). The five companies in *Group 5* accounted for 12% of employment and 7% of Nicaragua’s apparel exports in 2013. When the TPL expires, these companies will (i) stay in Nicaragua; (ii) shift production to Mexico or Honduras; or (iii) outsource manufacturing in Asia. The fact that these companies continue to have production in relatively higher-cost countries, such as Mexico and Honduras, may indicate they are somewhat less cost-sensitive, as they are either currently paying duty on trousers made in those countries from non-originating fabric or are able to find regional suppliers of fabrics.

Group 6: Asian-owned, single locations

The two companies in *Group 6* procure all textiles for their woven apparel (pants and shirts) from Asia. They accounted for 6% of employment and 3% of Nicaragua’s exports in 2013 and will likely leave Nicaragua when the TPL ends.

Conclusions

The apparel industry in Nicaragua is a case that illustrates both the advantages and vulnerabilities created by export-oriented development that is dependent on specialised trade policies. Regional trade agreements like NAFTA or DR-CAFTA can be an asset to export growth and employment generation when they establish long-term economic relationships based on stable sources of comparative advantage for the signatories of these treaties. The less developed countries in agreements such as NAFTA or DR-CAFTA seek to upgrade their industries over time in terms of the quality and value of their exports and the capabilities of exporting firms. When specific provisions of regional trade agreements are added that have a limited duration, like the 10-year TPL agreement with Nicaragua in CAFTA, then trade policies can become a liability because they create uncertainty among investors. The consequences of such uncertainty may be mitigated by decisive steps on the part of the government to strengthen or diversify the country’s industrial base prior to the termination of these specific policies, though even then the success of such efforts is by no means guaranteed.

Perhaps more than anything, the TPLs provided Nicaragua with a window of opportunity to develop its export-oriented apparel industry in the context of heightened competition from low-cost Asian exporters. Over the last 5 years, the government has sought to exploit this window in a variety of ways, including by becoming one of only two countries in the Americas (along with Haiti) to participate in the Better Work programme, which is jointly sponsored by the International Labour Organization and the World Bank’s International Finance Corporation to improve working conditions and increase competitiveness in the garment sectors of developing countries. In addition, Nicaragua has sought to differentiate itself from its competitors by emphasising its relatively positive industrial relations environment.

The country boasts an unusual degree of tripartite cooperation between the government, the private sector and the country's trade unions that represent garment workers in the free trade zones. A series of agreements negotiated and signed by representatives of these three parties are notable primarily for establishing multi-year schedules of predetermined minimum wage increases designed to provide stability to the industry by creating a predictable cost environment for manufacturers (Bair and Gereffi, 2013b). They also include a number of measures intended to benefit workers, including subsidised foodstuffs and a housing programme, although it is unclear how much progress is being made on the non-wage elements of the agreement. Whatever their achievements in practice, both Nicaragua's participation in Better Work and the Tripartite Agreement are intended to signal Nicaragua's status as a comparatively 'high road', if still low cost, sourcing destination.

Such efforts are critical for ensuring the future of the industry since the TPLs are not, in and of themselves, a source of long-term competitiveness for the industry in Nicaragua. Rather, they are (or could be) a means towards the end of building regionally integrated supply chains so that local manufacturers are able to use inputs that meet the CAFTA agreement's yarn-forward rules of origin once the TPLs expire. One scenario for achieving this objective is the expansion of Nicaragua's apparel industry to include fabric manufacturing alongside garment assembly. Developing countries such as Nicaragua confront a number of challenges in expanding beyond an assembly-based, export-processing garment industry, however. These include the availability and cost of electricity, which is a more important factor for textile manufacturing than labour costs. While government policies and investments can make a country a more attractive site for investment, such changes do not come quickly or easily. Moreover, because many importers have complex needs in terms of the range of

inputs they require, it is not realistic that the future of Nicaragua's apparel industry can be fuelled entirely by this small country's *domestic* textile base. For this reason, the future viability of Nicaragua's apparel industry, and indeed the prospects for the rest of Central America more broadly, may well depend on the development and integration of a *regional* textile base.

The expansion of local yarn and fabric production on the scale that the region requires is most likely to come through foreign direct investment. As Table 5 indicates, Nicaragua's apparel industry already has a diversified set of foreign investors; 9 of the 10 largest companies have parent firms based in Asia (Korea or Taiwan), while the remainder are based in North America (primarily USA, but also Canada and Mexico). All of the companies we identified as high risk for contraction or closure post-TPL are based in Asia. Among these firms are vertically integrated multinational manufacturers that are able to service their clients from a range of production sites. Under the TPL regime, these companies have been able to secure duty-free access to the US market for apparel assembled in Nicaragua from fabrics manufactured in their Asian facilities. The loss of this benefit may encourage such companies to shift their production from Nicaragua back to Asia.

Some of the Asian-based companies currently active in Nicaragua may choose to maintain a presence in the region, if not in Nicaragua, once the TPLs expire. For example, a large, Korean-owned manufacturer of knit apparel in Nicaragua is currently building a yarn-spinning mill in Costa Rica (Arias, 2014). This company will be exporting the yarn spun in its Costa Rican facility to Guatemala, where it will be knitted into fabric, which will be cut and sewn into knit apparel in the same company's garment factories in Guatemala, Haiti and Nicaragua. As we learned from our interviews, decisions that producers make about aligning their global supply chains reflect, in large measure, the preference and strategies of the brands

and retailers that ultimately drive the geography of the industry via their sourcing decisions.

Lead firms are increasingly aware of the need to align value chains regionally. This imperative reflects not only regulatory factors, such as the rules of origin in preferential trade agreements, but also the reality of increasing production costs in Asia and the increased premium placed on flexibility and consumer responsiveness. Therefore, lead firms in the apparel value chain should be enlisted as partners to strengthen the regional capabilities needed to ensure the long-term viability of apparel production in the Americas, and Nicaragua's place within it.

Endnotes

¹ These numbers are somewhat misleading, however, since 25 of Nicaragua's registered free trade zones are single company establishments that count as 'stand-alone' EPZs. Most EPZ employment is concentrated in and around the capital city of Managua where the two largest, state-owned EPZs are located. However, there are pockets of EPZ production throughout the country, including in Masaya, León and Sébaco.

² However, indirect yarn exports (that is yarn knitted or woven in other CAFTA countries, particularly Honduras, into fabric that is assembled in Nicaragua) are more significant.

³ The value is based on data from UNCOMTRADE; HS as Reported 6001–6006 and 5804 exports from World (Aggregate) to Nicaragua (retrieved 12 January 2013) and data from CNZF on Honduras.

⁴ Based on exports of HS 60 from the world and individual countries to each CAFTA country in 2012.

⁵ In contrast Guatemala receives an even larger share of knitted fabric from Asia than Nicaragua. China, Korea and Hong Kong provide Guatemala with 73% of its knitted fabric imports, as compared with only 27% from the USA and El Salvador (UNSD, Various).

⁶ This is based on a total employment number of 69,817 and exports of \$1426 million.

⁷ At the time of writing, the Nicaraguan government and private sector allies were aggressively seeking some kind of extension of the benefit via a bilateral arrangement with the US government. Two bills

were introduced during the 113th Congressional session in 2014, but their fates were unclear, and at any rate, it appeared doubtful that either would pass before the official expiration of the TPLs at the end of 2014. See Frederick et al. (2014) for additional details.

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