



The cost of a non-Doha

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This study presents scenarios where in times of economic turmoil countries might decide to increase current tariff rates to protect domestic industries or raise revenues in order to finance domestic programs. Using the highest applied or bound rate imposed by countries during the period from 1995–2008 as an indicator, it offers new conclusions on the economic cost of a failed Doha Round. In a scenario where applied tariffs of major economies would go up all the way to currently bound tariff rates, world trade would decrease by 7.7 percent. In a more modest scenario where countries would raise tariffs to maximum rates applied over the past 13 years, world trade would decrease by 3.2 percent. These increases in duties would reduce world welfare by USD353 billion under the first scenario, by USD134 billion under the more modest scenario. While such an increase in duties would particularly impact agricultural exports (-6.9 percent), especially for developing countries (-11.5 percent), exports of industrial goods could also face a substantial reduction— 2 percent in developed countries and 4.8 percent in developing countries. This study concludes there would be a potential loss of at least USD1,064 billion in world trade if world leaders were to fail to conclude the Doha Development Round of trade negotiations in the next few weeks and were to implement subsequently protectionist policies such as observed since the end of the Uruguay Round. The failure of the Doha Development Agenda would prevent a USD336 billion increase in world trade coming from the reduction in tariffs and domestic support, while a worldwide resort to protectionism would contract world trade by USD728 billion.

After seven years of negotiations, the WTO mini-ministerial meeting held in Geneva last July did not manage to close the gap between delegations to reach a final agreement on the Doha round liberalization modalities. Conflicts still exist on several issues regarding the disciplines that both developed and developing countries should make. For instance, the United States is still reluctant to tackle the issue of domestic support to the cotton sector, and India and other developing countries wish to avoid restrictions (the anti-concentration clause) on their ability to use flexibility in non-agricultural liberalization.

Beyond these very specific elements, it seems that incentives to conclude the round are weak. Because large market access gains have already been achieved in the manufacturing sectors of developed countries markets (Martin and Messerlin, 2007), the impetus for previous multilateral negotiations has vanished. The remaining issues have higher political costs, gains that are more difficult to assess, and are often more difficult to negotiate. For developed countries, liberalizing their agricultural markets remains a very complex issue. At the same time, developing countries want to maintain

protection in manufacturing and avoid making new commitments regarding services based on nascent industry considerations. Lastly, regional and bilateral liberalizations have reduced the market access gains expected by key players and foster resistance to multilateral liberalization that will erode existing preferences. Therefore, the longer the negotiations last, the weaker is the incentive to conclude a successful round.

In parallel, impact assessments using a computable general equilibrium (CGE) model have provided more and more accurate quantitative information concerning the gains and losses associated with the Doha Development Agenda (DDA). Great improvements have been achieved since the Uruguay Round assessment, where a lack of information on tariffs led to an overestimation of potential gains. However, improving the way that the world economy is described in the models has meant that the gains of the Doha Round have decreased (Bouët 2008), since the models now capture the fact that applied tariffs are in most cases lower than their Most Favored Nation (MFN) bound level, due to both binding overhang (gap between MFN bound and applied rates) and preferences (gap between MFN and



bilateral applied rate). In addition, the implementation of trade scenarios has become more and more precise, adding details and including the numerous flexibilities and exceptions that exist, limiting per se the scope of liberalization.

The shrinking gains associated with the Doha Round have led both economists and policymakers to state that the real gains go far beyond tariff reduction effects and are outside the standard model. For example, gains in productivity, liberalization in services, and trade facilitation are still weakly represented in CGE exercises, but may account for a large share of the positive effects of a successful round. Moreover, even if applied tariffs are not cut, the simple fact that tariff lines are bound and that the existing binding overhang is reduced has an important value by providing a stable trade environment. The goal of this study is not to find additional gains to the DDA by adding more elements to the model, but to re-examine the value of an agreement by considering potential gains and losses in a moving landscape of trade policies.

Traditional impact studies aim to assess the potential gains of Doha negotiations by comparing the consequences of the negotiation modalities to the status quo (baseline). Therefore, the cost of a failure of the negotiations is just an opportunity cost: the unrealized gains. However, this approach may underestimate the real losses associated with a failure of the DDA. Such a drastic event will make the *business as usual* assumption uncertain: the status quo is not a long-term perspective for trade policies. The current trend of multilateral trade liberalization may not survive this failure and the global public good provided by the WTO that helps to free trade in a stable and less-distorted environment may vanish. Therefore, this study compares the effects of a DDA scenario with other relevant alternatives.

First, the threat of trade wars will become prominent. The number of litigations at the WTO will increase¹ and countries may try to reverse past unilateral trade liberalization moves.

Second, the current financial crisis may foster protectionist behavior, as occurred after the October 1929 crisis. A parallel can easily be drawn between the current situation and the one that existed then; in 1930, unemployment was also rising, fears of deflation were

prevailing, and a lack of public resources (which was more pronounced in countries that paid war reparations) prevented governments from remedying the economic crisis. Moreover, today as in 1930, the context of decreasing prices can mechanically reinforce protection, as specific duties (duties defined as monetary amounts by physical units), which are numerous in agriculture, become more and more restrictive when world prices are down. In this type of economic context, protectionism is a tempting policy instrument for policymakers—it short-sightedly increases domestic prices and supports domestic activity, and it provides new public receipts. Finally, governments do not correctly anticipate world retaliation and counter-retaliation, as was the case with the United States in 1930 and also last year when in the middle of the food crisis, governments implemented export bans and export restrictions in successive rounds of retaliation and counter-retaliation.

Third, since the failure of the DDA will mainly come from an opposition between rich and emerging countries, the main trade powers will promote their market access interests by negotiating new free trade areas (FTA) with key partners. So, depending on the success or failure of the DDA, the trade policy dynamics will strongly differ. However, defining a baseline other than the status-quo is a challenging task. It is difficult to guess the reaction of different countries in a non-cooperative world.

Alternative scenarios

The five scenarios analyzed include the Doha compromise of July 2008 and four alternatives driven by the failure of the negotiations. A summary of these scenarios is provided in Box 1.

Box 1—Scenarios

DOHA: July 2008 modalities

Up to Bound: Non FTA applied tariffs increased to existing bound level.

Up to Max: Non FTA applied tariffs increased to their last 13 years maximum level, capped by existing bound tariffs.

FTA_HIC: An FTA covering 95 percent of tariff lines is implanted between High Income Countries.

FTA_HIC + Up to Max: Combination of *Up to Max* and *FTA_HIC* scenarios.

The first scenario is a successful Doha outcome based on July 2008 modalities. After seven years of trade talks, market access modalities have reached a high level of



sophistication. Even if the general philosophy is simple, with progressive tariff-cut formulas for both agricultural and nonagricultural goods, many flexibilities have been introduced with different degrees of special and differential treatment for different groups of developing countries.ⁱⁱ Following our previous work (Berisha, Bouet, Laborde, and Mevel 2008), we implement all the details of these modalities in terms of market access as well as a Duty-Free-Quota-Free market access initiative for least developed countries (LDCs) in Brazil and OECD countries, excluding South Korea but including Mexico and Turkey. It authorizes a 3-percent exemption clause in terms of products.ⁱⁱⁱ Export subsidies are phased out by 2013 for developed countries. Concerning domestic support, we implement the overall constraint on Overall Trade Distorting Support (OTDS) for the United States and the European Union. Due to the complexity of integrating other elements of the DDA agenda in the simulations, we neglect the other source of potential gains such as liberalization in services, WTO rules, trade facilitation and intellectual property rights...

If the DDA fails, two scenarios are analyzed: an upward protectionist trend and a push for regional agreements between countries eager to reach freer trade. The first option examines the possibility for WTO countries to increase their tariffs up to their Uruguay Round (UR) bound level in a five-year period (2009-2014). In this *Up to Bound* scenario, we assume that the entire binding overhang will be eliminated. For unbound lines, we apply^{iv} the existing average binding overhang to compute new tariffs. This scenario represents a strong increase in protection by eliminating all unilateral liberalization, but does not represent an open trade war between WTO members. Existing commitments are still respected.^v This scenario may appear extreme since many developing countries have bound their tariffs during the UR using a ceiling option to levels that they have never and will never apply. Moreover, countries have decided to apply zero tariffs on a large selection of raw materials and imported input even if the existing bound tariffs are strictly positive.

To adopt a more realistic scenario, we use historical data to determine the highest applied protection rate implemented by every country during the 1995-2006 period. Then, we select the minimum between this historical maximum level and existing bound tariffs. This *Up to Max* scenario corresponds to a case where

governments apply the more adverse trade policies of the past 13 years but still respect their UR commitments. On an historical basis, tariffs evolve to answer changes in world prices, domestic production structure, and political pressures. This last scenario allows the share of binding overhang that is really relevant for private agents to be captured since it corresponds to past behavior of policymakers since the end of the UR.^{vi} It is important to note that in both scenarios (*Up to Bound* and *Up to Max*), the preferential tariffs protected by bilateral or regional agreements are not changed. Only MFN applied rates and non-reciprocal preferential rates are modified. The only non-reciprocal program that is maintained is the EU “Everything But Arms” initiative due to the way this program has been implemented and renewed in the EU legislation.^{vii} *Up to Bound* is not the worst scenario that can be anticipated; many countries have not yet bound their import tariffs and are not today constrained by any upward limitation. Anti-dumping duties and safeguard mechanisms can be activated and can restrict trade even in rich countries where binding overhang is nil or limited.

The second effect of the stalemate of Doha Negotiations is to lead countries to seek market access gains through bilateral or plurilateral agreements. It is possible to imagine a multiplication of FTAs that would worsen the already existing spaghetti bowl and increase trade costs due to a lack of transparency and the complexity of overlapping rules of origin. However, this study focuses on the implementation of one plurilateral agreement (*FTA_HICs scenario*). We assume that the group of HICs will adopt a zero-for-zero approach where each member of this plurilateral agreement will liberalize 95 percent of its tariff lines.^{viii} Several considerations justify this choice. First, North-South and South-South negotiations are still difficult to conduct, are often delayed and, in the case of the latter, are weakly enforced. Second, HICs will place the responsibility for the failure of DDA on the MICs’ lack of commitment to open their own markets. In reaction, they may decide to more quickly move toward freer trade with countries ready to do this. Finally, by implementing a 95-percent duty-free agreement, rich countries will still be consistent with GATT article XXIV and will protect their sensitive sectors, especially agriculture. At the same time, an FTA will not entail commitments regarding export subsidies and domestic support



policies, another delicate issue for some OECD countries.

The last scenario, *FTA HIC + Up to Max*, is a combination of two scenarios: a rise of protection to past level and the implementation of the HIC FTA. The FTA HIC will lead to increased differences between insiders and outsiders and drive trade blocks to retaliate. Thus, the *FTA HIC + Up to Max* scenario may represent the stage after the *FTA HIC* scenario.

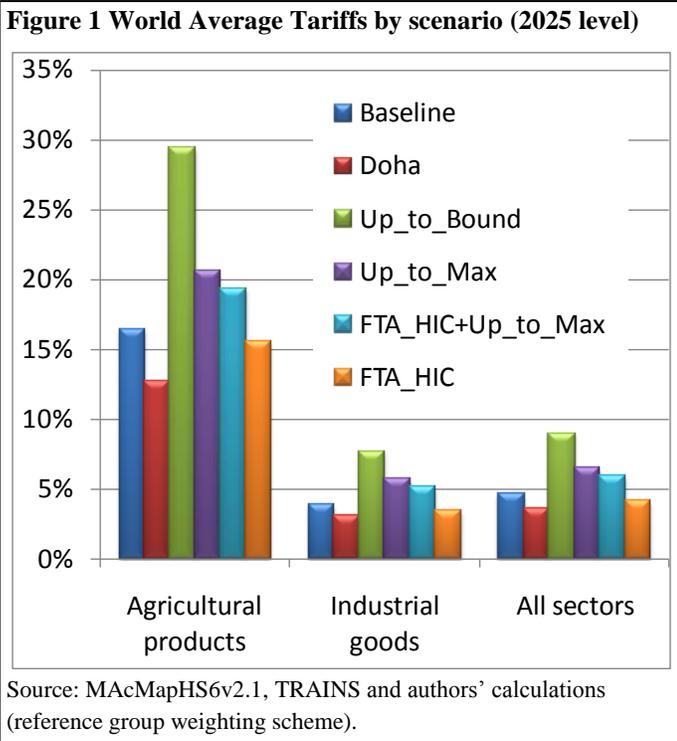


Figure 1 displays the consequences of these five scenarios on average world tariffs. The Doha Round will reduce world protection by 22 percent, from 4.6 percent to 3.6 percent. Moving to bound tariffs will double the level of protection in average. The elimination of recent unilateral tariff reduction during the past 13 years (*Up to Max* scenario) has a more limited impact but still represents an increase of 40 percent in world tariffs compared to the baseline (from 4.6 percent to 6.4 percent). Even with his limited geographical scope, the implementation of the HIC FTA still has an impact on world-level protection since it concerns important economic zones, in particular the trade inside the Quad (USA, Canada, EU and Japan). This FTA will exclude many agricultural products and therefore, the average rate of tariff cut in the *HIC FTA* scenario is lower for

agriculture (5 percent) than for non agricultural products (11 percent).

Table 1 displays the results of protection faced by exports and applied on imports by group of countries. The Doha round will cut the applied protection by one-third for HICs and one-tenth for the MICs, a significant achievement when compared to previous GATT rounds. It will also lock existing market access due to unilateral liberalization on a MFN or nonreciprocal preferences basis. Indeed, under the *Up to Bound* scenario, protection could increase by 50 percent in HICs, 130 percent in MICs, and 270 percent in LDCs compared to the current level. With the *Up to the Max* scenario, protection will increase by 23 percent, 56 percent, and 67 percent, respectively, in these three groups of countries. Interestingly, for the HICs the combination of the FTA and the raise in tariffs applied to other countries to past observed level (*FTA HIC + Up to Max* scenario) keeps the average level of applied protection unchanged.

Table 1 Protection by category of countries

	Protection faced (%)			Protection applied (%)		
	HICs	MICs	LDCs	HICs	MICs	LDCs
Baseline	4.6	4.6	4.0	3.0	8.6	9.8
Doha	3.6	3.6	3.2	1.9	7.8	9.8
Up to Bound	9.0	8.9	11.7	4.4	19.8	36.1
Up to Max	6.5	6.3	7.3	3.7	13.3	16.3
FTA HIC + Up to Max	5.6	6.3	7.3	2.9	13.3	16.3
FTA HIC	3.9	4.6	4.0	2.4	8.6	9.8

Source: MAcMapHS6v2.1, TRAINS, and authors' calculations (reference group weighting scheme).

Note: HICs stands for High Income Countries, MICs for Middle Income Countries, and LDCs for Least Developed Countries.

It is noteworthy to examine which group of countries is the more severely impacted by these scenarios. In relative terms, the Doha Round manages to deliver homogeneous market access gains with an average decrease of about 20 percent of the tariffs faced by the three groups of countries (from 4.6 percent to 3.6 percent for both HIC and MIC countries, and from 4.0 to 3.2 percent for LDCs). The other scenarios, however, have significantly different results. Though the two protectionist scenarios have similar effects for HICs and MICs (90 percent+ for *Up to Bound* and 40 percent for *Up to Max*), the LDCs are more severely affected due to



the losses of nonreciprocal preferences^{ix}. Of course, the HIC FTA scenario profits only HICs countries (a 14 percent decrease in faced protection) but less than the DDA scenario does.

Box 2—Methodology

Tariff reform is implemented at the disaggregation level of the MacMap-HS6v2.1 database with tariff data for 2004 (including 5,113 products, 170 importing countries, and 208 exporting countries). The analysis accounts for all major changes that occurred up to 2008, including major regional trade agreements (RTA), new WTO members (such as Ukraine), and so on. To investigate the tariff changes since 1995, we rely on the TRAINS database^x and we have built a special procedure to ensure comparability between MacMap and TRAINS. When sensitive products have to be selected for implementing tariff scenario (agricultural and nonagricultural DDA modalities, DFQF initiative, 5-percent exclusion in the FTA HICs scenario), we rely on the political economy model developed by Jean, Laborde, and Martin (2008). Finally, when the WTO members liberalize under the DDA, the market access remains unchanged for non-WTO members.

The tariff scenarios are then implemented in the MIRAGE (Modeling International Relationships in Applied General Equilibrium) model, developed initially at the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII) in Paris. A full description of the model is available in Decreux and Valin (2007). Based on standard and robust assumptions, it should be noted that the model may underestimate the positive effects of trade reform, particularly when such reform drives new investments, technology improvements, or important trade or production diversification.

Macroeconomic data (such as world trade flows, production, consumption, and intermediate use of commodities and services) come from the GTAP 7 database. The modeling exercise assumes perfect competition. Twenty-seven regions are identified in the model (8 high-income regions), which maps the main trade blocks. The sectoral decomposition is highly detailed in terms of agriculture and agri-food business (with 12 sectors), since most of the protection faced is in this sector. All other sectors are nonagricultural, including 13 industrial sectors and 2 services sectors.

A baseline is implemented from 2008 to 2025, which depicts the world without a new multilateral agreement. Concerning trade reform, the following agreements since 2004 have been included in the baseline:

- Achievement of the complete FTA for ASEAN, CEMAC, COMESA, SADC ECOWAS;
- EU-ACP Economic Partnership Agreements
- Implementation of the EU-INDIA, EU-India, EU-ASEAN, US-Colombia, US-Oman, US-Bahrain, US-Morocco, US-Australia, Mercosur-Colombia, China-

Chile FTA.

This baseline serves as a point of comparison with all the scenarios. The results are reported for the year 2025. The analysis does not account for the surge in world prices of energy and food products between 2004 and 2008.

Economic impacts

We use the MIRAGE CGE model to assess the economic impacts of these different tariff and domestic support scenarios (see methodology in Box 2). Table 2 indicates the global results of all scenarios for the world economy in 2025, compared to baseline.

Table 2 Global results led by tariffs and domestic support changes – Change compared to the baseline in 2025

		Doha	Up to Bound	Up to Max	Up to Max + FTA	HIC FTA
Percentage changes						
World Exports ^{(a)(b)}		1.46	-7.70	-3.16	-2.63	0.40
<i>of which</i>	<i>Agro-food</i>	4.03	-14.82	-6.86	-6.29	0.40
	<i>Industry</i>	1.50	-7.45	-3.19	-2.59	0.46
World Welfare		0.09	-0.51	-0.19	-0.19	0.01
<i>of which</i>	<i>North</i>	0.07	-0.32	-0.14	-0.12	0.02
	<i>South</i>	0.13	-1.00	-0.32	-0.35	-0.02
Value changes (\$ Bn – 2004 constant USD)						
World Exports ^{(a)(b)}		336	-1774	-728	-605	92
<i>of which</i>	<i>Agro-food</i>	68	-251	-116	-107	7
	<i>Industry</i>	256	-1272	-545	-442	79
World Welfare		59	-353	-134	-128	4
<i>of which</i>	<i>North</i>	34	-159	-71	-60	8
	<i>South</i>	25	-194	-63	-68	-4

a) including EU-Trade

b) including services

Under the Doha scenario considered here, focusing on only a part of the rich DDA agenda *i.e.* tariff liberalization and domestic support discipline, world trade is augmented by a mere 1.46 percent^{xi} (USD 336 billion) and world real income by USD 59 billion in 2025. This confirms the findings of other studies (see Decreux and Fontagné 2006, or Bouet, Mevel, and Orden 2006). However, these numbers are driven by the assumption that no major political shock will take place if the DDA is not signed: such an assumption should be considered carefully.



In case of the *Up_to_Bound* scenario, world trade would contract by 7.7 percent (-USD 1,774 billion) and world real income by USD 353 billion. In the case of the less damaging *Up_to_Max* scenario, world trade would be reduced less, by 3.2 percent (-USD 728 billion). While such an increase in duties would especially impact agricultural exports (-6.9 percent), particularly harming developing countries' agricultural exports (-11.5 percent), the exports of industrial goods could also face a substantial reduction—2 percent in developed countries and 4.8 percent in developing countries. Let us remind that only tariff on goods are increased. Trade in services will also be affected in countries decide tighten trade policy in these services.

It is noteworthy that the establishment of a free trade zone consisting of High Income Countries would only increase world trade by 0.4 percent since this agreement would remove tariff barriers between countries already close to free trade while allowing them to exempt 5 percent of highly protected products from this process. This is not a major shock for world trade as compared to protectionist scenarios or with the DDA. Due to trade diversion effect, developing countries will be negatively affected (-0.02 percent of their real income) and developed countries will benefit from such an agreement (+0.02 percent of their real income). When combined with the *Up_To_Max* scenario, the FTA between High Income Countries does not prevent a contraction of world trade, which decreases by 2.63 percent.

These figures allow for a clear re-assessment of what is really at stake. A disagreement between WTO countries over the DDA would signal international non-cooperation. If those countries subsequently implement protectionist policies, the loss could be much greater. In a CGE model like MIRAGE, scenarios are not additive, so it is not strictly consistent to add up gains and losses. But this exercise clearly gives a first approximation of what could be lost by a non-DDA. A simple calculation gives a measure of the potential loss of USD 1,064 billion in world trade: the failure of the DDA would not only prevent a USD336 billion increase in world trade coming from new commitments on tariffs, but a worldwide move toward protectionism would contract world trade by USD728 billion. If we exclude EU27 intra-trade, this figure reaches USD1140 billion. Moreover, the DDA will not only increase trade, it will also reinforce binding commitments and reduce existing

bound duties. In so doing, it will play its international public good role by securing the trade environment and decreasing the costs associated to potential trade wars.

Conclusion

Recent studies aimed at assessing the potential impact of the DDA conclude there would be modest augmentation in world trade and world real income. This study, limited to tariffs and domestic support discipline, does not invalidate this conclusion, but examines the situation from a completely different perspective. The non-conclusion of a WTO agreement would be a clear sign of international noncooperation; it would launch trade conflicts and litigations (especially between High Income and Developing Countries), and would be the first unsuccessful Round despite the fact that it is the first Round to focus on development and the first Round launched by the WTO. In a period of economic stagnation, the risk is high that this failure would give WTO members incentives to pursue non-cooperative strategies via the adoption of protectionist policies. In that case, the loss would be much greater than a mere USD79 billion. This study suggests there would be a potential loss of USD1,064 billion in world trade if world leaders fail to conclude the Doha Development Round in the next few weeks and implement subsequently protectionist policies such as observed in the last 13 years. Thus, the stakes in Geneva are very high and the July 2008 package appears to be the closest and most promising step toward a global development agenda for a world in turmoil.



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This note reflects the views of the authors only.

ⁱ For example Brazil challenges the United States' additional duty on ethanol.

ⁱⁱ A full description of the modalities implemented in this study is provided in Laborde, Martin, and van der Mensbrugge (2008). This scenario is based on the May 2008 Modalities (WTO documents TN/AG/W/4/Rev.2, TN/MA/W/103/Rev.1).

ⁱⁱⁱ This scenario mimics Scenario F in Berisha, Bouet, Laborde, and Mevel (2008).

^{iv} Technically, we estimate the following relation for each country: $\text{BoundRate} = a \text{ MFNrate} + b$ on bound lines, then we apply parameters a and b on applied MFN rate to build a theoretical bound tariffs for the unbound lines.

^v Even while adhering to their commitments, we may imagine that countries will use additional tools to increase their protection above bound level by using anti-dumping tariffs and countervailing duties, and by initiating litigations cases that would allow them to retaliate.

^{vi} During this period, trade policies have been adjusted to react to very contrasting situations (slow growth vs fast growth, low agricultural prices vs high agricultural prices...)

^{vii} It is important to note that given the implementation of the EPA between the EU and the ACP countries, LDCs preferences in the EU are not protected by a bilateral agreement.

^{viii} Non-liberalized products were selected using the Jean, Laborde, and Martin (2007) political economy criterion (see Box 2 Methodology).

^{ix} Except on the EU market where the EBA program is maintained.

^x We are grateful to Ganeshkumar Sathiyamoorthy (World Bank) who facilitated access to the TRAINS database through WITS

^{xi} If we exclude intra-EU-27 trade flows from both variations and reference values, the increase in global trade is 2% or USD 377 bn.