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# 4

## Beyond Trade Policy Barriers: Lowering Trade Costs Together

The removal of tariffs and quotas is a key feature of regional trade agreements (RTAs), but modern RTAs can, and are, being designed to achieve much more than that. Trade policies are only one element—and often a relatively minor one—of the overall costs of trade. Because logistical, institutional, and regulatory barriers are often more costly than tariffs and generate no offsetting revenue, cooperative governmental efforts to improve customs procedures, minimize the trade distorting impact of standards, and reduce transport costs may have a higher payoff than reciprocal reductions in overt trade policy barriers.

When RTA membership is part of a broad program of economic liberalization in which the objective is to attract international investment as much as to promote trade, a broad set of regulatory issues becomes paramount. Which are the most appropriate institutions to address these regulatory barriers? In certain cases, institutions at the regional level will provide for the most effective solutions, relative to both the multilateral and national levels.<sup>1</sup> RTAs can effectively promote dialogue and implement coordinated responses.

However, most RTAs have contributed little to reducing the associated trade costs, especially RTAs among developing countries. Many regional policy initiatives have foundered because of the lack of effective implementation, and crossing borders between most developing countries is still a major impediment to trade.

This chapter focuses on three key issues related to trade facilitation: *customs clearance*, *transport*, and *standards and their conformity assessment*. Coordinated action among developing countries is likely to be greatest with the first two issues, customs clearance and transport; examples of best practices in these areas are available and can be followed in regional trade agreements. Progress in reducing barriers is likely to facilitate trade to and from all trading partners with little or no scope to be discriminatory. And while cheaper, faster, and more predictable customs clearance and improved transport services have a direct impact on trade, they are also crucial elements of the investment climate.

Initiatives to deal with standards and conformity assessment on a regional basis are scarce; the most successful agreements have been between rich countries that are undertaking a deep integration process, as in the case of the European Union (EU). Nonetheless, systems of standards, quality assurance, accreditation, and measurement are crucial to competitiveness and sustained growth. Regional interventions can be useful if developed in a transparent way and with the participation of private groups (to ensure that procedures are not manipulated to serve a protectionist end). Initiatives targeted at a small number of key sectors and toward improving the quality of conformity assessment are likely to be the most useful.

Agreements that involve large markets and have differing levels of institutional capacity generally appear to have had the greatest success in dealing with these trade facilitation issues. This is because the more advanced partner tends to drive institutional improvements among the less advanced partners. (However, a real danger is that, in seeking greater access to industrial country markets through bilateral trade agreements, developing countries agree to apply a set of rules and regulations defined by the advanced country that are inappropriate for their level of development.) For many developing countries, agreements with industrial countries alone will not be sufficient, because the main source of higher trade costs are the borders and the weak transport systems they share with their developing country neighbors.

Progress often requires coordinated actions; for example, joint customs inspections must be allowed, common rules for transport must be established (including vehicle weight restrictions), and test results from partners' laboratories must be accepted. RTAs can provide a forum to enhance trust among trade partners that genuinely wish to move forward on these and other fronts.

### The Costs of Trade

**D**espite globalization and the rapid increase in trade over the past 40 years, the costs of trading remain substantial—particularly for developing countries (box 4.1). Because of those costs, the actual volume of international trade is far less than economic theory would predict in the absence of significant barriers to trade [the case of the “missing trade” (Trefler 1995)]. And trade within countries is much more intense than between countries. If trade costs were insignificant, the propensities to trade nationally and internationally would be equal. In fact, crossing a national border appears to dampen trade flows even in regions such as the EU, where formal trade barriers and customs posts have been removed.<sup>2</sup> Finally, the retail prices of particular goods

tend to diverge with distance, and this difference is much higher when the two locations being compared lie on either side of a national border. If trade costs are low, then arbitrage should constrain such price variation (Engel and Rogers 1996).

The tax equivalent of trade costs can range from 30 to 105 percent, depending on the sector, according to estimates for imports by the United States (Anderson and van Wincoop 2004; Evans 2001). High trade costs discourage investment and constrain the ability of local firms to integrate into global production chains (Faini 2004). Given the magnitude of these barriers, ex ante simulation studies suggest that the benefits of lowering transaction costs, reducing insecurity, integrating services sectors, and increasing competition are multiples of reducing tariffs (Hoekman and Konan 1999). However, there is very little convincing ex post evidence of significant returns to regional initiatives that must deal with these issues, suggesting that substantial progress is difficult to achieve.

Ignoring institutional barriers during a tariff reform may undermine the objectives of reform—and indeed produce perverse results. For example, tariff liberalization in the face of border delays and customs corruption may have no impact on imports and may even reduce welfare if tariff revenues are replaced by longer waits to clear customs (Cudmore and Whalley 2003). In the absence of competition in the domestic transport sector, trade liberalization may simply lead to a transfer of revenue from the government to monopolistic transport owners. On the other hand, progress on many issues is not possible while high tariff barriers remain in place.

Cost raising barriers may be linked in circles of causation, with significant impacts due to scale economies in transport. For example, a reduction in tariffs or a decline in costs at the port may stimulate trade that can offer opportunities for transport companies to operate at more efficient levels of scale. And if there is effective competition in the transport sector, this could lead to lower transport prices and more

## Box 4.1 Trading can be costly

Various policies and factors isolate national economies from world markets and thereby raise the cost of international trade:

- Tariffs, quantitative restrictions, and other border barriers—such as taxes on trade that raise the prices of imported goods relative to those produced domestically.
- Transport costs, both direct (freight and insurance) or indirect (inventory costs).
- Costs incurred when crossing a border due to documentation, delays, and bribes to corrupt officials.
- Compliance with national product standards and technical regulations.
- Insurance against risk, especially credit risk, and uncertainty associated with macroeconomic instability, lack of effective institutions, and unpredictable politics.

trade, and so on.<sup>3</sup> A reduction in corruption and delays at the border may stimulate trade, add to government revenues, and allow for a reduction in tariffs to achieve a given revenue target, which again stimulates trade.

Landlocked countries that face high barriers in moving their imports and exports through neighboring countries have no choice but to pursue bilateral or regional solutions.<sup>4</sup> These need not be embedded in a regional preferential trade agreement (PTA), but to be effective for small countries, agreements must provide for the settlement of disputes. Such provisions are likely to be more effective if they are part of a broad and comprehensive agreement.

Finally, removing institutional obstacles to crossing borders has a more certain benefit than reducing intra-regional barriers, because it saves real resources. Trucks that make more deliveries to the port are more productive. Interventions that lead to higher productivity have the greatest impact on trade and welfare—and on further increases in productivity. In contrast, removing revenue-generating tariff barriers on a preferential basis can lead to trade diversion and reductions in welfare.

### Regional Agreements to Facilitate Trade and Transport

As countries develop their trade beyond the export of basic agricultural and extracted commodities, logistics requirements become

more important—and more costly. To compete in international markets and function within global production chains, firms need not only low transport costs and efficient ports, but also short transit times, reliable delivery schedules, appropriate storage facilities, and security (Carruthers and others 2003).

High transport costs, inefficient or corrupt customs, and long delays at borders reduce the trading opportunities available to many developing countries and can have significant economic and social costs (box 4.2). Conversely, better conditions tend to be related to higher levels of trade (Wilson and others 2003). Increasing the efficiency of customs, for example, can reduce costs and increase trade (figure 4.1). High transport and border crossing costs thwart, in particular, the poor landlocked developing countries.<sup>5</sup>

### *Regional integration can help promote more efficient and effective customs operations*

Unlike many other factors that raise trade costs, there is broad agreement on what constitutes good customs procedures. Since its inception, the World Customs Organization (WCO) has developed best practices of customs policies and procedures. The Kyoto Convention commits its signatory members to implement these best practice principles and provides them with guidance in their efforts to improve national practices. While there is

## Box 4.2 Border delays tax trade

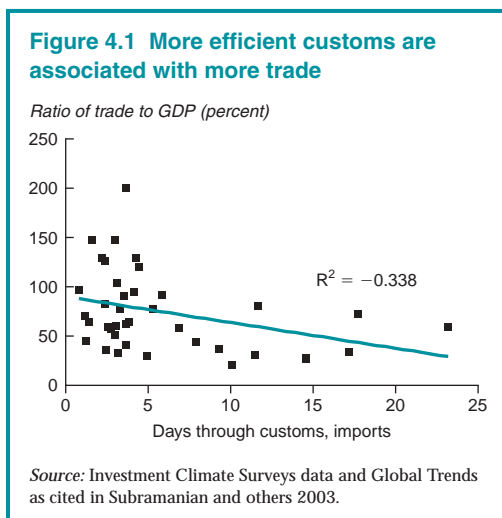
Each day lost in transport delays is equivalent to a tax of about 0.5 percent (Hummels 2000). The situation in crossing borders between developing countries can be much worse.

- In Southern Africa, delays at the main border-crossing between South Africa and Zimbabwe (Beit Bridge) amounted to six days in February 2003, leading to an estimated loss of earnings per vehicle of \$1,750, equivalent to the costs of a shipment from Durban to the United States.
- In Central Asia, on average, it takes more than 100 hours to cross the border between Uzbekistan and Turkmenistan. A truck traveling from Tashkent to Berlin, passing through Turkmenistan, Iran, and Turkey, will spend, on average, a third of total transport time waiting at border crossings (UNESCAP 2003).
- In the Andean Community, trucks spend more than half of the total journey time at border crossings (Pardo 2001).

- Crossing a border in Africa can be equivalent to the cost of more than 1,000 miles of inland transportation; in Western Europe the equivalent is 100 miles (Arvis 2004).

Border delays are associated with other trade costs as well, especially corruption in customs—and have been linked to the spread of HIV/AIDS. The World Bank has recently initiated a project in Western Africa to reduce, by the end of 2006, the average time for commercial vehicles to clear border formalities along the Lagos–Abidjan corridor by at least 20 percent, and average delays at the Nigeria–Benin border by at least 50 percent. These reductions are critical for this project and its mandate to reduce the incidence of sexually transmitted infection among commercial vehicle drivers.

Source: World Bank staff.



much that countries can do individually to improve customs procedures, there is also scope for regional initiatives to modernize customs.

Contacts fostered by regional agreements can generate a mutual understanding of each

other's problems and difficulties and can engender the sharing of best practices and positive experiences among members. This exchange is likely to be more relevant and better accepted inside the regional group of developing countries than examples from countries that are much more advanced and face very different implementation issues.

On the other hand, when regional units are made up of developed and developing countries, there is scope for financial support and technical assistance for less developed countries in their modernization efforts. The EU, for instance, provides assistance to the African, Caribbean, and Pacific (ACP) countries and incorporates customs technical assistance provisions in its Euro-Mediterranean Initiative. Such assistance will also be available under the Economic Partnership Agreements it intends to establish with regional groupings in Africa, such as ECOWAS. Similarly, Japan provides funding for capacity-building initiatives in APEC member countries.

For a variety of reasons, tackling customs issues autonomously may be too daunting a task, and cooperation with trading partners may create the necessary momentum to overcome reluctance and opposition from domestic policymakers, customs officials, and traders. A review of a number of regional initiatives to modernize customs suggest the following areas in which RTAs can lead to improvements:

- *Align customs codes with international standards.* A good customs code supports efficient customs operations. It establishes the competence of the relevant authorities, promotes transparency and predictability of operational procedures and enforcement, encourages cooperation with the private sector, provides for effective appeals procedures, and enhances integrity. It would be advantageous for all countries to align their customs codes with international standards.
- *Simplify and harmonize procedures.* The recommendation here is to introduce a single customs document that limits the data requirement to a single set and adopts e-commerce techniques.
- *Bring all tariff structures in line with the international harmonized tariff classification (HS).* Many disputes can be avoided if all members of the grouping adhere strictly to an identical tariff classification.
- *Strive for transparency.* Increase the availability and accessibility of the legal text and regulations that traders and customs officials require and include other relevant information such as trade statistics.
- *Adopt and effectively implement the WTO Valuation Agreement.* Member countries can assist each other through effective mutual assistance agreements and shared databases.
- *Work together toward customs integrity.*
- *Establishment of joint border posts.* Joint border posts preclude multiple

examinations and lengthy border crossing procedures. A simple first stage would coordinate hours of operation and provide compatible computer systems on both sides of the border; these efforts would increase efficiency significantly.

- *Joint training centers.* Countries can join forces to operate regional training centers that can benefit from leveraged-up resources and can build cohesion between the customs officers of different customs services in the region.

### ***Transport and trade facilitation initiatives raise productivity***

In recent years there has been a development of a web of transport and trade facilitation (TTF) agreements aimed at easing the movement of goods and services across borders. Most of these agreements have been reached as part of, or in parallel with, an RTA.<sup>6</sup> Effectively implemented, TTFs can improve access to global markets for developing countries with poor transport systems—particularly landlocked countries.

TTFs often contain provisions to standardize customs procedures at borders and to harmonize customs documentation. TTFs can further facilitate trade by providing for the interoperability of transport resources and by fostering market access and competition in the transport sector.

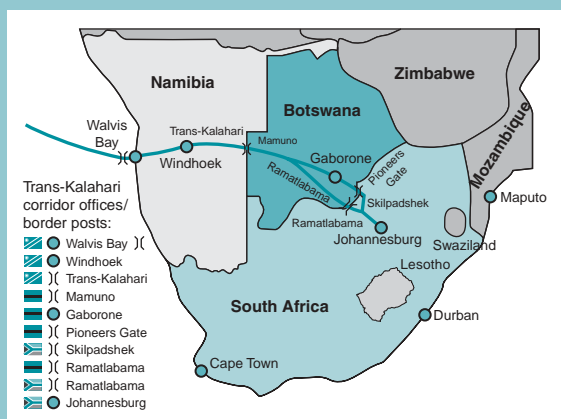
Divergent national regulations for truck size and weight require vehicle checks on both sides of the border and often lead to overload charges and costly delays (box 4.3). In Southern Africa, for example, axle-load regulations are different in Namibia, Botswana, and Zambia (Röschlau 2003). Truckers who are in full compliance in one country can be prosecuted and fined across the border. Regulations concerning insurance, driver's licenses, and other documentation provide ample opportunities for cost savings. For example, the COMESA carrier's license system allows companies to operate regionally without having to pay for multiple licenses. And COMESA's vehicle insurance scheme enables

## Box 4.3 Standardization and simplification can increase trade volumes: The case of the Trans-Kalahari Corridor

The Trans-Kalahari Corridor (TKC), the road route between Gauteng province (South Africa) and Walvis Bay (Namibia) via Botswana was opened in 1998, replacing the traditional longer route through western South Africa. Despite major road rehabilitation in 1999, traffic reached only 15 percent of the expected capacity. The major obstacles occurred at the border crossings. This led the TKC Corridor Management Group to seek a partnership with the customs administrations of Namibia, Botswana, and South Africa. This partnership

resulted in agreements (October 2000) to extend the operating hours of customs at the Namibia/Botswana border from 22 to 24 hours to enable loading and unloading in Windhoek and crossing the border in the same day.

In August 2003, the TKC started a pilot phase to replace all existing transport documents with a single administrative document (SAD). To complement this effort, South African Customs developed a website with details on the SAD process. Border processing times were cut by more than half, from an average time of 45 minutes to 10–20 minutes. According to the United States Agency for International Development (USAID) estimations, reduced border delays created savings of \$2.6 million per year along the corridor. As a result, the route had become economical, and traffic flows increased. Operators were moving about 620,000 tons annually along the TKC, about 65 percent of expected capacity, until the Botswanan government increased road user charges in February 2004. In some cases, road charges were multiplied by a factor of 10. The customs problem had been settled, but following this unilateral decision affecting the transport sector, traffic decreased significantly.



Source: World Bank staff.

transport operators to comply with insurance obligations throughout the region with a single policy. Similarly, ECOWAS's brown card system, introduced in 1982, has helped to reduce settlement time significantly. The success of such initiatives requires effective cooperation between different ministries (transport, interior) in the member states.

The impact of harmonizing customs procedures and transport rules may be limited unless there is competition in the domestic transport sector. In the extreme case of a

domestic transport monopoly, the gains from lower operating costs and more efficient customs procedures may accrue to the transport company in the form of greater monopoly profits—with little impact on trade and poverty. Equally important is competition between routes and between different modes of transport. For example, Lao goods were almost exclusively exported through Vietnam until the Lao People's Democratic Republic developed alternative transit routes through Thailand. It now takes one day for an export

container loaded with garments from Vientiane to reach a main international transport node at Bangkok, compared with three to four days to reach Danang (Banomyong 2000).

Although competition is often included in regional treaties (such as the 1982 ECOWAS convention regulating interstate road transportation or the 1993 COMESA Kampala Treaty),<sup>7</sup> effective implementation is rare. Because national authorities often fear a loss of sovereignty if they allow foreign operators in the market, a regional legal framework and effective enforcement mechanisms are necessary for successful implementation. In the case of the EU, full implementation was not achieved until 1985—28 years after the signing of the Treaty of Rome. Since then, the benefits have been substantial (box 4.4).

In several West African countries, transit regimes are governed by national, bilateral, or

customs frameworks, rather than regional arrangements (UEMOA Commission 2000).<sup>8</sup> Many transport companies oppose the adoption of regional frameworks for fear of upsetting the “tour de role” system.<sup>9</sup> Bilateral transport treaties often predefine the transport share of both countries (normally 50-50); the exporter therefore has no choice in selecting a transport operator. The effect of this system is to protect less efficient operators. Even the more sophisticated North America Free Trade Agreement (NAFTA) has experienced difficulties in implementing cross-border trucking competition, following protectionist pressures from U.S. unions, concerns about truck safety, and Mexican driver qualifications and competence.

MERCOSUR countries implemented the “International Common Manifesto Cargo and Customs Transit Dispatch” (IMC/CTD) in 1991. This form harmonized and unified all

## Box 4.4 Logistics costs in Europe have fallen in the last two decades

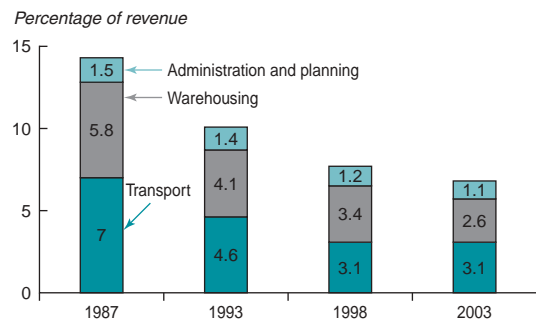
Since the late 1980s the proportion of company revenues spent on logistics in Europe has declined from 14.3 percent to 6.8 percent, a reduction that far exceeds the average level of EU external tariff on manufactured goods (Mentzoni 2003).

This development reflects the following important trends in the logistics industry:

- Centralization of inventory through a smaller number of warehouses;
- Increased outsourcing of logistics services to specialized companies; and
- Just-in-time supply policy (Ruijgrok 2001).

These changes have followed key policy initiatives. The removal of borders within the EU reduced uncertainty and the costs of international transport. At the same time, the EU acted to increase competition in the industry through the adoption of cabotage—a policy that enables carriers to operate

Logistics cost in Europe



Source: ELA/ATKearney.

domestically in all member countries, regardless of their country of registry.

Source: World Bank staff.

information required by different border control institutions (customs, migratory; see Nofal 2004).

***Regional cooperation reinforces transport and trade facilitation programs***

Trade liberalization—whether unilateral, multilateral, or regional—may have a very muted economic impact in the presence of very high transport costs, weak logistical services, and long delays to clear customs. Conversely, in the presence of high trade barriers there may be little reason for traders to lobby for improvements in transport. And trade restrictions that limit quantities may undermine the incentive to invest in improved transport and trade facilitation services. Hence, actions to improve transport and reduce trade barriers are often complementary.

Trade facilitation can be effective even in the absence of a formal RTA. However, a formal agreement *may* help to entrench and enhance facilitation initiatives beyond what is possible through cooperation alone. In principle, unilateral and multilateral liberalization by itself should lead to larger trade volumes—and hence raise incentives to invest in trade facilitation. By inducing a more thorough

dismantling of trade barriers among neighboring countries, regional cooperation can create a broader constituency for facilitating trade flows. Integrating fragmented markets can make infrastructure projects more viable, and thus promote a virtuous cycle of integration and growth.

Realizing the inherent potential of transport and trade facilitation requires both a sound institutional environment and a conducive economic one. RTAs can help address institutional gaps and reinforce the corridor approaches that are common in agreements between developing countries. At the same time, RTAs can provide a forum for the discussion and definition of norms and harmonized rules that are often necessary for effective implementation. Involvement of the private sector in these discussions is often a prerequisite for effective action (box 4.5). Finally, negotiating transport issues in a regional forum can act to depoliticize issues (Schiff and Winters 2002).

Despite the enormous potential for gains from regional initiatives to improve customs and transport services, progress in many cases has been slow. Trade costs remain very high for many developing countries. Many initiatives

## Box 4.5 The case of the Northern Corridor Stakeholders Consultative Forum

Since 1999, officials dealing with transport, transit, and private operators along the Northern Corridor (including Ministry of Transport, Ministry of Trade, customs agencies, exporters, and importers associations, etc.) have been regularly meeting twice a year to discuss transit issues. This private-public sector alliance has produced the following positive developments:

- Elimination of charges on imports routed through the port of Mombasa (by Kenya Bureau of Standards and the Kenya Plant Health Inspectorate Service);

- Development of a one-stop processing center; and
- Reduction of the number of required stamps to go through Mombasa port (from 21 to 11).

As a result of this forum, national transit and trade facilitation committees are being established in the region. Private sector participation has been extended to include insurance clearing agents, bank associations, shippers' council, and the like. Public/private partnerships to tackle trade and transport facilitation are also being established in West Africa.

*Source:* World Bank staff.



to facilitate trade have suffered from a lack of effective implementation. In several agreements, disputes over implementation can only be raised at the political level, which often means that small landlocked countries have great difficulty in securing the necessary compliance from larger neighbors. In these cases implementation is very much a function of political will.

The possibility of taking legal action under regional treaties can help drive implementation of transport facilitation initiatives. The European Court of Justice has played an important role in the implementation of a common transport policy in Europe (Funck 1998). A regional court of justice has recently been established in the Eurasian Economic community of the CIS; another regional court exists in UMEOA in West Africa. While a regional court of justice does not guarantee implementation, it does create potential for more efficient enforcement than is available through less formal dispute settlement channels.

### **Standards, Conformity Assessments, and RTAs**

The construction and implementation of systems of standards, quality assurance, accreditation, and metrology are crucial to competitiveness and sustained growth—and hence to development. Standards have become key elements for facilitating transactions and trade both within countries and in international exchange between countries. Standards support markets and provide for efficient transactions. Standards and technical regulations stipulate what can or cannot be exchanged, and they define the procedures that must be followed for exchange to take place.<sup>10</sup>

The ability of would-be exporters to comply with mandatory health and safety standards, as well as market-driven voluntary standards in overseas markets, is a major factor determining access to those markets. Divergent product standards and duplicative systems for assessing conformity with those

standards can constitute substantial barriers to trade, but these may only become clear after other barriers have been addressed. Reducing tariffs and improving customs and transport can be likened to reducing the water level in a swamp only to find a range of previously covered “snags and stumps that need to be cleared away” (Baldwin 1970).

When producers must alter their product to meet divergent standards in foreign markets, they lose some of the benefits of larger scales of production. When the foreign government does not recognize standards-compliance tests performed in the exporter’s home market, or the home country does not have the facilities to test the product, the exporter must foot the bill for additional tests in the foreign market. For example, in Moldova the certification of organic nut production exported to Germany has to be renewed every 6 months, and each visit from an international certifying company costs \$5,000 plus \$2,000 per production test—once before processing and once after processing. This can amount to \$18,000 per year, which is a heavy burden for firms in an economy such as Moldova, an economy trying to compete in international markets. Upgrading testing facilities and measuring equipment is essential for reducing the costs of conformity assessments.<sup>11</sup>

To reduce the damping effect of divergent standards on international trade, WTO members have agreed to discipline the use of mandatory standards by governments. These are relatively modest provisions—they deal with transparency of standards regimes, equal treatment, and the need to justify standards that differ from internationally agreed-on norms. Efforts to reduce barriers to trade caused by standards and conformity assessment have been more extensive in a small number of RTAs, although empirical evidence identifying the benefits of these interventions is scant at best. The issue for developing countries is whether regional initiatives can provide for more efficient and effective standards and conformity assessment systems. These improved systems would allow governments to

meet domestic objectives to raise health and safety levels, and at the same time, facilitate trade.

***Different paths to better standards systems***

Different approaches are available to raise standards and to address technical barriers to trade. Countries can unilaterally upgrade standards by adopting international standards. However, the technological content and the health, security, and environment objectives of the international standard may not be appropriate for developing countries, because the international standards are strongly influenced by the OECD countries. Further, some of the returns to adopting the international standard—in terms of greater market access—only materialize if the country's trading partners also accept products produced to that standard.

A second approach requires cooperation between countries to upgrade standards. Countries agree that products satisfying particular standards will be accepted in each other's markets. However, cooperation agreements do not discipline other market access barriers, so that returns from the upgrading of standards may be undermined if other barriers are raised to protect a particular sector once standards are harmonized. Typically, the dispute panels in cooperation agreements have a mediation role, not an arbitration role. For these reasons, and unless all parties are committed to the upgrading process, the process of standards upgrading could have important obstacles.

The upgrading of standards within a RTA is characterized by more formal institutions, a higher degree of enforcement, and greater trust originating from the frequent interactions between members and the comprehensive nature of the agreement. Members cannot use tariffs to prevent the entry of a product satisfying the regional standard; this increases the certainty that a country's upgrading efforts will be translated into greater market access. Within PTAs different approaches to standards have been followed, which reflect the

different levels of development and institutional capacities.

We start by discussing the EU experience, where integration has proceeded the furthest. The basis for the free movement of goods in the EU is the principle of mutual recognition of the regulations of partners or the recognition of equivalence. Although standards vary from one country to another, it is presumed that they are designed to meet the same regulatory objectives and to offer equivalent levels of protection to the public. Thus products produced in partner countries can be accepted with the assumption that those products will not undermine basic regulatory objectives concerning health, safety, and the environment.<sup>12</sup> Mutual recognition of regulations is the simplest approach to differences in standards: it is a powerful tool for removing barriers to trade in goods and services, and with this approach the difficulties of detailed harmonization measures, which intrude on national policy making, can be avoided.<sup>13</sup> However, mutual recognition of standards requires a high degree of trust between regulatory authorities (essentially the responsibility for protection of domestic consumers is, in part, transferred to the overseas partner). As such, mutual recognition can only work in regions comprising countries of similar levels of income that have comparable standards.

Effective institutions are also important. In the EU, governments can defer from nondiscrimination and the free circulation of goods for reasons of "public policy or public security" and protection of health as long as such restrictions are not a disguised restriction on trade. To ensure the latter, the EU has developed the following mechanisms for disciplining national regulations and interventions into product markets:<sup>14</sup>

- Infringement procedures, whereby the European Commission acts to enforce community law, although such procedures are very time consuming and costly, have an impact only after the event and are ad hoc.

- Notification procedures, whereby member states are required to notify all draft technical regulations for scrutiny by an EU Committee, whose objective is to prevent new regulatory barriers to trade. In practice, all new national regulations of EU member states have to pass an EU test regarding their impact on the free movement of goods.
- Notification of derogation procedures, which require member states to notify authorities of cases in which they wish to prevent the sale of goods lawfully produced or marketed in another member state, on the grounds of nonconformity and nonequivalence with domestic requirements. This ensures that any derogations from the principle of mutual recognition are transparent and subject to scrutiny.

While mutual recognition of regulations underpins the EU Single Market, it has been apparent for a long time that for certain products and for certain risks (when consumers are directly exposed to hazards), equivalence between levels of regulatory protection embodied in national regulations cannot be assumed. In these cases the EU seeks agreement among members on a common set of legally binding requirements. EU legislation harmonizing technical regulations has involved two distinct approaches, the “old” and the “new.”

The old approach mainly applied to products (chemicals, motor vehicles, pharmaceuticals, and foodstuffs), involved extensive product-by-product or even component-by-component legislation, and was carried out by detailed directives. Achieving this type of harmonization was slow for two reasons. First, the process of harmonization became highly technical, with attention given to very detailed product categories. Consultations were often drawn out. Second, the adoption of directives required unanimity in the Council, which meant that they were slow to be adopted. The limitations of the old approach as a broad tool for tackling technical barriers to trade become

apparent in the 1970s and early 1980s, when new national regulations were proliferating at a much faster rate than the production of European directives harmonizing regulations (Pelkmans 1987).

It became clear that the degree of intervention by the public authorities before a product was placed on the market needed to be reduced, and that changing the decision-making procedure to allow the adoption of harmonization directives by a qualified majority in the Council was needed. The “new approach” regulations indicate only “essential” health and safety requirements, allowing greater freedom to manufacturers to satisfy the essential requirements and to industries to flesh out product specifications in the form of voluntary standards. The new approach makes good use of established standardization bodies—European Committee for Standardization (CEN), European Committee for Electrotechnical Standardization (CENELEC), and the national standards bodies. Standardization work is achieved in a more efficient way, is easier to update, and involves greater participation from industry. Products that conform to the standards promulgated by the European standards agencies are presumed to comply with the essential requirements of the regulations. However, these standards are voluntary, and firms can produce to different standards if they can prove compliance with the requirements of the regulation.

MERCOSUR has followed the old approach of the EU and focused its limited resources on harmonizing national standards at the regional level (see Nofal 2004). MERCOSUR has formulated 366 common technical regulations and some 300 voluntary standards. The Andean Community has recently decided to focus regional harmonization on a targeted number of standards—those of the products most traded. Only 40 regional standards were created, although they cover 60 percent of trade.

When harmonized regulations are pursued, it is important to avoid overly bureaucratic mechanisms. Harmonization through the use

of detailed regulations can lead to excessive intervention by public authorities before a product can be placed on the market and have a chance to prove its viability. Regulators should concentrate on defining essential health and safety requirements while allowing firms the flexibility to meet those requirements and not stifle technological change and competitiveness. The CIS, MERCOSUR, and Andean Community countries still apply an approach based on very detailed harmonized regulations. When a company wishes to introduce a new product, it is often necessary to change the existing regulations or wait for a new technical regulation to be promulgated, which can take considerable time and be very costly. A recent Peruvian technical regulation for gas containers specifies the minimum width of the walls, stating the exact thickness, which effectively prevents the use of new materials that might be lighter but thicker.

ASEAN is also following a policy of targeting key sectors, but it is harmonizing around international standards rather than promulgating its own standards. For 20 key product groups, members should adopt, as national regulations, the agreed-on international norms. Members that do not adopt any of the identified international standards as their national standards still need to accept products from partners that comply with these international standards—unless they can demonstrate an inability to adopt the international standard due to “climatic conditions or infrastructural reasons.”

Here the contribution of the RTA has been to provide an enforcement mechanism through dispute settlement procedures, such that members who do not accept from partners products that satisfy an ASEAN standard are ultimately liable to fines for compensation or removal of concessions. Therefore, ASEAN countries can adopt the ASEAN standards with confidence that incurring the associated costs will not be undermined by subsequent denial of access to partners’ markets.

In agreements where regional institutions are weak, especially free trade areas, barriers

to trade can be removed when standards from different members are shown to be *compatible*. This is the approach of NAFTA and also tends to be applied in bilateral trade agreements that have a standards component, such as those between Chile and the EU and Chile and the United States.<sup>15</sup> The compatibility approach is the converse of the mutual recognition of regulations. Under the compatibility approach, the standards of a trading partner are assumed to be insufficient in their ability to satisfy the importer’s regulatory objectives, unless proven otherwise.

#### ***Recognizing the results of conformity assessment in partners***

Mutual recognition of conformity assessment [usually negotiated in the form of a mutual recognition agreement (MRA)] is necessary if nontariff barriers are to be fully removed. This ensures that the test results from laboratories in the exporter’s home market are accepted by the importer so that the costs of duplicative testing can be avoided. This agreement does not require that both countries have the same standards nor that both countries be members of a PTA. For example, the EU and the United States, for certain sectors, accept the results of product tests (for compatibility with their own standards) that have been completed in the partner’s laboratories.

If conformity assessment institutions are relatively weak, however, harmonization of standards may be a necessary step to facilitate mutual recognition of conformity assessment. This is the approach being followed in ASEAN. The Andean Community established a regulation for compulsory mutual recognition in 2003 for sectors covered by regional standards. MERCOSUR will proceed with mutual recognition of conformity assessment procedures in the near future. However, MERCOSUR is a perfect example of how the conformity assessment infrastructure is lacking: Policymakers prefer to harmonize standards before moving to mutual recognition of conformity assessment, but firms do not show much interest in standards because, in the

absence of mutual recognition of conformity assessment, the returns to investment in standards are low. This suggests that improvements in the conformity assessment infrastructure are necessary.

Singapore has signed a bilateral trade agreement whereby the United States recognizes certifications provided by Singapore to some of its East Asian partners. This highlights that rules of origin can be an important element in an MRA. If Singapore has a comparative advantage in the region in testing and laboratory facilities and is well endowed with professional staff in this activity, then the U.S. agreement with liberal rules of origin (whereby the United States accepts tests from Singapore labs of products from other countries), may help to establish or enhance the position of Singapore as a regional hub for testing and conformity assessment. Rules of origin that restrict the testing and conformity activities to products produced only in Singapore would tend to constrain such a development. EU MRAs tend to have these restrictive rules of origin.<sup>16</sup>

***Regional trade agreements can facilitate mutual recognition of standards***

Effective solutions to problems arising from different standards require a high degree of dialogue and trust among trading partners. RTAs, while not the only path to trust, tend to promote dialogue and communication, which in turn build trust. This has been the case for member countries of MERCOSUR and the Andean Community, in which trust has grown as integration has deepened (Nofal 2004). Such trust needs to be nurtured through openness and transparency when new national regulations are being considered.

RTAs also can provide a favorable negotiating environment and so reduce politicization in standard disputes among members, making it easier to find common solutions for the removal of non-tariff barriers. The interactions that take place in an RTA often improve institutional relationships between the different standards bodies of member countries—and

sometimes even between the institutions of individual countries. These close relationships allow obstacles to be overcome in informal ways, circumventing cumbersome formal interventions. MERCOSUR has yet to adopt mutual recognition of standards, but many conflicts over standards have already been solved by telephone between relevant officials in member countries.

A degree of trust between public institutions and the private sector is also important if more flexible approaches, such as mutual recognition of conformity assessment and/or of regulations, are to succeed. Strong, centralized regulatory cultures tend to produce technical regulations that are too detailed and difficult to change. It is important to ensure the effective participation of the private sector and consumers so that the setting of standards and their enforcement reflect broad rather than narrow interests.

***Successful cooperation in harmonizing standards depends on simple principles***

To date, RTAs in the developing world have not realized their full potential for overcoming standards-related obstacles to regional or global trade, although some slow progress is evident, such as in MERCOSUR. That is likely to change as the WTO agreements on Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPS) come into full practical application, and as the importance of reforming standards systems in developing countries gains prominence. In the meantime, several principles can contribute to successful cooperation in standards and conformity assessment procedures.

A first step for developing countries is to *identify priority sectors* for reform to keep costs low and gather momentum for further reform. The sectors to prioritize are those where trade costs resulting from differences in standards and conformity assessment procedures are higher and where trade between members is large.

Second, if international standards exist for these products and they are appropriate for

all members given their level of development, then the simplest approach is to harmonize around these international standards. This will only be relevant if all members have the capacity to implement them. It is important to clearly define objectives before harmonizing standards so as to avoid overregulation. For example, requiring information on labels that the consumer is unlikely to understand will increase costs and contribute little to the objective of making information available to consumers.<sup>17</sup>

An open and transparent system, with standards published in an accessible official bulletin before being implemented, is essential if regional initiatives are to facilitate trade between members and preclude the difficulties facing exporters from outside of the region. Ensuring flexibility is also important; thus, regulations that set minimum standards rather than detailed requirements are less restrictive for firms. When countries face internal resistance to modernizing and adopting new standards, the compliance with standards can be offered on a voluntary basis. This allows those firms that are able and willing to satisfy the new standards to progress. Daskalov and Hadjikolonov (2002) show how such an approach made it possible for more advanced and competitive local producers in Bulgaria to quickly adopt European standards before they were formally introduced as mandatory Bulgarian standards.

In the short run, the greatest gain for many developing countries is likely to come from improvements in the testing, certification, and accreditation institutions to underpin greater enforcement capacity. Initiatives that improve these institutions are likely to have large pay-offs by allowing governments to achieve more effectively their existing objectives concerning health and safety and facilitating greater exports on both a regional and a global basis. For example, most MENA countries require that testing be done at their national laboratories, which are usually less sophisticated than European testing centers and saddled with cumbersome procedures, pushing up

product costs (World Bank 2003). This hurts MENA exporters and prevents MENA countries from joining global production chains destined for EU markets.

Many developing countries are too small to efficiently offer a full range of these conformity assessment services. Often there are too many laboratories offering poor quality services.

RTAs can contribute to better conformity assessment first, and most simply, by facilitating dialogue and the sharing of technical knowledge. More ambitious initiatives can build regional accreditation bodies to increase efficiency and enhance the reputation of local certification bodies in the global market. An open regional market for laboratory services can lead to cheaper yet higher quality testing on the basis of specialization and economies of scale. However, it must be stressed that while the potential gains are large, there are very few successful initiatives that can provide useful guidelines. ASEAN provides an example where members are pushing forward with a number of initiatives, including cooperation on legal metrology, and efforts to enhance conformity assessment bodies to facilitate mutual recognition of test reports and certifications.

RTAs can also provide a framework for collaboration that increases the effective participation of developing countries in international standards organizations and at the WTO. This is important if international standards and conformity assessment measures are to reflect the interests of developing countries—and therefore make the TBT and SPS agreements relevant for the majority of WTO members. For this participation to be successful, the structure of international standards institutions needs to be modified to reduce the costs of representation of developing countries. The International Standards Organization (ISO) has moved one step in this direction by being the first standard institution to allow electronic voting. This could be extended to other institutions. Another possibility would be to allow RTAs to represent their members in standard-setting committees,

which would reduce members' costs of representation.

Attempts to remove barriers caused by differences in standards and conformity assessment requirements will be more effective in a climate of trust and mutual understanding. Such a climate requires a genuine willingness to liberalize and is unlikely to result in agreements with many exceptions, frequent recourse to safeguard measures, and high barriers at the border that can be due to customs delays and inefficient port and transport services.

The lack of relevant examples of successful intervention at the regional level to deal with standards issues makes it difficult to derive clear proposals based on best practices. In this light the best recommendation is for developing countries to proceed with caution and concentrate on targeted coordinated action for which the institutional requirements are not extensive and the gains are clear.

### Trade-Related Regional Cooperation Agreements

Countries can benefit from other forms of cooperation that are linked to trade directly through RTA arrangements or indirectly when they influence trade-related inputs or outputs.<sup>18</sup> Such trade-related cooperation can deal with shared resources, such as water, fishing areas, power, railroads, or the environment. Schiff and Winters (2002) make the case that in the presence of economies of scale or inter-country externalities, market solutions to problems are not necessarily the best, and regional cooperation can often pay large dividends.

When regional cooperation arrangements are embedded in RTAs, it may be easier to conclude and implement these arrangements. Increasing trade raises the level of salience of all aspects of regional cooperation and may foster greater high level attention to the regional arrangement and allow for more effective and informal dispute resolution. Moreover, agreements that cover more policy domains—for example, trade, transport,

power, and the like—allow countries to trade off gains in one area against losses in another, reducing or even eliminating the explicit compensatory schemes that would otherwise be needed (Schiff and Winters 2002).

Consider some examples. The Southern African Development Community (SADC) provided the coordination point for regional integration in a regional power cooperation agreement. The Southern African Power Pool (SAPP), launched in 1995, was designed to take advantage of power resources in the region and was the first formal international power pool outside of North America. The 12-country region has abundant hydropower resources, especially the Inga Reservoir, large reserves of cheap coal in South Africa, and the Karriba Dam on the Zambia/Zimbabwe border. The pool covers 6 million square miles and serves 200 million people. Utilities in the region had been trading electricity for decades through bilateral contracts, but these were cumbersome to administer. The objective for shifting to the pool was to create a more efficient regional market. The SAPP is modeled on the “loose” pools in Western Europe and the United States, which emphasize constant exchange of information to maximize the cost and reliability benefits from trading and system autonomy. Rather than relying on central dispatch, loose pools rely on long-term bilateral contracts drawn up with common designs and security standards plus some central services. Unlike in the developed world, SAPP membership is limited to national utilities. Each member must meet its Accredited Capacity Obligation, a requirement that each utility have capacity to cover its forecast monthly peak. Each member is also obliged to cover emergency energy up to six hours, to provide automatic generation control and other facilities in its control area, and to allow wheeling through its system. SAPP includes most Southern African Development Community (SADC) members and is predicated on the latter's institutions, including the SADC Treaty, the SADC Dispute Resolution Tribunal, the SADC energy ministers, and the

Technical and Administrative Unit. The energy ministers are responsible for resolving major policy issues.

Though still in its early stages, the pool's potential benefits include reducing or postponing new requirements for generating capacity and reserves, lower fuel costs, and more efficient use of hydroelectricity. A SADC electric power study conducted in 1990–92 estimated a savings of 20 percent (\$785 million) in costs over 1995–2010.

Three factors were critical to the development of the regional agreement: The availability of complementary power sources, an active regional organization for economic cooperation, and the political will to support increased regional energy trade. SADC and its predecessor, the Southern African Development Coordination Conference, served as focal points for promoting regional integration and facilitating investments in the needed interconnection projects.

NAFTA offers another example. NAFTA has also fostered regional cooperation for the environment by tying essentially extraneous environmental issues to the trade and investment deal. This link helped to create the necessary political support for NAFTA in the United States, and it encouraged Mexico to accelerate their environment program in order to close the deal. The North American Agreement on Environmental Cooperation (NAAEC) was signed as one of the side agreements appended to NAFTA at the last moment. It created the Commission for Environmental Cooperation (CEC) in Montreal in early 1994 to carry out the provisions of the agreement. The CEC has a young but growing conservation portfolio, focused mainly on protecting habitats and species. A broad program of cooperation to protect North American birds is in place, aimed at identifying important bird areas across the three member countries and tying them into a protected network. A Biodiversity Information Network is under creation, and strategies are being developed for cooperation to protect marine and coastal ecosystems. The CEC has also coordinated

measures to protect the monarch butterfly. Currently there is an active task force working to stop the smuggling of endangered species. Under this program, U.S. Fish and Wildlife officers are training Mexican officers.

While the trade agreements underpinning these regional cooperation initiatives were not essential to the actual activities, it is clear that they have provided useful political and institutional synergies.

## Conclusions

One advantage of regional preferential trade arrangements is that they create opportunities to lower trade costs in areas other than tariffs and non-tariff barriers to trade. This review of trade facilitation, standards administration, and regional cooperation agreements points to several conclusions.

The potential to expand trade by lowering trade costs other than policy border barriers is great—and it may have a higher payoff to cooperative governmental efforts than reciprocal reductions in border barriers. This is because the costs of institutional obstacles, informal barriers, and sub-optimal regulatory scales are often higher than the costs associated with policy border barriers. Further, many of these barriers do not generate revenues but simply waste economic resources and directly constrain productivity. These issues are also important elements defining the investment climate.

RTAs can precipitate cooperation to lowering trading costs in these areas because RTAs raise the level of policy salience, spread information about members and about international markets, improve the institutional efficiency of countries (better coordination between the different institutions within a country and between countries), provide “institutional homes” for joint initiatives, and may facilitate dispute resolution across multiple areas.

Countries need not act in concert to reap the benefits of unilateral reforms; the chances of unilateral success are much improved, however, when policymakers are well



informed about international standards and the trade-facilitation activities of other countries. In the absence of such information, and of the capacity to act on it, it is unlikely that a country, acting alone, will be able to match the benefits from participating in an RTA.

Finally, it seems clear that many RTAs are not realizing their potential as a forum for reducing trade costs. North-South agreements appear to have had somewhat greater success, perhaps because of the institutional interests and strength of the more advanced partner.

## Notes

1. Lawrence (1997).
2. For example, McCallum (1995) reports results suggesting that Canadian provinces are more than 20 times more likely to trade among themselves than they are to trade with U.S. states after controlling for the main economic determinants of trade. Subsequently, Nitsch (2000) found evidence of substantial border effects in Europe, with internal trade being, on average, larger by a factor of 10 than trade with EU partners, although the magnitude of this effect did decline during the 1980s.
3. See, for example, Hummels and Skiba (2002).
4. GATT Article V mandates freedom of transit and national treatment of products in transit. However, this provision has never been invoked. The WTO framework provides little leverage for poor, landlocked countries to improve transit conditions.
5. Trade facilitation is of particular importance to landlocked countries, whose products must pass through numerous border crossings and checkpoints. Of the 50 least developed countries, 16 are landlocked: Afghanistan, Bhutan, Lao People's Democratic Republic, Nepal, Burkina Faso, Burundi, Central African Republic, Chad, Ethiopia, Lesotho, Malawi, Mali, Niger, Rwanda, Uganda, and Zambia. Even coastal developing countries may be effectively landlocked if they are not on major shipping routes and are served by inefficient and high cost coastal feeder services to main ports. Being landlocked has a significant and depressing effect on trade. For these countries, a regional approach may be the only way to improve access to global markets, since there seems to be little scope at present for solving transit issues within the WTO. Corridor solutions are efficient responses to the transport problems of landlocked economies with deficient infrastructure. By definition they require bilateral or regional intervention.
6. RTAs with TTF approaches include the European Union, MERCOSUR, Andean Community, SADC, COMESA, EAC, UMEOA, SAFTA, Eurasec, and ASEAN. Two RTAs have no associated TTF: NAFTA and GCC. Three examples of TTFs existing independently of RTAs are ECO, ECOWAS, and the Northern Corridor Transit and Transport Agreement.
7. In treaties, competition is literally ensured through "equal treatment of carriers" or non-discrimination regarding carrier's nationality, known as respect of the third party rule.
8. According to UMEOA Commission (2000), 73 percent of the legal rules and customs governing transport and transit regimes were derived from bilateral treaties (34 percent), national legislation (24 percent), and customs (15 percent); 27 percent were derived from regional treaties.
9. Collusion between transport operators leads to agreement on price setting. National associations play a role in determining which goods a company will transport.
10. Standards can be mandatory as defined by governments (through technical regulations) so as to meet their objectives regarding health, safety, and environmental issues; as well as voluntary, reflecting the demands and tastes of consumers or the technological requirements of industrial purchasers. In addition to the writing of standards, an essential element of the system of standardization is conformity assessment, the technical procedures such as testing, verification, inspection, and certification, which confirm that products fulfill the requirements laid down in regulations and standards.
11. From The Republic of Moldova Trade Diagnostic Study, World Bank, 2004.
12. The principle of mutual recognition was developed on the basis of European Court of Justice case law, specifically, the Cassis de Dijon and Dassonville judgements. In the former case, cassis from France was prevented from being sold in Germany because it did not contain enough alcohol!
13. Mutual recognition of regulations has also been used within federal countries to remove barriers to inter-state trade. For example, Australia formally adopted mutual recognition in 1993 to remove regulatory barriers to the free flow of goods and labor between Australian states and territories. As in the EU, some harmonized regulations are promulgated at the federal level.
14. See Pelkmans and others 2000.
15. Bilateral trade agreements with the EU tend to contain support for developing capacity in the developing country, whereas those with the United States provide little such support.
16. Chen and Mattoo (2004) show evidence that MRAs promote trade, but that restrictive rules of origin lead to trade diversion, especially against developing countries.

17. Large companies in Brazil used their influence to their advantage in setting a voluntary labeling standard that requires water bottlers to include the results of numerous tests that are not understood by, or particularly relevant to, the consumer, but that constitute an effective barrier to entry to small companies that cannot afford the battery of tests required to provide the information. SEBRAI, a private institution that provides support services for small enterprises in Brazil, is working to improve access to certification and metrology for its client firms. Through “solidarity certification,” for example, SEBRAI helps groups of small enterprises become certified at subsidized group rates. SEBRAI also provides bonds that subsidize small enterprises’ expenditures for metrology services.

18. This section draws heavily from Schiff and Winters (2002).

## References

- Anderson, J., and E. van Wincoop. 2004. Trade Costs. NBER Working Paper 10480, National Bureau of Economic Research, Cambridge, MA.
- Arvis, J. F. 2004. Transit and the Special Case of Landlocked Countries. In *Handbook of Customs Modernization*, eds. L. de Wulf and J. Sokol. Washington, DC: World Bank.
- Banomyong, R. 2000. Multimodal Transport in South East Asia: A Case Study Approach. PhD thesis, University of Cardiff, www.bus.tu.ac.th/usr/ruth.
- Baldwin, R. 1970. *Non-Tariff Distortions of International Trade*. Washington, DC: Brookings Institution.
- CEC (Commission of the European Communities). 1998. *Technical Barriers to Trade, Volume 1*. Subseries III: Dismantling of Barriers of The Single Market Review. Luxembourg: CEC.
- Cudmore, E., and J. Whalley. 2003. Border Delays and Trade Liberalization. NBER Working Paper 9485, National Bureau of Economic Research, Cambridge, MA.
- Carruthers, R., J. Bajpai, and D. Hummels. 2003. Trade and Logistics: an East Asian Perspective. In *East Asia Integrates: A Trade Policy Agenda for Shared Growth*, eds. K. Krumm, and H. Kharas. Washington, DC: World Bank.
- Chen, M., and A. Mattoo. 2004. Regionalism in Standards: Good or Bad for Trade? World Bank. Processed.
- Daskalov, S., and D. Hadjinikolo. 2002. The Impact of Technical Barriers to Trade on Bulgaria’s Exports to the EU and to the CEFTA Countries. In *Enlargement, Trade and Investment: the Impact of Barriers to Trade in Europe*, eds. P. Brenton, and S. Manzoocchi. Cheltenham, UK: Edward Elgar.
- Engel, C., and J. Rogers. 1996. How wide is the border? *American Economic Review* 86: 1112–1125.
- Evans, C. 2001. Home Bias in Trade: Location or Foreign-ness? Staff Report 128, Federal Reserve Bank of New York.
- Faini, R. 2004. Trade Liberalization in a Globalizing World. Paper presented at Annual World Bank Conference on Development Economics, Washington, DC, May 2004.
- Funcf, R. 1998. Integration of Transport Systems- the European Experience. Report for the EU-SADC Conference on Transport, Maputo, October.
- Hoekman, B., and Konan, D. 1999. Deep Integration, Nondiscrimination, and Euro Mediterranean Free Trade. Discussion Paper 2095, CEPR, London.
- Hummels, D., and A. Skiba. 2002. A Virtuous Circle? Regional Tariff Liberalisation and Scale Economies in Transport. In *Integrating the Americas: FTAA and Beyond*, eds. A. Estevadeordal, D. Rodrik, A. M. Taylor, and A. Velasco. MA: Harvard University Press.
- Hummels, D. L. 2000. Time as a Trade Barrier. GTAP Working Paper 18, Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University.
- Lawrence, R. 1997. Preferential Trading Agreements: The Traditional and the New. In *Regional Partners in Global Markets: Limits and Possibilities of the Euro-Med Agreement*, eds. A. Galal, and B. Hoekman. London: CEPR.
- McCallum, J. 1995. National borders matter: Canada-U.S. Regional Trade Patterns. *American Economic Review* 85: 615–23.
- Mentzoni, J. T. 2003. Trade Logistics—A Study of Logistics Costs in Norwegian Wholesaler Industry. Processed. www.transportbrukerne.no.
- Nofal, Beatriz. 2004. Constructing a deeper integration in MERCOSUR. Background paper for the *Global Economic Prospects 2005*. Washington, DC: World Bank.
- Nitsch, V. 2000. National Borders and International Trade: Evidence from the European Union. *Canadian Journal of Economics* 33: 1091–105.
- Pardo, M. 2001. Pasos Fronterizos en la Comunidad Andina. IADB. Processed.
- Pelkmans, J. 1987. The New Approach to Technical Harmonisation and Standardisation. *Journal of Common Market Studies* 25.
- Pelkmans, J., E. Vos, and L. Di Mauro. 2000. Reforming product regulation in the EU; a Painstaking Two-level Game. In *Regulatory Reform and Competitiveness in Europe, Volume I*, eds. G. Galli and J. Pelkmans. Cheltenham, UK: Edward Elgar.

- Röschlau, F. 2003. Double Standards Cause Regional Transport Nightmares, e-corridor, Walvis Bay Corridor Group, number 3.
- Ruijgrok, C. 2001. European Transport: Insights and Challenges. In *Handbook of Logistics and Supply-Chain Management*, eds. A. Brewer, K. Button, and D. Hensher, chapter 3. New York: Pergamon Press.
- Schiff, M., and A. Winters. 2002. Regional Cooperation, and the Role of International Organizations and Regional Integration. Policy Research Working Paper 2872, World Bank, Washington, DC.
- Trefler, D. 1995. The Case of the Missing Trade and Other Mysteries. *American Economic Review* 85: 1029–46.
- UEMOA (West African Economic and Monetary Union) Commission. 2000. *Projet de Rapport de Synthèse Préparatoire à la Table Ronde des Bailleurs de Fonds sur les Infrastructures et le Transport Routier des Etats Membres de l'UMEOA*. Ouagadougou.
- UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific). 2003. *Transit Transport Issues in Landlocked and Transit Developing Countries*. New York, ST/ESCAP/2270.
- Wilson, J., C. Mann, and T. Otsuki. 2003. Trade Facilitation and Economic Development; Measuring the Impact. Policy Research Paper 2988, World Bank, Washington, DC.
- World Bank. 2003. *Trade, Investment, and Development in the Middle East and North Africa: Engaging with the World*. Washington, DC: World Bank.
- World Bank. 2004. The Republic of Moldova Trade Diagnostic Study. World Bank, Washington, DC.