

**Assessing the Doha Round:
Market Access, Transactions Costs and Aid for Trade Facilitation***

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* The views expressed are personal and should not be attributed to the World Bank or UNCTAD.

1. Introduction

Technological changes and policy reforms to reduce restrictions on cross-border flows of goods, services, workers, finance and knowledge have made the world much more integrated in the last 3 decades. Trade to GDP ratios doubled between 1980 and 2007, and the value of financial flows, remittances and royalty payments rose substantially more. Supply chains became global, intra-industry and intra-firm trade volumes grew rapidly, and ever more firms engaged in FDI. These developments were supported in part by trade and investment liberalization around the globe. They also imply that traditional trade policy became less relevant as a tool of public policy: why pursue a policy that puts barriers in place that prevent the participation of domestic firms in global supply chains? Even for industries where fragmentation of production is less feasible, e.g., many services, widespread cross-hauling of FDI implies that governments have less incentive to resort to traditional protectionism to support domestic industries – because much of the benefit will accrue to non-nationals.

The globalization of production and investment that has occurred since the early 1990s helps explain the limited interest of the business community in the Doha Round. World trade was booming through much of the Doha Round – from 2001 through the first half of 2008. The limited lobbying effort by major firms in the Doha Round suggests the payoff from further improvements in market access was perceived to be limited, or, alternatively, that the prospects of success in areas where there are still major barriers (e.g., agriculture, services) was seen to be low. Moreover, the relative lack of engagement (as compared to the Uruguay Round for example) also suggests there was limited concern about the prospects of future policy reversals. Although much unilateral trade reform occurred in the last 15 years for manufactures and services, much of this has not been bound in the WTO. A major function of the WTO is to act as a mechanism for governments to reciprocally commit not to exceed certain tariff levels or market access restrictions for services (bindings) and to abide by negotiated rules of the game in the application of their trade policies. Aside from a number of instances where governments bailed out firms, forced mergers or nationalized financial institutions, the absence, to date, of major protectionist backsliding in response to the financial crisis that erupted in many OECD countries in mid 2008 and the consequent rapid decline in global demand

and world trade suggests that firms may have been correct in their assessment of the robustness of the trade policy reforms that have been implemented in the last 2 decades.

However, the global food and fuel price spikes during 2007-2008 revealed that producing countries/governments will not hesitate to impose export restrictions in an effort to keep supplies at home and lower domestic prices. The policy reactions to global shortages and resulting high prices sent a signal to net importers of the commodities concerned that efforts were needed to stimulate local production – of food and alternative sources of energy, including biofuels. The latter made matters worse for food price inflation as certain cereal crops were diverted to energy production. Global markets were shown to be unreliable in times of shortage. The scope for nationalistic responses to global shortages to generate additional welfare reducing inefficiencies and distortions in importing countries – e.g., efforts to promote domestic supply – is great.

The financial crisis may also have implications for the viability of the manufacturing supply chains that have driven globalization in recent decades. Insofar as the global production fragmentation was conditional on cheap finance (ample liquidity), a reversion to a period in which finance is more expensive and oriented more towards “home” markets may create incentives for geographic restructuring of production chains and greater vertical integration within large firms. In the medium term, pressure on the global supply chain model may also increase if policies to reduce carbon emissions (e.g., carbon taxes and high oil prices) create incentives to shorten supply chains. The end result may be a shift of production towards regional instead of global platforms and networks.

The forgoing suggests that rapidly concluding the Doha round is now more important than when the round was launched in 2001. If global production platforms unravel, further locking-in (binding) current trade policies will help prevent a potential rise in traditional protectionism – be it national or at the level of a regional bloc. Further reduction in MFN barriers will help attenuate the incentives to “go regional”, given that one attraction of a regional strategy is that intra-regional trade in the major regions (wider Europe, North America, much of East Asia) are now essentially tariff free for manufactures. Doha is also important as it is the only platform through which

governments can negotiate downward the trade-distorting agricultural support policies that generate negative spillovers for many developing countries and the world as a whole.

Many key policy areas that call for international cooperation are not on the table in Doha. Key policy instruments affecting trade in food, fuel and finance are not adequately covered by Doha. The beggar-thy-neighbor policy responses to high food and fuel prices in 2008 illustrate the importance of agreeing to stronger disciplines on the use of export restrictions and establishing a credible framework of rules that ensure that all countries have reliable access to commodities. Implicit (or explicit) subsidies for domestic consumption in net exporters reduce global welfare both directly and indirectly by creating incentives for net importing countries to increase production – by emulating the highly distortive and costly support programs used by many high-income countries for agriculture and biofuel production. Insofar as the conclusion of Doha is a precondition for the pursuit of international cooperation on these subjects, it makes deal even more urgent.

A unique feature of the Doha round is the recognition that negotiations on market access and trade policy disciplines must be complemented by measures to assist developing country exporters – aid for trade. An important element of the cooperation needed to safeguard an open global trading system is to address the repercussions of exogenous shocks through non-trade instruments. As is true for the Doha Round, the need for development assistance to complement trade negotiations has become more, not less, urgent since 2001. For countries where firms confront high trade and operating costs because of a lack of infrastructure, inefficient customs clearance systems, redundant red tape, etc., improving competitiveness is more important than before the crisis struck simply because the competitive environment has become much tougher. Some of the policies that give rise to real trade costs reducing the competitiveness of firms in developing countries are being addressed in the Doha Round trade facilitation negotiations.

In this paper we compare the predicted trade impacts of a successful Doha Round with the trade effects of actions aimed at reducing domestic trade costs for traders in developing countries and the world as a whole. We show that only a marginal improvement in terms of reducing trade costs will generate trade impacts that are larger

than what can be expected even from a relatively ambitious Doha Round outcome in terms of market access. While improvement in applied market access levels is much too narrow a metric through which to assess the Doha round for the reasons noted above, our analysis serves to illustrate the importance of donors living up to the commitments they made at the Gleneagles G-8 and WTO Hong Kong meetings in 2005.

The plan of the paper is as follows. In the next section we review the likely impact the Doha Round would have on applied levels of protection (market access). This is followed by a brief characterization of what the available data suggest regarding the cross-country magnitude of trade costs. We then simulate the impact on trade flows of full implementation of the market access dimensions of Doha and calculate the extent to which trade costs would have to be reduced to match the Doha-related trade expansion impacts. We conclude that such costs will only have to fall by some 2 to 5 percent. Given that reducing domestic trade costs does not require negotiation, a parallel approach that spans both Doha and an aid for trade effort directed towards trade costs reduction would have the greatest impact on trade. Although aid for trade is not formally linked to the Doha Round, *de facto* the aid for trade commitments were inspired by a desire to respond to concerns that Doha was not expected to generate significant trade gains for many low-income countries.¹ Thus our analysis suggests that from a development perspective any assessment of the Doha Round should span not just its effect in terms of reductions in applied levels of protection (market access), but also the impact in terms of additional policy certainty and bindings (which is not discussed in this paper – see e.g. Messerlin, 2008 and Bouet and Laborde, 2008) *and* what it indirectly generates in terms of support for reductions in trade costs (trade facilitation).

2. The impact of Doha on applied rates of protection

The market access elements of the Doha Round have revolved primarily around efforts to agree to negotiating modalities that will define the broad parameters of the tariff reductions to be applied by different groups of WTO members: developed countries, developing countries that are not least-developed countries (LDCs), as well as a small number of special groups such as countries that have recently acceded to the WTO. The

¹ This is by design: LDCs are not required to make commitments, and have already been granted duty-free and quota-free access in major markets for much if not all of their exports.

approach towards modalities has differed between the agriculture and non-agricultural market access (NAMA) talks. Both involve tariff cutting formulas, but in the case of agriculture the focus has been on reducing different bands by a certain percentage, whereas for NAMA the focal point has been the Swiss formula: $T_2 = aT_1/(a + T_1)$ where T_2 is the tariff after the cut, T_1 the initial base tariff and a is a coefficient that determines the new maximum permitted tariff.

In both areas much of the negotiations were taken up by the question of determining the permitted levels of exemptions for goods deemed to be particularly sensitive by countries. At the end of the day the effects of Doha on applied levels of tariffs will depend in part on the extent to which exemptions are invoked by members. Much will also depend on how the negotiated reductions in bound rates translate into reductions in applied rates. As bound rates, especially for developing countries, as often far above applied rates, the application of any agreed modalities will have a much more moderated impact on applied tariff levels than on the bound levels.²

A detailed discussion of the state of play in the Doha negotiations and the modalities that were on the table as of the summer of 2008 can be found in Martin and Mattoo (2008) and Laborde, Martin and van der Mensbrugghe (2008). The proposal on the table for market access was for the coefficient a in the Swiss formula to be between 7 and 9 for industrial countries, with no flexibility for individual products. For developing countries, the coefficient would be based on a sliding-scale with a coefficient range of $x=[19-21]$, $y=[21-23]$ or $z=[23-26]$ depending upon the extent of flexibility to deviate from the formula chosen. Countries choosing $x=[19-21]$ as the coefficient could choose to keep 6-7 percent of tariffs unbound on products covering no more than 6-9 percent of imports or to make half-of-formula cuts in 12-14 percent of tariff lines on products covering no more than 12-19 percent of imports. With a $y=[21-23]$ coefficient, 5 percent of lines and imports would be allowed no cuts, or 10 percent lines and imports with half-of-formula cuts. Those choosing $z=[23-26]$ would have no flexibilities at all. LDCs were only expected to increase their levels of binding coverage.

² Moreover, MFN tariff reduction will have little or no effect on preferential rates. As a large share of international trade is under preferential agreements, this will further reduce the impact of Doha on applied tariffs (Foletti, Fugazza, Olarreaga and Nicita, 2009).

Given our interest in assessing the relative magnitude of the impacts on trade volumes associated with the market access dimension of the Doha Round and aid for trade facilitation (measures to reduce domestic trade costs), in what follows we will assume that the modalities that were on the table in July 2008 are applied without product exceptions. While this clearly will generate an overestimate of the impact of the Doha Round on applied levels of market access barriers, it provides a transparent (and ambitious) yardstick against which to compare the potential impacts of trade facilitation.

Table 1: Assumed Doha Tariff Cuts

<i>Agriculture</i>			
Developed countries		Developing Countries	
Current range	Doha cut	Current range	Doha cut
0-20	50%	0-30	33%
20-50	57%	30-80	38%
50-75	64%	80-130	43%
>75	73%	>130	49%
<i>NAMA</i>			
Developed countries: a=7		Developing Countries: a=19	

Notes: No exempted products; all tariffs are bound; all cuts are applied to bound rates at the HS 6 digit level; no tariff cuts for LDCs.

The details of the assumed Doha market access scenario are presented in Table 1. Agricultural tariffs are assumed to be cut following a tiered formula with four different bands that differ for developed and developing countries. For developed countries the tariff cut would range from a maximum of 73 percent of the highest prevailing tariff bindings (tariff lines for which the rate exceeds 75 percent) to a minimum cut of 50 percent (for lines where tariffs range up to 20 percent). Developing countries would need to cut their tariffs to a lesser extent, ranging from a 49 percent cut for lines with tariffs above 130 percent, to a 33 percent cut for lines where tariffs are less than or equal to 30 percent. Tariff cuts are applied to bound rates, with the implications for reductions in applied rates determined by the magnitude of water that is in the tariff (the difference between the binding and the applied rate). Given the large margin that developing countries have between bound and applied rates, the cut in bindings will in many instances have a much smaller effect on the applied tariff. In many cases the effect on

applied rates may be zero. All calculations are done at the 6-digit level of the Harmonized System.

For non-agricultural products the assumed tariff cuts are based on the Swiss formula with a coefficient of 7 for developed and 19 for developing countries. The simulations assume that LDCs are exempted from any tariff cut, and that recently acceded members are exempted from agricultural tariff cuts. As mentioned, we do not allow for any exemptions or flexibilities, so that our estimates are upper bounds.

The effects of cuts in the bound rates on applied tariffs are summarized by the tariff trade restrictiveness index (TTRI). The TTRI represents a measure of the uniform tariff equivalent of all the applied tariffs in a country on its imports – that is, the TTRI represents the uniform ad-valorem tariff that would be needed to generate the observed level of trade) (Kee, Nicita and Olarreaga, 2008a; World Bank and IMF, 2008). The TTRI captures both ad valorem and specific tariffs,³ but ignores NTBs. As is the case for our bound tariff data, the calculation of the TTRI uses data at the HS 6-digit level. The TTRI is a better measure of trade policy than commonly used indicators such as average tariffs because it takes into account demand responses with respect to prices.⁴

Table 2: TTRI levels (2006) and Doha changes (percent and percentage points)

Importers	TTRI (overall, %)	Change in TTRI due to Doha	TTRI Agriculture	Change in TTRI due to Doha	TTRI Manufactures	Change in TTRI due to Doha
High Income	2.2	<i>0.4</i>	11.7	<i>2.0</i>	1.5	<i>0.3</i>
Middle Income	5.0	<i>0.6</i>	7.3	<i>0.9</i>	4.8	<i>0.6</i>
Low Income	5.9	<i>0.5</i>	10.4	<i>1.5</i>	5.6	<i>0.5</i>
East Asia	4.9	<i>0.4</i>	8.6	<i>1.9</i>	4.7	<i>0.4</i>
Europe and C.Asia	3.4	<i>0.1</i>	6.1	<i>0.4</i>	3.2	<i>0.0</i>
Latin America Car.	5.2	<i>1.0</i>	5.7	<i>0.3</i>	5.1	<i>1.0</i>
Middle East N Afr.	9.8	<i>0.9</i>	10.8	<i>0.8</i>	9.6	<i>0.9</i>
South Asia	11.7	<i>0.8</i>	21.9	<i>2.5</i>	11.1	<i>0.7</i>
Sub-Saharan Africa	7.8	<i>0.9</i>	12.5	<i>0.3</i>	7.2	<i>1.0</i>

³ The inclusion of specific tariffs is done through the calculation of ad-valorem tariff equivalents following the UNCTAD methodology available through the WITS database.

⁴ In calculating the indices more weight is given to cuts on tariffs affecting products for which demand is more responsive to changes in prices (so that smaller movements in prices produce larger shifts in imports).

Table 2 reports the TTRI for the year 2006 as well as the changes in the TTRI that would result from application of the formulae cuts to bound rates reported in Table 1. The results suggest that even a very optimistic Doha market access scenario will only have a small impact in terms of reductions in the applied TTRI. Assuming no exemptions, the reductions in TTRIs range between 0.4 and about 1 percentage point for high-income and several developing country groups, respectively. Doha liberalization would have the largest impact in Latin America (one percentage point), and the smallest effect on Europe and Central Asia. The Sub-Saharan African TTRI would decrease by about 0.9 percentage points, mainly reflecting cuts in manufacturing tariffs. The Doha simulation would have a larger effect on agricultural TTRIs (2.5 percentage points in Asia and 1.9 percentage points in East Asia) both because of the different formula used and the smaller difference between bound and applied rates for this sector (a result of the Uruguay Round).

The effect of trade policies on exporters' access to markets differs across trading partners and geographic regions. The average restrictiveness that exporters face in a particular market depends not just on tariffs but also on the composition of exports and the extent and incidence of preferential access regimes. Table 3 reports the TTRI from the perspective of an exporter, i.e., the levels of restrictiveness from a market access perspective that prevail in each geographic region and country group.

Table 3: Market Access TTRIs in 2006 and implied Doha changes

Importers	Exporters		
	High Income	Middle Income	Low Income
High Income	2.3 <i>0.3</i>	2.0 <i>0.5</i>	2.2 <i>0.5</i>
Middle Income	5.7 <i>0.5</i>	4.7 <i>0.6</i>	4.3 <i>0.6</i>
Low Income	10.6 <i>0.5</i>	9.7 <i>0.7</i>	10.9 <i>0.3</i>

Note: Percentage point changes due to Doha tariff formulas in bold and italics.

The highest levels of tariff trade restrictiveness apply to trade among developing countries, in particular low income countries. The latter confront a TTRI for trade among themselves that is almost 5 times higher than the TTRI that high income countries impose on each other (10.9 vs. 2.3 percent), and about 2.5 times that of middle income (4.7 percent). This is not because of discrimination; it reflects the higher levels of MFN protection in these countries. On average, the level of trade restrictiveness confronting developing countries as a whole will decrease by about 0.5 percentage points as a result of our Doha simulation. The effect of Doha on South-South trade restrictiveness is expected to be of about 0.6 percentage points.

Table 4 differentiates developing countries by geographic region, thus providing information on the applied bilateral TTRI. It illustrates that with the exception of inter-regional trade (within East Asia, Eastern Europe and Central Asia, and Latin America trade restrictiveness is lower), South-South trade is still subject to significant barriers, especially for products entering South Asia and Sub-Saharan Africa. East Asia, Europe/Central Asia and Latin America are less restrictive; with a TTRI in the range of 3 to 5 percent.

Table 4 also reports the effect of our Doha simulation on the TTRI affecting trade flows between developing country regions. The impact of Doha liberalization is again predicted to be limited. In most cases the reduction in the TTRI is likely to be less than 1 percentage point. Larger reductions in the bilateral TTRI are found for East Asian exports to Sub-Saharan Africa (largely driven by cuts in South Africa's tariffs) and Latin America (driven by cuts in Mercosur external tariffs). The results also suggest there will be only a very small improvement in market access for Sub-Saharan Africa. Countries in this region will gain almost no market access in other developing countries while suffering from preference erosion in high-income country markets.⁵

⁵ As noted, the analysis in Hoekman and Nicita (2008) takes into account unilateral trade preference programs.

Table 4: Market Access TTRI and Doha changes by developing region

	Exporters					
	East Asia	Europe and Central Asia	Latin America Caribbean	Middle East North Africa	South Asia	Sub-Saharan Africa
Importers						
East Asia	4.4 <i>0.7</i>	4.3 <i>0.2</i>	3.1 <i>0.3</i>	1.1 <i>0.0</i>	5.0 <i>0.3</i>	2.4 <i>0.1</i>
Europe and Central Asia	5.1 <i>0.1</i>	3.5 <i>0.1</i>	4.2 <i>0.7</i>	3.0 <i>0.3</i>	5.5 <i>0.3</i>	1.1 <i>0.0</i>
Latin America Caribbean.	9.7 <i>1.9</i>	5.3 <i>0.9</i>	2.0 <i>0.2</i>	1.6 <i>0.3</i>	9.3 <i>2.4</i>	1.7 <i>0.1</i>
Middle East North Africa	12.7 <i>1.6</i>	9.6 <i>0.7</i>	9.9 <i>0.9</i>	5.0 <i>0.4</i>	10.0 <i>0.7</i>	9.5 <i>0.2</i>
South Asia	14.1 <i>1.0</i>	9.6 <i>0.7</i>	9.1 <i>0.6</i>	6.2 <i>0.1</i>	12.6 <i>0.5</i>	9.6 <i>0.4</i>
Sub-Saharan Africa	12.2 <i>3.0</i>	9.5 <i>0.6</i>	7.4 <i>0.5</i>	4.4 <i>0.1</i>	9.9 <i>1.4</i>	4.5 <i>0.1</i>

Note: Percentage point changes due to Doha tariff formulas in bold and italics.

3. Domestic Trade Costs

Two points emerge from the foregoing discussion: first, tariffs are still an obstacle to trade, especially regarding South-South trade; second, the Doha round will do little to remove this obstacle. Even if the attention is narrowly limited to effective market access, however, there is more on the table in Doha than reductions in tariff bindings and the associated cuts in applied levels of tariffs. Perhaps of greatest relevance to low-income countries from a trade expansion perspective are the discussions on trade facilitation and the aid for trade initiative. The former have a rather narrow scope, focusing on customs clearance, transit regimes and transparency of documentary requirements, whereas the latter spans a broad set of potential measures to enhance the ability of developing countries to exploit trade opportunities.

From a market access perspective, trade impediments created by the domestic legal and regulatory framework, the efficiency of infrastructure services and related regulation, customs clearance procedures, administrative red tape, are all important. The World Bank has generated various indicators of the magnitude of the associated costs,

including a cross-country measure of the performance of logistics-related activities – the Logistics Performance Index (World Bank 2007) – and estimates of the monetary costs associated with shipping goods from the factory gate to the port, and from ports to retail outlets for a standard container – drawn from the Doing Business database (World Bank, 2008).⁶

Table 5: Measures of domestic trade costs (simple averages by country group)

Domestic Costs Indicator	High Income	Middle Income	Low Income
LPI (score; higher is better)	3.9	3.0	2.8
DB import (US\$)	813.6	1024.2	1212.0
DB export (US\$)	774.4	867.2	949.3

Source: Hoekman and Nicita (2008).

Table 5 reports the average of these indices by per capita income groups. The indices tend to be correlated with the level of economic development, as most low and middle income countries generally have weaker trade facilitation performance than higher-income economies. Logistics performance is substantially better in high income countries, while middle income countries appear to have logistic services only marginally better than low income countries. The Doing Business indicators point to much sharper differences. The costs of importing are about 20 percent higher for low income countries than in middle income countries, and another 20 percent higher relative to high income countries. The cost of exporting is on average about 10 percent higher in low income countries than in middle income countries, and another 10 percent with respect to high income countries.

4. Doha liberalization and aid for trade facilitation

A number of papers have analyzed the quantitative importance of trade costs as a barrier to trade and shown that a lack of trade facilitation and related infrastructure substantially reduce trade volumes (e.g., Limão and Venables, 2001; Wilson, Mann, and Otsuki, 2003; Anderson and Marcouiller, 2002; Francois and Manchin, 2007). What follows

⁶ These two reports provide more information on how the variables are constructed; see also Hoekman and Nicita (2008).

investigates how a Doha market access deal compares to efforts to reduce trade costs. This is interesting in its own right, but also policy relevant, as trade facilitation is part of the Doha round as well, and can be regarded as a dimension of the market access impacts of a successful conclusion to the Round.

To quantify the trade impact of Doha tariff cuts and efforts to lower domestic trade costs we use the results from a recent cross-section gravity model (Hoekman and Nicita, 2008). That paper estimates bilateral trade flows as a function of time invariant trade impediments such as distance, a common border, common language, access to the sea, etc.; incomes; traditional trade policy (the TTRI) and the regulatory/trade cost variables listed in Table 5. Hoekman and Nicita found that traditional trade policies and domestic trade costs are both statistically and quantitatively significant determinants of trade volumes. On average, a 10 percent reduction in the tariff (as measured by the TTRI) is estimated to increase trade volumes by about 2 percent. Domestic trade costs were found to be a more limiting factor for international trade than tariffs. Everything else equal, improving the LPI of low income countries to the level observed in high income countries would increase their trade flows by more than 50 percent. Similar results are obtained for the effect of internal trade costs as captured by the Doing Business ‘trading across borders’ indicator for exports and imports. The elasticity of imports (or exports) to the cost of importing (or exporting) is about 0.5. That is, a 10 percent reduction in the cost associated with importing (exporting) would increase imports (exports) by about 5 percent.

These results can be used to estimate the trade volume effects of the Doha simulation discussed in Section 2 and to compute the reduction in domestic costs that would be required to produce an increase in international trade similar to that of Doha tariff cuts. The results of this exercise for the Doha liberalization scenario are reported in Table 6; those for the equivalent reduction in trade costs in Table 7.

The Doha market access scenario is estimated to produce an increase in world merchandise trade of about 1 percent. Trade between high income countries would increase by 0.7 percent, trade between developing and developed countries would increase by about 1.1 percent and South-South trade would increase by about 1.4 percent. The Doha deal would have a relatively greater impact in opening the markets of Latin

American and Sub-Saharan countries, especially to products originating in the East and South Asia regions. It would do little to increase exports from Sub-Saharan Africa.

**Table 6 – Effect of Doha on merchandise trade flows
(US\$ million and percentage point change)**

		Exporters									
Importers		High Income	Middle Income	Low Income							
High Income		54.0 <i>0.7</i>	39.3 <i>1.0</i>	6.2 <i>1.1</i>							
Middle Income		19.9 <i>1.0</i>	11.8 <i>1.2</i>	2.5 <i>1.4</i>							
Low Income		2.4 <i>1.2</i>	1.9 <i>1.6</i>	0.3 <i>0.7</i>							
		Exporters									
Importers		East Asia	Europe and C.Asia	Latin America Car.	Middle East N Afr.	South Asia	Sub-Saharan Africa				
East Asia		4.0 <i>0.7</i>	0.2 <i>0.4</i>	0.4 <i>1.5</i>	0.0 <i>1.1</i>	0.1 <i>0.6</i>	0.1 <i>0.2</i>				
Europe and C.Asia		0.2 <i>0.2</i>	0.4 <i>0.2</i>	0.3 <i>1.5</i>	0.1 <i>0.6</i>	0.0 <i>0.6</i>	0.0 <i>0.0</i>				
Latin America Car.		3.6 <i>4.2</i>	0.2 <i>1.9</i>	0.7 <i>0.5</i>	0.0 <i>0.7</i>	0.3 <i>5.2</i>	0.0 <i>0.2</i>				
Middle East N Afr.		0.3 <i>3.5</i>	0.1 <i>1.5</i>	0.1 <i>1.9</i>	0.1 <i>0.9</i>	0.0 <i>1.4</i>	0.0 <i>0.3</i>				
South Asia		1.0 <i>2.2</i>	0.1 <i>1.4</i>	0.1 <i>1.2</i>	0.1 <i>0.2</i>	0.0 <i>1.1</i>	0.1 <i>0.8</i>				
Sub-Saharan Africa		1.5 <i>6.5</i>	0.1 <i>1.4</i>	0.1 <i>1.0</i>	0.0 <i>0.3</i>	0.2 <i>3.1</i>	0.1 <i>0.2</i>				

Note: Percentage point change in trade flows over current levels of trade in italics and bold

To achieve a similar increase in merchandise trade volumes, a trade facilitation initiative would need to increase the average LPI score by 0.2 points, or 7 to 8 percent. Changes in LPI are difficult to interpret in terms of monetary costs. These can be better

assessed when using the Doing Business cost of trading indicator, which measures the cost in US dollars of moving a standardized container from factory to border/port, or from border/port to retail warehouse. Our estimates are that reducing this cost by 2 percent would have the same effect on trade volumes as the ambitious Doha market access scenario. This translates into a need to reduce import costs by about US\$48 for middle income countries and US\$59 for low income countries, and reducing the costs for exports by \$40 and \$46, respectively.

Table 7: Improvement in trade facilitation equivalent to ambitious Doha outcome

Domestic trade cost indicator	Middle Income countries	Low Income countries
Change in LPI (score)	0.2	0.2
Reduction in DB import costs (US\$)	47.8	58.7
Reduction in DB export costs (US\$)	40.4	45.9

There will often be investment costs associated with attaining these benefits, and what in practice will be needed in terms of reforms will vary by country. But the commitment to provide more aid for trade by the development community implies that in principle such costs can be (re-)covered for lower income countries, so that it is not unreasonable to ignore the costs side of attaining the needed trade facilitation improvements for the purposes of comparing these different market access/trade expansion dimensions of a potential Doha Round outcome.

5. Concluding Remarks

Much has been made in academic commentary and analyses of the small net welfare gains that can be expected from what was on the table in the Doha Round in market access terms. Assessing the “value” of a Doha outcome on the basis of the reductions in applied tariff levels resulting from the negotiations (and the real income changes generated by these reductions) – the approach taken by most modelers and analysts, which in turn has informed discussions by commentators and the press – is misconceived. A major function of WTO negotiations is to agree on rules of the game and to impose limits on the ability of governments to raise trade barriers in the future above bound

levels. Both generate greater certainty and offer “insurance” for investors and traders regarding the policy environment they will confront when selling goods and services to specific markets. This feature of the WTO is often overlooked, especially in discussions of the Doha Round, but the value of the rule-making dimension of the WTO was demonstrated in the 2007-09 financial turmoil and related decline in economic activity. To date there has been little reversion to the type of protectionism that was prevalent in the late 1970s and early 1980s, the last time the world economy was affected by a major downturn.

Clearly a further locking in of current relatively low applied rates of protection would be of value. Similarly, there is also value associated with tightening disciplines on the use of agricultural support policies. During much of the Doha Round world agricultural prices were rising, implying less need for the EU to provide export subsidies and allowing OECD nations to reduce production support expenditures. As prices fell in 2009, export subsidies re-emerged and agricultural subsidies can be expected to rise again. The capping of such support at applied levels in 2008 was widely regarded as being insufficient by observers calling for significant cuts in applied levels of support. The opportunity costs of this view of what was on the table in July 2008 may turn out to be high.

The analysis presented in this paper suggests that even if a narrow market access perspective is taken, there is more on the table than is suggested by many analysts. While the extent to which applied levels of trade protection will be reduced by even an ambitious Doha Round will indeed be limited, this is too narrow a view to take in assessing the potential market access payoffs that can be achieved. It is important to also take into account the effects of trade facilitation on trade volumes. Our analysis suggests that taking relatively limited actions to facilitate trade can boost the trade expansion effects of the Doha Round by a factor of two, three or more. If one takes account of the exceptions that will be invoked in the application of the formulae, measures to reduce trade costs are likely to strongly dominate the resulting reductions in applied tariffs.

The trade facilitation dimension of the Doha negotiating agenda is narrower in scope than the totality of the policy areas that are captured by the indicators we have used to measure domestic trade costs. But broadly defined trade facilitation is a critical

dimension of leveraging the market access dimension of Doha: if a focus on the trade costs agenda stimulated by a Doha agreement catalyzes a reform program in this area, it can have large trade effects.

Pursuit of trade facilitation is particularly important for lower-income countries, especially LDCs, that otherwise will not benefit from the Doha market access negotiations – because they have duty-free, quota-free access to major markets and will not be asked to reform their own trade policies. These are also the countries that are a major focus of the aid for trade initiative, and should thus be able to obtain the resources needed to improve trade facilitation from the development community.

References

- Anderson, James E., and Douglas Marcouiller, 2002, “Insecurity and the Pattern of Trade: An Empirical Investigation”, *Review of Economics and Statistics*, 84(2), 342-352.
- Bouet, Antoine, and David Laborde, 2008, “The potential cost of a failed Doha Round”, IFPRI Briefing Note, November.
- Francois, Joseph, and Miriam Manchin, 2007, “Institutions, Infrastructure, and Trade”, World Bank Policy Research Working Paper No. 4152.
- Foletti, Liliana, Marco Fugazza, Alessandro Nicita and Marcelo Olarreaga. 2009. “Smoke in the Water,” Paper prepared for the World Bank CEPR conference on "Trade Implications of Policy responses to the Crisis" Brussels, May 26-27 2009.
- Hoekman, Bernard and Alessandro Nicita, 2008, “Trade Policy, Trade Costs, and Developing Country Trade”, World Bank Policy Research Working Paper No. 4797.
- Kee, Hiau Looi, Alessandro Nicita and Marcelo Olarreaga, 2009, “Estimating trade restrictiveness indices”, *The Economic Journal* 119(534), 172-99.
- Laborde, David, Will Martin and Dominique van der Mensbrugghe, 2008 “Implications of the 2008 Doha Draft Agricultural and NAMA Modalities for Developing Countries”, presented at the XI GTAP conference, Helsinki, Finland.
- Limão, Nuno, and Anthony J. Venables, 2001, “Infrastructure, Geographical Disadvantage, Transport Costs, and Trade”, *World Bank Economic Review*, 15(3), 451-79.
- Martin Will and Aaditya Mattoo, 2008, “The Doha Development Agenda: What’s on the Table?” World Bank Policy Research Working Paper No. 4672.
- Messerlin, Patrick, 2008, “Walking a Tightrope: World Trade in Manufacturing and the Benefits of Binding,” GMF Policy Brief.
- Wilson, John S., Catherine Mann, and Tsunehiro Otsuki, 2003, “Trade Facilitation and Economic Development: A New Approach to Measuring the Impact”, *World Bank Economic Review* 17(3): 367-389.
- World Bank and IMF. 2008. *Global Monitoring Report, 2008*. Washington DC: World Bank.
- World Bank. 2007. *Connecting to Compete. Trade Logistics in the local Economy*. Washington DC: World Bank.
- World Bank. 2008. *Doing Business Report 2008*. Washington DC: World Bank.