

CHAPTER 4

The Role of FTAs in Establishing Supply Chain Linkages

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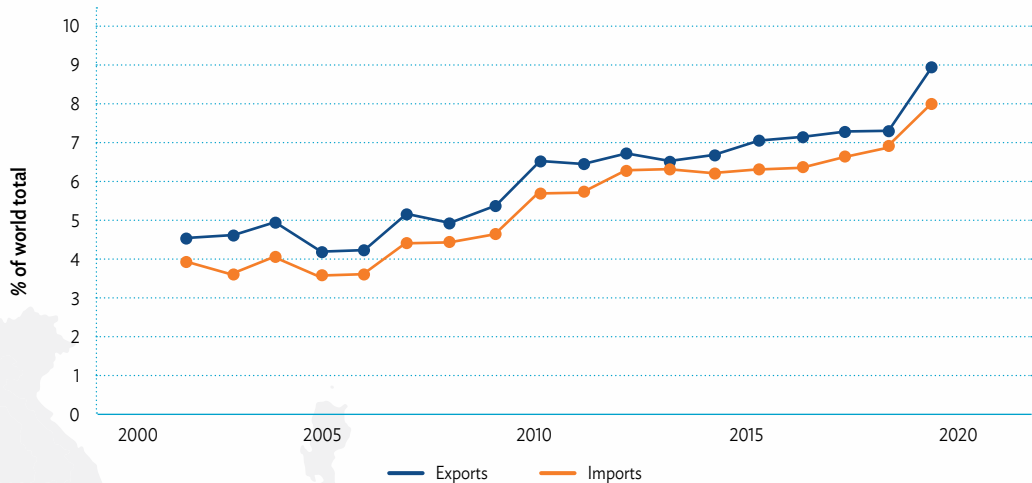
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CHAPTER 4

THE ROLE OF FTAS IN ESTABLISHING SUPPLY CHAIN LINKAGES

During the period of AFTA/ATIGA, ASEAN has become more prominent in international trade. ASEAN's share in world exports and imports rose from below 5% in 2005 to about 8% in 2019 (see FIGURE 4-1). The rising share indicates that ASEAN's trade has been growing faster than the world as a whole over the past 2 decades. In 2001, the value of ASEAN export to the world was US\$383 billion while the value has significantly increased to US\$1.5 trillion in 2020. Likewise, ASEAN countries imported US\$336 billion while the value has increased to US\$1.4 trillion in 2019.

Figure 4-1. ASEAN's share of world exports and imports



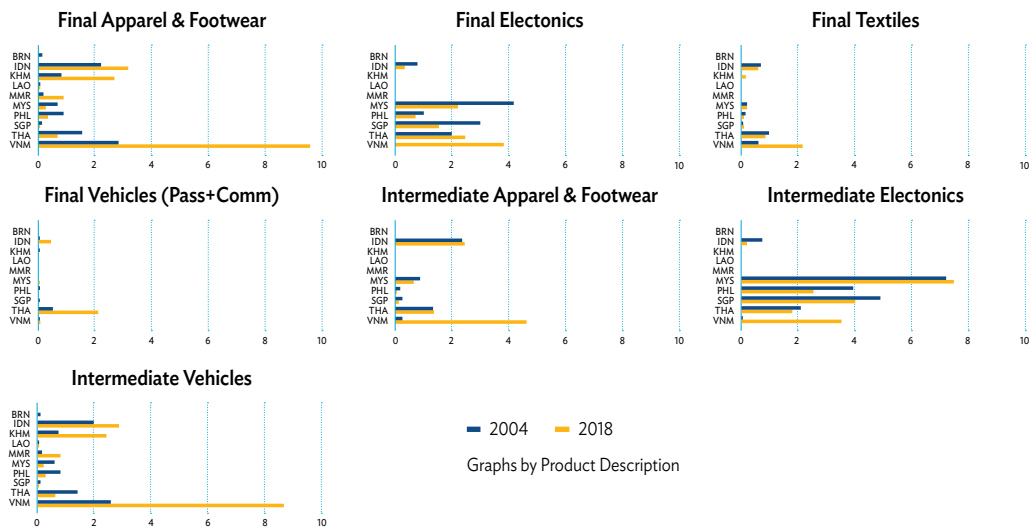
Source: Authors' computation from World Bank WITS data.

A more salient characteristic of ASEAN's growth has been the creation of strong production networks with East Asia. This is evident in the type of products traded and linkages formed with other East Asian countries. By exported commodity, Southeast Asia is one of the world's most important region in electronic goods and mineral fuels and oils productions. During the past 2 decades, electronic goods and machinery and mineral fuels export

constituted to 60% of ASEAN export to the world in 2001 and 48% of ASEAN export to the world in 2019. Similar to its export, ASEAN import has also been more diversified over time as in 2001 58% of ASEAN import were in the electronics product and mineral and oil fuels while in 2019 the number decreased to 50%.

FIGURE 4-2 shows that AMS, especially Viet Nam, have grown to be major players in global value chain-oriented products like apparel and footwear, electronics, textiles, and motor vehicles.

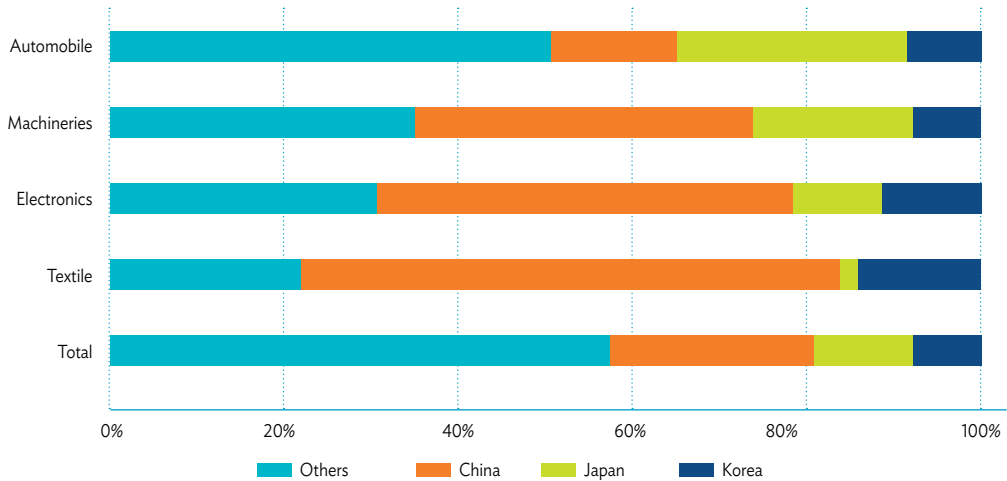
Figure 4-2. Growth in AMS share of world exports, 2004 and 2018



Source: Authors' computation from World Bank WITS data.

ASEAN countries' integration, not only amongst themselves, but also within East Asia is noteworthy. AMS also implemented bilateral and 'Plus one' FTAs with major trading partners (Australia, China, India, Japan, the Republic of Korea, and New Zealand), with their own tariff schedule. As a result, China, Japan, and the Republic of Korea have become key source of imported inputs for firms in ASEAN. FIGURE 4-3 shows that in major products produced through internationally fragmented production process, China, Japan, and the Republic of Korea provide a significant fraction of the inputs to ASEAN firms. This further complicated the trading architecture and is likely to have influenced the trade creation and trade diversion impacts of ATIGA. It also makes it hard to quantify the impact of ATIGA, as any increase in trade with AMS is likely to be accompanied by related increase in trade in upstream and downstream products with non-ASEAN trade partners.

Figure 4-3. Share of imported input in AMS from China, Japan, and the Republic of Korea, 2015



Source: Authors' illustration from TIVA data.

Such fragmentation of production across international borders provides a tremendous opportunity for countries to engage in international trade by specialising in different tasks that constitute separate segments of the production process. The ASEAN Member States aspire to create a 'common production base' in the region, so understanding the impact of ATIGA on creating supply chain linkages in the region is important. In this section, we discuss the following: How can regional FTAs like ATIGA lead to the growth and spread of supply chain relationships across countries? What are the key characteristics of FTAs that can encourage the growth and spread of fragmentation of production across national borders? What are the relative roles of tariff versus NTB reform in FTAs that can contribute to supply chain or product fragmentation trade?

It is sometimes argued that FTAs have been successful in promoting intra-regional trade through the growth and spread of production networks, and that their continued growth will be enhanced by expanding or increasing the number of FTAs. The logic behind this assertion rests on the fact that unlike trade in final goods, product fragmentation trade generally involves multiple border crossings. With this difference between the two, it is argued that trade within global production networks is generally more sensitive to tariff changes than is trade in final goods. Since a tariff can be levied each time a good-in-process crosses a border, the reduction or elimination of tariffs within the free trade area can lead to a multiplier effect whereby the cost savings is a multiple determined by the number of border crossing within the FTA.

Furthermore, tariff reductions of this type may make it more profitable for goods that were previously produced entirely in one country to become vertically specialised, exploiting differences in cost competitiveness across members of the FTA. Consequently, in theory, the trade-stimulating effect of FTAs could be higher for product fragmentation trade than for trade in final goods, other things being equal (Athukorala 2012). In their recent work, Osnago, Rocha, and Ruta (2018) argued that conditional of having a deep agreements², preferential trade agreements have a significant positive impact on global value chain (GVC) trade. Their research showed that having agreement on a deep PTA in the sample doubles trade in parts and components and boost re-exported value added by around 22%.

How does this pan out in practice in Asia? The first point to note is that for FTAs to matter, they need to bring additionality in the sense that they should provide benefits that are greater than what is already available through various other liberalisation schemes or arrangements. Since most of product fragmentation trade in Asia involves products classified as electronics parts and components, this type of trade already travels at duty-free or at very low tariffs across the region because of the Information Technology Agreement (ITA), a multilateral agreement of the WTO. Products covered under the ITA include computer hardware and peripherals, telecommunications equipment, computer software, semiconductor manufacturing equipment, analytical instruments, and semiconductors and other electronic components. This covers almost all constituent products involved in fragmentation trade classified to this category. All of the key players in production networks in Asia are signatories of the ITA, including China, Japan, the Republic of Korea, the original ASEAN members or ASEAN5, Hong Kong and Taiwan. In fact, more than 75% of ITA trade involves an Asian country (see Menon, 2017). As Anderson and Mohs (2010, p.13) pointed out, 'A prominent feature of expanding ITA trade is the broadening participation of Asian countries, particularly China, and an increasingly important role for other developing countries.' Furthermore, since ITA participants must eliminate their tariffs on a most-favoured-nation (MFN) basis, even non-ITA signatories that are members of the WTO will enjoy duty-free access in these products.

How about product fragmentation trade outside the electronics parts and components sector? Products not covered by the ITA may still enjoy preferential treatment or duty-exemption if multinational corporations involved operate out of export processing or free trade zones (EPZs or FTZs). Even if they do not operate from EPZs or FTZs, various duty-drawback or bonded warehouse schemes that provide for duty-free trade in parts and components may be available.

² According to Lawrence (1996), deep trade agreements are PTAs that include greater coverage such as investment rule, competition rule, and harmonisation of product regulations.

Furthermore, these factors operate against a backdrop of low and falling tariffs on parts and components, which have more to do with unilateral actions than preferential ones. In this respect, scholars have suggested that a highly liberalising race-to-the-bottom unilateralism has been taking place in emerging Asia in the 1980s and 1990s, especially amongst the original ASEAN members (see also Baldwin, 2010; 2011). Vezina suggests that unilateral tariff cutting in Asia's emerging economies have been driven by competition to attract FDI from Japan. Using spatial econometrics, he shows that tariffs on parts and components, a crucial locational determinant for Japanese firms, converged across countries following a contagion pattern, driving them to lower and lower levels. In a study on autos and auto parts, and hard disk drives in ASEAN, Cheewatrakoolpong et al. (2013) concluded that investment promotion policies contributed more to the emergence of international production networks than FTAs. The many country-sector studies in UNESCAP (2011b) also came to the general conclusion that FTAs, in their current form, have had limited impact on production networks in the region.

For sectors in which margins of preference or MOPs are not zero or low (see above), there are opportunities to expand product fragmentation trade but various challenges need to be overcome. The impact that preferential tariff reductions can have on product fragmentation trade relates to the need to implement rules of origin (ROO) to exclude trade that does not comply with or meet minimum requirements. First, unlike trade in final goods, formulating and implementing ROOs for production network-related trade is far more complicated. If the conventional value-added criterion is employed, it is highly unlikely that intermediate inputs emanating from outside the region will qualify. This is because the activities involved are low-value added by their very nature.

If, on the other hand, the 'change in tariff classification'-based ROOs are applied, then this may disqualify inputs from both outside and inside the region once they travel across the next border. This is because trade in parts and components generally belong to the same tariff codes at the HS 6-digit level, which is the normal base for designing this type of ROOs. The following illustrative example, provided by Athukorala and Kohpaiboon (2011) is compelling: electrical appliances assembly plants in Thailand, for instance, which use imported bare printed circuit board (BPCB) together with other locally procured electronic components (e.g. diode, integrated circuits, semi-conductors) to printed circuit board assembly (PCBA) for export are not eligible for FTA concessions because BPCBs and PCBAs belong to the same HS code 853690.

Second, the process of international production fragmentation is characterised by continuous emergence of 'new' products (see, for instance, Athukorala and Menon, 2009). Given the obvious administrative problems involved in revising ROOs in tandem, these product inventions and innovations naturally opens up room for unnecessary

administrative delays and/or tweaking of rules as a means of disguised protection (Elek, 2008). These factors do not disqualify the possibility of using FTAs to promote product fragmentation trade, but they do suggest that they need to be designed carefully, and reviewed regularly, if they are to have an impact.

In summary, it is unlikely that ATIGA can be expected to have a major impact on the growth and spread of production networks based on its tariff liberalisation programme alone. However, ATIGA also covers NTB reform, especially the promotion of trade facilitation. So, we turn next to the role that NTB liberalisation in general, and trade facilitation in particular, can play in promoting supply chain trade.

These special features of trade in ASEAN, and the outward-looking way in which FTAs are implemented, should be considered in the choice of methodology for assessing the trade impacts of ATIGA. Rather than choosing one method over another, a combination of approaches is probably best, because each has its advantages and limitations, as highlighted in the survey of the empirical literature. If this is the case, then traditional metrics and conventional methods to assess the impact of FTAs may be inappropriate. Traditional measures such as changes in intra-regional trade flows or shares may not fully or accurately capture the trade changing impact of the FTA. In fact, a low share of intra-regional trade over time may simply reflect the absence of trade diversion. But if the analysis focused purely on intra-regional flows, it would not only miss out on other important but indirect effects on trade, but it could also provide a misleading overall assessment of the FTA.