Trading Costs in East Asia’s Global Value Chains

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SUMMARY

The WTO’s new Agreement on Trade Facilitation (ATF) will help to reverse the region’s deceleration of overall export growth and, when implemented, could add as much as 3 percent to regional GDP and lift employment across the region by 1.2 percent. In the region’s developing economies, inefficient border and behind-the-border procedures are well above those of the NIEs and far exceed those of the developed economies. Persistent and often growing protectionism has broadly continued as countries have added further measures to their stock of Non-Tariff Measures (NTMs), which now account for as much as 90% of trade costs other than transportation. As such, it defines a new reform agenda for the East Asian economies that could have far-reaching effects on private sector development, especially for small businesses that need greater transparency and simplification of procedures to enable them to more readily access regional and global value chains.
1. WHAT REFORMS WORK BEST

1.1. Key Reforms for East Asia

For East Asia, the trade facilitation measures that matter the most are (a) information availability, and (b) fees and charges (see Figure 8 for a broader list of trade facilitation challenges). These measures correspond to the main policy areas covered by the ATF. For example, better information availability in the agreement covers increased publishing of information, issuing notifications and establishing inquiry points. The ATF also promotes disciplines on fees and charges imposed on imports and exports. It also covers import and export formalities that allow acceptance of document copies, use of single windows, disciplines on pre-shipment inspection and customs brokers, and the temporary admission of goods.

Box 1: ASEAN Efforts to Increase Transparency and Predictability of Trade Rules and Procedures

As part of their effort to build the ASEAN Economic Community, ASEAN Member States are working towards improving transparency and predictability of trade rules and procedures. For example, the Lao Trade Portal (www.laotradeportal.gov.la) was launched in 2012 as Lao PDR’s National Trade Repository. It provides traders with access to trade laws, regulations, measures, restrictions and licensing requirements as well as tariff rates. Traders can also access detailed process maps of business procedures and downloadable forms. Other countries, such as Indonesia (http://eservice.insw.go.id/), have launched similar initiatives with the objective of completing the ASEAN Trade Repository by 2015.

Countries across ASEAN are also committed to establishing a National Single Windows that will enable traders to fulfill on-line all regulatory requirements of customs and non-customs agencies. Eventually, each National Single Windows will be integrated into a region-wide ASEAN Single Window, which will function as a platform for electronic data exchange and communication among participating countries. This process is expected to improve the overall efficiency of the current systems, thereby providing time and cost savings for the traders.

It is important that a holistic approach to trade facilitation be adopted. While each of the trade facilitation measures are, in varying degrees, important to countries in the region, inefficiency in one link of the value chain can negatively impact other links. For that reason, when trade facilitation measures are combined, the total effect of the measures is greater than the sum of piecemeal measures (UNCTAD, 2011).

1.2. Strengthening Role of SMEs in GVCs

Development of the private sector, especially trading enterprises, is at the heart of the ATF. Yet existing survival rates of exporters in developing countries are extremely low, typically averaging two to three years (World Bank, 2014). In the Lao PDR, for example, the chance of an export-oriented firm surviving more than one year is less than 50 percent (Stirbat, Record and Nghardsaysone, 2011 and 2013).

Small enterprises in particular face what are often insurmountable obstacles when trying to export. They usually lack the means and capacity to comply with complex rules, track down information needed to export to overseas markets, and meet the high costs of compliance with customs and border procedures. Trade costs therefore affect small businesses disproportionately, making them uncompetitive as suppliers and hampering their integration into regional and global value chains.

The integration of small firms into high value-added activities is essential to the development of the private sector in East Asia, particularly in lagging regions. The proportion of micro, small and medium size enterprises (MSMEs) in overall business activities of countries generally reflects the level

1 Based on data from OECD (2013a).
of economic activity and employment in countries. In developing East Asia, the MSMEs density, measuring their number per 1,000 persons, is low compared with the more developed countries in the region as well as the United States and the European Union (Figure 9). The LDCs (Cambodia, Lao PDR and Myanmar) have especially low MSME participation rates, as do China and the Philippines. In contrast, Indonesia, Malaysia, Thailand and Vietnam have participation rates that are in line with the upper middle and high-income countries of the world.

**Figure 8. Asia’s Potential Reduction in Trade Costs from Trade Facilitation Measures is Large in Most Areas (%)**

![Diagram](image.png)

Source: OECD (2013a).

**Trade costs nevertheless continue to undermine the ability of small businesses to compete.** Even in Indonesia, which has one of the highest MSME participation rates in the region, businesses face major difficulties in dealing with customs procedures and access to information about how to access overseas markets and engage in supply chains and distribution networks (Sipahutar, 2013). There is therefore considerable room to facilitate the trade of small businesses if they are to serve as major drivers for the developing economies of East Asia.

**Facilitating trade for small businesses can therefore greatly enhance private sector development.** Multinational enterprises (MNEs) are increasingly relying on arm’s length trade with independent suppliers of inputs and processors of end-products in Southeast Asia. In the case of Vietnam, for example, parent-subsidiary relationships are important explanations for the increasing proportion of exports by small firms, whereas they are much less important in the Philippines (Troilo, 2012). These differences help to explain the high MSME participation rate in Vietnam and low rate in the Philippines. In other countries a similar pattern exists in which those with high MSME participation rates have strong parent-subsidiary relationships along regional and global value chains, while those with low participation rates have weak parent-subsidiary relationships.
2. WHY TRADE COSTS MATTER

2.1. Trade Costs in Global Value Chains

Trade within East Asia is increasingly shifting from trade in products to trade in tasks as firms becoming more closely integrated into global value chains (GVC). The proportion of GVCs in the region’s total trade is now nearly 40 percent more than it was two decades ago.\(^2\) The East Asia’s GVC participation rate, equal to more than half of all trade, is larger than any other developing region.\(^3\) That changing dynamic has driven much of the regional clustering of value chains and paved the way for closer regional integration.

Trade costs are one of the key drivers of a move towards increased participation in GVCs. The proliferation of international production networks is, in part, based on standard elements of comparative advantage, where cost differences among countries have encouraged the rapid expansion in the regionalization of production sharing. The second dimension is trade costs. While geographical distance remains a key factor in determining international transport and logistics costs, the long-term decline in international shipping costs has helped to level the playing field and shifted attention to border and behind-the-border trade costs.\(^4\)


\(^3\) Based on data reported in UNCTAD (2013) from UNCTAD-Eora GVC database.

\(^4\) Hummels (2007) has shown that global trade-weighted average transport costs have declined from 6 percent to 4 percent in 30 years. The World Trade Organization has extended the analysis to include a detailed breakdown of the evolution of transportation costs by mode of transportation (WTO, 2008).

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**Figure 1.** Non-Tariff Measures Can Account for as Much as 90% of Trade Costs

![Graph showing trade costs](image)

Non-tariff trade costs account for as much as 90 percent of trade costs in East Asia. With rapidly falling shipping costs, what remains now are the large trade costs associated with indirect costs at-the-border and behind-the-border. These costs largely involve domestic, regional or international regulations and standards (Figure 1). Tariffs, on average, account for no more than 10 percent of direct and indirect costs associated with factors other than transportation, whereas non-tariff measures (NTMs) can account for as much as 90 percent of those costs. Those NTM costs, which include the costs of complying with a myriad of licenses, permits and certificates associated with moving goods across border, affect not only the international competitiveness of businesses in the region, but also the ability of small enterprises to understand the complexity of those measures and participate in regional and global value chains. Equally important for East Asian businesses is the fact that trade in intermediate goods for production network is more sensitive to trade costs than it is for final goods (Saslavsky and Shepherd, 2012).

2.2 Comparative Trade Costs

East Asia’s trade cost differences with other regions are growing. Overall trade costs in Southeast Asia remain high and have recently escalated in nearly all of the region’s countries. This new trend represents a reversal of the gradual decline of transactions costs across borders in the last decade (Figure 2). It also means that Southeast Asia’s already high trade costs relative to other regions have widened even further, from slightly over 50 percent to 66 percent more than the region’s Dialogue Countries, and from 86 percent more than the EU-US average to twice that amount. Although many of the region’s countries have made significant progress in reducing costs over the past decade, nearly half the reductions are attributable to tariff cuts (ESCAP, 2011).

Within the region, there are large cost disparities suggesting unequal participation in GVCs. Large differences exist among countries in both the magnitude of trade costs and those changes that are taking place over time. The countries with the highest costs are Laos, the Philippines and Cambodia; in contrast, those with the lowest costs are Vietnam, Thailand and Malaysia (Figure 3). Among the

6 National and regional total trade costs are unweighted averages of bilateral trade costs in each country since weighted averages would be misleading due to missing bilateral trade costs in various years. The aggregation approach follows that of other studies such as Duval and Utoktham (2011) and Sourdin and Pomfret (2009).
7 Dialogue Partners consist of Australia-New Zealand, China, India, Japan, and Republic of Korea.
ASEAN Dialogue Partners, China has the lowest costs. While China, Vietnam, Thailand and Singapore have led the way in lowering costs, the Philippines and, to a lesser extent, Laos and Indonesia have experienced a growing use of NTMs (Figure 4).

2.3. Intra and Extra-Regional Trade Costs

Costs are much lower for trade within East Asia. Some of the larger East Asian countries have achieved a high level of international trade efficiency, with tariff-equivalent NTM costs averaging 70 percent (Figure 5). For those countries, the average NTM cost for intra-regional trade is well below that of Asian and Pacific sub-regions such as SAARC (107%), North and Central Asia (141%), and the Pacific Island Developing Economies (107%). Within East Asia, the NTM average for intra-regional trade of the larger ASEAN countries (Indonesia, Philippines, Malaysia, Thailand) is nonetheless 10 percent higher than it was a decade ago, whereas the average NTM for intra-regional trade of the other large East Asian countries (China, Japan, Republic of Korea) has declined somewhat from its level a decade ago.

For extra-regional trade, costs are remarkably high, particularly in trade with other Asian and Pacific regions. Dramatically high extra-regional trade costs appear to be encouraging the larger East Asian countries to favor intra-regional trade. Non-tariff trade costs between those larger East Asian countries and North and Central Asia are 3.5 times the costs of trade between the East Asian countries and the EU-US average. Similarly, the costs of trade between the larger East Asian countries and the Pacific Island Developing Countries is, on average, more than 3.0 times higher than that between the East Asian economies and the EU-US.

![Figure 3. Over Half of Southeast Asia Countries Have Especially High Trade Costs (Ad-Valorem Tariff Equivalents)](chart)

Source: ESCAP-World Bank Trade Cost Database.
Notes: Dialogue Partners consist of Australia-New Zealand, China, India, Japan, and Republic of Korea.

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8 Throughout this section, the larger East Asian countries refer to China, Indonesia, Japan, Malaysia, Philippines, Republic of Korea and Thailand.
9 All data on intra and inter-regional trade costs reported in this section is drawn from information reported in ESCAP (2013c).
2.4. International Supply Chain Connectivity

East Asia scores well in measures of international logistics and supply chain connectivity. The world’s most connected economies are located in the East Asia region: Singapore, Republic of Korea, China, and Malaysia, along with Hong Kong province of China (Figure 6). However, there remains a large performance gap with other countries in the region. Laos and Cambodia, in particular, rank 138 and 117 respectively out of a total of 179 countries in cross-country measures of supply chain performance. On the positive side, both of these countries as well as the Philippines, Vietnam and Thailand have all substantially improved their International Supply Chain Connectivity (ISCC) scores in the last decade. These ratings are based on the ISCC index, which measures connectivity performance based on the average of trading-across-borders indicators for exports and imports in the World Bank’s Doing Business Report as well as UNCTAD’s Linear Shipping Connectivity Index (LSCI) score.

![Figure 4. Experiences are Divided on Changing Trade Costs (Ad-Valorem Tariff Equivalents of Trade Costs, 2010-11 versus 2000-01)](source)

Source: ESCAP-World Bank Trade Cost Database.
Notes: Dialogue Partners consist of Australia-New Zealand, China, India, Japan, and Republic of Korea.

Regional averages nevertheless conceal wide variations in county performances, pointing to a number of country-specific areas needing improvement in logistics, as well as border and behind-the-border reforms. Shipping performances could be substantially improved in Cambodia, Brunei Darussalam, Philippines, Indonesia and Thailand. In contrast, China’s strong connectivity performance is mainly due to its international shipping performance and there is instead considerable room for enhancing the country’s ease of trading across borders. In Laos, there is a great deal of room for improving the effectiveness of border administration to offset the disadvantages of landlockedness. In Cambodia, Indonesia, Vietnam and Thailand, border and behind-the-border barriers have affected imports much more than exports, suggesting a weak link to international production networks that rely on cost-effective sourcing of parts and components.

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10 International Supply Chain Connectivity Database (UNESCAP).
3. WHY THE WTO’s NEW AGREEMENT IS SO IMPORTANT

3.1. What the Trade Facilitation Agreement Means for East Asia

The Agreement on Trade Facilitation (ATF) concluded at the World Trade Organization’s (WTO) 9th Ministerial Conference in Bali, Indonesia represents a major step towards reducing trade costs. The ATF is the first major multilateral trade agreement that has been concluded since the WTO itself was established in 1995. It goes well beyond the old view that trade facilitation should only focus on improving transactions at the border; instead, the ATF covers the entire range of issues impacting on trade costs along the supply chain. It therefore addresses key issues for East Asia’s enterprises on behind-the-border issues, ranging from the importation of materials and components to the delivery of their products to overseas markets. It recognizes that greater access to those markets provided by regional, bilateral and multilateral agreements needs to be complemented by measures that improve the ability of enterprises to compete on a level playing field if they are to effectively engage in international value chains. In this way, the ATF’s potential to reduce trade costs can greatly enhance East Asia’s ability to generate increased employment and income for workers and ultimately reduce poverty (Figure 7).

Figure 5. East Asia’s Intra-Regional Trade Costs are Much Lower than Its Extra-Regional Costs (Ad-Valorem Tariff Equivalents, Excluding Tariff Costs)

The cost of implementing the ATF is relatively low. The ATF has been strongly supported by industry representatives, reflecting expectations that the agreement will reduce by 13 to 15.5 percent the average trade transaction costs of developing countries (Moïse and Le Bris, 2013). Some governments of developing countries have nevertheless expressed concerns about embracing the agreement because of concerns about large implementation costs (ITC, 2013). Yet a World Bank study has estimated that the
cost of implementing the commitments will be relatively low, roughly between US$ 7 and US$ 11 million for each developing country, spread over a number of years (World Bank, 2011).

The AFT puts momentum back into the multilateral trading system, and could reverse the increasing fragmentation of international trade created by the intensification of regional trade negotiations. Apart from the existing so-called “noodle bowl” of Asian trade agreements, there could be considerable trade divergence created by the two mega-trade agreements being proposed under Transatlantic Trade and Investment Partnership (TTIP) agreement between the United States and the European Union and the Trans-Pacific Partnership (TPP) agreement. For those East Asian developing economies outside the TPP that rely on access to the U.S. and EU markets, the mega-trade agreements could have negative repercussions on their export performance, particularly in global value chains where they have been particularly successful until now.

Figure 6. Different Factors Explain East Asia’s Connectivity Performance (International Supply Chain Connectivity Index)

Trade facilitation is also being supported by several subregional arrangements in East Asia, most notably in efforts to establish an ASEAN Economic Community (AEC) by 2015. At a broader level, the ASEAN free trade agreements with Dialogue Partners include trade facilitation provisions that redress NTMs between ASEAN and countries like China, Japan and the Republic of Korea. To that end, the ASEAN Trade in Goods Agreement (ATIGA) and its Trade Facilitation Work Program provides specific ways to ensure that progress is made in the implementation of the region’s trade facilitating measures.

3.2. Potential Trade Gains

The potential trade gains from the ATF are striking. According to the WTO (2013a), the ATF could expand the $US22 trillion dollar world economy by as much as US$ 1.0 trillion dollars. That amount is equivalent to a 4.5 percent expansion in worldwide economic activity, and it reflects the likelihood that the agreement will reduce non-tariff barriers by one-half of their existing level, an amount that is equivalent to eliminating all tariffs.
Facilitating trade through improved logistics, on average, reduces trade costs ten times more than the equivalent reduction in tariffs. Concerted efforts to reduce supply chain barriers to levels observed in the best-performing countries could increase global GDP by some 4.7 percent, which is six times more than what could be achieved by eradicating all the remaining import tariffs.\(^\text{11}\) The income-generating impact of these trade cost reductions are likely to have multiplier effects on the amount of goods and services in regional and global value chains that cross borders several times during the production and distribution cycle.

For East Asia, the potential trade expansion from trade facilitation improvements could equal as much as 20 percent.\(^\text{12}\) Even conservative estimates show that the ATF could spur the region’s real GDP by 2.7 percent, and employment generated by greater two-way trade could increase by 1.2 percent (Table 1).\(^\text{13}\) The magnitude of this expansion reflects the region’s large proportion of trade that depends on cost-effective cross-border trade to compete in international supply chains.

### 3.3. Distributional Effects

The trade facilitation measures having the greatest overall impact on trade volumes are information availability, simplification of documents, automated processes, streamlining border procedures, and good governance.\(^\text{14}\) By itself, improved governance has the potential to reduce trade costs by nearly 2.0 percent, and the simplification of documents could reduce costs by 1.4 percent. For lower-middle-income countries the harmonization and simplification of documents could potentially lower costs by 1.9 percent and streamlining procedures could lower them by 1.6 percent. In upper-

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\(^{11}\) For details, see Arvis et al. (2013) and World Economic Forum (2013).


\(^{13}\) These estimates are based on Hufbauer and Schott (2013), who halved the earlier results of Hufbauer, Vieiro and Wilson (2012) in order to provide more conservative estimates of the potential gains from the ATF.

\(^{14}\) For details, see OECD (2013a).
middle-income countries the streamlining of procedures could reduce costs by 1.8 percent and the use of automated processes and risk management could lower them by 1.7 percent.

Box 2: Trade Costs and Trade Facilitation in Thailand

Thailand offers a useful perspective of how trade facilitation can impact its trade. First, the country is representative of the larger developing countries in the region. Second, it has invested heavily in manufacturing activities for regional and global value chains. Third, a recent study by Wongpit (2013) uses the new OECD-WTO Database on Trade in Value-Added (TiVA) where trade costs are decomposed into their parts. The results of that study are therefore consistent with the information on global and regional trade costs presented above, and they demonstrate how the database and analytical methodology has practical usefulness to policymakers and businesspersons alike on the cost of NTMs and the impact of remedies offered by the AFT.

Thailand’s cost of trade in manufactured goods is quite high. For example, the ad valorem equivalent comprehensive trade cost for trade between Thailand and Australia is 110 percent and for trade with the European Union it is 148 percent. Trade costs are nonetheless low for trade with Japan, China and the other ASEAN countries. However, NTMs with ASEAN countries other than Singapore are more complex than those with Japan. As a result, the time needed to get exports to Indonesia (17 days), Malaysia (13 days), and the Philippines (15 days) is considerably greater than for Japan (10 days). Additionally, the logistic performance and quality of port infrastructure in ASEAN countries other than Singapore lags far behind that type of infrastructure in Japan. As a result, ease of exporting and importing weigh much more than shipping costs for Thailand’s trade with other ASEAN countries, whereas transport costs represent a much greater proportion of trade costs than ease of exporting and importing in trade with the European Union.

Measures taken to facilitate trade could have a large impact on Thailand’s trade and, in particular, on its competitive strength in integrated regional and global markets. Exports of auto parts from Thailand to India required 29 documents covering more than 800 data inputs, while imports of electronic devices from China required 24 documents covering 700 data inputs (Keretho and Naklada, 2011). Estimates by Wongpit (2013) indicated that if the documentation required to process imports and exports were to be halved, trade in manufactures would expand by 10 percent.

Similarly, the time required to import and export represents a major barrier to trading across borders in Thailand. A survey by Cheewatrakoolpong and Ariyasajjakorn (2012) of the trade costs of 500 firms in Thailand found that, on average, it takes more than 9 days to export manufactured products, but it can take as much as 51 days to export auto parts to India. If the time taken to process exports and imports in Thailand were to be reduced by just 25 percent, trade in manufactured products could expand by 11 percent. Empirical evidence therefore points to large gains in Thailand’s competitive strength in integrated regional and global markets with relatively small trade reforms that address the number of documents and time involved in exporting and importing.

At the sector level, agricultural trade costs in developing countries are twice as high as those in manufactures. Trade facilitation measures under the ATF are more important for manufactured goods than for agricultural goods because they both involve imports of inputs and exports processed goods. Nonetheless, the fact that agriculture is more important for poverty reduction and inclusive growth suggests the need for policymakers to ensure that they also address trade costs in that sector.

Table 1. Potential Impact of Trade Facilitation Agreement in East Asia

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<thead>
<tr>
<th></th>
<th>Value</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>Export Gains</td>
<td>Billion US$</td>
<td>$267</td>
</tr>
<tr>
<td>Jobs Supported</td>
<td>Thousand</td>
<td>11,081</td>
</tr>
<tr>
<td>Two-Way Trade Gains</td>
<td>Billion US$</td>
<td>$534</td>
</tr>
<tr>
<td>GDP Increase</td>
<td>Billion US$</td>
<td>$246</td>
</tr>
</tbody>
</table>

Source: Hufbauer and Schott (2013).
Note: Actual data for East Asia employment and GDP from ESCAP (2013).

15 See OECD (2013a).
4. Conclusions for Policy: Beyond Stroke-of-the-Pen Reforms

Since over half of East Asia’s trade forms part of regional and global value chains, the import content of exports is large. In China, Malaysia, Philippines and Thailand the foreign value content of exports ranges from 33 to 38 percent, compared with a global average of 24 percent (Bang, 2013; WTO, 2013b). Moreover, the proportion of foreign value added in exports has risen in almost all developing East Asian countries, none the more so than in Vietnam.

Given the rising volume of trade flows of intermediate goods crossing borders several times, access to efficient imports matters as much to East Asia’s trade network as does access to markets. Trade costs matter greatly, not only for exports but also across the entire production process that starts with imports of intermediate products and ends with exports of processed goods. Of those trade costs, non-tariff barriers account for as much as 90 percent of all direct and indirect trade costs other than transportation. So the focus needs to be on reducing or eliminating these types of trade barriers.

The Agreement on Trade Facilitation covers the entire range of NTM issues impacting trade costs along the supply chain. If the East Asian countries were to implement fairly conservative trade facilitation measures, exports could, on average, expand by as much as 10 percent, GDP by 2.7 percent, and employment by 1.2 percent.

Figure 9. MSME Density is Closely Related to Level of Development

The twelve types of trade facilitation measures covered by the ATF are comprehensive but not exhaustive. There are other issues that will need to be addressed to further lower trade costs. They include such topics as rules of origin in regional trade agreements, intermodal transport, and cross-border logistics services (Hufbauer and Schott, 2013). Within the ATF, trade facilitation measures that would have the most impact on the developing East Asia countries are improved governance by border authorities, increased information availability on trading rules and regulations, improved fee structures, and appeal procedures and consultations. While some of these measures involve stroke-of-pen reforms that would eliminate trade impediments within a short time period, many NTMs require deeper reforms. For example, dissemination of information that helps businesses to initiate and sustain trade-related activities needs a great deal of investment in the full range of areas that meets specific requirements of different businesses. Broad information dissemination has little, if any, practical use to the private sector.
Success in redressing the region’s rising trade costs will require a holistic approach to trade facilitation. Otherwise, bottlenecks along supply chains will undermine piecemeal reforms. The ATF offers an opportunity to implement much needed cost-cutting measures across a wide range of areas, which if successfully adopted, would allow the developing East Asian economies to more fully participate in regional and global value chains and contribute to substantial improvements in the economic well-being of their people.
REFERENCES


