Introduction
The relationship between economic growth, trade facilitation, and development is relatively simple in theory. Economic theory suggests that development is enhanced through income growth -- which is driven through increased trade. Expansion of trade is achieved, at least in part, through programs to lower transaction costs in goods and services crossing borders. Although these linkages appear straightforward, measuring the benefits of trade facilitation based on empirical evidence is much more challenging. This is particularly true when considering capacity building priorities.

There is no standard definition of trade facilitation. In a narrow sense, trade facilitation relates simply to the logistics of moving goods through ports or the required documentation at a customs post at the border. More recently, the definition has broadened to include the environment in which trade transactions take place. The focus of trade facilitation efforts is now clearly inside the border. Reform involves "domestic" policies and institutional structures where capacity building can play an important role. This includes, for example, transparency in government regulatory agencies and harmonization of standards and conformance to international norms (Woo and Wilson 2000). In addition, the rapid integration of networked information technology into trade suggests that modern definitions of trade facilitation should encompass technology infrastructure, as well.

Trade facilitation is also part of policy debate in both "behind and at the border" issues under discussion in the World Trade Organization (WTO). During the Singapore Ministerial of the WTO in 1996, the subject was added as a new issue for possible negotiation. Disagreement over the merits of starting talks on the four Singapore issues -- trade facilitation, transparency in government procurement, competition and investment -- was one of the reasons for the breakdown of talks at the Cancun Ministerial Conference of the WTO that concluded in September 2003 (see Trade Notes #13 and 14). This note looks at the development benefits of improving ports, customs, and trade-related infrastructure and links these to new concerns for security as they affect global trade.

Measuring the Impact of Trade Facilitation
The cost of moving goods across international borders is now as important as tariffs in determining the cost of landed goods. The ability of countries to deliver goods and services in time and at low costs is a key determinant of their participation in the global economy. Easier movement of goods and services clearly drives export competitiveness. A limited number of empirical studies of trade facilitation, however, exist to inform policy decisions. For example, Maskus, Wilson, and Otsuki (2001) address several of the more important empirical methods and approaches to quantifying the gains of trade facilitation related to harmonized regulations. In addition, the Australian Department of Foreign Affairs and Trade and Trade and Chinese Ministry of Foreign
Trade and Economic Cooperation (2001) suggest that moving to electronic documentation for trade would yield a cost savings of some “1.5 to 15 percent of the landed cost of an imported item.” If a simple average of a 3 percent reduction in landed costs were applied to intra-APEC merchandise trade, the gross savings from electronic documentation could be US$60 billion. The Organization for Economic Cooperation and Development (OECD) (2001) summarizes other available studies, most of which are limited in their definition of trade facilitation or use data collected many years ago.

Several studies employing a general equilibrium model have assessed the impact of reduced transactions costs on trade flows. A study by UNCTAD (2001) shows that a 1 percent reduction in the cost of maritime and air transport services could increase Asian GDP some US$3.3 billion. If trade facilitation is considered in a broader sense to include an improvement in wholesale and retail trade services, an additional US$3.6 billion could be gained by a 1 percent improvement in the productivity of that sector. APEC (1999) find that “shock” reduction in trade costs from trade facilitation efforts vary from 1 percent of import prices for industrial countries and the newly industrializing countries of Korea, Chinese Taipei and Singapore, to 2 percent for other developing countries. The report estimates that APEC merchandise exports would increase by 3.3 percent from trade facilitation efforts.

Hertel, Walmsley and Itakura (2001) examine the impact on trade of greater standards harmonization for e-business and automating customs procedures between Japan and Singapore. They find that reforms would increase trade flows between these countries as well as their trade flows with the rest of the world. In addition, Hummels (2001) concludes that each day saved in shipping time in part due to a faster customs clearance is worth 0.5 percent reduction of ad-valorem tariff. Other empirical studies measure the impact on trade of e-commerce (Freund and Weinhold 2000), communication costs (Fink, Mattoo and Neagu 2002), and standards (Moenuius 2000; Otsuki, Wilson and Sewadeh 2001a, 2001b).

The analysis of capacity building in trade facilitation in the Asia Pacific Economic Cooperation (APEC) by Wilson, Mann, and Otsuki (2003), was extended in the World Bank’s Global Economic Prospects 2004: Realizing the Promise of the Doha Agenda. The authors find that enhanced capacity in global trade facilitation would increase world trade by approximately $377 billion dollars—an increase of about 9.7 percent. About $107 billion (2.8 percent) of the total gain comes from the improvement in port efficiency and about $33 billion (0.8 percent) results from the improvement in customs environment (see Figure 1). The gain from the improvement in regulatory environment is $83 billion. The largest gain comes from an improvement in services sector infrastructure and e-business usage ($154 billion or 4.0 percent). Overall, the gains from exporter’s improvements in trade facilitation dominate those from importer’s improvements. The results also imply that increased capacity to comply with GATT Article V (freedom of transit)- measured by the ‘port efficiency’ indicator, Article VIII (fees and formalities connected with importation and exportation)-measured by the ‘customs environment’ indicator, Article X (publication and administration of trade regulations)- measured by the ‘regulatory environment’ indicator could raise global trade for all WTO members.

**The New International Security Dynamic**

Economic advance depends upon stable investment, consumption, and export growth. A stable investment climate is critical to investment and growth in developing countries. Greater security can lead to higher levels of foreign
investment over time. Terrorist acts increase the risk premium and undermine investor confidence, making investors less keen to invest in new projects. Under such conditions, investors could become risk-averse – favoring low-risk, lower return investments as opposed to riskier, higher yielding long-term investments. In addition, outdated and corrupt customs systems, for example, not only increase security risks but also impede trade and raise transactions costs.

Customs fees and formalities usually constitute a small part of trade-related transactions costs. Complex requirements in cross-border trade, however, clearly increase the scope for corruption. A number of studies have explored the effect of corruption on growth. In a cross-country study of 67 countries using a corruption index based on firm-specific responses, Mauro (1995) found that corruption has a negative impact on investment and growth to GDP. Kaufmann and Wei (1999) found that corruption was positively associated with two subjective indicators -- the degree “to which government regulations impose a heavy burden on business competitiveness” and the “degree to which government regulations are variable and lax”. Moreover, duty shortfalls traced to irregular customs have been estimated up to 50%. Countries that rely on such revenue can suffer significant losses in public finance over time.

Any new work to quantify the impact of trade facilitation on growth must now consider how security protocols in the wake of the September 11, 2001 tragedy will affect world trade. The U.S., European Union, and other countries have started programs to enhance port security through container cargo inspections, install advanced airport security equipment, and strengthen customs administration and infrastructure around the globe. The U.S. has been a major advocate of these new protocols. Security plans in other parts of the world have also been revised and strengthened. Measuring the impact of security programs on global trade is problematic. Security can increase trade costs by requiring costly changes in business practices and new investment in technology and infrastructure. Limited implementation capacity in developing countries to comply with the new requirements can affect export competitiveness. For example, to avoid delays and fines, shippers are adding extra cycle time to their supply chain. It is clear, however, that strengthened security can in the long-term significantly improve trade, growth, and development prospects around the world.

A precise analysis of the impact of new security programs on trade is extremely difficult, given the evolving nature of these initiatives. The September 11th terrorist attacks resulted in strengthened transport security that led to higher frictional costs relating to transport, handling, insurance and customs. These additional costs can affect trade even in the medium and long run (Walkenhorst and Dihel, 2002).

Their study of the effects of September 11th on international trade indicates that regions with high trade to GDP ratios and sectors with elastic import demand incurred the greatest trade and welfare losses in relative terms. The authors estimate world welfare to decline by $75 billion per year as a result of a 1% ad valorem increase in frictional costs to trade. While Western Europe and North America suffer the greatest loss in absolute terms; other regions such as South Asia, North Africa and Middle East who are more dependent on foreign trade are the primary losers in relative terms. In sum, terrorism and lack of security in trade clearly involves not only tragic loss of life, but also damages economic growth, prospects for foreign investment, and poverty alleviation.

Reduced security threats in the future with technology-intensive initiatives should be considered an investment – resulting in efficiency gains, greater use of electronic commerce, and enhanced security. Automated technology, greater information sharing and security-inspired modernization measures can accelerate global trade. Delays in clearance of goods through customs that currently impedes competitiveness of developing country trade can also be reduced – contributing to port efficiency (see Figure 2).
In sum, cooperation in adopting collective measures to promote transport security, improving customs regimes, port facilities and logistics management has to be a priority. A coordinated program and platform to discuss trade and security is needed. The end result would then be a global trading system that secures trade and accelerates trade flows simultaneously.

Conclusion

The failure of the WTO Ministerial in Cancun represents a serious setback to prospects for multilateral trade liberalization, economic growth, and development (see Trade Note #14 for a more detailed discussion of these issues). Trade liberalization and removal of non-tariff barriers, such as those reflected national rules affecting trade facilitation contribute directly to growth and poverty alleviation. If crafted carefully, with adequate consideration of institutional appropriateness to level of development and with adequate development assistance to offset the costs of administrative investments in building capacity, new WTO rules may help increase transparency, predictability, and streamline trade transactions could provide benefit to the international trading system.

Trade facilitation, however, is considerably broader than these issues and it is this broader agenda that holds the potential for speeding growth. Lowered transaction costs and capacity building improvements, as noted in the new research above and other empirical studies, could provide significant gains to trade and exports from developing countries. Streamlined trade procedures, customs rules, and administrative transparency are also timely and important, given the need to bolster security after the tragedy of September 11, 2001. Rapid implementation of new national security border controls around the world is already underway.

Institutional change and infrastructure modernization agendas are complex -- and priorities differ across countries. There is a unique opportunity today, given the profile and demonstrated importance of trade facilitation, to craft a classic win-win situation in which security is enhanced and developing countries raise capacity in areas that matter more and more to success in modern international commerce. The World Bank will have a role in this work, along with other institutions, such as the World Customs Organization, regional development banks, and other agencies, in helping to shape such a success.

At the Cancun Ministerial in September 2003, the Bank announced a program to step up trade-related assistance in support of success in the Doha Agenda, including in trade facilitation and logistics. The work program includes more resources devoted to research and analysis, both to support developing countries in formulating their own trade policies and to better identify options that would benefit all parties to the talks.

For example, there is a clear need for better data on how barriers in transport, customs, and outdated regulatory systems affect global trade – and the prospects for developing countries to expand export-led growth. The new work of the Bank in the “Trade Facilitation Initiative” also includes a review of the Bank’s project portfolio in ports, customs, and other trade-related infrastructure. Based on client demand in areas where the Bank can make a clear difference, the institution will seek to increase financing support to projects with trade facilitation goals. We plan to serve a larger number of countries over a three-year period FY04-06 from about one third of our client countries to about half.

The Bank’s work could also include financing for transition costs in developing countries, such as those confronting compliance with WTO rules, as well as capacity building and technical assistance...
to meet regional trade integration goals. The work of other development institutions and organization, along with the private sector will also be critical in building the capacity needed to meet poverty-reduction goals over the long-term by addressing trade facilitation into the next century.

References


**Further Reading**


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1 This figure is comparable to the estimates of $30-58 billion losses for the insurance industry by the OECD (2002).

*This note was prepared by John S. Wilson, Lead Economist, in the Transport and Urban Development Department (TUDTR), the World Bank. This Trade Note can be downloaded at [http://www.worldbank.org/trade/](http://www.worldbank.org/trade/)*