Can the Doha Round be a Development Round? Setting a Place at the Table*

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Abstract

A fundamental objective of the Doha Round of WTO negotiations is to improve the trading prospects of developing countries. The 2001 declaration from the WTO Ministerial Conference in Doha, Qatar, commits the member governments to negotiations aimed at substantial improvements in market access with a view to phasing out export subsidies, while embracing "special and differential treatment" for developing countries as an integral part of all elements of the negotiations. The main message of this paper comes in three parts. First, these stated aims are incompatible from the perspective of our economic analysis; thus, if these aims are pursued as stated, then we conclude that they are unlikely to deliver the meaningful trade gains for developing countries that the WTO membership seeks. Second, in attempting to integrate its developing country membership into the world trading system, the WTO may face a "latecomers" problem that, while occurring also in earlier rounds, is unprecedented in its scale in the Doha Round, and which could potentially account for the current impasse. And third, we argue that the stated aims of the Doha Round can form the basis of a coherent plan for solving the latecomers problem and delivering trade gains for developing countries, and that the impasse at Doha might be broken, with one key substantive change: the Doha Round must move away from the non-reciprocal special-and-differential-treatment norm as the cornerstone of the approach to meeting developing country needs in the WTO, and instead developing countries must come to the bargaining table in markets where they are large and negotiate reciprocally with each other and with developed countries.

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1 Introduction

A fundamental objective of the Doha Round of World Trade Organization (WTO) negotiations is to improve the trading prospects of developing countries. Toward this objective, the declaration from the WTO Ministerial Conference in Doha, Qatar, November 14, 2001, states in part:

> "We commit ourselves to comprehensive negotiations aimed at: substantial improvements in market access; reductions of, with a view to phasing out, all forms of export subsidies; and substantial reductions in trade-distorting domestic support. We agree that special and differential treatment for developing countries shall be an integral part of all elements of the negotiations...".

Currently, the Doha Round is approaching the end of its 10th year of negotiations, and the Round seems unlikely to conclude in the foreseeable future with an agreement that achieves its fundamental objectives.

What can account for the lack of progress in the Doha Round? Are there changes in the approach to negotiations that was endorsed at Doha that might help to break the current impasse? In this paper, we extract insights from the standard economic theory of trade agreements to provide answers to these questions. Our main message comes in three parts.

First, the stated aims of the Doha Round are incompatible from the perspective of our economic analysis. Thus, if these aims are pursued as stated, then we conclude that they are unlikely to deliver the meaningful trade gains for developing countries that the WTO membership seeks.

Second, after 50 years of successful developed-country liberalization under GATT (the WTO's predecessor), the WTO may face a "latecomers" problem as it attempts to integrate its developing country membership into the world trading system, wherein its developed country members face a kind of "globalization fatigue" and have insufficient bargaining power in the negotiations relative to developing country members. While this problem also arose in earlier GATT rounds, its scale in the Doha Round is unprecedented, and it could potentially account for the current impasse.

And third, we argue that the stated aims of the Doha Round can form the basis of a coherent plan for solving the latecomers problem and delivering trade gains for developing countries, and that the impasse at Doha might thereby be broken, with one key substantive change: the Doha Round must move away from the non-reciprocal special-and-differential-treatment norm as the cornerstone of the approach to meeting developing country needs in the WTO, and instead developing countries must come to the bargaining table in markets where they are large and negotiate reciprocally with each other and with developed countries.

To make these points, we rely on a series of simple general equilibrium and partial equilibrium trade models. For the most part, we illustrate the message delivered by these models with the use of schematic figures, providing references to the existing literature for more complete and formal treatments. And we support our use of the models with reference to the relevant empirical research.

The remainder of the paper proceeds as follows. In the next section, we consider the implications of special and differential treatment for developing countries in the context of a negotiating forum

where developed countries engage in reciprocal and non-discriminatory tariff bargaining. In section 3 we turn to an analysis of the Doha approach to agriculture negotiations. Section 4 considers how the Doha Round might be made a development round according to the economic analysis contained in the previous sections. Finally, section 5 offers a brief conclusion. A Data Appendix includes a number of tables not included in the main body of the paper.

2 Non-reciprocal negotiations and developing countries

A key objective of the current Doha Round of GATT/WTO multilateral trade negotiations is to bring developing countries into the world trading system. A wide range of anecdotal and empirical evidence suggests that developing countries have gained little if at all from more than half a century of GATT/WTO-sponsored tariff negotiations. For example, based on interviews with WTO delegates and Secretariat staff members, Jawara and Kwa (2003, p. 269) offer the following assessment:

> "Developed countries are benefitting from the WTO, as are a handful of (mostly upper) middle-income countries. The rest, including the great majority of developing countries, are not. It is as simple as that."

The empirical findings of Subramanian and Wei (2007) are also consistent with this position. They find that GATT/WTO membership is associated with a large and significant increase in trade volumes for developed countries; however, for developing country members, the impact of membership on trade volumes is weak or non-existent.[1]

One fact to keep in mind is that, while developed countries have negotiated deep reductions in their tariffs under GATT auspices, developing countries have committed to few tariff cuts over the 8 GATT multilateral negotiating rounds that span 50 years. In the Data Appendix we reproduce four relevant tables taken from the WTO World Trade Report for 2007. Table 5 records the impressive overall results from 60 years of negotiated tariff reductions under GATT and the first decade of the WTO (created in 1995 as a result of the Uruguay Round). Table 9 then confirms that these overall results mask a striking lack of tariff commitments ("binding coverage") for developing countries prior to the last completed (Uruguay) GATT round, while Appendix Tables 8 and 9 record the much more significant tariff bindings made by developed countries over the GATT years.[2] The asymmetry in GATT/WTO tariff commitments across developed and developing countries is a result of the exception to the reciprocity norm that has been extended to developing countries and codified under "special and differential treatment," or SDT, clauses. This exception was thought to ensure that

[1] This particular finding of Subramanian and Wei (2007), that it is mainly large developed countries that have enjoyed significant trade effects of GATT/WTO membership, is confirmed for example in Chang and Lee (2011), and also by Eicher and Henn (2011) once controls suggested by the "terms-of-trade theory" of trade agreements are introduced (we describe this theory more fully below).

[2] Moreover, as is well known (see for example Diakantoni and Escaith, 2009), even the impressive binding coverage for less developed countries achieved in the Uruguay Round is potentially misleading, because a large proportion of those bindings were set significantly above the tariff rates actually applied by these countries.

developing countries would get a "free pass" on the MFN tariff cuts that the developed countries negotiated with one another, allowing developing country exporters to then share with exporters from developed countries in the benefits of greater MFN access to developed country markets. Apparently, though, negotiations among developed countries have not generated a significant impact on the trade volumes of developing country members of GATT/WTO.

Why hasn't GATT/WTO membership generated the anticipated trade-volume impact for developing countries? One possible explanation is that developed countries have found ways around the MFN principle, so that their tariff bargaining in fact discriminates against non-participating GATT/WTO members. Bown's (2004) findings, however, weigh against this explanation. He finds that countries do indeed abide by the MFN principle, at least in the context of GATT/WTO bilateral dispute settlement negotiations.[3] Here, we explore a different explanation, namely, that the non-reciprocal approach anchored in SDT itself lies behind the absence of meaningful trade gains for developing countries. Since the non-reciprocal approach is also a feature of the current Doha negotiations, our explanation suggests that these negotiations may also be structured in a way that will fail to generate appreciable impact on the trade volumes of developing country members of GATT/WTO.

Two distinct and potentially complementary arguments linking SDT clauses to the disappointing developing country experience in the GATT/WTO may be identified. A first argument is straightforward: SDT may have given developing countries a free pass to the tariff liberalization negotiated by developed countries, but it took away their voice in determining which developed country markets were liberalized through GATT/WTO negotiations, with the predictable result that the developed-country markets that were traditionally the most important to developing countries (e.g., textiles and apparel, certain agricultural products, footwear) experienced the least negotiated trade liberalization under GATT/WTO auspices. This argument finds some empirical support in Subramanian and Wei (2007), and we will return to it later in the paper. But the argument misses the "free pass" logic that was supposed to capture the anticipated benefits of SDT. That logic was never based on the hope that developed countries would offer unilateral tariff reductions on products where developing countries were the principal export suppliers to their markets.[4] Instead, as described above, the logic of SDT was that developing country exporters could "free ride" on the reciprocal liberalization efforts of others; that is, together with exporters from

[3] In examining the outcomes of GATT/WTO bilateral dispute settlement negotiations, Bown (2004) also finds that a country's potential for retaliatory tariff threats is an important predictor of whether it will receive non-discriminatory treatment in the settlement of a bilateral dispute between two of its trading partners. Applied more broadly, this finding would suggest that "small" developing countries who lack the capacity for trade retaliation may be at greater risk of facing discrimination in the GATT/WTO system, and this could then help explain why small developing countries have not enjoyed trade gains with GATT/WTO membership. But this explanation could not account for the lack of trade gains from GATT/WTO membership that the larger developing countries have also experienced (see also note 13).

[4] The exception to this is the Generalized System of Preferences (GSP), which was introduced as an SDT provision of GATT under the "Enabling Clause" for developing countries. Under GSP, it was anticipated that developing countries might benefit from unilateral grants of preferential market access by developed countries, but the unilateral nature of these market access commitments has limited their impact on developing country trade (see, for example, Ozden and Reinhardt, 2005).

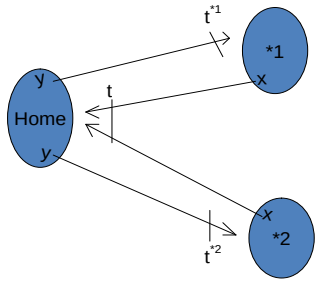


Figure 1

developed countries, developing country exporters would enjoy trade benefits from the MFN tariff cuts that the developed countries negotiated with one another. Central to this logic is the existence of developed and developing country exporters who compete with each other for sales to developed country markets on products that fall within a given tariff line, but competing exporters play no role in the argument we have just described. It is this role that we highlight in a second argument linking the SDT clause to the disappointing developing country experience in the GATT/WTO.

To develop this second argument, we begin by sketching a simple general equilibrium model of trade in two goods between three countries. Suppose that the home country imports good x from foreign countries 1 and 2, and that the two foreign countries import good y from the home country, with all goods produced in perfectly competitive markets. For simplicity, we assume that the two foreign countries do not trade with one another; notice, though, that they are competing exporters of good x into the home country market. The local relative prices in the home and foreign countries are denoted as $p \equiv p_x/p_y$ and $p^{*i} \equiv p_x^{*i}/p_y^{*i}$, respectively, where we use an asterisk to denote foreign country variables and where $i = 1, 2$. The home country selects an ad valorem and non-discriminatory (i.e., MFN) tariff rate, t, for imports of good x. For foreign country i, the ad valorem import tariff rate on good y is denoted as t^{*i}. The world price for trade between the home country and foreign country i is $p^{wi} \equiv p_x^{*i}/p_y$. Notice that p^{wi} is thus foreign country i's terms of trade. Defining $\tau \equiv 1 + t$ and $\tau \equiv 1 + t^{*i}$, we have that $p = \tau p^{wi}$ and $p^{*i} = (1/\tau^{*i})p^{wi}$. Since the home country applies a non-discriminatory tariff, we thus see that $p^{w1} = p^{w2} \equiv p^w$; that is, the two foreign countries must share the same terms of trade when the home country adopts an MFN tariff policy. We thus have that $p = \tau p^w$ and $p^{*i} = (1/\tau^{*i})p^w$. Finally, we note that the home country's terms of trade in this MFN setting is given as $1/p^w$. The pattern of trade and trade policies for each country are depicted schematically in Figure 1.

In a given country, once the local and world prices are determined, all economic quantities (production, consumption, tariff revenue, imports, exports) are also determined. In turn, for a

given set of tariffs, $(\tau, \tau^{*1}, \tau^{*2})$, once we determine a market-clearing world price, $\widetilde{p}^w(\tau, \tau^{*1}, \tau^{*2})$, then all local prices are determined. This follows since the pricing relationships just presented then yield the local prices as $p(\tau, \widetilde{p}^w) = \tau \widetilde{p}^w$ and $p^{*i}(\tau^{*i}, \widetilde{p}^w) = (1/\tau^{*i})\widetilde{p}^w$, respectively. Finally, the market-clearing world price is determined as the world price which ensures that the home-country imports of good x equals the sum of exports of good x from foreign countries 1 and 2; in other words, $\widetilde{p}^w(\tau, \tau^{*1}, \tau^{*2})$ is the value for p^w which solves

$$M(p(\tau, p^w), p^w) = E^{*1}(p^{*1}(\tau^{*1}, p^w), p^w) + E^{*2}(p^{*2}(\tau^{*2}, p^w), p^w). \tag{1}$$

As is standard, for each country, we assume as well that import and export functions are defined in a manner that satisfies trade balance requirements:

$$\begin{aligned} p^w M(p, p^w) &= E(p, p^w) \\ M^{*i}(p^{*i}, p^w) &= p^w E^{*i}(p^{*i}, p^w) \text{ for } i = 1, 2, \end{aligned} \tag{2}$$

where $E(p, p^w)$ denotes home-country exports of good y and $M^{*i}(p^{*i}, p^w)$ represents foreign-country-i imports of good y. The market clearing requirement for good y is then implied by (1) and (2).

We assume that each of these three countries is "large," in the traditional sense that a change in the country's tariff results in a change in the market-clearing world price. We emphasize, though, that for some countries the resulting world-price change may be small in size; that is, some countries may be much less large than are others. We assume that prices depend on tariffs in the "standard" manner. Thus, a country achieves a terms of trade gain when it raises its own import tariff:

$$\frac{\partial \widetilde{p}^w}{\partial \tau} < 0 < \frac{\partial \widetilde{p}^w}{\partial \tau^{*i}}, \ i = 1, 2. \tag{3}$$

Likewise, when a country raises its import tariff, the local price of the import good relative to the export good rises in that country:

$$\frac{dp(\tau, \widetilde{p}^w)}{d\tau} > 0 > \frac{dp^{*i}(\tau^{*i}, \widetilde{p}^w)}{d\tau^{*i}}. \tag{4}$$

Intuitively, if a country raises its import tariff, then some of the incidence is borne by foreign exporters, who receive a lower export price for their product, and some of the incidence is passed on to domestic consumers, who pay a high local price for the imported good. We will discuss below specific evidence relating to the ability of importing countries to impose the incidence of tariffs on foreign exporters, but here we note that there is strong evidence that the incidence of trade costs more generally are borne disproportionately by exporters. For example, according to a recent paper by Anderson and Yotov (2010), sellers/exporters bear a significant portion of trade costs relative to buyers/importers, with exporters' incidence in the early 1990's roughly 5 times larger than that borne by importers according to Anderson and Yotov's estimates.

Having sketched the general equilibrium model of trade, let us now return to the discussion above and consider the possibility that the home country and foreign country 1 negotiate a reciprocal reduction in import tariffs while foreign country 2 takes a "free pass" and leaves its tariff unaltered. What can we say about the implications of this negotiation for foreign country 2's volume of trade?

To address this question, we place two restrictions on the negotiation between the home country and foreign country 1. First, the home country tariff satisfies the MFN requirement. This restriction is already imposed in the description of the model. Second, the negotiation satisfies the *principle of reciprocity* for the home country and foreign country 1. In broad terms, this means that the resulting changes in tariffs bring about changes in the volume of each negotiating country's imports that are of equal value to changes in the volume of its exports. Formally, we suppose that the home country and foreign country 1 undertake a negotiation in which they change their tariffs from some initial tariff pair, (τ_A,τ_A^{*1}), to a new tariff pair, (τ_B,τ_B^{*1}). The tariff of foreign country 2 is fixed throughout at its initial level, τ_A^{*2}. We denote the initial and new world prices as $\widetilde{p}_A^w \equiv \widetilde{p}^w(\tau_A, \tau_A^{*1}, \tau_A^{*2})$ and $\widetilde{p}_B^w \equiv \widetilde{p}^w(\tau_B, \tau_B^{*1}, \tau_A^{*2})$, and similarly we represent the initial and new local prices in foreign country 1 as $p_A^{*1} \equiv p^{*1}(\tau_A^{*1}, \widetilde{p}_A^w)$, and $p_B^{*1} \equiv p^{*1}(\tau_B^{*1}, \widetilde{p}_B^w)$. For foreign country 1, the principle of reciprocity thus requires that the resulting change in tariffs satisfies

$$\widetilde{p}_A^w[E_B^{*1} - E_A^{*1}] = [M_B^{*1} - M_A^{*1}], \tag{5}$$

where $M_A^{*1} \equiv M^{*1}(p_A^{*1}, \widetilde{p}_A^w)$, $E_A^{*1} \equiv E^{*1}(p_A^{*1}, \widetilde{p}_A^w)$, $M_B^{*1} \equiv M^{*1}(p_B^{*1}, \widetilde{p}_B^w)$ and $E_B^{*1} \equiv E^{*1}(p_B^{*1}, \widetilde{p}_B^w)$.[5]

Under GATT/WTO rules, trade liberalization negotiations are not required to satisfy the principle of reciprocity. It is frequently observed, however, that countries seek to obtain a "balance of concessions" in their negotiations. We may thus understand the principle of reciprocity as a negotiation norm. While more evidence is needed before the empirical issue is settled, we note that some recent studies (Shirono, 2004; Limao, 2006, 2007; Karacaovali and Limao, 2008) provide empirical support for the view that actual tariff bargaining outcomes in the GATT/WTO conform to a reciprocity norm.

Following Bagwell and Staiger (1999, 2005), we now use the balanced trade condition (2) for foreign country 1, which must hold both at the initial tariffs and the new tariffs, to rewrite the reciprocity condition (5) as

$$[\widetilde{p}_B^w - \widetilde{p}_A^w]E_B^{*1} = 0. \tag{6}$$

Using (6), we thus see that mutual changes in trade policy for the home country and foreign country 1 satisfy the principle of reciprocity if and only if they leave the world price unchanged. When countries reduce tariffs in a manner that satisfies the principle of reciprocity, therefore, they achieve higher trade volumes even though their terms of trade are unaltered.[6] The higher trade volumes

[5] As we explain below in footnote 8, if the described change in tariffs satisfies the principle of reciprocity from the perspective of foreign country 1, then the tariff change also satisfies the principle of reciprocity from the perspective of the home country.

[6] If the home country were to violate MFN and adopt discriminatory tariffs, then its bilateral terms of trade with foreign country 1 would differ from its bilateral terms of trade with foreign country 2. The home country's multilateral terms of trade might then change even when a negotiated tariff change with foreign country 1 preserves its bilateral

arise entirely as a consequence of the induced changes in local prices in each negotiating country.

We are now in position to consider the implications of this negotiation for foreign country 2's volume of trade. The main finding is that foreign country 2 experiences *no change* in its trade volume, when the home country and foreign country 1 exchange tariff reductions that satisfy the principles of non-discrimination and reciprocity. To establish this finding, we observe first that foreign country 2's terms of trade, $\widetilde{p}^w$, are unaltered. The principle of non-discrimination ensures that foreign country 2 enjoys the same terms of trade as does foreign country 1, and as argued just above the principle of reciprocity in turn ensures that foreign country 1's terms of trade are unaltered by the negotiated reduction in tariffs. A second observation is that foreign country 2's local price, $p^{*2}(\tau^{*2}, \widetilde{p}^w)$, is also unaltered. This follows since foreign country 2's terms of trade are unaltered and foreign country 2 does not undertake a tariff change of its own. With its world and local prices unchanged, foreign country 2 thus experiences no change in its production, consumption, tariff revenue, imports or exports.

This finding is perhaps surprising, since as Figure 1 reflects and as we have emphasized, foreign country 2 receives a (non-discriminatory) tariff cut from the home country. How can a country experience no change in its trade volume, when the import tariff of its trading partner is reduced and it offers no tariff cut of its own? The key point is that the negotiation between the home country and foreign country 1 alters the local price in foreign country 1. Following the reciprocal tariff reduction, the local price of the import good relative to the export good in foreign country 1 must fall (i.e., p^{*1} must rise). As a consequence, consumers in foreign country 1 substitute consumption toward the import good and away from the export good, and resources for production shift from the import good toward the export good. For both of these reasons, when foreign country 1 cuts its import tariff, its export volume (production minus consumption of the export good) rises.[7] The principle of reciprocity then has the effect of ensuring that the expansion in export volume from foreign country 1 exactly satisfies the increased demand for imports coming from the home country. In other words, foreign country 2's hope of a "free pass" to greater export volume is thwarted by the fact that, while the home country now offers a more open market on a non-discriminatory basis to all comers, foreign country 2 must compete for sales in that market with a more "high-export-performing" foreign country 1.[8]

More generally, this finding suggests a simple maxim for trade negotiations: what you get is what you give. A country that reciprocates and cuts its own import tariffs in exchange for MFN tariff cuts in markets served by its exporters will see its exporters gain more export volume from the additional access in those markets than will exporters from countries that did not reciprocate (i.e., that did not agree to tariff cuts of their own). Indeed, in the simple three-country model presented

terms of trade with foreign country 1. We assume here, though, that the home country adopts non-discriminatory tariffs, and so the home country's bilateral and multilateral terms of trade are all represented by a common expression, $1/\widetilde{p}^w$. See Bagwell and Staiger (1999, 2005) for further discussion.

[7] This is simply an instance of the Lerner symmetry theorem, which ensures in this two-good setting that a reduction in a country's import tariff has the same effect as would an increase in its export subsidy.

[8] Given that trade volume from foreign country 2 is unaltered, it is now apparent that, if the principle of reciprocity is satisfied from the perspective of foreign country 1, then it is also satisfied from the perspective of the home country.

above, if one foreign country liberalizes in a manner that satisfies the principle of reciprocity, while another foreign country does not liberalize on its own, then the latter country sees no change in its trade volume whatsoever. Notice too that this maxim does not amount to a simple expression of the gains from unilateral trade liberalization, because it is stated in the context of negotiated reciprocal trade liberalization, where the terms-of-trade impacts of one's own liberalization are offset by the impacts of the reciprocal liberalization of a trading partner. Hence, it is when countries come together to negotiate reciprocal MFN trade liberalization, as in a GATT/WTO round of multilateral negotiations, that the maxim applies.[9]

At a general level the practical significance of the finding we report above is supported by a wide body of empirical studies that confirm the key mechanism: a country's own tariff cuts stimulate its exports. We mention here four recent studies that are of special relevance. Edwards and Lawrence (2006) examine the relationship between South Africa's export performance and its import tariffs and conclude: "In the long run a 1% rise in tariffs raises domestic prices by 0.48%. This in turn reduces the profitability (both relative and absolutely) of export supply and hence lowers export volumes by 0.31%...." Mukerji (2009) examines the impact of India's tariff liberalization on its export performance, and finds that India both increased its export volume of traditional export goods (intensive margin effects) and began exporting significant numbers of new goods (extensive margin effects) as a result of its tariff cuts. In another study, Mostashari (2010) focuses on explaining the changing distribution of export shares among countries exporting to the United States and finds that, especially for less developed countries, their own liberalizations have been quantitatively much more important in explaining changes in bilateral trade shares to the United States than the impact of US liberalizations. Finally, Tokarick (2007, p. 207) reports evidence that "developing countries could expand their exports by a much larger percentage by eliminating their own tariff barriers, rather than waiting for tariff reductions from rich countries."[10]

And in policy circles, the fact that a country's import tariffs act to impede its exports has been recognized for decades. For example, in describing the forces that led to the demise of the import substitution policies popular in the developing countries of Latin America in the 1950s and 60s, Dornbusch (1992) writes:

> In the late 1960s and 1970s, protection in developing countries softened in at least

[9] We claim that this maxim applies to developed and developing countries alike. And yet our formal model adopts a number of assumptions that may seem ill-suited when applied to particular developing countries (e.g., perfectly competitive and smoothly functioning production sectors). It is therefore important to point out that these assumptions are not central to our main message. For example, even in an "endowment economy" where production is completely rigid and unresponsive to prices, a country's import barriers would continue to impede its exports, through responses on the demand side of the economy. Hence, the impacts of tariff cuts on own exports that we have emphasized do not depend on the existence of well-functioning markets in a country that can reallocate productive resources smoothly and efficiently across uses. This is also borne out in the data, and indeed much of the relevant empirical evidence that we discuss next concerns developing countries.

[10] There is also related evidence on the link between own tariffs and industry-level productivity. For example, Trefler (2004) examines the impact of Canadian tariff concessions in the Canadian-US free trade agreement and reports that Canada's own tariff cuts raised labor productivity in Canada by 15 percent in the most impacted, import-competing group of industries, thereby quantifying a large and positive industry-level productivity effect associated with own-tariff cuts.

one direction. Many countries recognized that protection by tariffs and quotas did keep imports out, but that the resulting decline in demand for foreign exchange also led to an appreciation of the currency and hence a severe tax on exports of both traditional commodities and emerging industrial goods. Unstable real exchange rates added to the hazards of export activities. Moreover, duties on imported intermediate goods first implied a tax on export activities using these goods, and then helped cause a currency overvaluation which hurt export competitiveness of these products. (pp. 71-72)

The novelty in our argument above is simply to develop the implications of the import-tariffs-impede-exports observation in a competing exporter setting of reciprocal MFN tariff bargaining.[11]

What are the implications of this discussion for the Doha Round? Here we emphasize two. The *first implication* is that Doha's largely non-reciprocal approach, still anchored in a long GATT tradition of SDT, is unlikely to deliver meaningful trade gains for developing countries, just as this approach did not do so over the previous half century. To substantially share in the trade-volume gains from negotiated trade liberalization, developing countries must come to the bargaining table in markets where they are large and negotiate reciprocally with each other and with developed countries.[12] This implication seems to run counter to much current thinking on the Doha Round. For example, the recently released Bhagwati-Sutherland Report (2011) states:

"...The expectation that in most cases developing countries should be entitled to flexibilities in the application of tariff cuts that are not available to developed WTO states has also followed from the widening of the membership and the development of a body of thinking about the pace and depth of liberalization that is appropriate for developing countries. This assumption – that a development friendly trade deal must demand less of countries in a way that is proportionate to their state of development – permeates the Doha Round and the final package will rightly have to be measured against it.

"This means that developed countries have to accept that the outcome will be asymmetrical, even vis-a-vis large and competitive exporters like China and Brazil who remain in development." (p. 6).

[11] The observation that a country's import barriers act to impede its exports should be distinguished from the question of whether a country's import barriers impede its *growth*. This openness-growth linkage is at the center of the debate over the validity of the so-called "Washington Consensus" and has come under intense criticism over the past decade (for a recent contribution to this debate, see Estevadeordal and Taylor, 2008). By contrast, the basic link between a country's import barriers and its exports which we highlight in our discussion above is widely accepted, and is not part of the debate over the Washington Consensus.

[12] In this regard, a limited opportunity to gauge the potential trade impacts for a developing country when it cuts its tariffs in a reciprocal fashion in a WTO negotiation is provided by accession negotiations that occurred during and after the Uruguay Round, because strict adherence to SDT was not followed in accession negotiations over this period, and instead existing developed country members asked for more-or-less reciprocal commitments from new member countries as a condition for membership. Subramanian and Wei (2007) exploit this difference in membership requirements across old (pre-Uruguay Round) and new (post-Uruguay Round) developing country GATT/WTO members, and find that developing countries who were asked to make more nearly reciprocal tariff cuts of their own in exchange for WTO membership did indeed enjoy greater trade effects of membership than developing countries who were allowed to not reciprocate under SDT.

Our discussion above is at odds with this position, and suggests that, rather than accepting and embracing the non-reciprocal approach embodied in SDT as an appropriate standard for the Doha Round, the success of the Doha Round as a Development Round may hinge on rejecting SDT as the cornerstone of the approach to meeting developing country needs in the WTO.[13]

The second, and more speculative, implication concerns the manner in which negotiations must proceed if developing countries are to benefit (i.e., advance their own objectives). To develop this implication, we must dig somewhat deeper and consider the purpose of a trade agreement.

According to the terms-of-trade theory, the purpose of trade agreements is to facilitate an escape from a terms-of-trade driven Prisoners' Dilemma. In the absence of a trade agreement, governments would set optimal unilateral trade policies. For the government of a large country, a higher import tariff raises the local relative price of the import good and also lowers the relative price of the import good on the world market. This latter effect means that a higher import tariff improves the importing country's terms of trade and results in a deterioration of the terms of trade for the exporting country. A higher import tariff from a large country thus imposes a negative terms-of-trade externality on its trading partner, whose exporters receive a lower world price. Governments fail to internalize this externality in the absence of a trade agreement, and as a consequence tariffs are higher than would be efficient, where efficiency is measured relative to government preferences. Starting from this inefficient outcome, governments can then gain from a trade agreement in which they reciprocally lower tariffs. The gains come from eliminating the local-price distortions that arise under unilateral tariff setting when foreign exporters pay part of the cost of domestic import protection.

A growing body of evidence provides support for the key features of this theory.[14] We mention here four sets of findings. First, Broda, Limao and Weinstein (2008) provide evidence that even seemingly "small" countries (and many developing countries) are large in some markets and that unilateral tariff setting responds to cost-shifting incentives where countries are large. Second, Broda, Limao and Weinstein (2008) and Bagwell and Staiger (2011) find that the pattern of GATT/WTO negotiated tariff cuts is consistent with the elimination of the cost-shifting component of unilateral tariffs. Third, empirical work by Ludema and Mayda (2010) indicates that GATT/WTO tariff bindings exhibit remnants of a cost-shifting component where one would expect

[13] As will become clear below, to the extent that a developing country is truly "small" in its relevant markets, it should not be expected to offer tariff concessions in a trade agreement according to the terms-of-trade theory; but this observation holds equally for developed countries, and therefore provides no rationale for an SDT-type norm applied to developing countries (see Staiger, 2006, for an elaboration on some of these themes as they relate to developing countries and the WTO). In essence, according to the terms-of-trade theory, it is the biggest countries – whether developed or developing – who adopt unilateral trade policies that are the most internationally inefficient, and hence it is the biggest countries that should negotiate the most substantial tariff bindings under an internationally efficient trade agreement. Also, our discussion of SDT has been couched in terms of an escape from the reciprocity norm in the context of tariff bindings and market access negotiations, but as we have noted there are a number of SDT clauses throughout the GATT/WTO. For example, a major sticking point in the Doha Round that contributed to the breakdown of negotiations in 2008 was the special agricultural safeguard mechanism for developing countries, a provision which reflects the SDT clause. The implications we discuss here would be relevant for these other instances of SDT clauses as well.

[14] See Bagwell and Staiger (2010) for a recent survey.

to find such remnants, given MFN and the pattern of non-reciprocity. And finally, Eicher and Henn (2011) find that the trade effects associated with WTO membership are largest for countries that were large in world markets at the time of their accession to the GATT/WTO (and hence would be expected to have a significant cost-shifting component in their unilateral tariffs and therefore to negotiate large tariff reductions in the GATT/WTO according to the terms-of-trade theory).

The terms-of-trade theory of trade agreements thus suggests that developing countries stand to gain from reciprocal trade liberalization wherever they are big enough that foreign exporters "feel the pain" of their tariffs (i.e., care about access to their markets). When this is true, foreign countries are motivated to engage with the developing country and identify mutually beneficial and reciprocal tariff reductions. Returning to our earlier discussion of the two arguments linking SDT clauses to the disappointing developing country experience in the GATT/WTO, we now observe that these two arguments have starkly different implications for the manner in which negotiations should proceed in the Doha Round.

Consider first the argument that, where developing countries have traditionally been the principal export suppliers into developed country markets (e.g., textiles and apparel, certain agricultural products, footwear), SDT has simply resulted in a lack of GATT/WTO sponsored liberalization in developed country markets because it has prevented the liberalizing forces of reciprocity from taking hold. Here the implications of our discussion for the Doha Round are simple: reject SDT, and let reciprocal bargaining between developed and developing countries do for developed-country market access in these sectors what has already been achieved for manufactured goods more generally through reciprocal bargaining between developed countries. In this case, each government involved in the reciprocal negotiations stands to gain in the standard way, i.e., from the elimination of local-price distortions that arise under unilateral tariff setting when foreign exporters pay part of the cost of domestic import protection.[15]

Next consider the second argument linking SDT clauses to the disappointing developing country experience in the GATT/WTO that we discussed above, which applies to the competing exporter case. Here there is an important difference: it is now relevant that reciprocal bargaining between developed countries has gone on for over 50 years; and as a result, developed country tariffs on most manufactured goods (which account for almost 90% of world merchandise exports) are already very low. Developing countries would therefore be "latecomers" to the tariff bargaining arena for these products, and a potential concern is then that developed countries may have already eliminated

[15] Even in this simplest case, an interesting complication for the Doha Round arises from the fact that the Uruguay Round agreement that led to the elimination of the Multi-Fiber Arrangement and hence liberalized market access for textiles and apparel in developed country markets has been interpreted as a reciprocal agreement between developed and developing countries, but the form of the reciprocal commitments made by developing countries was not a market access commitment and instead amounted to accepting commitments associated with the TRIPS Agreement. TRIPS commitments are not market access commitments, and arguably they do not have the same own-export-enhancing effects as do tariff commitments, and in any case would not reduce local-price distortions in developing countries in the way that traditional market access commitments would. This in turn suggests that the WTO liberalization of textiles and apparel to date may have (i) eliminated much of the local-price distortions for this sector in developed countries, while (ii) not achieving much in the way of eliminating local-price distortions in developing country markets, with the resulting asymmetry between developed and developing countries then exacerbating the "latecomer" problems that we describe next.

local-price distortions in these markets through previous tariff negotiations. In other words, given the existing tariffs of developed countries, it may be difficult to identify a substantial set of mutually beneficial and reciprocal tariff bargains with developing countries. This concern is more speculative in nature, but it points to a potential *second implication* of our discussion: in order to "make room at the table" for developing countries, developed countries may need to find a way to in effect renegotiate their existing tariff commitments with one another.

In particular, for manufactured goods, developed countries may have already achieved the degree of "openness" that they desire. If this is true, then two issues potentially follow. First, developed countries at this point may have preserved an inadequate amount of bargaining power; specifically, developed countries may have little left to offer developing countries in reciprocal bargains. This issue naturally complicates any process under which developing countries are to gain through a reciprocal exchange of tariff reductions with developed countries. A second issue is that a kind of "globalization fatigue" may be present in the developed world. That is, the existing MFN tariffs of developed countries may be broadly efficient for these countries in the world trading system as it currently stands, but may be too low for a world in which developing countries are fully integrated into the world trading system. To the extent that these issues arise, one potential solution would be to allow for some degree of renegotiation (upward) of existing tariff commitments among developed countries, in order to "make room" for negotiations (downward) with developing countries.[16] The idea would be to find a way to facilitate agreement on the set of negotiated tariff commitments that the current WTO membership would choose to negotiate today if they were not constrained in their negotiations by their pre-existing tariff bindings.

The possibility that developed countries might need to renegotiate their existing tariff commitments in order to be able to accommodate the entry of developing countries into the world trading system sounds admittedly extreme and raises a host of issues from which our simple theoretical treatment abstracts. We thus raise this possibility here primarily as a pedagogical device, and we will later suggest that other less extreme sounding possibilities may have much the same effect. Still, it is important to note that the underlying issues described above are far from new or unfamiliar to trade negotiators. Rather, a struggle with the basic problem of how to accommodate "latecomers" has been in evidence from very early in the GATT/WTO history. For example, in his assessment of the reasons for the somewhat disappointing outcome of the 1950-51 Torquay Round, the third negotiating round sponsored under GATT auspices, Executive Secretary of the Interim Commission for the International Trade Organization E. Wyndham White highlighted the bargaining power issue as follows:

> "Another inhibiting factor was the problem presented by the disparities in the levels of tariffs. A number of European countries with a comparatively low level of tariff rates considered that they had entered the Torquay negotiations at a disadvantage. Having

[16] The finding that we report above suggests that if the developed countries were to renegotiate (upward) their existing tariff commitments in a manner that satisfies the principles of non-discrimination and reciprocity, then in principle the trade-volume effects of this renegotiation for other countries could be quite small.

bound many of their rates of duty in 1947 and 1949, what could these low-tariff countries offer at Torquay in order to obtain further concessions from the countries with higher levels of tariffs? The rules adopted by the Contracting Parties for their negotiations stipulate that the binding of a low duty or of duty-free treatment is to be recognized as a concession equivalent in value to the substantial reduction of high tariffs or the elimination of tariff preferences. Some thought that, in observance of this rule, the high-tariff countries should make further reductions in their duties in exchange for the prolongation of the binding of low duties. But although the high-tariff countries were sometimes willing to offer concessions without expecting comparable reductions from countries with low tariffs, they were not prepared to grant what they considered to be unilateral and unrequited concessions. No general solution was found at Torquay, but the question will be further explored in the near future. Meanwhile, the area of negotiations between some of the European countries was restricted by this divergence of view." (ICITO, 1952, pp. 9-10).

And on a smaller scale, there is also evidence that the second issue of "globalization fatigue" was already very real at Torquay as well. As E. Wyndham White wrote at the time:

> "The Torquay negotiations took place under conditions of much greater stress than those which prevailed at the time of the Geneva or Annecy Conferences. Besides, those earlier negotiations had covered much of the ground, and many of the countries participating at Torquay felt that they had largely exhausted their bargaining power or that they had gone as far as was justified in the process of tariff reduction in view of present-day uncertainties. They felt they needed more time to digest and to assess the effects of the concessions already made before making further cuts in their tariffs." (ICITO, 1952, p. 9).

Hence, the issues associated with accommodating latecomers at the bargaining table have posed long-standing challenges for the GATT/WTO.[17]

Finally, we note that *The Economist* also takes the view that the latecomers issue is the central sticking point at Doha:

> "...the real bone of contention is the aim of proposed cuts in tariffs on manufactured goods. America sees the Doha talks as its final opportunity to get fast-growing emerging economies like China and India to slash their duties on imports of such goods, which have been reduced in previous rounds but remain much higher than those in the rich world. It wants something approaching parity, at least in some sectors, because it reckons its own low tariffs leave it with few concessions to offer in future talks. But emerging

[17] There is also the related but distinct question whether credit should be given in multilateral trade negotiations to developing countries for the autonomous trade policy liberalization they have undertaken (for example as part of International Monetary Fund or World Bank programs). On this question see Mattoo and Olarreaga, 2001.

markets insist that the Doha round was never intended to result in such harmonization. These positions are fundamentally at odds." (April 28, 2011)

In fact, in light of the expressed intention of the Doha Round to meaningfully integrate its developing country membership into the world trading system, it may be that, as *The Economist* seems to suggest, it is the latecomers problem, rather than the sheer number of countries involved in the Doha Round, that explains the reason for the current impasse.[18]

In their interim report on the Doha Round, Bhagwati and Sutherland (2011) propose a deadline for the round of December 31, 2011. In this context, we note that the first implication of our analysis - that developing countries must come to the bargaining table in markets where they are large and negotiate reciprocally with each other and with developed countries - could be implemented over a short time span. Our second and more speculative implication, however, that developed countries may need in effect to renegotiate their existing tariff commitments, raises a host of issues beyond our simple model and would appear challenging to implement over a short time span. It is possible, however, to interpret ongoing efforts in the Doha negotiations as in effect helping to achieve ends consistent with our second implication, and after considering in the next section the nature of the agriculture negotiations we return to this possibility in section 4.

3 Agriculture

Another key objective of the current (Doha) round of GATT/WTO multilateral trade negotiations is to extend GATT/WTO disciplines to the agriculture sector. The central role of this objective is revealed by the prominent efforts to reduce agricultural subsidies and by the high-profile Doha negotiation failures that have resulted. In the Doha Round so far, the approach has been to encourage negotiations that deliver reductions in trade-distorting agricultural subsidies in exchange for reductions in import tariffs. This approach is strikingly different from traditional GATT/WTO bargaining, in which countries exchange market-access commitments through agreements to reciprocally lower import tariffs. Traditional market-access bargaining has been successful, and the benefits of such a negotiation approach can be readily understood using the terms-of-trade theory of trade agreements. The negotiation approach taken in the Doha Round, by contrast, has fared rather poorly so far, and we argue in this section that one explanation may be that the underlying economics of this approach are less sound. We thus suggest that the liberalization of agriculture should reorient toward a focus on traditional market-access bargaining.

[18] This stance finds further support in Neary's (2004) observation that the eight GATT rounds beginning in 1947 and ending with the creation of the WTO in 1995 exhibited a tight empirical relationship between the duration of the round and the number of countries participating. Based on this empirical relationship, Neary predicted (with a grain of salt) that the Doha Round would be completed in May 2010. Given that anything approaching a true "development" round that would meaningfully integrate the developing country members into the world trading system appears to be years off in the future, it seems safe to say that this empirical relationship has broken down with the Doha Round, and one explanation for the breakdown is the difficulty dealing with the latecomers problem on a scale that has never before been confronted in the history of the GATT/WTO.

Blustein (2009) provides an interesting historical account of negotiations over agriculture policies in the Doha Round. He describes the terms of the agriculture bargain that emerged from Doha in 2005 as follows:

> "The package was based on a hardheaded political calculation, in the finest tradition of WTO- and GATT-style mercantilism. Curbing farm subsidies might be a desirable policy for the United States as a whole, but it was a 'sacrifice' that American politicians could accept only if most farm groups were assured that their export opportunities would burgeon. A Kansas wheat grower who might ordinarily rebel at seeing his federal check shrink would presumably acquiesce provided his crops stood a better chance of gaining access to European consumers or the booming emerging markets of India and China." (pp. 205-6).

But with the suspension of the round in 2008, Blustein observes:

> "Agriculture groups felt that the deal on the table simply wouldn't provide enough new market access for U.S. farm exports to compensate for the reduction in the cap on U.S. subsidies...the handwriting seemed to be on the wall: Although U.S. exporters would gain additional sales in high-income markets, such as the European Union, for beef, pork, and some other products, they wouldn't gain much, if anything, in the world's emerging markets, because the loopholes granted to developing countries were too large." (p. 269)

As Blustein describes, from the perspective of the United States the essential agriculture bargain that emerged from Doha amounts to cuts in subsidies for US farmers in exchange for greater market access abroad for the exports of US farmers. In light of this experience, it is natural to ask: Why hasn't Doha's approach to agriculture liberalization succeeded?

To address this question, we begin by emphasizing that, contrary to Blustein's assertion, exchanging cuts in the export-sector subsidies of one country for cuts in the import tariffs of another country departs from the "tradition of WTO- and GATT-style mercantilism" in a number of crucial respects. For one thing, the traditional political tradeoff between export interests and import-competing interests that has characterized all previous rounds is absent. Instead, the negotiated changes produce costs (reduced subsidies) and benefits (lower foreign import tariffs) for domestic export interests, with a net effect that may be small or even negative. As a result, there may be no domestic group ready to push for the round. Anecdotal evidence of this possibility is also reported by Blustein:

> "It was really sobering to hear the ag and NAM [National Association of Manufacturers] people say, 'Hmmm, this isn't worth the trouble,' recalls one congressional staffer who attended the meetings. "How would you get that passed in Congress?" (p. 270)

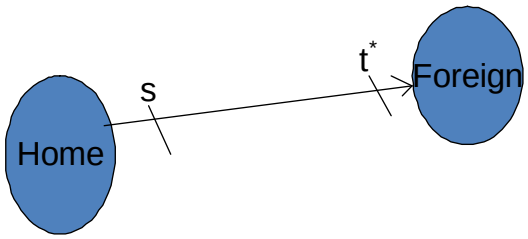


Figure 2

By contrast, traditional market-access bargaining exchanges domestic tariff cuts for foreign tariff cuts, ensuring that at least one domestic group in each country (namely, domestic exporters) is ready to push for the round.

A second and more fundamental difference between traditional market-access bargaining and the Doha approach to agriculture as described by Blustein (2009) concerns the extent to which the negotiation may be expected to generate efficiency gains and thus a potential for a mutually beneficial agreement. As described in the preceding section, under traditional market-access bargaining in which reciprocal tariff cuts are exchanged, governments can enjoy mutual gains as they eliminate local-price distortions without suffering terms-of-trade losses. Consider now the Doha approach, under which one country reduces its export-sector subsidy in exchange for a reduction in the import tariff of its trading partner. The basic problem is most easily understood with reference to a pure export subsidy (i.e., a subsidy that is paid contingent on export), and when the exchange is balanced, so that the export subsidy and import tariff are reduced at the same rate. In this case, the net tariff (i.e., the import tariff less the export subsidy) faced by exporters is unaltered; as a consequence, the price received by exporters is unchanged, and so trade volume is unaffected. In fact, the sole consequence of a balanced exchange of this kind is a monetary transfer from the importing country (whose tariff revenue declines) to the exporting country (whose subsidy expenses decline). Clearly, a balanced exchange of this kind cannot lead to mutual gains for the negotiating countries, and from this perspective it is not surprising that an agreement has been difficult to achieve using the Doha approach.[19]

The described case of a balanced exchange is somewhat special, and so it is important to emphasize that our concerns with the Doha approach are not limited to this case. Consider, for example, Figure 2, which illustrates schematically a two-country partial-equilibrium setting where

[19] To make our points in the starkest possible way, we focus here and throughout this section on export subsidies as a particular case of the export-sector subsidies that feature prominently in Blustein's (2009) description of the Doha agriculture negotiations. More generally, these subsidies also include domestic production subsidies offered in export sectors (i.e., subsidies that are paid to each unit of domestic production regardless of where it is sold), and indeed in the Doha agricultural negotiations these so-called "domestic supports" for US farmers have proven to be the most contentious. Our analysis can be extended to include domestic supports, and while the analysis then becomes more complex because the domestic production subsidy and the foreign import tariff imply different price distortions (and hence our "net tariff analysis" must be altered), the main points we emphasize throughout this section go through.

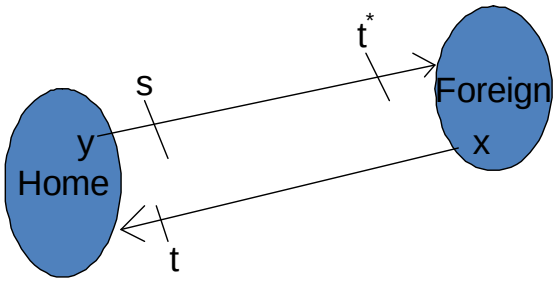


Figure 3

one country exports a good to another country. To fix ideas, suppose further that each government seeks to maximize the real income of its country and that markets are perfectly competitive. The efficient trade volume is then the volume that is achieved when both countries adopt free-trade policies. The efficient trade volume is also achieved, however, when the specific (i.e., per-unit) export subsidy offered by the exporting country (s) equals the specific import tariff imposed by the importing country (t^*), so that the net tariff ($t^* - s$) is zero. Starting from such a point, global welfare would drop if export subsidies were banned and import tariffs remained positive.[20] Likewise, if the initial net tariff were positive, then trade volume would be inefficiently low. In this case, a reduction in the level of export subsidization would itself lower trade volume further and could only enhance efficiency if it were exchanged for an even greater reduction in the import tariff. There is certainly no guarantee, though, that the importing country would find such an exchange beneficial.

For these reasons, we conclude that the agricultural package on the table in the Doha Round is not in the tradition of GATT-WTO market-access bargains. And the main implication of our discussion is even more pointed: the Doha approach of negotiating reductions in export-sector agricultural subsidies in exchange for reductions in agricultural import tariffs may in fact be unworkable, because it is unlikely to lead to an agreement in which all parties to the agreement gain. This is not to say that cuts in subsidies couldn't be part of a broader bargain in which traditional market access bargaining over tariffs also took place. For example, as suggested schematically in Figure 3, where each country now has a good that it exports to the other, a bargain in which the home country agrees to reduce its import tariff t and its export subsidy s in exchange for a commitment from the foreign country to reduce its import tariff t^* could generate mutual gains for the home and foreign countries, if the agreed reductions in s and t^* imply a reduction in the *net*

[20] This is a "second-best" argument, which is analogous to the well-known trade-diversion logic that arises when evaluating free trade areas. Intuitively, if the exporting government removes its export subsidy while the importing country maintains its import tariff, then trade is diverted from potentially more efficient firms in the exporting country to potentially less efficient firms in the import-competing sector of the importing country.

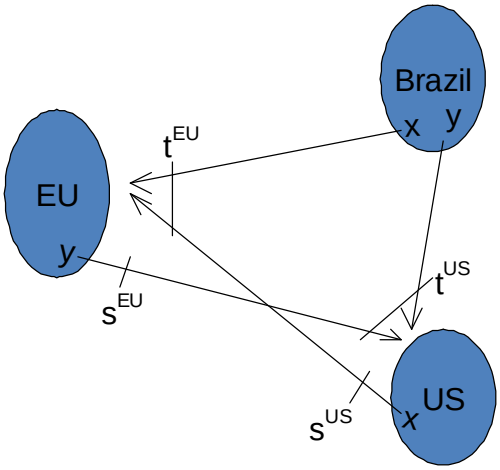


Figure 4

tariff $(t^* - s)$ on the foreign import good; but our point is that these gains would come *in spite* of the agreed reduction in s, not because of it. In this sense we suggest that efforts to liberalize agriculture in the Doha Round are more likely to succeed if they reorient toward a focus on traditional market-access bargaining.[21]

Our agriculture discussion thus far has abstracted from third-country issues, but such issues are certainly relevant for the agriculture negotiations in the Doha Round. It is therefore important to note that the simple insights that we have emphasized above extend to a multi-country setting, and in some respects are even strengthened.

To illustrate this, we now extend the basic setting depicted in Figure 3 to a three-country partial equilibrium setting, in which two of the countries utilize export subsidies but the third country does not. The pattern of trade and trade policies for each country are depicted schematically in Figure 4. We refer to the two countries that apply export subsidies as the EU and the US, to convey the fact that it is mainly the developed countries that offer subsidies to their agricultural producers, and we refer to the third country that possesses no export subsidy policies as Brazil. For the moment we continue to assume that these three countries trade two goods (plus the usual traded and untaxed numeraire good in the background of this partial equilibrium setup), with the EU exporting good y and importing good x, the US exporting good x and importing good y, and Brazil exporting both

[21] In this regard, it is interesting to note that Blustein (2009, p. 203) describes a meeting of trade ministers in Geneva on June 30 2006 in which the U.S. trade representative Susan Schwab voiced a position that seems broadly consistent with this view. As Blustein writes, "Schwab, who was accompanied by Agriculture Secretary Mike Johanns, countered that any additional concessions they might offer on subsidies would simply be pocketed, so it was the responsibility of the others in the room to step forward with clear pledges to reduce their import barriers. She stuck to the U.S. argument that in evaluating whether the round was truly successful or not, the best metric would be the degree of new openness in world agriculture markets rather than cuts in farm subsidies. 'Market access is where the benefits of the round will come from,' she said, reminding the others of the World Bank studies showing that lowering barriers across the board in agriculture would give developing countries the greatest gains."

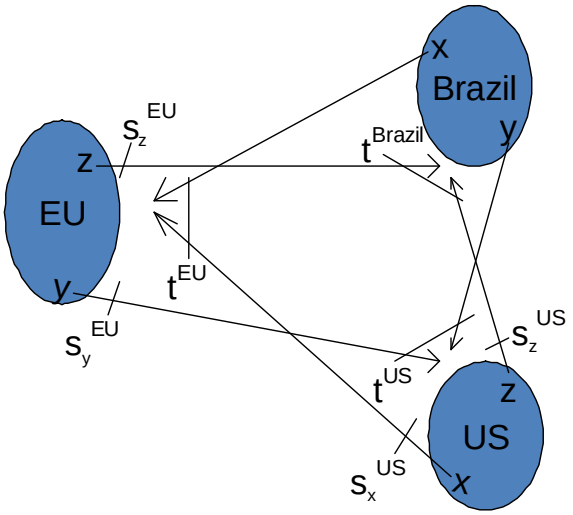


Figure 5

goods x and y. It is now easy to see that our earlier discussion in the two-country setting applies as well to this extended three-country setting, but with one additional complicating effect: owing to Brazil's exports of x and y to the EU and the US, respectively, any net tariff reductions that the EU and US might negotiate in the context of also reducing their export subsidies will now cause a leakage of some of the joint surplus that their negotiations create to the third country, as Brazil enjoys rising world/export prices (i.e., its terms of trade improve). This, of course, only makes it harder for the EU and the US to find a way to jointly gain from a broader agreement that also cuts export-sector subsidies, and as we emphasized above any such gains would come in spite of the agreed reduction in subsidies, not because of it.[22]

Finally, we note that the addition of a third country does introduce the possibility that the EU and the US could in fact gain from an agreement to reduce their export-sector subsidies, in the sense that their joint gain derives directly from their agreed restriction on subsidies rather than in spite of this agreed restriction. To see this possibility, we now introduce a third good z into the three-country partial equilibrium setting just described, and assume that good z is imported by Brazil and exported by both the EU and the US. We suppose further that Brazil applies an import tariff on good z while the EU and the US each subsidize the exports of z to Brazil, where the net tariff along each trade channel is positive. Figure 5 depicts this three-country three-good setting. Relative to our discussion just above, the novel feature here is that the EU and the US

[22] On the other hand, it is easily checked in this setting that: (i) the EU and the US *could* gain from a negotiation over their tariffs and export subsidies that cut tariffs and *raised* export subsidies; (ii) such a negotiation could be engineered so as to neutralize all third-party effects on Brazil; and (iii) such a negotiation could be consistent with world-wide efficiency. So it is the constraint to reduce export-enhancing subsidies that is the problem here, as we emphasize in the text.

are now competing exporters (of good z) into Brazil, and absent an agreement on export subsidies they are locked in an export-subsidy competition for Brazil's market. The important new element is that an agreement between the EU and the US to restrict their export subsidies will raise the world price of good z, which by itself marks a terms-of-trade improvement for the EU and the US and can therefore offer a joint benefit to these two countries. Of course, this joint benefit comes at the expense of Brazil, who suffers the counterpart terms-of-trade deterioration. And it is easy to show that the benefit that the EU and the US enjoy here marks an inefficient victory of exporter interests over importer – and world – interests. Hence, while it is possible to see in this three-country three-good setting how the EU and the US *could* actually benefit from an agreement to restrict their export-sector subsidies, if this describes the underlying logic of Doha's approach to agriculture then any agriculture agreement that does emerge from Doha would not advance the wider goals of the WTO membership.[23]

We are therefore left with a pessimistic view of the Doha approach to agriculture negotiations when this approach is evaluated on its own merits. Nevertheless, taking a broader perspective and viewing the attempts to limit subsidies within the wider context of the challenges associated with integrating the less-developed-country members into the world trading system, it is possible to interpret the efforts to limit agricultural subsidies in the Doha Round as playing a useful role in helping to address the issues associated with "latecomers" to the GATT/WTO bargaining table as we described these issues in section 2. We turn to this interpretation next.

4 Making the Doha Round a Development Round

We have suggested above that the success of the Doha Round as a Development Round may hinge on moving away from the non-reciprocal SDT norm as the cornerstone of the approach to meeting developing country needs in the WTO. Rather, if developing countries are to share in the gains from GATT/WTO market access negotiations, we have argued that they must come to the bargaining table in markets where they are large and negotiate reciprocally with each other and with developed countries. We have also suggested that in the context of the Doha Round the WTO may be facing a critical challenge associated with the problem of "latecomers" to the GATT/WTO bargaining table, in that developed countries at this point may have preserved an inadequate amount of bargaining power with which to engage developing countries in reciprocal bargains; and in addition a kind of "globalization fatigue" may be present in the developed world whereby the existing MFN tariff levels of developed countries may be too low for a world in which developing countries are fully integrated into the world trading system. And we have indicated that, in theory, to address this problem developed countries might need to renegotiate (upward) their existing tariff commitments in order to "make room at the table" and accommodate the entry of developing countries into the world trading system. Finally, we have observed that, when evaluated on its own merits, the

[23] The interpretation of export subsidy agreements that we describe here is formalized and developed more fully in Bagwell and Staiger (2001) and Bagwell and Staiger (2002, Ch. 10). See, also, Bagwell and Staiger (2009) and Mrazova (2010) for alternative possible interpretations of export subsidy agreements.

Doha approach to agricultural negotiations and its emphasis on the reduction of export-enhancing agricultural subsidies in exchange for cuts in import tariffs seems suspect on economic grounds.

We now suggest that, when viewed from the wider perspective of the Doha Round's central goal of integrating the WTO's developing country members into the world trading system, the emphasis on reducing and eliminating agricultural export-sector subsidies might itself be reinterpreted as an initiative that could help "make room at the table" for developing countries, and can in this way be interpreted as a coherent part of this broader whole. In particular, a Doha Round that (i) engages developing countries to come to the bargaining table in markets where they are large and negotiate reciprocally with each other and with developed countries, and, as part of the bargain, (ii) reduces and/or eliminates the agricultural export-sector subsidies of developed countries, could be viewed as a way to engineer trade volume gains for developing country members while using the reduction/elimination of agricultural subsidies both as a bargaining chip to entice developing countries to agree to lower their tariffs, thereby generating bargaining power for the "low-tariff" developed world, and as a device to mitigate the overall trade effects of integrating developing countries into the world trading system, thereby addressing the issue of developed-world "globalization fatigue." That is, *if* the developed world is struggling with how to handle the latecomers problem, then the negotiated reduction in agricultural export-sector subsidies might be seen as a solution to that problem.

This point can be seen both from the perspective of the general equilibrium model that we sketched in section 2, and from the partial equilibrium perspectives developed in section 3. From a general equilibrium perspective, the point derives from the observation that an import tariff acts like an export tax once its general equilibrium impacts are accounted for, which is why as we have described in section 2 a cut in a country's own tariffs, in raising the volume of its imports, will also stimulate its exports, acting much like the introduction of a program of export subsidies. By the same token, a cut in a country's own export subsidies, in reducing the volume of its exports, will also contract its imports, acting much like an increase in the country's import tariffs. Viewed in this light, a Doha agreement to reduce/eliminate the agricultural export-sector subsidies of the developed countries can "make room at the table" and accommodate the entry of developing countries into the world trading system, because it will have much the same effect as if developed countries (say, the home country and foreign country 1 in Figure 1) had instead renegotiated (upward) their existing tariff commitments.[24] Hence, the negotiated reduction in agricultural subsidies might be seen as helping to solve the latecomers problem.

To see the same point from a partial equilibrium perspective, it is useful to refer back to Figure 5. There it is clear, for example, that a cut in s_x^{US}, the US export subsidy on good x, would help reorient EU imports of good x away from US exporters and toward Brazil exporters, at the same time that it would (i) reduce overall import volume of good x into the EU, and (ii) raise the price

[24] When a country's export-sector subsidy takes the form of a pure export subsidy, cutting it is in fact equivalent to an increase in the country's import tariff. When the export-sector subsidy takes the form of a domestic production subsidy offered in the export sector, cutting it is equivalent to an increase in the country's import tariff coupled with an increase in the country's consumption tax on the export good.

received by Brazil exporters of good x. Similarly, a cut in s_y^{EU}, the EU export subsidy on good y, would help reorient US imports of good y away from EU exporters and toward Brazil exporters, at the same time that it would (i) reduce overall import volume of good y into the US, and (ii) raise the price received by Brazil exporters of good y. Clearly, these cuts in export subsidies could then (i) help address "globalization fatigue" in the EU and US by mitigating the overall trade effects of reciprocal tariff cuts negotiated between the EU and Brazil and between the US and Brazil, and (ii) if offered as a carrot to Brazil in exchange for tariff cuts from Brazil, could serve as an extra bargaining chip for use by the "low-tariff"/developed countries EU and US in their reciprocal tariff bargains with Brazil. Hence, from this partial equilibrium perspective as well, it is clear that the negotiated reduction in agricultural export subsidies might be seen as helping to solve the latecomers problem.[25]

Two further points follow from this discussion. First, as is apparent from the partial equilibrium perspective of Figure 5, the negotiated reduction in agricultural subsidies would be most effective in addressing the latecomers problem for developing countries that are large exporters of agricultural products. Hence, negotiated reductions in developed country agricultural subsidies may be an especially powerful instrument for helping to accommodate Brazil's integration into the world trading system, but perhaps less so with regard to China or India.[26] And second, it should be clear from this discussion that the bargain we have outlined here is fundamentally *multilateral*, in that it cannot be broken down into a series of bilateral bargains that is each mutually beneficial to the parties involved. This is an inherent feature of any solution to the latecomers problem as

[25] It is also interesting to note that the effort to reduce/eliminate export-enhancing agricultural subsidies and the effort to more fully integrate developing countries into the world trading system are being attempted in the same round of GATT/WTO negotiations. There could of course be many reasons for this, but the interpretation we offer here is one of them.

[26] More specifically, and with reference to Figure 5, in the absence of SDT there are three strategies that would become available for a developed country such as the United States to negotiate reductions in the tariffs of a developing country such as Brazil. First, to the extent that Brazil is the traditional principal supplier of a good (say, good y in Figure 5) into the US market, the existing US tariff on this good is likely to be inefficiently high as a result of the GATT/WTO's historical reliance on SDT, and the United States can then engage Brazil in standard reciprocal market access negotiations offering cuts in the US tariff on imports of good y in exchange for cuts in Brazil's tariff (say, on imports of good z in Figure 5). This first strategy may be available with regard to developed country markets such as textiles and apparel, certain agricultural products, and footwear (though on the possible difficulties of applying this strategy for textiles and apparel see note 15). Second, for agricultural goods where the United States and Brazil are competing exporters into developed country markets such as the EU (say, good x in Figure 5), the United States can offer reductions in agricultural subsidies to Brazil in exchange for cuts in Brazil's tariff (on imports of good z in Figure 5), as we have described in the text. These negotiations could benefit both the United States and Brazil, though the EU could be hurt without further multilateral policy adjustments. And third, for non-agricultural goods where a developed country such as the EU is the traditional principal supplier into the US market (say, good y in Figure 5) and where US tariffs are likely to be low as a result of commitments made in previous rounds of GATT/WTO negotiations, the United States could in principle renegotiate with the EU on the treatment of good y, with the United States raising its tariff binding and the EU lowering its export subsidy, so that the United States could then engage Brazil in standard reciprocal market access negotiations offering cuts in the US tariff on imports of good y in exchange for cuts in Brazil's tariff (on imports of good z in Figure 5). Once again, the EU could be hurt without further multilateral policy adjustments. In theory, this third strategy provides a direct way to address the latecomers problem and allow developing countries to be integrated into the world trading system where the first two strategies are unavailable, though in practice the prospect of tariff renegotiations between developed countries raises a host of issues from which our simple theoretical treatment abstracts, which is why we present this third possibility as of mostly pedagogical value.

we have described that problem above, and it creates a special challenge for an institution such as the GATT/WTO with a long history of solving problems via a collection of largely bilateral and mutually beneficial bargains.

Finally, it is worth emphasizing the *one key change* in the substance of the current approach to Doha Round negotiations that is required for the economic interpretation that we have sketched above to hold together: SDT must be rejected, and developing countries (Brazil in Figure 5) must come to the bargaining table in markets where they are large and offer reciprocal tariff cuts of their own. Absent tariff cuts from developing countries, the analysis we have sketched above cannot lend support to the basic Doha approach to negotiations.[27]

5 Conclusion

A fundamental objective of the Doha Round of WTO negotiations is to improve the trading prospects of developing countries. The 2001 declaration from the WTO Ministerial Conference in Doha, Qatar, commits the member governments to negotiations aimed at substantial improvements in market access with a view to phasing out export subsidies, while embracing special and differential treatment for developing countries as an integral part of all elements of the negotiations.

The main message of this paper comes in three parts. First, these stated aims are incompatible from the perspective of our economic analysis; thus, if these aims are pursued as stated, then we conclude that they are unlikely to deliver the meaningful trade gains for developing countries that the WTO membership seeks. Second, in attempting to integrate its developing country membership into the world trading system, the WTO may face a "latecomers" problem that, while occurring also in earlier rounds, is unprecedented in its scale in the Doha Round, and which could potentially account for the current impasse. And third, we argue that the stated aims of the Doha Round can form the basis of a coherent plan for solving the latecomers problem and delivering trade gains for developing countries, and that the impasse at Doha might be broken, with one key substantive change: the Doha Round must move away from the non-reciprocal special-and-differential-treatment norm as the cornerstone of the approach to meeting developing country needs in the WTO, and instead developing countries must come to the bargaining table in markets where they are large and negotiate reciprocally with each other and with developed countries.

[27] The other change we have suggested above – that the agriculture negotiations, which are currently focused on negotiating reductions in agricultural export-enhancing subsidies in exchange for reductions in agricultural import tariffs, should be reoriented toward a focus on traditional market-access bargaining – can from the perspective we offer here be seen less as a change of substance than a change in emphasis and interpretation within a broader package, because within this broader package export-enhancing subsidies are still cut, but the purpose of an agreement to reduce these subsidies is now solely to facilitate market access (i.e., tariff) negotiations between developed and developing countries.

6 Data Appendix

The following Tables 5, 9 and Appendix Tables 8 and 9 are taken from the WTO World Trade Report 2007.

Table 5
GATT/WTO – 60 years of tariff reductions
(MFN tariff reduction of industrial countries for industrial products (excl. petroleum))

Implementation Period	Round covered	Weighted tariff reduction	Weights based on MFN imports (year)
1948	Geneva (1947)	-26	1939
1950	Annecy (1949)	-3	1947
1952	Torquay (1950-51)	-4	1949
1956-58	Geneva (1955-56)	-3	1954
1962-64	Dillon Round (1961-62)	-4	1960
1968-72	Kennedy Round (1964-67)	-38	1964
1980-87	Tokyo Round (1973-79)	-33	1977(or 1976)
1995-99	Uruguay Round (1986-94)	-38	1988(or 1989)

Note: Tariff reductions for the first five rounds refer to the United States only. The calculation of average rates of reductions are weighted by MFN import values.

Source:

Geneva (1947): US Tariff Commission, Operations of the Trade Agreements Program, June 1934-April 1948, Part III Table 16 (non-agricultural products).

Annecy (1949): US Tariff Commission, Operations of the Trade Agreements Program, April 1949-June 1950, Chapter 5, Tables 7 and 8. Refers to all products.

Torquay (1950-51): United States Tariff Commission, Fifth Report, July 1951-June 1952, Chapter 4, pp.149-170, Tables 5 and 6.

Geneva (1955-56): Estimates based on United States Tariff Commission, Ninth Report, July 1955-June 1956, Chapter 3, pp.100-108 and US Department of State Publication 6348, Commercial Policy Series 158, released June 1956.

Dillon Round (1961-62): Estimates based on United States Tariff Commission, 13th Report, July 1959-June 1960, pp.17-29 and US Department of State Publication 7408, Commercial Policy Series 194, released July 1962.

Kennedy Round (1964-67): Preeg, E.(1970), *Traders and Diplomats*, Tables A2 and A3. Refers to four markets: United States, Japan, EEC(6) and United Kingdom. Own calculations for the aggregate based on 1964 M.F.N. import values.

Tokyo Round (1973-79): GATT, COM.TD/W/315, 4.7.1980, p.20 and 21 and own calculations. Refers to eight markets (United States, EEC(9), Japan, Austria, Finland, Norway, Sweden and Switzerland).

Uruguay Round (1986-94): GATT, *The Results of the Uruguay Round of Multilateral Trade Negotiations*, November 1994, Appendix Table 5 and own calculations. Refers to eight markets (United States, EU(12), Japan, Austria, Finland, Norway, Sweden and Switzerland).

Table 9
Pre- and post-Uruguay Round binding coverage for agricultural and non-agricultural products

	Agricultural products				Non Agricultural products			
	Percentage of tariffs lines bound		Percentage of imports under bound rates		Percentage of tariffs lines bound		Percentage of imports under bound rates	
	Pre UR	Post UR	Pre UR	Post UR	Pre UR	Post UR	Pre UR	Post UR
Developing economies	17	100	22	100	21	73	13	61
Transition economies	57	100	59	100	73	98	74	96
Latin America	36	100	74	100	38	100	57	100
Central Europe	49	100	54	100	63	98	68	97
Africa	12	100	8	100	13	69	26	90
Asia	15	100	36	100	16	68	32	70

Source: GATT (1994).

Appendix Table 8
Status of tariff bindings: developed countries and industrial products, 1972-2000
(Percentage – Coverage based on tariff lines)

	Post-Kennedy Round	Post-Tokyo Round	Post-Uruguay Round
	1972	1987	2000
Canada	74-74	98-98	99.7
United States	100-100	100-100	100.0
Japan	90-91	97-97	99.6
EU [a]	98-99	99-99	100.0
Denmark	97-91	-	-
United Kingdom	93-94	-	-
Austria	86-87	96-96	-
Finland	55-86	97-97	-
Sweden	94-95	97-97	-
Norway	79-81	95-95	100.0
Switzerland	98-98	99-99	99.7
Australia	...	11-17	96.5
New Zealand	...	39-51	99.5

[a] Refers to EEC(6) for Post-Kennedy, to EEC(9) for Post-Tokyo and to EU(15) for Post-Uruguay Round (including ITA).

Note: Lower end of binding coverage range refers to totally bound tariff lines while upper end includes partially bound tariff lines.

Source: GATT (1971) Basic Documentation for the Tariff Study. Supplementary Tables, Geneva. (Kennedy Round). GATT (1987), Importance des consolidations tarifaires établies dans le cadre de l'Accord Général, GATT document: MTN.GNG/NG1/WW/2/Rev.1*, 27 mars 1987. (Tokyo Round). WTO (2007), World Tariff Profiles. (Uruguay Round).WTO (2007), World Tariff Profiles. (Uruguay Round).

Appendix Table 9
Status of tariff bindings: developed countries and agricultural products, 1987 and 2000
(Percentage – Coverage based on tariff lines)

	Post-Tokyo Round	Post-UR Round
Canada	90-91	100.0
United States	90-93	100.0
Japan	60-63	100.0
EU [a]	63-65	100.0
Austria	55-62	-
Finland	51-56	-
Sweden	46-50	-
Norway	67-69	100.0
Switzerland	44-46	< 100.0
Australia	26-32	100.0
New Zealand	48-54	100.0

[a] Refers to EEC(9) for Post-Tokyo and to EU(15) for Post-UR Round (incl. ITA).

Note: Lower end of binding coverage range refers to totally bound tariff lines while upper end includes partially bound tariff lines.

Source: GATT (1987), Importance des consolidations tarifaires établies dans le cadre de l'Accord Général; GATT document: MTN.GNG/NG1/WW/2/Rev.1*, 27 mars 1987 (Tokyo Round); WTO (2007), World Tariff Profiles (Uruguay Round).

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