

POLICY DIALOGUE ON AID FOR TRADE

**REDUCING THE THICKNESS OF
BORDERS TO PROMOTE TRADE AND
PARTICIPATION IN GLOBAL VALUE
CHAINS: AN ISSUES PAPER**



DEVELOPMENT CO-OPERATION DIRECTORATE
TRADE AND AGRICULTURE DIRECTORATE

REDUCING THE THICKNESS OF BORDERS TO PROMOTE TRADE AND PARTICIPATION IN
GLOBAL VALUE CHAINS: AN ISSUES PAPER

THE JOINT MEETING OF THE DEVELOPMENT ASSISTANCE COMMITTEE AND THE
WORKING PARTY OF THE TRADE COMMITTEE ON AID FOR TRADE

10-11 September 2012, OECD Conference Centre, Paris

This Issues Paper reviews key impediments to developing countries' participation in GVCs, and outlines a menu of research topics on policies that would allow low-income countries to harness the potential of GVCs for their own development. It is intended to inform the discussion in the joint meeting of the DAC and the WPTC. Subsequently, the paper will be revised taking into account the results of the discussion with the view of presenting a proposal for a work program that focuses on aid for trade to reduce the thickness of borders in ways that would facilitate the emergence of GVCs.

This room document is issued for discussion under Item 9 in replacement of document COM/DCD/TAD(2012)13 due to the late posting of the paper.

The paper has been prepared by Richard Newfarmer (consultant) in collaboration with the OECD Aid for Trade team.

Work proposed under this issues paper would be subject to the availability of voluntary contributions

Contact: Mr. Raed Safadi, Tel: +33 (0)1 45 24 19 09, Email: raed.safadi@oecd.org

JT03325899

Complete document available on OLIS in its original format

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

TABLE OF CONTENTS

REDUCING THE THICKNESS OF BORDERS TO PROMOTE TRADE AND PARTICIPATION IN GLOBAL VALUE CHAINS: AN ISSUES PAPER 3

I. Trade and Global Value Chains 3

II. Getting to the Border: Infrastructure - and Policies Affecting its Use 5

III. Costs Imposed at and behind the Border: Procedures, Tariffs, NTMs, and Private Standards 6

IV. Barriers to Connectivity in FDI, Services, and Information..... 9

V. Policy Regimes to Reduce Thick Borders: SEZs and Regional Trade Agreements..... 9

VI. The Role of Aid for Trade 11

VII. Looking Ahead: Improving Aid for Trade 12

REFERENCES 14

REDUCING THE THICKNESS OF BORDERS TO PROMOTE TRADE AND PARTICIPATION IN GLOBAL VALUE CHAINS: AN ISSUES PAPER

1. The emergence of global value chains as a dominant feature in world trade has changed the landscape of the global economy. On the one hand, this change presents new opportunities for those developing countries that can reduce the “thickness” of their borders. By reducing the costs of importing as well as exporting, and by deepening connectivity with the global market, they can tap into global value chains (GVCs) to accelerate their trade and income growth. On the other hand, the emergence of GVCs poses new risks. Countries that are poor and distant, and compound their isolation through policy barriers to integration, may well be left behind.

2. Accordingly, the OECD Development Strategy identified the strengthening of engagement and knowledge-sharing with developing countries on GVCs as one of its priorities for action. Ministers asked the OECD to provide a forum for dialogue between governments and private sectors to discuss the impact of firms’ participation in GVCs on productivity and employment and the overall role of GVCs in promoting development goals. They also asked the OECD to share best practices on ways to maximize benefits from participation in GVCs, to promote technological upgrading with science and innovation, and to increase human capital and skills formation.¹

3. This paper is intended to encourage a discussion on related issues in the joint meeting of the DAC and the WPTC. Of particular interest is whether the aid for trade agenda should look more closely at how countries can connect – with global value chains that require efficient importing as well as efficient exporting, with new and dynamic services markets, and with the internet-driven world of ideas and fast-changing technologies.

4. The paper is structured as follows. The next section describes the structural changes in world trade leading to the emergence of GVCs. Section 2 looks in more detail at infrastructure and the policies that raise costs before goods get to the border. Section 3 analyses costs imposed at border crossings. Section 4 discusses the barriers to connectivity in services, FDI, and information at the border. Section 5 discusses policy regimes to reduce thick borders, in particular special economic zones and regional trade agreements. Section 6 highlights current aid for trade activities and findings. Section 7 concludes with questions for discussion.

I. Trade and Global Value Chains

5. In the last three decades, the integration of the world market has proceeded at a whirlwind pace. Sharply falling transportation costs and even more rapid declines in communication costs made possible this new wave of globalization. It has several dimensions: The growth rate of global trade has outpaced the growth of national output by a factor of 1.5 to 3 (depending on the time frame); cross-border flows of capital and foreign direct investment have reached new heights, even after their pause in the Great Recession; and technologies have been created and diffused across borders in ways that would have been unimaginable in 1980. Whole new spheres of formerly isolated segments of the globe – China, the former Soviet Union, and India -- have surged into the world market.

¹ See [C\(2012\)47/REV1](#).

6. These changes coincided with another new trend in the global economy, the emergence of global value chains (GVCs) of production. Production that once was primarily located near sources of major input supplies or near consumers in the final market is now commonly located in segments across several countries. One indication of production fragmentation is the rising proportion of world trade that is intermediate inputs – which Hoekman (2012) estimates at 50%. Daudin, *et al.* (2011), using GTAP data to develop value added content of imports and consumption, calculate that vertical trade was 27% of world trade in 2004. Trade in intermediates, according to Miroudot *et al.* (2009), amounted to 56% of goods trade and 73% of services trade in OECD countries in the period from 1995 to 2005.² Gereffi, though eschewing conventional trade classification measures, sees a much broader coverage of GVCs that subsumes intra-firm trade and intermediate trade as well as final goods bought for eventual sales by large retail establishments.³ The new work being undertaken by the OECD in cooperation with WTO on trade in value-added will also help shed light on GVC relationships.

7. The emergence of GVCs has major policy implications for economic growth in developing countries. For many industries, the global spread of integrated production segments across countries has lowered the costs of production of associated final goods, and increased productivity of associated labour and capital. As Baldwin (2011) points out, this has two consequences for developing countries: On the one hand, it has created an avenue through which countries can industrialise at a much earlier stage of development as producing firms choose to off-shore fragments of the production value chain to countries where labour is cheaper or where other locational advantages confer a competitive cost advantage on the whole GVC. A common key to these cost advantages is speed: every day of delay in the movement of goods in the value chain linking several producing countries raises the price to the final consumer and diminishes competitiveness. This means importing has to be as efficient as exporting, and services have to be competitive. Those countries that learn how to develop these logistics can become participants in GVCs.

8. Participation in GVCs confers considerable benefits. It may allow suppliers in developing countries to meet standards and regulations that permit them to access rich country markets; it may allow imports under privileged tariff treatment for intra-firm trade; or it may permit the utilization of network technology that would not otherwise be available; and finally, it may open up new sources of capital. All of these elements, for example, figure in the spectacular growth of trade in intermediates, exports generally, and economic growth in Asia – a phenomenon that has become the “Factory Asia” story. This, together with sustained improvements in policy environments, is arguably one reason why developing countries have sharply outpaced high income countries in economic growth over the last quarter century.⁴

9. However, the second consequence of a world of GVC-dominated trade in which production is allocated to the location with lowest cost, is that countries that try to industrialize through

² To arrive at these numbers, they looked at disaggregated trade statistics for major products and crossed these findings with findings from input-output tables. They find that intermediate goods trade is growing at about the same pace as all trade, so the trend did not affect the final composition of OECD merchandise trade. Services exhibit a different pattern, as services intermediates were indeed a faster growth segment of the market. These shares are considerably larger than those found in other studies, arguably because of their more comprehensive methodology.

³ In this view GVCs might cover 70-80% of world trade, and the issue then becomes the “governance” of the GVC.

⁴ However, GVCs may imply downside risks. Industrialization based on only one segment of the GVC is vulnerable to sudden shifts in relative prices that may render the supplier uncompetitive. Also, learning through technological transfer is less because lead firms may in effect not transfer technology but “lend” it, with the implication that learning in the host economy will be less than with conventional trade. Finally, labour in developing countries may not come to enjoy the benefits of “social up-grading” – higher wages, greater employment opportunities, and better working conditions.

import-substitution policies prevalent in the pre-1990 period are unlikely to ever reduce their costs to the point of being competitive on global markets. In general, the more technologically sophisticated the product (or production process), the greater the role of the brand name, and the greater the market share of the lead firm, the more difficult is it for new entrants to gain entry into the chain (or final market) without following the protocols of the lead firm.⁵ Stated differently, GVCs raise the penalties to countries that seek to expand exports through using domestic industrial policy to build competing production networks domestically; high border and regulatory barriers will only result in high cost local production and poor connectivity to the global market.

10. Poor “connectivity” can occur either because natural barriers, such as being landlocked, impede ready access to global markets, because infrastructure makes transportation costly, because institutions function poorly, or because policies impose barriers (such as trade restrictions). Coordinating delivery times and multiple inputs into production at a given stage means that a wide variety of both public and private services are critical to global connectedness. In short, GVCs would appear to create opportunities for fast growth, but they also raise the penalties for maintaining inefficient border procedures, high tariffs, NTBs that unnecessarily constrain goods or services trade, restrictions on the flow of information, impediments to FDI, and restrictions on movement of people. Participants in GVCs also share a political interest in reducing policy-induced delays and inefficiencies in the value chain – and in that sense can be powerful allies for reducing trading costs.

II. Getting to the Border: Infrastructure - and Policies Affecting its Use

11. One of the most pervasive binding constraints to export growth is getting to the border. In their study of Africa’s exports, Freund and Rocha (2010) conclude that, of all the variables responsible for delays in the production chain – inland transit, documentation burdens, ports, and customs delays -- the most important was inland transit delays. Reducing inland transit time by one day would increase exports by 7%; such a reduction is equivalent to a 1.5% decrease in the tariff of all of Africa’s importing trading partners. The effect is more important for time-sensitive goods, such as perishable food products, or just-in-time apparel and electronics products (see Nordas *et al.*, 2006).

12. Transit times can be prolonged for several reasons. Distance is obviously one, and being landlocked is another. Limao and Venables (2001) estimate that transport costs for the median landlocked country are 46% higher than equivalent costs in countries with direct access to the coast. Similar conclusions are found in studies that measure the effects of multiple types of infrastructure together to examine the collective

⁵ Not all GVCs are the same. Among other things, they differ in degrees with respect to the extent of market competition within the chain, barriers to access to the final market, and the control exerted by the lead firm (over technology, product specifications, and branding). Gereffi, Humphrey and Sturgeon (2005) distinguish five general types of GVCs, each with a different “governance” and role of firms:

- *Market-driven* chains in which both buyers and suppliers have multiple sources of transactions, the price is fully market determined, and the cost of switching to new partners is low; an example is commodity markets;
- *Modular* chains in which suppliers produce to the specification of the buyers using generic technology; examples can be found in the electronics industry;
- *Relational* value chains in which interactions between buyers and sellers are mutually dependent, usually have sustained involvement over time, and are based on family or ethnic ties that tend to cement business relationships; an example is many apparel chains;
- *Captive* chains in which the lead firm controls a highly differentiated product, the key technologies, and/or product standards; suppliers have little incentive to move outside the production chain to work with the competitors; leading electronic firms such as Apple have these types of supplier relationships;
- *Hierarchical* chains in which the buyer-supplier relationship is internal to the firm; auto companies have many suppliers that are internal to the firm; all intra-firm trade falls into this category.

impact on trade. For example, Piermartini and Nordas (2004), looking at the quality of ports, the density of airports, paved roads and railways, and the density of internet users and of mobile phone subscribers, found that port infrastructure matters for all sectors, while timeliness and access to telecommunication matter more in the clothing and automotive sector. Limao and Venables (2001) showed that landlocked countries face higher transport cost since their ability to trade depends also on the infrastructure of the neighbouring transit countries. For example, in East Africa, goods bound for landlocked countries face the time equivalent of at least three clearance processes of coastal countries. “Poor infrastructure accounts for 40% of predicted transport costs for coastal countries and up to 60% for landlocked countries.” Furthermore, for landlocked countries, they calculated that improvements in their own infrastructure from the 25th percentile to the 75th percentile would effectively overcome more than half the disadvantage of being landlocked (Limao and Venables, 2001).⁶

13. But building infrastructure alone without changes in policies to improve the efficiency of its use will not necessarily lead to lower transport prices. Arvis *et al.* (2010) using the World Bank’s Logistics Performance Index, show convincingly that “logistics or trade services is more important for limiting the costs of being landlocked than investing massively in infrastructure and neglecting the functioning of logistics services.” They point out that more than half of the time it takes to transport cargo from the port to the hinterland is spent in ports. Dwell times in Africa average more than two weeks. This is because volumes are low, facilities are not operated competitively, logistics are poorly organized, storage facilities are inadequate, charges for storage are high, and port management (usually a government agency) does not have adequate incentives to speed up the process (see Raballand *et al.*, 2012). Nordas *et al.* (2006) arrive to a similar conclusion.

14. Once past the port, Portugal-Perez and Wilson (2009) point out that lack of competition in the trade logistics chain can result in high mark-ups and inefficient service; the process can be self-reinforcing as incumbents can lobby for continued restrictions on entry or technical regulations that become barriers to entry. Raballand *et al.* (2010) pointed out that prices of trucking services were inflated because of competition-restricting market regulations. These policy problems are particularly acute for landlocked countries. Arvis *et al.* (2010) underscored the fact that for landlocked countries not only was regulation in the exporting country important but also in the transit countries. Teravaninthorn and Raballand (2008) show that market restrictions in West and Central Africa have kept prices high, while competition in East Africa has produced lower costs to users. The Southern corridors are the most efficient in Africa, in large measure because they are the most unregulated and competitive.

III. Costs Imposed at and behind the Border: Procedures, Tariffs, NTMs, and Private Standards

15. *Border procedures* can drive up costs of trading by imposing delays and transactions costs. According to the OECD Trade Facilitation Indicators, the simplification and harmonisation of border procedures could reduce transaction costs by 10% (Moise *et al.*, 2011), while earlier OECD work shows that 65% of worldwide welfare gains from trade facilitation would accrue to developing countries (Walkenhorst and Yasui, 2009). According to the World Bank’s Doing Business data, it takes three times as many days, nearly twice as many documents, and six times as many signatures to import goods in poor countries as it does in rich ones (cited in McLinden, 2012). Africa has substantially more import

⁶ *Roads* are obviously critical to trade. Buys, Deichmann, and Wheeler (2006), in a study for the African Development Bank, undertook an analysis of road networks in Africa. Estimating city-level gravity model averages of trade that could occur, given distance and incomes, and using actual cost and engineering data for road construction, they simulated the effect of creating a feasible continent network transport through upgrading. Their baseline estimates indicate that an investment of some USD 20 billion, together with USD 1 billion in annual maintenance, would generate about USD 250 billion in overland trade over 15 years.

procedures than the most efficient developing country region, East Asia, and nearly twice as many as OECD countries (World Bank, *Doing Business 2012*).

16. Delays in passing through customs have often been singled out as the villain in border delays. In fact, more often than not, it is the combination of other agencies – health, agriculture, quarantine, police, immigration, and standards – that cause processing delays, as shown by the Time Release Studies undertaken by several countries to measure the average time for each step of border process interventions (see Matsuda, 2011). Non-customs agencies are concerned more about their parochial risk management objectives than in speeding goods across the border; they frequently lack the reform blueprints and technical guidelines built from international experience to implement reforms that are found in the customs world. They have not embraced automation or risk-based management systems that have allowed many customs to speed their processing times and improve reliability.

17. *Tariffs* are an additional cost imposed on imports (see Kowalski, 2006). This is particularly true in the case of South-South trade, where a 10% tariff cut could generate an additional USD 5.7 billion in export earnings per year (Dihel *et al.* 2006). Tariffs on inputs are particularly costly because these are used directly in production, and drive up costs. Not only do these then affect the competitiveness of domestic producers, they affect their ability to participate in GVCs. Stone and Shepherd (2011) have highlighted the significant and positive impact of intermediate inputs and capital goods imports on firm total factor productivity and demonstrated that this link is stronger in non-OECD countries. For these reasons, cross-country studies of the effects of tariffs on growth of GDP consistently find that higher tariffs in general are associated with lower growth rates, and tariffs on intermediate inputs are particularly important.⁷ For example, Estevadeordal and Taylor (2009) found strong evidence that liberalising tariffs on imported capital and intermediate goods raised growth rates by about one percentage point annually in the liberalising countries, while the effects of reducing tariffs on final goods was less important.

18. *Non-tariff measures*, such as quotas and standards, can also drive up costs. To address this Kee, Nicita, and Olarreaga (2009) developed a way to measure the ad valorem equivalent of all barriers in what became the Overall Trade Restrictiveness Index (OTRI). They use product-specific and country-specific gravity models to estimate the restrictiveness of market entry. Their studies found that poor countries have more restrictive trade regimes. NTMs contribute to a large share of trade restrictiveness across countries. On average, NTMs add an additional 87% to the restrictiveness imposed by tariffs. Moreover, in 34 out of the 78 countries in the sample, the restrictiveness of NTMs is larger than the restrictiveness of tariffs. Thus, NTMs should be a priority for those countries wishing to improve market access and participate in GVCs (see Cadot and Malouche, 2012).

19. Concentrating on NTMs in G20 economies, Dee *et al.* (2011) find that the trade cost impact of NTMs is more important than prevailing tariff rates in obstructing trade. This is true even in the more sensitive, and hence tariff-protected industrial sectors such as motor vehicles and processed foods. Most NTMs are put in place to assure that imported products comply with the same standards and regulations as domestic products. Trade costs and trade frictions arise from differences in regulations and their implementation, and obviously a “reduction to zero” is not a feasible option for those NTMs, so that a certain amount of trade costs related to those measures will always exist. Hence Dee *et al.* (2011) focus on the portion of NTM-related trade costs that is actually “reducible”. They found significant positive overall income and employment effects of reducing them. The highest potential gains are observed when countries

⁷ See Amiti and Konings, 2008, Estevadeordal and Taylor, 2011, and Brückner and Lederman, 2012. In “Trade Causes Growth in Sub-Saharan Africa”, Brückner and Lederman (2012) found that trade openness causes economic growth: a 1 percentage point increase in the ratio of trade over gross domestic product is associated with a short-run increase in growth of approximately 0.5% per year, and with an even larger effect in the long-run, reaching about 0.8% after ten years.

engage in own reforms, including in African and Asian developing countries, which underscores the importance of domestic policy reforms for tapping into the potential of GVCs.

20. Compliance with sanitary and phytosanitary regulations is obviously important in agricultural trade. Developing countries have more than tripled their exports of high value-added foods -- horticulture, fish, meats and spices since 1980 (Jaffee, 2006). Jaffee (2006) estimated that rejections at the border affected about 1% of agro-food trade. But far more inhibiting than border rejections for international trade is the myriad of measures that preclude countries from entering global markets at all. Disdier *et al.* (2008) found that technical regulations in agricultural trade significantly retarded trade in some sub-sectors, but at the same time well-designed regulations and conformity assessment procedures can facilitate trade (Van Tongeren *et al.*, 2009).

21. Standards can facilitate trade if they provide information to potential suppliers and overcome problems of informational asymmetry that would otherwise stifle exports (Van Tongeren *et al.* 2009).⁸ One of the most important issues is assessing the costs of complying with international standards as compared to the opportunity cost of serving regional markets. Cadot and Malouche (2012) found that it may be more important for enterprises to expand into the regional market to gain scale and learning economies before trying to comply with international standards. For example, Jensen and Keyser (2012) argue that international standards would be counterproductive if applied to milk products in the East African Community where small scale producers account for the bulk of production; they argue a better strategy is for each country to apply its own standards, works towards establishing mutual recognition to spur trade, and to progressively improve regional standards as the industry reaches scale and consumers demand higher quality.

22. Private firms in GVCs – whether as part of intra-firm trade, captive suppliers or modular trade – are increasingly setting and transmitting information about *private standards* and enforce their application as a condition of purchase (Smith, 2009). Firms in countries seeking to enter foreign markets will have an advantage if they can affiliate with a GVC with native leadership in that foreign market. In the most tightly controlled GVCs, standards constitute an important barrier to new competition that can only be surmounted through affiliation with a competing chain.

23. Private standard-setting has gone beyond specifications for products to include production processes – often as firms have had to respond to concerns of consumers about labour conditions in factories or substantiate life-cycle environmental labels of their value chains. Brand name companies have found themselves susceptible to considerable reputational risk unless they ensure that their suppliers provide decent working conditions or produce in an environmentally sustainable way. For example, consumer protests led Nike to establish the Nike Code of Conduct aimed at improving its contract factories. By 2005 the company disclosed its entire list of suppliers and in 2007 it made public its auditing tools (Mayer and Pickles, 2010). Timberland’s Climate Strategy includes assessment of impacts from raw-material suppliers and an endeavour to “leverage relationships with partners in the footwear value chain to reduce climate impact” (Moise and Steenblik, 2011). More recently, Apple found itself under criticism for poor working conditions at Foxconn in China, one of the country’s largest employers and a sole supplier of iPads; Apple took swift action to address the critiques, and Foxconn changed many of its practices governing overtime work and wages (see Fair Labor Association, 2012). These experiences and several studies point to the fact

⁸ Jaffee (2006) made the point that many standards do not require major investments, and can create new opportunities for producers. Moreover, Maertens and Swinnen (2009) showed how this worked in Senegal. Similarly, Mangelsdorf *et al.* (2012) looked at how standards enforced in China for its exporters of tea, meat, fish, vegetables, cereals, milk and sugar over the period 1992-2008 led to increases in exports, especially when these are harmonized with international standards – which the authors attribute to benefits of reducing informational asymmetries and signalling enhanced food safety.

that private standards have been most effective when a lead firm with a differentiated consumer product can exert power over its supply chain (Mayer and Gereffi, 2010).

IV. Barriers to Connectivity in FDI, Services, and Information

24. Countries creating impediments to foreign direct investment, restrictions on access to services, or restricting information flows through telecommunications restrictions will have great difficulty tapping into global value chains as a source of growth. Most producer-driven GVCs, such as in auto manufactures or some electronics, are associated with a high proportion of intra-firm trade (Lanz and Miroudot, 2011), and so excluding foreign investors from the national market precludes participation in the hierarchical forms of global value chain governance (in Gereffi's lexicon); most developing countries, however, now actively court foreign investors, at least in manufacturing.

25. Services are crucial to participation in trade generally and GVCs in particular. Restrictions that keep prices high to users still abound in services, however. Gootiiz and Mattoo (2011) have shown that low-income countries have the most restrictive policies toward entry in services markets. Tele-communication services and business services are vital to export growth and effective participation in supply chains (Nordas, 2008). In Mauritius, for example, a 2006 World Bank Aid for Trade Report underscored the importance of efficient services for clusters of services exports. High cost telecommunications, the result of lax price regulation of a foreign monopoly, were impeding the development of call centres; state monopolies in air transport were taxing the tourism industry; non-competitive port services were impeding the development of the otherwise lucrative transshipment business (World Bank, 2006). Borchert, *et al.* (2012) looked at restrictions on services entry in Africa and pointed out that restrictions on competition in telecommunications were significantly higher in landlocked countries than elsewhere. This has had the effect of preserving highly concentrated markets, maintaining high prices and preventing improvements in service quality.

26. One harbinger of more competitive telecommunications is the recent investment in new fibre optic cables. Landlocked countries such as Rwanda and Botswana will soon have access to fibre optic cables from more than one source. If this can be combined with efficient price competition in the domestic market and improved quality of services in the local loops, it opens new channels to exports of goods and services as well as increased participation in regional value chains. However, the direction of policy is not always supportive of competition. As with Zambia in 2007 (see Mattoo and Payton, 2007), Ethiopia recently banned VOIP telephone calls through Skype as a way of preserving revenues for its state monopoly of telecommunications.

27. Port services and air transport are obviously crucial to participation in export markets, whether merchandise or services. Njinkeu, Wilson and Fosso (2008) have shown that in Africa port efficiency and services infrastructure are powerful determinants of trade performance. Here too policies that restrict competition in air transport – controlling for attractiveness of tourist destinations, economic size, distances and other national characteristics – significantly reduced the number of daily flights and with it the capacity for merchandise trade and participation in GVCs. According to a study of air transport restrictiveness covering 100 developing countries (Borchert *et al.*, 2012) reducing the restrictiveness of the air transport market could increase the number of flights by an average of 42% (Borchert, *et al.*, 2012).

V. Policy Regimes to Reduce Thick Borders: SEZs and Regional Trade Agreements

28. One way to circumvent thick borders is establishing special economic zones (SEZs). These zones typically provide a policy environment, investment climate, and access to selected infrastructure that is unavailable otherwise. These usually include duty free import and export regimes, fewer impediments and constraints on foreign ownership, different labour regimes, access to electric power, and perhaps different

customs regimes. The number of zones has expanded exponentially – from 176 in 47 countries in 1986 to 3 500 in 130 countries. However, according to Engman *et al.* (2007), SEZs have failed in improving the investment and business climate, which is much better supported by trade liberalisation and regulatory reform at a country-wide basis. These findings were confirmed by Farole’s (2011) review of 10 African SEZs, which have underperformed in creating new jobs, precipitating new investment, and driving exports. This experience was substantially different than some countries in South Asia (see Aggarwal *et al.*, 2009). In the African context, some factors seem more important in SEZ’s success – such as infrastructure and trade facilitation – than others, including reduced business licensing delays and other one-stop shop mechanisms.

29. Traditional inducements to invest in SEZs, such as low wages, trade preferences, and fiscal incentives, have been less effective in Africa than elsewhere (Farole, 2012). By focusing on mainly low-cost manufacturing as Asia has done, SEZs are not well suited to creating comparative advantage in agri-business, minerals oil and gas, and tourism, activities where Africa might have advantages. In a world of GVCs, these industries require improvements in services, particularly logistics and telecommunications, and facilitation of foreign investment in non-manufacturing areas, rarely the focus of SEZs.

30. Regional trade agreements (RTAs) offer another way to promote policies that reduce the thickness of borders. But they still fall well short of their potential to create regional value chains because in many South-South RTAs the focus on lowering tariffs is not matched by an equivalent effort to address non-tariff barriers, especially as far as implementation is concerned. Brenton and Isik (2012) provide a comprehensive review of a range of issues in Africa, including: deficits in infrastructure; regulation-imposed delays at border crossings; road blocks and anti-competitive regulations that drive up transit times; non-tariff barriers; complex rules of origin that restrict trade and provide incentives for corruption; and shortcomings in cross-border payment systems that increase the cost of money transfers. Moreover, informal traders, mainly women, confront the special problems of harassment and requests for favours to move goods across the border (Lesser and Moise, 2009).

31. There are some success stories that emerge from regional cooperation. The OECD (2011) provides abundant “case story” examples of the importance of regional trading initiatives. For example, the Greater Mekong Sub-region undertook to enhance trade by constructing bridges and roads in conjunction with its Cross Border Transport Agreement (CBTA) in 2006 among Vietnam, Lao, and Thailand. The CBTA covered nearly all aspects of goods and services flows – including customs inspections, transit traffic, and road and bridge design. As a consequence, average trade value rose by more than 50% -- to USD 142 million in 2006-07 from 93.5 million in 1999-2000. Average travel times were cut by half along the corridor. Time spent crossing selected borders also fell by 30-50%, and the average number of vehicle crossings per day increased. Finally, in June 2009, a CBTA agreement allowed issuance of licenses for some 500 trucks to operate along the corridor without transshipment fees.

32. Brulhart and Hoppe (2012) recount a case where potential regional trade has not yet materialized precisely because of the absence of CBTA-type collaboration. Kinshasa-Brazzaville is the third largest urban agglomeration in Africa, and destined to be the largest by 2025. But it has a river border running through it. Republic of Congo imports from the DRC are a mere 1% of its total, and daily cross-river passenger travel is only 20% of the volume of passenger traffic through the Berlin Wall in 1988. Part of the reason is cost. Cross-river fees are USD 40, some 40-80% of the average monthly income of Kinshasa residents. The authors calculate that this would be equivalent to charging Californians commuting from Oakland to San Francisco (about the same distance) USD 1 200 – 2 400 per trip. These very high prices are the result of policy-induced restrictions on transport that confer a duopoly on two producers who have no incentive to invest in more facilities. Cumbersome customs procedures and long delays for passengers add to this barrier. Four agencies are legally supposed to be present at the Kinshasa border but some 17 operate

there, collecting fees from traders and travellers (see Brenton and Isak, 2012). In one case, regional value chains can begin to flourish, and in the other thick borders shut off opportunities.

33. Regional trade agreements often contain provisions to reduce these logistics-related barriers to commerce, and these measures often have a higher pay-off in trade expansion than simply removing tariffs. Jensen and Tarr (2011), using CGE prospective analysis, found that mutual reductions in tariffs as part of a comprehensive free trade agreement between Armenia and the EU would provide some gains for Armenia, but these were dwarfed by actions which would liberalize services, reduce border costs, and harmonize standards.⁹ The just-released US ITC study outlines several measures that the East African Community could take to accelerate trade integration (US ITC, 2012).

VI. The Role of Aid for Trade

34. Aid for trade grew substantially from average commitments in 2002-2005 of about USD 25 billion to some USD 40 billion in 2009 (OECD, 2011:48). Of this about USD 12 billion went to the LDCs. Viewed regionally, Africa and Asia received the great bulk of aid resources with about USD 15-16 billion each. Of the total, about USD 18 billion went to building productive capacity (mainly agriculture and financial service); another USD 20 billion went to infrastructure, nearly all for roads (USD 13 billion) and energy (USD 7 billion). Trade policy and regulations amounted to much less (USD 1.4 billion) and within that some USD 250 million went to trade facilitation (OECD, 2011: 57-59).

35. Aid for trade has had a measurable impact on trade flows, at least as seen through aggregate statistics. Helble, Mann and Wilson (2009), comparing the effects of trade development assistance (productive capacity building), trade policy assistance, and infrastructure assistance on bilateral trade flows, conclude that aid for trade targeted at trade policy and regulatory reform projects produces a high rate of return for every US dollar invested, while Busse *et al.* (2011) find that aid for trade significantly reduces trade costs in developing countries.¹⁰ This positive impact comes to a large extent from aid for trade support to domestic policies ensuring the sustainability of trade reforms and increasing their growth impact (Hallaert, 2010).

36. One understudied area of aid for trade is services. Yet improved services, as described above, are critical for export growth. In the only cross-country study of its kind, Ferro, Portugal and Wilson (2011) looked at the impact of aid for trade on various services sectors and changes in manufacture exports. They adopt a novel approach using input-output tables to assess the services intensity of particular services for 132 countries in 2002-2008. They found that a 10% increase in aid for trade to transportation is associated with a 2% increase in manufactured exports; the same increase to ICT increased manufactured exports by 0.3%; aid to energy has a large impact on manufactured exports of 6.8%, and support to banking services will lead to increase in manufactured exports; aid to the business service sector was not statistically significant. In Sub-Saharan Africa, aid to energy, ICT, and banking had the largest statistically significant impacts on manufactured exports, with a 10% increase in aid associated with increases of manufacture

⁹ Analyses of global WTO agreements have shown that the large gains come as much from trade facilitation measures as reductions in tariffs. Adler *et al.* (2009) in their analysis of the possible consequences of a positive outcome of the WTO discussions found that the trade facilitation agenda augured gains commensurate if not greater than those from cutting tariffs. Hoekman and Mattoo (2010) came to similar conclusions.

¹⁰ USAID (2010) presents in an annex a commissioned study by David Bearce, Steven Finkel, and Anibal Perez-Linan "The Effects of US Trade Capacity Building Assistance on Trade-Related Outcomes, 1999-2008"; a USD 1 investment of total US government assistance to trade on average would increase exports by USD 53. Cali and te Velde (2009) found that a USD 1 million increase in aid for trade facilitation is associated with a 6% reduction in the cost of packing, loading, and shipping to a transit hub.

exports of 6.4%, 4.8% and 2.2%, respectively. This finding underscores the need to focus on improving services as a way of encouraging growth.

37. Indeed, some portion of the aid for trade reported for building productive capacity has in fact gone to developing supply chains, many of them global. This is generally not presented in the OECD aid for trade CRS data base, but came out with surprising clarity in the OECD case stories (see OECD, 2011). Just under 20% of the 269 case stories told of efforts to develop supply chains associated with exports – mostly in agriculture and fisheries. Many of the projects were intended to up-grade quality – working at the “intensive margin” with traditional exports to improve quality or to reduce specific costs in the value chain of delivery to foreign markets. These included projects in Cameroon to improve bananas and plantain, in West Africa to improve cotton and rice, in Rwanda to improve the quality of tea, in Ethiopia and in Tanzania coffee, in Bangladesh to up-grade the quality in the readymade garment sector, in Guatemala to improve organic crops, in Honduras to improve oriental vegetables, in Grenada to improve fisheries, in Peru to improve milk quality, in Mozambique to revive processed cashew exports, and in Tonga to control fruit flies, as well as in Indonesia to improve dairy livestock [see OECD, 2011: Chapter 5, and document [COM/DCD/TAD\(2012\)16](#)].

VII. Looking Ahead: Improving Aid for Trade

38. This brief review points to the role of GVCs in contributing to increased integration in world markets for goods and services. Getting to and from the border, efficiently, has always been important for growth and development, as is having in place well functioning input and output markets. Unnecessary or unpredictable border procedures and trade regulations impose additional costs and time delays and can stifle firm productivity growth and competitiveness. In a world characterized by global value chains, where goods and services cross borders multiple times, these costs are also multiplied. And as also described above, where needed infrastructure and open and facilitating trade policies are in place, the benefits to firms can also increase exponentially. GVCs, then, change both potential benefits and costs of trade related policies and add significantly to the urgency of appropriate reforms.

39. The emergence of GVCs also has important implications for how aid is (or should be) viewed and delivered; specifically, the impact of aid allocations on trade flows and subsequent economic performance cannot be measured in isolation from the relevant policy environment. Aid funding, national expenditures, and public policies, as well as private investment, increasingly need to be examined in an integrated way. Modern ports cannot realize their potential for lowering costs without efficient customs officials; investments in advance training of a workforce cannot pay dividends without access to needed technology and other world class inputs; and an otherwise open foreign investment regime will not attract private capital without reliable public institutions and well defined property rights. As the discussion above on the importance of the efficiency of services for seamless movement of goods across borders illustrates, GVCs amplify the need to design aid for trade programs that build in policy synergies. Consider the following examples and the questions they raise.

40. Donors have invested substantial amounts in infrastructure, agriculture, and banking sector projects. However, these investments cannot realize their full social rate of return unless surrounding policies to ensure efficient delivery and use are in place. Do donor-supported projects focus adequately on the policy environment to promote efficient use of the new investment? Public-private partnerships (PPPs) are increasingly viewed as a source of financing; are these too being designed to ensure a supportive policy environment?

41. Emerging studies on logistics, non-tariff measures, and private standards reveal their powerful influence on trade. Businesses working in GVCs and regional value chains know where remediable delays occur in the production network. Tapping into this collective knowledge by working with the private sector

may make it possible to map the costs of particular restrictions in specific countries, with a view toward helping countries design aid for trade projects to reduce these. This work could prove particularly useful to low-income countries and regions.¹¹

42. Greater involvement of the private sector could also help improve more generalized indicators of trading costs, especially as they pertain to global and regional value chains. Earlier work at OECD on indicators for trade facilitation revealed that more penetrating and comprehensive indicators of performance could help policymakers target their reform efforts and involvement of the aid for trade donor community (see Moise, *et al.* 2011). This work could be expanded with a particular focus on selected low-income countries and regions.

43. The advent of internet-based sales has created new opportunities for sellers in poor countries to make consumers in rich countries aware of their products. It raises the possibility of creating new supply chains for SMEs in developing countries because the technology has the potential to overcome some of the informational costs associated with reaching foreign consumers. Studying the experience of large and small internet sales platforms could shed light on the policies governments in low-income countries, working together with the aid for trade community, could adopt to widen the scope for sales via internet platforms.

44. Governments in more advanced developing countries are now providing aid for trade to major trading partners. Are there mutual lessons that could emerge from more organized discussions among aid for trade providers from both the North and the South?

45. Depending on the governance of GVCs, lead firms and participants generally are likely to be advocates of reduced border barriers. This raises the question: What unilateral changes do we observe in tariffs of component trade, and can this be traced back to the influence of particular types of GVCs? Lead firms and participants may also be principal actors in setting both public and private standards for products. How does the presence of GVCs affect the access of developing countries – particularly low-income developing countries – to the standard setting process so that it serves them as well as the lead firms? Similarly, how does enforcement of standards differ according to governance arrangements of the GVC?

46. Different types of GVCs may encounter ownership restrictions on foreign investment in developing countries. Large retail companies are only now being granted access to certain countries. Do investment restrictions on foreign retailers also discourage these same buyer-driven GVCs from sourcing in these same countries. In other countries, intellectual property rights do not enjoy complete protection, and studies have indicated this deters investment from high technology multinationals. How do these restrictions – elements of thick borders -- influence the formation of GVCs lead by the large retailers and high-technology companies?

47. Additional research into these questions can help low-income countries and the aid for trade community to better design their efforts to tap into the opportunities presented by GVCs.

¹¹ The World Bank and the World Economic Forum have begun a project to work with private companies to identify and quantify obstacles in some supply chains, with a view to inserting requests for policy changes in trade negotiations in particular regions (e.g., the Trans Pacific Partnership discussions). The OECD could expand these types of discussions, and usefully extend the methodology to GVC trade with selected low-income countries and regions.

REFERENCES

- Adler, M., C. Brunel, G. C. Hufbauer and J. J. Schott (2009), “What’s on the Table? The Doha Round as of August 2009”, *Working Paper*, Washington: Peterson Institute for International Economics.
- Aggarwal, A., M. Hoppe and P. Walkenhorst (2009), “Special Economic Zones and Economic Diversification: Some Evidence from South Asia”, in R. Newfarmer, W. Shaw and P. Walkenhorst, (eds.), *Breaking into New Markets*, Washington: World Bank
- Amiti, M. and J. Konings (2007), “Trade Liberalization, Intermediate Inputs and Productivity: Evidence from Indonesia”, *American Economic Review*, 97:5, December.
- Arvis, J-F, G. Raballand and J-F Marteau (2010), *The Cost of Being Landlocked Logistics Costs and Supply Chain Reliability*, Washington: World Bank.
- Baldwin, R. (2011), “Trade and Industrialization after globalisation’s 2nd Unbundling: How building and joining a supply chain are different and why it matters”, November mimeo.
- Barrientos, S., G. Gereffi and A. Rossi (2011), “Economic and social upgrading in global production networks: A new paradigm for a changing world”, *International Labour Review*, Vol. 150 (2011), No. 3–4.
- Borchert, I., B. Gootiiz, A. Grover and A. Mattoo (2012), “Landlocked or Policy Locked? How Services Trade Protection Deepens Economic Isolation”, *Policy Research Working Paper* 5942, Washington: World Bank.
- Brenton, P. and G. Isik (2012), *De-Fragmenting Africa: Deepening Regional Trade Integration in Goods and Services*, Washington: World Bank.
- Brenton, P., R. Newfarmer, W. Shaw and P. Walkenhorst (2009), “Breaking into New Markets: An Overview” in R. Newfarmer, W. Shaw and P. Walkenhorst (eds.), *Breaking into New Markets* Washington: World Bank .
- Brenton, P. and E. von Uexkull (2009), “Product specific technical assistance for exports – has it been effective?”, *The Journal of International Trade & Economic Development: An International and Comparative Review*, 18(2), 235-254.
- Brückner, M. and D. Lederman (2012), “Trade Causes Growth in Sub-Saharan Africa”, *Policy Research Working Paper* 6007, Washington: World Bank.
- Brulhart, M. and M. Hoppe (2012), “Economic Integration in the Lower Congo Region” in Paul Brenton and Gozde Isik, (eds.), *De-Fragmenting Africa*, Washington: World Bank.
- Busse, M., R. Hoekstra, and J. Koeniger (2010), “The impact of aid for trade facilitation on the costs of trading”, *Working Paper*, available on SSRN.
- Buyts, P., U. Deichmann, and D. Wheeler (2010), “Road Network Upgrading and Overland Trade Expansion in Sub-Saharan Africa”, *Journal of African Economies*, Oxford University Press, Vol. 19(3), pages 399-432, June.

- Cadot, O. and M. Malouche (2012), “Overview” in O. Cadot and M. Malouche, (eds), *Non-tariff Measures – A Fresh Look at Trade Policy’s New Frontier*, Washington: World Bank and CEPR.
- Cali, M. and D. te Velde (2009), “Does aid for trade really improve trade performance?” mimeo; available at: <http://ssrn.com/abstract=1430492>.
- Daudin, G., C. Riffart and D. Schweisguth (2011), “Who Produces What for Whom in the Global Economy”, *Canadian Journal of Economics*, November.
- Dee, P., J. Francois, M. Manchin, H. Norberg, H. Nordås and F. van Tongeren (2011), “The impact of trade liberalisation on jobs and growth: Technical note”, *OECD Trade Policy Working Papers* No. 107, OECD publishing, Dihel, N., P. Kowalski and B. Shepherd (2006), “South-South Goods and Services Trade”, in *Trading Up: Economic Perspectives on Development Issues in the Multilateral Trading System*, OECD Publishing.
- Disdier, A-C, L. Fontagne and M. Mimouni (2008), “The Impact of Regulations on Agricultural Trade: Evidence from the SPS and TBT Agreements”, *American Journal of Agricultural Economics*, 90: 336-50.
- Engman M., O. Onodera and E. Pinali (2007) “Export Processing Zones: Past and Future Role in Trade and Development”, *Trade Policy Working Paper* no.53, OECD Publishing.
- Estevadeordal, A. and A. M. Taylor (2009), “Is the Washington Consensus Dead?: Growth, Openness, and the Great Liberalization, 1970s-2000s”, *IDB Publications*, No. 9298, Inter-American Development Bank.
- Fair Labor Association (2012), Foxconn Verification Status Report, August.
- Farole, T. (2011), “Special Economic Zones in Africa: Comparing Performance and Learning from Global Experiences”, World Bank.
- Ferro, E., A. Portugal-Perez and J.S. Wilson (2011), “Aid to the Services Sector: Does it Affect Manufacturing Exports?”, *Policy Research Working Papers Series 5728*, World Bank.
- Freund, C. and N. Rocha (2010), “What constrains Africa's exports?”, *Staff working paper* ERSD, No. 2010-07
- Gereffi, G. (2011), “Comments on Richard Baldwin, ‘Trade and industrialization after globalization’s 2nd unbundling: How building and joining a supply chain are different, and why it matters’ ”, World Bank, PREM Seminar April 12.
- Gereffi, G. (2005), “The Global Economy: Organization, Governance, and Development”, *Handbook*.
- Gereffi, G., J. Humphrey and T. Sturgeon (2005), “The Governance of Global Value Chains” *Review of International Political Economy*, 12:1 February.
- Gootiiz, B. and A. Mattoo (2012), “Landlocked or Policy Locked: How Services Trade Protection Deepens Economic Isolation”, *Policy Research Working Paper* 5942, Washington: World Bank.
- Hallaert, J. (2010), “Increasing the Impact of Trade Expansion on Growth: Lessons from Trade Reforms for the Design of Aid for Trade”, *OECD Trade Policy Working Papers*, No. 100, OECD Publishing.

- Helble, M., C. Mann and J. Wilson (2009), "Aid for Trade Facilitation," Washington, D.C.: World Bank, *Policy Research Working Paper* 5064.
- Hoekman, B. (2012), "Global Supply Chains, Logistics Services and International Cooperation" mimeo, May 4.
- Hoekman, B., W. Martin and A. Mattoo (2009), "Conclude Doha: It Matters!," *Policy Research Working Paper Series*, No. 5135, The World Bank.
- Jaffee, S. (2006), "Sanitary and Phytosanitary Regulation: Overcoming Constraints" in R. Newfarmer (ed.), *Trade, Doha and Development: A Window into the Issues*, Washington: World Bank.
- Jensen, J. and D. Tarr (2011), "Deep Trade Policy Options for Armenia: The Importance of Trade Facilitation, Services and Standards Liberalization", *Economics – The Open Access E-Journal* 6:1.
- Jensen, M. F. and J. C. Keyser (2012), "Standards Harmonization and Trade: The Case of the East African Dairy Industry", in O. Cadot and M. Malouche (eds), *Non-tariff Measures – A Fresh Look at Trade Policy's New Frontier*, Washington: World Bank and CEPR.
- Kee, H. L., A. Nicita and M. Olarreaga (2009), "Estimating trade restrictiveness indices", *Economic Journal*, Vol. 119, p. 172--199.
- Kee, H. L., A. Nicita and M. Olarreaga (2008), "Import Demand Elasticities and Trade Distortions", *Review of Economics and Statistics*, Vol. 90, no. 4, p. 666-682.
- Kowalski, P. (2006), "The Doha Development Agenda: Welfare Gains from Further Multilateral Tariff Liberalisation", in *Trading Up: Economic Perspectives on Development Issues in the Multilateral Trading System*, OECD Publishing
- Lanz, R. and S. Miroudot (2011), "Intra-Firm Trade: Patterns, Determinants and Policy Implications", *OECD Trade Policy Working Papers*, No. 114, OECD Publishing
- Lesser, C. and E. Moisé (2009), "Informal Cross-Border Trade and Trade Facilitation Reform in Sub-Saharan Africa", *OECD Trade Policy Working Papers*, No. 86, OECD publishing,
- Limão, N. and A.J. Venables (2001), "Infrastructure, Geographical Disadvantage, Transport Costs, and Trade", *World Bank Economic Review*.
- Maertens, M. and J. Swinnen (2009), "Trade Standards, and Poverty: Evidence from Senegal", *World Development*, 37:1.
- Mangelsdorf, A., A. Portugal-Perez and J. Wilson (2012), "Do Better Standards Facilitate Exports? Evidence from China", in O. Cadot and M. Malouche (eds.), *Non-tariff Measures – A Fresh Look at Trade Policy's New Frontier*, Washington: World Bank and CEPR.
- Maskus, K. E. "The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer", in C. Fink and K. Maskus (eds.), *Intellectual Property and Development*, Washington: World Bank.
- Matsuda, S. (2012) "The Time Release Study as a Performance Measurement Tool for a Supply Chain and an International Corridor", *World Customs Journal* , Vol.6, no.1

- Mattoo, A. and L. Payton (2007), *Services and Development: The Experience of Zambia*, Washington: World Bank.
- Mayer, F. and J. Pickles (2010), “Re-embedding governance: global apparel value chains and decent work”, *Capturing the Gains Working Paper* No. 1, Duke University.
- McLinden, G. (2012), “Collaborative Border Management: A New Approach to an Old Problem”, *Economic Premise*, April, Washington: World Bank.
- McLinden, G., E. Fanta, D. Widdowson and T. Doyle (eds), (2011), *Border Management Modernization*, Washington: World Bank.
- Miroudot, S., R. Lanz and A. Ragoussis (2009), “Trade in Intermediate Goods and Services”, *OECD Trade Policy Working Papers*, No. 93.
- Moise, E., T. Orliac and P. Minor (2011), “Trade Facilitation Indicators: The Impact of Trade Costs” *OECD Trade Policy Working Papers No. 118*, OECD Publishing
- Moise E. and R. Steenblik (2011), “Trade-Related Measures Based on Processes and Production Methods in the Context of Climate-Change Mitigation”, *OECD Trade and Environment Working Papers*, 2011/04, OECD Publishing
- Njinkeu, D., J. S. Wilson and B. Powo Fosso (2008), “Expanding Trade within Africa: The Impact of Trade Facilitation”, *Policy Research Paper*, Washington: World Bank.
- Nordas, H. and R. Piermartini (2004), “Infrastructure and Trade”, Staff Working Paper ERSD-2004-04, Geneva: WTO
- Nordas, H., E. Pinali and M. Geloso-Grosso (2006), “Logistics and Time as a Trade Barrier”, *OECD Trade Policy Working Paper No.35*, Paris: OECD
- Nordås, H. (2008), “The Impact of Services Trade Liberalisation on Trade in Non-Agricultural Products”, *OECD Trade Policy Working Papers*, No. 81, OECD Publishing.
- OECD (2011), *Aid for Trade at a Glance: Showing Results*, Paris: OECD/WTO.
- Portugal-Perez, A. and J. S. Wilson (2009), “Why trade facilitation matters to Africa”, *World Trade Review*, 8: 3, 379–416.
- Raballand, G., P. Machchi and C. Petracco (2010), “Rural Road Investment Efficiency: Lessons from Burkina Faso, Cameroon and Uganda”, Washington: World Bank.
- Raballand, G., S. Refas, M. Beuran and G. Isik (2012), *Why does Cargo Spend Week in Sub-Saharan African Ports?: Lessons from Six Countries*, Washington: World Bank.
- Smith, G. (2009), “Interaction of Public and Private Standards in the Food Chain”, *OECD Food, Agriculture and Fisheries Working Papers*, No. 15, OECD Publishing
- Stone, S. and B. Shepherd (2011), “Dynamic Gains from Trade: The Role of Intermediate Inputs and Equipment Imports”, *OECD Trade Policy Working Papers*, No. 110, OECD Publishing.

- Teravaninthorn, S. and G. Raballand (2008), *Transport Prices and Costs in Africa*, Washington: World Bank.
- US ITC (International Trade Commission) (2012), *Trade Facilitation in the East African Community: Recent Developments and Potential Benefits*. Investigation No. 332-530, Washington: US ITC.
- USAID (2010), *From Aid to Trade: Delivering Results: A Cross Country Evaluation of USAID Trade Capacity Building*, Washington: USAID November.
- Van Tongeren, F., J. Beghin and S. Marette (2009), “A Cost-Benefit Framework for the Assessment of Non-Tariff Measures in Agro-Food Trade”, *OECD Food, Agriculture and Fisheries Working Papers*, No. 21, OECD Publishing.
- Van Tongeren, F., A.C. Disdier, J. Komorowska, S. Marette and M. von Lampe (2010), “Case Studies of Costs and Benefits of Non-Tariff Measures: Cheese, Shrimp and Flowers”, *OECD Food, Agriculture and Fisheries Working Papers*, No. 28, OECD Publishing.
- Walkenhorst, P. and T. Yasui (2009), “Quantitative Assessment of the Benefits of Trade Facilitation”, in *Overcoming Border Bottlenecks, The Costs and Benefits of Trade Facilitation, OECD Trade Policy Studies*, OECD Publishing.
- Wilson, J. S., C. Mann and T. Otsuki (2003), “Trade Facilitation and Economic Development: Measuring the Impact”, *Policy Research Working Paper*, 2988 Washington: World Bank.
- World Bank (2006), *Mauritius: From Preferences to Global Competitiveness – Report of the Aid for Trade Mission*, mimeo, April 26, Washington: World Bank.
- World Bank (2012), *Connecting to Compete, 2012: Trade Logistics in the Global Economy*, Washington: World Bank.