TPP Risks and TTIP Opportunities: Rules of Origin, Trade Diversion, and Developing Countries

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Abstract

Free trade agreements rarely result in completely free trade. Even when trade agreements eliminate tariffs, they sometimes use rules of origin to continue restricting trade. Trade agreements need rules of origin to keep third parties from exploiting them by transshipping goods through a beneficiary country. But the rules are often more restrictive than they need to be to prevent this. Moreover, they tend to be more restrictive in sensitive sectors with the highest tariffs: agriculture and labor-intensive manufacturers where developing countries have comparative advantage.

The rules of origin in the "mega-regional" trade agreements in the Pacific and across the Atlantic will help to determine the impact on developing countries inside and outside these agreements. In the recently-concluded Trans-Pacific Partnership involving the United States and eleven other Pacific Rim countries, the rules of origin for textiles and apparel are particularly restrictive and will reduce Vietnam's expected benefits from the agreement. To the degree that Vietnam does benefit, it could be at the expense of even poorer countries in the region unless the United States takes steps to mitigate the impact of trade diversion. In the Transatlantic Trade and Investment Partnership between the United States and European Union, trade diversion in final goods is less of a concern. But restrictive rules of origin could disrupt supply chains that currently include developing countries. Simple and flexible rules of origin, with a broad cumulation zone, would help to prevent this.

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Introduction

Free trade agreements rarely result in completely free trade. Exemptions from tariff elimination for sensitive agricultural products remain ubiquitous. But certain manufactured goods also manage to evade full liberalization and the technique of choice is often the rules of origin. Preferential trade agreements (PTAs) need rules of origin to prevent trade deflection, whereby outsiders transship goods through one beneficiary country to another to take advantage of tariff preferences. But the rules determining origin, and thereby eligibility for PTA benefits, are often more restrictive than they need to be for that purpose.

Moreover, rules of origin tend to be more restrictive in sensitive sectors with the highest tariffs, such as agriculture, textiles, and apparel. Unfortunately, these are also sectors where developing countries have a comparative advantage. Vietnam, for example, has the most to gain from the elimination of clothing tariffs under the Trans-Pacific Partnership (TPP). But protectionist rules of origin will, at a minimum, delay and could sharply reduce those benefits.

After a brief review of the literature on the abuse of rules of origin for protectionist purposes, this paper analyzes the TPP rules of origin for textiles and apparel and the impact on Vietnam, the poorest member of the TPP agreement. It then turns to trade between the European Union and United States and the potential disruption of supply chains involving developing countries if the Transatlantic Trade and Investment Partnership (TTIP) concludes. Using detailed data on tariffs and trade, it provides guidance on making TTIP's rules of origin development-friendly.

Use and Abuse of Rules of Origin in Trade Agreements

To prevent outsiders taking advantage, PTAs have rules of origin that define the circumstances under which a product will be eligible for the agreement's benefits. Typically these rules require that goods exported from one PTA party to another must either be "wholly obtained," in the case of a primary commodity, or "substantially transformed" to be deemed as "originating." Countries define these rules with varying degrees of transparency and complexity and with the United States, European Union, and Asian countries taking widely different approaches (Estevadeordal and Suominen 2008; Committee on Rules of Origin 2014). Box 1 defines the main types of rules of origin.

Evidence from a variety of preferential trade arrangements shows that rules of origin are often more complicated and restrictive than they need to be to prevent trade deflection (Cadot and de Melo 2007; Cadot, et al. 2006; Donner Abreu 2013). This can have the effect of protecting producers of both intermediate and final goods producers from third-party competition. Conconi et al. (2016), for example, find that Mexican imports from outside suppliers of intermediate products with strict ROOs fell by a third on average after the North American Free Trade Agreement went into effect. Restrictive rules of origin also raise production costs for final goods producers when they force firms to switch from more

efficient outside suppliers to less efficient sources based in PTA countries. These higher costs partly offset the benefits of lower tariffs and mitigates the impact of PTA liberalization on competing producers of the final product in the importing country as well (Krueger 1993, p. 21).

In addition, the complexity of the rules often creates costly administrative burdens associated with documenting compliance to the satisfaction of customs officials.[1] In an analysis of preferential imports in the Australia, Canada, European Union, and United States, Keck and Lendle (2012) estimate that the fixed costs of complying with rules of origin are lower, and preference utilization higher, than generally thought. Still, when the costs of complying with a rule of origin are high enough, exporters may find it more profitable to maintain their sourcing arrangements and forego the PTA's tariff benefit (Ciurak and Bienen 2014, pp. 11-12).

To put it bluntly, what PTAs give with one hand by cutting tariffs, rules of origin frequently take back with the other. Some defend relatively strict rules as useful to promote the creation or growth of upstream industries and to encourage backward linkages in supply chains. As Stevens and Kennan (2004, p. 7) note, however, the impact of rules of origin is asymmetric: setting them too low may reduce the benefits, by not encouraging backward linkages, but setting them too high can eliminate the benefits of preferences entirely. Moreover, supply chains today are more fragmented and rules of origin are out of step with this trend.

In practice, rules of origin are often set at levels that are unrealistic for lower-income country exporters and the result is that they are often unable to fully utilize trade preferences. When value-added thresholds are used, they typically require that between 30 percent and 60 percent of the value of the product be of local origin (Estevadeordal, Harris, and Suominen 2008, p. 14). A study by the Overseas Development Institute (2006, p. 25) found that, of 34 broad product categories analyzed in seven low-income countries, local value-added was less than 40 percent in 26.

Moreover, there is substantial empirical evidence to support protectionism as a motivation for restrictive rules of origin. An analysis of the potential gains of a free trade agreement between the Association of Southeast Asian Nations and the European Union, for example, found that the rules of origin tended to be more restrictive for products with higher tariffs (Carrère, de Melo, and Tumurchudur 2008). The conclusions of an analysis of the political economy of the NAFTA rules of origin is particularly pertinent for the analysis of TPP rules that follows (Portugal-Perez 2009, pp. 21-22):

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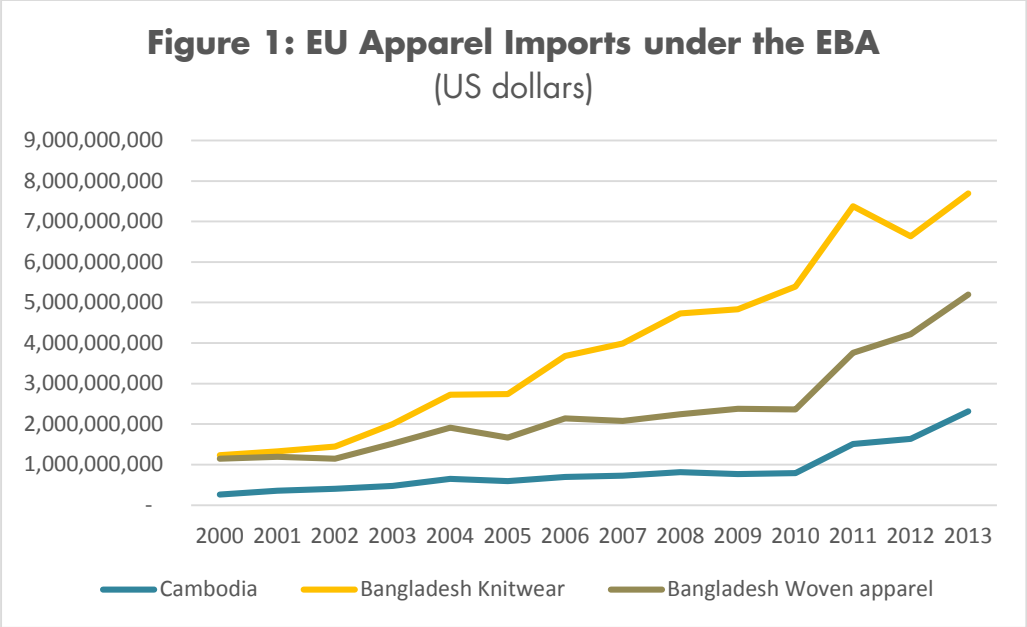
[1] The complexity is illustrated in a mind-numbing 55-page manual compiled by students at New York's Fashion Institute of Technology on how to import cotton apparel under the Dominican Republic–Central America free trade agreement with the United States; see Horowitz, Lorden, and Miyashiro (2013).

> The overall results confirm a strong inertia in protectionism in the US where import-competing sectors that were most protected before NAFTA obtained stricter RoO, to the detriment of Mexican exporters. Conversely, US export-oriented industries that appear more competitive in the years preceding NAFTA were granted more lenient RoO. This can be interpreted as further evidence on the asymmetric power of negotiation in a North-South FTA. The South, in particular, stands to be damaged by RoO that can be easily manipulated to negate market-access promises made by the North in the course of negotiations.

Low preference utilization rates in some sectors, particularly apparel, also suggest that rules of origin can be quite effective as protectionist devices. An analysis of unilateral (nonreciprocal) preference programs in the European Union found that only a third of potentially eligible imports were actually receiving preferential treatment (Brenton and Manchin 2002). The authors attributed this outcome to restrictive and complex rules of origin, particularly for apparel, that would have raised the cost of exporting more than tariff cuts reduced them. De Melo and Portugal-Perez (2014) estimated that the shift to a simpler rule of origin for apparel under the US African Growth and Opportunity Act led to a four-fold increase in exports for the top seven beneficiaries under that program. They find that the diversity of apparel exports increased as well.

The impact of a reform of the EU rules of origin for least developed countries (LDCs) under the Everything But Arms (EBA) program is clear from a simple chart of trade flows. Until 2010, the EBA program provided duty-free, quota-free market access for LDC apparel exports, but subject to a "double transformation" rule of origin. That meant that the fabric as well as the final product had to be produced in the beneficiary country. In 2011, as part of a broader reform of the EBA's rules of origin, EU authorities substituted a single transformation rule for apparel, allowing clothing items to be assembled by beneficiary countries from imported fabric. Bangladesh had developed backward linkages in the knitwear industry, so it had been able to take advantage of duty-free status for those apparel products even under the double transformation rule. But growth was much less for Bangladeshi woven garments and for Cambodian apparel exports overall. Figure 1 shows the sharp jump in apparel exports from these countries after the rule was changed in 2010.[2]

[2] Rahman (2014) discusses the impact of the EBA and the change in the rules of origin for Bangladesh.



Source: UN Comtrade Database, http://comtrade.un.org/

The general rule for apparel in most US trade agreements is even more restrictive than the EU rule, requiring that the inputs must undergo a *triple* transformation, also known as a "yarn-forward" rule. In other words, in the case of bilateral trade agreement, clothing would have to be produced from fabric that is produced in the beneficiary country or in the United States, using either local or US yarn, and then be cut and assembled in the preference-receiving country to be eligible for PTA benefits.

The actual, or observed, restrictiveness of any rule will also depend on the size and composition of the "cumulation zones" from which eligible inputs can be sourced (Harris 2009). If competitive upstream suppliers can be found in a PTA country, a rule of origin that looks quite restrictive on paper will be less so in practice. The TPP, with its twelve members, allows regional cumulation, meaning that imported inputs from any TPP party can be incorporated in a final product that will still be eligible for benefits under the agreement. For some products, that might introduce some flexibility, if there are competitive suppliers of inputs among the TPP members. In the case of apparel, as we will see below, key input suppliers are outside the cumulation zone and the yarn-forward rule is likely to be quite restrictive for at least the short to medium run.

In the TTIP, the concern with restrictive rules of origin is not that it will reduce the benefits for developing countries, since none are directly involved in the negotiations. Rather, the concern is that TTIP rules will disrupt supply chains and trade in intermediate goods in which developing countries currently participate.

Rules of Origin in the TPP: Not So Free Trade in Textiles and Apparel

Among the TPP parties, Vietnam is by far the poorest and the apparel sector is where it stands to reap the largest benefit from the agreement's tariff elimination. Vietnam is the largest TPP exporter of apparel to the United States, supplying mostly knit cotton pullovers, khakis, jeans, cotton shorts, and men's cotton dress shirts to the US market, all of which are subject to above average tariffs. Of the $2.4 billion in duties collected by US Customs on Vietnamese exports in 2014, $1.7 billion were on apparel.[3] The United States agreed to eliminate its tariffs on textiles and apparel for TPP members, albeit slowly. For most of Vietnam's major apparel exports, tariffs will be reduced by a third initially and not go to zero for 10–12 years.[4]

Some other TPP members, such as Japan, will eliminate their duties on apparel immediately, but Vietnam will still have to comply with rules of origin to take advantage. And that will be difficult, at least initially. With few exceptions, only apparel made from fabric and other inputs produced by TPP partners is eligible for tariff reductions. Vietnam, however, imports most of the inputs for its clothing exports from non-TPP countries. Unless it develops the capacity to produce upstream textile products, or another major textile producer such as Korea joins the TPP, Vietnamese exporters will struggle to realize benefits from the tariff cuts on apparel.

Background: Vietnamese Apparel Exports and US Tariffs

Clothing is Vietnam's second largest export globally, just behind cell phones, and almost half of those apparel exports go to the United States (figure 2). Cell phones are Vietnam's fastest growing export, but they already receive duty-free treatment in the US and most other major markets. Apparel, by contrast, faces an average US tariff of around 18 percent, compared to an average in the low single digits for everything else. This makes imports from Vietnam the second largest source of US import duties, well behind China but ahead of Japan and Germany (table 1).

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[3] Unless otherwise specified, data in this paper are from either the US International Trade Commission's Trade DataWeb (https://dataweb.usitc.gov/scripts/user_set.asp) or UN Comtrade Database (http://comtrade.un.org/).

[4] Based on examination of the US tariff elimination schedule posted on the USTR website.

FIGURE 2A: VIETNAMESE EXPORTS BY PRODUCT

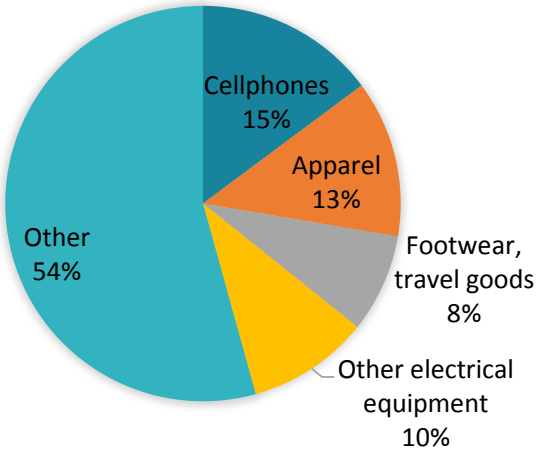
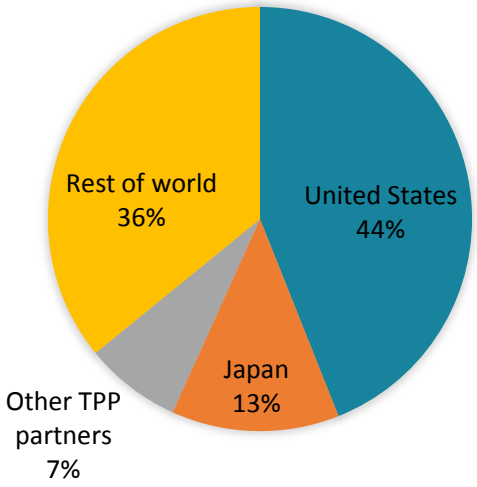


FIGURE 2B: VIETNAMESE APPAREL EXPORTS BY DESTINATION, 2013

(PERCENT OF TOTAL)



Source: UN Comtrade Database, http://comtrade.un.org/

Table 1: US Import Duties by Source Country* (million dollars)			
TPP parties		**Other top ten**	
Vietnam	2,378	China	13,914
Japan	2,295	Germany	1,889
Malaysia	222	Indonesia	1,180
New Zealand**	35	Italy	1,056
Brunei	2	India	1,024
		Bangladesh	824
		Taiwan	676
		United Kingdom	495
		Cambodia	460
		Thailand	458

* Excludes countries with which the United States had a trade agreement before TPP.

** This figure understates the degree of US protection against New Zealand exports because the tariffs on over-quota imports of dairy products are so high that they prevent additional imports, while the tariffs on in-quota imports are relatively low.

Vietnamese apparel exports to the United States were worth just over $9 billion in 2014 and accounted for almost a third of Vietnam's total exports to the United States (figure 3a). Vietnam is also responsible for 62 percent of US imports of apparel from TPP countries and is the second largest source of apparel imports (after China) among all US trading partners. Among TPP parties, Mexico, which already has duty-free access under the North American Free Trade Agreement (NAFTA), is the second largest source with 26 percent while Malaysia accounts for just 3 percent (figure 3b). In 2014, US Customs authorities collected an average duty of 20 percent on $5.4 billion in Vietnamese exports of knitted or crocheted apparel and 16 percent on $3.8 billion in exports of woven garments. Increased apparel exports are thus one of the most important potential gains for Vietnam from joining the TPP.

FIGURE 3A: VIETNAMESE EXPORTS TO THE UNITED STATES, 2014
(PERCENT OF TOTAL)

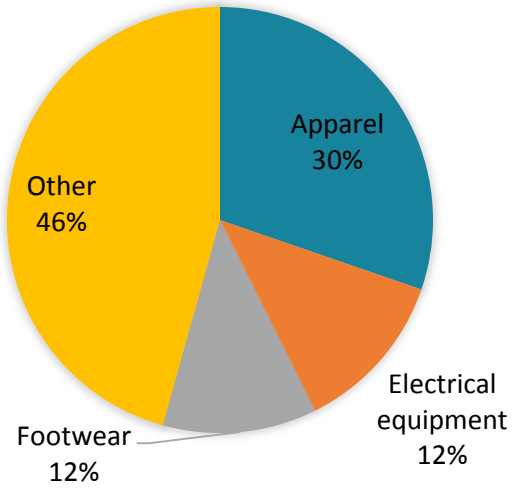
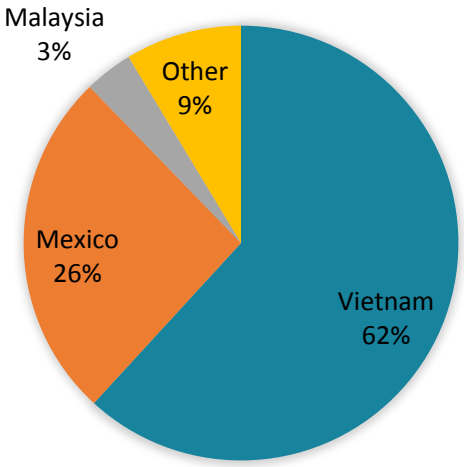


FIGURE 3B: US IMPORTS OF APPAREL FROM TPP PARTNERS, 2014
(PERCENT OF TOTAL)



Source: UN Comtrade Database, http://comtrade.un.org/

Origin of the American Yarn Forward Rule

To take advantage of the TPP benefits for apparel, Vietnam will have to deal with rules of origin that were designed to protect the US textile industry. When the Uruguay Round of global negotiations liberalized trade in textiles and apparel, the American apparel industry mostly moved offshore. Parts of the textile industry, which is more capital intensive than

clothing, were able to adjust by moving into the production of more technologically sophisticated goods, such as protective gear for fire fighters.

Textile firms that had previously supplied fabrics and other inputs to the American apparel industry opted for the yarn forward rule of origin as a way to generate new demand for their products under US bilateral and regional trade agreements (Cadot et al. 2005). Many smaller or poorer countries, such as those in Central America, do not have vertically integrated supply chains and typically import fabric and other inputs, often from China, Korea, or elsewhere in Asia. Having to source these inputs from more expensive US suppliers raises production costs and erodes the benefit of tariff reductions on the final product. Even in Mexico, which produces some textile items domestically, the rule of origin under NAFTA deprived producers of much of the benefit of reduced apparel tariffs in the US market (Cadot et al. 2005). Two decades after NAFTA entered force, US Customs still collects $250 million on Mexican clothing exports.

To partially offset the higher costs associated with rules of origin, most US PTAs incorporate some exceptions to the yarn-forward rule. Tariff preference limits (TPLs) allow trading partners to claim PTA benefits for of specified amounts of apparel exports that use inputs from non-PTA countries. Short supply lists identify textile inputs that can be imported from nonbeneficiaries because they are not available in sufficient quantity from PTA parties. Some US PTAs, including the TPP, include an earned import allowance provision whereby PTA parties can "earn" the right to import inputs from third parties if they first buy a designated quantity of the same input from US producers. In addition, the United States may designate specific items as eligible for a single transformation or "cut and sew" rule under which the final apparel item may be assembled in the region using imported inputs and still be eligible for preferential treatment.

TPP Rules and Impacts on Vietnam

Under the TPP, the United States will reduce tariffs on the most sensitive Vietnamese exports by 35 percent and others by 50 percent upon the agreement's entry into force. Most of these tariffs will not be further reduced or eliminated for 10 to 12 years, however. And even after the United States eliminates all its apparel tariffs, the rules of origin will remain. The agreement allows for regional cumulation, meaning that garments made with inputs from any TPP member are eligible for TPP benefits. But in the case of the TPP, that will have limited utility for Vietnam because the costs of shipping goods across the Pacific will make most textile inputs from the United States, Mexico, or other potential Latin suppliers, too costly. And closer Asian suppliers are not parties to the agreement.

Overall, there is less flexibility to depart from the TPP apparel rule of origin than in other US PTAs. There are no TPLs, though a few items—none of them significant for Vietnam—are subject to a single transformation rule (e.g., synthetic baby clothes, bras). The TPP's short supply list includes woven fabric for cotton dress shirts, and that could help a bit. Out

of $9 billion in garment exports, Vietnam exported $250 million in men's or boys' cotton dress shirts in 2014 that will benefit from the short supply provision.

There is also a complicated earned import allowance provision that could allow some duty-free exports of cotton pants ahead of the 12-year tariff phaseout. Under this provision, Vietnamese firms can use a certain amount of fabric from non-TPP suppliers for each unit of US fabric that they use in the production of jeans and khakis destined for the US market. Given the additional time and costs associated with importing more expensive US fabric, assembling it, and then shipping the pants back across the Pacific, the earned import allowance is likely to provide very limited flexibility in practice.

Currently, Vietnam imports most of the textile inputs used by its apparel sector from China, Korea, and Taiwan (figure 4).[5] Vietnam could capture more TPP benefits, and improve its trade balance, by developing its own textile industry and producing more apparel inputs domestically. With wages and other costs rising, anecdotal evidence indicates that textile and apparel investments previously going to China are increasingly going to Vietnam instead.[6] The TPP tariff cuts could accelerate the process. Alternatively, if Korea or Taiwan were to join the TPP in the next few years, the regional cumulation provision would lower the costs of the TPP rules of origin for Vietnam—as would the risk to Korea and Taiwan of Vietnam diverting investment from their textile industries.

In sum, the impact of the TPP for the textile and apparel sectors will be trade that is managed rather than free. Derek Scissors (2015, p. 5) noted the incongruity that in the TPP, "a 19th-century industry remains elaborately sheltered in a '21st century trade agreement.'" Though TPP participants will (eventually) eliminate all tariffs on textile and apparel products, the United States will do so only after 10-12 years, and even then the rules of origin will continue to distort trade and investment flows. If Vietnam can attract investment in the upstream textile sectors, it will be better able to take advantage of the tariff reductions. Unless and until it does, Vietnamese exporters may still find themselves bearing the cost of billions of dollars in US import duties, just as they are now.

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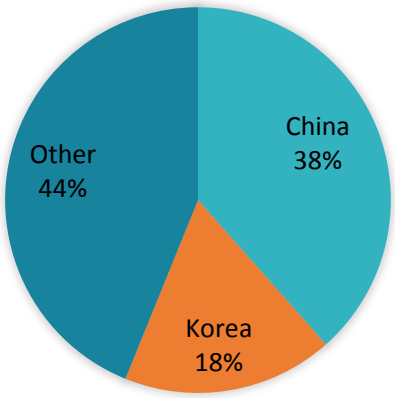
[5] Sarah C. Thomasson, "Country Profiles: Vietnam on the Move," *Textile World Asia,* May 21, 2014, www.textileworldasia.com/Issues/2014/April-May-June/Features/Vietnam_on_the_Move (accessed on December 10, 2015).

[6] Thomasson op cit.

FIGURE 4: VIETNAMESE IMPORTS OF TEXTILE INPUTS, 2013



Source: UN Comtrade Database, http://comtrade.un.org/

Potential Implications for Low-Income Countries outside the TPP

New preferential arrangements always create some degree of trade diversion at the expense of nonparties. In the case of the TPP, concerns arise from the fact that labor-intensive apparel production is a particularly important export for many low-income countries, and relatively high normal tariffs on apparel make preferential access especially valuable. Thus, new preferential access for Vietnam poses risks to countries such as Bangladesh and Cambodia that are relatively dependent on apparel exports and must pay the high normal tariff. Together these two countries exported more than $6 billion in apparel to the United States in 2014 (CGD 2010, Elliott 2015). The duty bill on those exports was over $1 billion (table 1).

In the short to medium run, the combination of extended tariff phaseout periods and restrictive rules of origin will mitigate those risks, albeit by limiting the immediate export gains for Vietnam. As Vietnam adjusts, however, the costs for other poor Asian countries will rise. Quantitative analysis in Bouet et al. (2012) suggests that duty-free, quota-free access to the US market for all least developed countries, including Bangladesh and Cambodia, would mitigate the risks to those countries. It is long past time for the United States to do what all the other high-income parties to the TPP did long ago (Center for Global Development 2010; Elliott 2015).

TTIP Rules of Origin and the Potential for Supply Chain Disruption

Traditional trade diversion should pose fewer risks for poorer developing countries under a TTIP agreement than under TPP. Tariffs in the US and EU markets are mostly low already,

with half of all agricultural and roughly 70 percent of nonagricultural imports already entering duty-free. In the sectors where tariff peaks remain, the products that the United States and European Union trade with one another are often different than what they typically trade with developing countries. Still, in sectors with the highest tariffs, it is primarily the degree of liberalization—and the resulting preference margin—that will matter most in terms of the potential to divert trade from developing countries. In these sectors, since an underlying intent of restrictive rules of origin is to raise production costs and thus mitigate the impact of tariff liberalization, restrictive rules in the TTIP could somewhat reduce trade diversion from developing country suppliers of affected final products. In other sectors, where tariffs are lower, the danger is that restrictive rules of origin could disrupt supply chains and discriminate against trade in intermediate products with developing country suppliers.

A measure of the restrictiveness of rules of origin worldwide shows that US and EU rules tend to be more complex and relatively more restrictive than others (Estevadeordal, Harris, and Suominen 2008). Not surprisingly, EU rules are most restrictive for agriculture and food, while US rules are most restrictive with respect to labor intensive manufactures—textiles, apparel, and footwear, but also stone and glass, jewelry, and basic metals (ibid., pp. 44-45). There is also more variation in the US rules across different PTAs while the EU consistently uses the PanEuroMed system (ibid.).

Negotiators will have to address the differences in US and EU approaches to rules of origin. But developing countries will gain little from this harmonization if the tendency is to settle on the more restrictive of the two, as political economy would suggest is likely. Nor is there any reason to expect that either party would subsequently change the rules in its other PTAs to be consistent with TTIP. The TTIP rules might become the platform for rules in future EU and US PTAs, but that will not be to the advantage of developing countries if the new rules are on average more restrictive.

Tariff Peaks and Traditional Sensitive Sectors

The highest tariffs, particularly in the European Union, are in agriculture. The United States has high barriers to imports of selected sensitive products, principally sugar and dairy products, while EU tariffs are high on a wider range of agricultural and food products. Rules of origin are not significant for primary commodities since these products are, by definition, either "wholly obtained" in a PTA party, meaning they were grown there, or they were transshipped.

Rules of origin for prepared foods, however, could potentially result in disruption of trade with developing country suppliers. EU tariffs in this category are relatively high, averaging 22 percent for baked products (preparations of cereals and flour) and prepared fruits, vegetables, and nuts. On miscellaneous prepared foods, the average is 10 percent. US average tariffs in these sectors are not as high, but they are above average at around 7 percent. And in these sectors, the EU and US rules of origin typically require that the

agricultural commodities used in prepared foods must originate from a PTA party. Adopting a rule for prepared foods and beverages that allows imported primary commodities would help encourage trade with developing country exporters of those commodities.

Outside of food and agriculture, the only broad (2-digit) sectors with average tariffs above 5 percent in either the US or EU markets are textiles and clothing. In both cases, the average tariff is 7-8 percent for textiles, and around 12 percent for apparel. Few imports in these sectors enter duty-free and they can be subject to tariffs as high as 30-40 percent in the US market. In fact, the average trade-weighted tariff on apparel in the US market, 17 percent, is nearly 50 percent higher than the simple average.[7] Moreover, US clothing tariffs tend to be higher on lower valued items. For example, the tariff on a women's cotton knitted shirt is 20 percent while the tariff on a silk shirt is just 1 percent. As a result, the average tariffs on clothing imports from the United Kingdom and France are 11-12 percent, versus 17 percent for Bangladesh and Cambodia.

Given the high tariffs in this sector, there is the potential for some trade diversion at the expense of developing countries in these sectors (Rollo et al.). But there are several other mitigating factors. The EU's Everything But Arms program provides duty-free access to all least-developed countries, including Bangladesh and Cambodia, and Europe imported less than $1 billion of clothing from the United States in 2014. The United States imports four times as much clothing from the European Union, but that is still only 3 percent of total imports in that sector and the product composition is different from what it imports from developing countries. So the risk of serious trade diversion in this sector is probably not that high (ibid.), and certainly not as high as with the TPP. Nevertheless, duty-free, quota-free market access in the United States for the Asian LDCs would reduce the risk here as well.

Average tariffs on textile inputs are lower but this a sector where restrictive rules of origin could disrupt supply chains, including with important PTA partners. Table 2 shows from where the European Union and United States import textiles in SITC category 65, which includes bed and bath linens and rugs, as well as yarns and fabrics. The United States imports mainly finished textile products, but EU imports include relatively large amounts of textile inputs from Turkey, India, and Pakistan, as well as China. These imports could be disrupted if TTIP includes a yarn-forward, as in many US PTAs, or fabric-forward rule of origin, as in most EU PTAs. Allowing for extended cumulation with PTA partners and preference beneficiaries would mitigate these effects. Since China does not receive trade preferences in this sector, it would not be able to take advantage.

[7] EU tariffs on clothing are more uniform, with 183 of 218 imported items being taxed at 12 percent.

Table 2: EU, US 2014 Imports of Textiles (SITC 65, billion dollars)		
Source	**European Union**	**United States**
China	10.8	11.2
Turkey	5.7	0.8
India	3.0	3.7
Pakistan	2.7	1.6
Mexico	0.1	1.8
Total	26.4	21.2
Source: UN Comtrade, International Trade Statistics Database, online.		

Avoiding Rules of Origin that Disrupt Supply Chains in Other Sectors

As one would expect with two advanced economic markets, trade between the European Union and United States is mostly in capital intensive, technologically sophisticated products, not agriculture and labor-intensive manufactures. The top categories of exports, accounting for just over three-fifths of total trade between the two, include aircraft, autos, other machinery, medical devices, and pharmaceuticals (annex table 1). While the broad categories are similar, specific products (still relatively aggregated at the 4-digit tariff level) within them sometimes differ.[8] The table also shows the average, as well as the highest, tariff in each category, which underscores that tariffs on manufactured products are quite low for both destinations.

Annex table 2 shows EU and US imports from developing countries other than China and, not surprisingly, there are important differences. Two are natural resource-based and two are labor-intensive manufacturing sectors. The top import by far for both is mineral fuels and products, but in this case it is mostly crude oil. US trade with Europe in this sector is mostly in petroleum products. There are three categories in annex table 2 that do not appear in annex table 1—HS 71, which includes diamonds, gold, platinum, and jewelry, and the two apparel categories (knitted and woven).

The other manufacturing sectors include electronics and motor vehicles where global supply chains are extensive and restrictive rules of origin could be particularly disruptive. There are substantial imports from developing countries of computers and cellphones that are relatively labor-intensive in final assembly. But in other sectors, particularly motor vehicle parts, developing countries (other than China) are important upstream suppliers for TTIP manufacturers. In this sector, American negotiators, as they did in the TPP, will no doubt

[8] The categories are the same with just two exceptions—US aircraft exports and EU exports of organic chemicals—but each of those in the top ten for the other party as well.

want TTIP rules that accommodate, and protect, the integrated North American industry. This needs to be done in a way that does not disrupt EU trade in motor vehicle parts with Turkey and other developing countries.

As with textiles, China is also a major exporter in many of these sectors and TTIP negotiators sometimes express concerns that it will benefit disproportionately if rules of origin are not strict enough. One way to address this concern would be to provide for extended cumulation with each party's other PTA partners and GSP beneficiaries. China has never been eligible for US GSP and most of its exports to the EU are no longer eligible for the GSP program because they have been deemed competitive.

Conclusions and Recommendations

Preferential trade agreements inevitably raise the potential for trade diversion at the expense of excluded parties and rules of origin are an important part of the story. While tariff reductions generally benefit insiders at the expense of outsiders, rules of origin can cut either way, depending on patterns of trade among PTA parties. Restrictive rules influence the sourcing of intermediate goods and thus affect the competitiveness of the final good. This could to varying degrees offset the trade diverting effect for competing producers of final goods outside a PTA, or it could create a trade diverting effect for competitors supplying intermediate products.

The TPP and TTIP illustrate different scenarios in terms of key concerns for developing countries. Among TPP parties, there are few sources of textile inputs from which Vietnam can source in the short run while keeping costs down enough to remain competitive. Thus the yarn forward rule of origin could offset some or all of the benefits of tariff liberalization for Vietnamese apparel. In the short run at least, that would reduce the trade-diverting effect for external final goods competitors like Bangladesh and Cambodia. As Vietnam adapts, or competitive textile producers such as Korea join the TPP, the trade-diverting impact on neighboring competitors will rise, all else equal. In that case, the United States could mitigate the impact on the Asian LDCs by extending duty-free, quota-free market access as the EU and all other high-income countries have done.

In TTIP, trade in the high tariff categories that typically trigger restrictive rules of origin is relatively small. Overall, US and EU exports also tend to have large shares of domestic value added in what they export, already.[9] Thus, the default should be simple and nononerous rules for most manufactured goods to maintain supply chain relationships with developing countries. For textiles and apparel and other sensitive sectors where TTIP negotiators are concerned about Chinese competition, a broadly defined cumulation zone that includes other PTA partners and unilateral preference beneficiaries would help to ensure they do not

[9] OECD, Trade in Value Added Database, online.

suffer trade disruption. Extended cumulation along these lines would be one way to minimize negative effects for Turkey and Mexico, including in the important auto sector.

In agriculture, rules of origin for processed food products often require the use of domestically-produced commodities. This provides another layer of protection for agricultural commodities where tariffs are already high. To protect existing trade flows and provide additional opportunities for developing country trade, TTIP negotiators should adopt rules that require only a simple change in chapter heading for food preparations—without exceptions.

The US and EU markets absorb 40 percent of all imports from developing countries (excluding China) and a TTIP that includes restrictive rules of origin could seriously disrupt this trade, even in sectors where current tariffs are relatively low. If TTIP negotiators are genuinely interested in ensuring that any agreement they reach is supportive of the multilateral trading system, they should avoid that outcome.

Box 1: Types of Rules of Origin

There are three main approaches to determining origin in PTAs.* Each can be made more or less liberal depending on agreement-specific definitions:

- *Tariff shift:* This approach, sometimes known as change in tariff classification, usually defines the change that conveys eligibility at the chapter (2-digit), heading (4-digit), or subheading (6-digit) level. In many ways this is the simplest approach and if the rule is set at the heading or subheading level, it is also fairly flexible. Exceptions that prohibit non-originating materials from a particular classification will reduce flexibility.
- *Value content:* These rules can be defined as either a minimum proportion of local content or a maximum share of imported content that will confer origin on the beneficiary country. Local content rules set at very high levels can particularly be difficult for smaller or poorer countries with undeveloped manufacturing sectors. Value content also increases uncertainty for exporters because exogenous changes in prices or exchange rates can affect eligibility even when nothing else about the production process changes.
- *Technical process:* Many countries define specific processes for specific products that must be conducted in the beneficiary country for the final product to be eligible. Negotiators often design product-specific rules to make eligibility more difficult to achieve and thus reduce potential gains in market access. This approach is often used for textiles and apparel.

For added complexity, these different rules are often used in combination with one another.

Common forms of flexibility that can reduce restrictiveness are:

- de minimis provisions often allow up to 10 percent of non-originating content without penalty
- cumulation allows parties to a preferential trade arrangement to count inputs imported from one another as originating. Extended cumulation allows inputs from designated outsiders to also count as originating under certain circumstances

** Summarized from Estevadeordal, Harris, and Suominen (2008); see also Donner Abreu (2013, 6–8).*

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Annex

Annex Table 1: EU-US Bilateral Exports					
HS # (top products)	EU exports to US (63% of total) (billion $)	Simple average tariff faced* (percent)	HS # (top products)	US exports to EU (62% of total) (billion $)	Simple average tariff faced* (percent)
84 (turbojet engines, propellers, turbines)	69	1.2 (peak=10)	88 (aircraft)	28	2.0 (peak=7.5)
87 (motor vehicles)	53	2.1 (peak=25)	84 (mechanical machinery, tools)	27	1.7 (peak=9.7)
30 (pharmaceuticals)	46	0.2 (peak=5)	27 (petroleum products)	23	0.6 (peak=8)
90 (surgical instruments, xrays, orthopedic appliances)	27	1.5 (peak=16)	30 (pharmaceuticals)	22	0
85 (cellphones, electrical machinery)	23	1.3 (peak=15)	90 (orthopedic appliances, hearing aids; measuring devices)	22	2.0 (peak=6.7)
29 (organic chemicals)	21	2.7 (peak=6.5)	85 (cellphones, semiconductors; electrical machinery)	14	2.6 (peak=14)
27 (petroleum products)	20	0.6 (peak=16)	87 (motor vehicles)	14	5.8 (peak=22)
** Simple average of most-favored nation (nonpreferential) tariffs at the 6-digit level of tariff classification.* *Source:* WITS.					

Annex Table 2: EU, US Imports from Developing Countries Other than China					
HS # (top products)	European Union (billion $)	Simple average tariff (percent)	HS # (top products)	United States (billion $)	Simple average tariff (percent)
27 (petroleum and products, mostly crude)	391	0.6 (peak=8)	27 (petroleum and products, mostly cride)	146	0.6 (peak=16)
85 (cellphones, insulated wire, electrical machinery parts)	52	2.6 (peak=14)	85 (cellphones, semiconductors; insulated wire, other parts)	103	1.3 (peak=15)
84 (computers and parts, printers, appliances, engine parts)	40	1.7 (peak=9.7)	87 (motor vehicles and parts)	73 (67 from Mexico)	2.1 (peak=25)
61 (knitted apparel)	29	11.7 (peak=12)	84 (computers, appliances, other machinery)	69	1.2 (peak=10)
87 (motor vehicles and parts)	27 (14 from Turkey	5.8 (peak=22)	71 (diamonds, precious metals, jewelry)	30	2.1 (peak=14)
62 (woven apparel)	27	11.5 (peak=12)	61 (knitted apparel)	28	10.2 (peak=29)
71 (diamonds, precious metals, jewelry)	25	0.6 (peak=4)	62 (woven apparel)	21	10.7 (peak=32)
** Simple average of most-favored nation (nonpreferential) tariffs at the 6-digit level of tariff classification.* *Source:* WITS.					