



# Economic Premise

OCTOBER 2011 • Number 68

## The WTO and the Doha Round: Walking on Two Legs

Bernard Hoekman

*The Doha Round of the World Trade Organization (WTO) negotiations has been ongoing for 10 years, and given political cycles in major countries, there is not much hope for a rapid conclusion. The topics on the table are important, and in principle there is enough substance for all countries to gain from an agreement, but, unfortunately, too much emphasis has been placed on gains through market access alone. The Doha Round is about much more than market access. Concluding the talks arguably requires greater recognition of the value of trade policy disciplines that will be part of any agreement. The WTO is not just a market access negotiating forum; it is also a multilateral umbrella through which governments can agree on rules of the game for other trade-related policies. Given the slow progress of the Round, greater emphasis could be put on leveraging existing WTO bodies to enhance the transparency of nontariff measures, address regulatory concerns that impede liberalization of trade in services, and launch a dialogue on domestic economic policies that can create negative spillover effects for trading partners.*

The Doha Development Agenda (DDA) negotiations, underway for 10 years, are in a state of paralysis as a result of disagreements between major players on the extent of new liberalization commitments, especially for nonagricultural products. Efforts to use the upcoming eighth WTO Ministerial Conference in December 2011 to partially “harvest” results in areas of particular relevance to the least-developed countries (LDCs) and other low-income countries—such as duty-free, quota-free access for LDCs and an agreement on trade facilitation—failed earlier this year. It has become increasingly clear that prospects for successfully winding up the talks in the near future are dim.

The deadlock is costly. Assessments of the market access dimension of what has been negotiated to date suggest that the DDA could generate a global welfare (real income) boost of some US\$160 billion (Laborde, Martin, and van der Mensbrughe 2011). This significantly underestimates the value of an agreement, because continued paralysis also means that the

WTO is not delivering on its “legislative” function—the development of new global rules of the game for national trade policies that generate negative spillovers.

A number of observers have called on policy makers to acknowledge failure, terminate the talks, and start a process of defining a new negotiating agenda that includes issues of greater salience to businesses. Others call for a shift in negotiating techniques and practices so as to prevent a small group of countries (or a group of small countries) from blocking agreement among the largest trading nations. The utility of such recommendations is limited at best. The subjects that are on the table in the DDA—agricultural trade policies, manufactured goods, and services—will need to figure into any multilateral trade negotiation. The problem that is holding up agreement is not blocking behavior by small countries. The source of the deadlock that has prevailed since 2008 is disagreement among a small number of large players on market access. This is not

something smaller countries can do much about. What is needed is a “critical mass” of the larger players to improve their offers on market access—defined both as reductions in applied barriers to trade and locking-in policies through binding WTO commitments.

In what follows, this note argues that the Doha Round (and the WTO more generally) should not be assessed primarily on the basis of the extent to which agreements reduce applied levels of protection. The WTO is not just a marketplace in which countries exchange liberalization commitments; it is a vehicle through which governments agree on rules of the game for policies, and the institution through which implementation is monitored and negotiated rules and commitments are enforced. These rule-setting and enforcement dimensions of the WTO are very important for firms engaged in trade because they reduce uncertainty regarding the competition conditions firms will confront when exporting or investing. Uncertainty can be an important source of market entry and operating costs, and result in less investment and job creation.

The political cycle in several major countries (such as China and the United States) make it unlikely that the negotiations will be concluded before the end of 2013. This creates an opportunity for WTO members to identify a forward-looking process and launch a work program to discuss policy matters that are not part of the DDA. Much has changed during the decade of the Doha Round. The sustained high economic growth rates in large emerging markets—most notably China—have made these countries much more important as markets and sources of competition. The world has moved from a situation characterized by low food prices to one where prices are expected to remain substantially higher on average than they have been during recent decades, as well as more volatile. Greater demand for food and natural resources could potentially bring on a more activist use of trade-related policies that have negative pecuniary spillovers on trading partners. All of these developments call for multilateral cooperation to determine rules of the game for food, natural resource and climate-related trade policies, and to strengthen the monitoring and transparency-related activities of the WTO.

Launching a discussion of some of these issues in working groups under the auspices of existing WTO committees would ensure that time is not lost while market access negotiations in the Doha Round continue. The results of the deliberations could feed into an eventual Doha Round conclusion, but more realistically would aim to define an agreed upon set of follow-on activities that would be pursued under WTO auspices.

### **Moving Away from the “Market Access Metric”**

Negotiators have been working for almost 10 years to define a negotiating set. The contours of this set were narrowed down over time, especially following the 2003 Cancun ministerial,

when potential new investment, competition, and procurement disciplines were taken off the table. Since 2004, the negotiations have centered primarily on a traditional market access and rules agenda (including disciplines on agricultural support policies). This agenda offers potential gains for all WTO members, both in terms of lower barriers on goods and services exports and from a reduction in uncertainty regarding possible increases in levels of import protection—through greater tariff bindings, reductions in the average level of bound tariffs (the so-called ceiling tariffs that governments commit not to exceed), and specific commitments for services.<sup>1</sup>

Average tariff levels today are much lower than just a decade ago, and far below the averages that prevailed in the 1980s. Quantitative import restrictions have largely disappeared. The last (2008) proposals under active discussion in the DDA would reduce the world average bound tariff for agricultural products from 40 to 30 percent and from 8 to 5 percent for nonagricultural goods. Average applied farm tariffs faced by developing country exporters would fall from 14.2 to 11.5 percent, and those on their exports of manufactures from 2.9 to 2.1 percent. The reductions in applied tariffs are beneficial to exporters and consumers, but do not appear to add up to a lot—after all, if DDA only generates less than a 1 percentage point cut in the average tariff on manufactures, this clearly will not do much to lower prices of the goods concerned or enhance the ability of exporters to compete in foreign markets.

Much criticism has been based on the results of global simulation models that suggest the net real income gains from any politically feasible DDA outcome are likely to be small in the aggregate: as mentioned above, what was on the table in 2008 would generate “only” US\$160 billion in additional income as a result of lower trade barriers. This is not insignificant and compares well to what was achieved in previous rounds (Martin and Messerlin 2007). Whether one regards this number as significant or not, this numerical lens misconstrues a critical function of WTO negotiations. These negotiations are not primarily about reducing applied levels of protection, but center on establishing trade policy rules and reducing uncertainty through a “lock-in” of policies and binding of tariff rates, either at, or much closer to, applied levels. The benefits of this dimension of WTO negotiations are ignored in models simply because economists cannot quantitatively assess these features.<sup>2</sup>

The quantitative analyses also tend to underemphasize the fact that although tariffs are generally already low on average, therefore limiting the aggregate effect of further reductions, the formula-based negotiation modalities that have been developed will effectively eliminate all tariff peaks in Organisation for Economic Co-operation and Development (OECD) countries. The focus should therefore be on what happens to products and sectors where tariffs are much higher than average—agricultural products, textiles, and footwear. The same is true of agricultural support policies in OECD countries, which gener-

ate costs for consumers that are not large enough to concern them greatly, and negatively affect only a relatively small proportion of economic agents in countries with a comparative advantage in specific products. But for the affected groups—such as farmers in Brazil or coastal fishermen in West Africa—what is on the table matters much more than what is inferred from looking at the reduction in average tariffs.

Tariff bindings—and more generally negotiated disciplines and restrictions on the ability of governments to use certain policies—reduce the uncertainty that is inherently associated with engaging in international trade. Exporters confront more uncertainty than do firms that operate only on their domestic market. National transactions and contracts can be enforced in national courts; there are no borders where goods may be held up in customs; there is no exchange rate risk to worry about; and so forth. The fixed costs of getting goods into a foreign market are higher than those associated with domestic transactions. Anything that can lower the costs associated with exporting will both benefit existing exporters, and, more importantly, encourage new exporters. As foreign market entry costs fall, more firms will be able to start exporting to new markets. The associated expansion of exports along this so-called extensive margin of trade will boost economic welfare and growth.<sup>3</sup>

Trade barriers may be prohibitive for a firm—a 50 percent tariff will be hard to overcome for most firms: negotiations that result in lower tariffs matter. But if tariffs are already at 5 percent—and the average applied tariff in many countries today is often around or below that figure—variability/uncertainty in the taxes and regulatory regimes that apply in a market can be of much greater concern to firms, and have a much greater effect in impeding firms' investment in export activity and penetration of new markets. This is a key reason why trade rules matter—even if the associated tariff and other policy commitments do no more than establish a ceiling on the level of discrimination that foreign products may confront in a given market (Francois 2001; Handley and Limão 2011).

Advocacy for the Doha Round (and the WTO more generally) needs to center more on the effects of the negotiated rules and policy disciplines. Selling or criticizing the Round on the basis of simulated estimates of real income gains or export growth resulting from the application of market access formulae misses much of the story. The complete ban on agricultural export subsidies would be a major step forward, for example, and cannot be quantified by estimating the impact of removing extant subsidies—especially in a period where high prices have greatly reduced the prevalence of their use. The ban is significant because if world prices fall in the future, the decline cannot trigger an increase in export subsidies. Maximum allowed levels of domestic agricultural support (subsidy ceilings) would fall by 70 percent in the European Union and 60 percent in the United States, based on 2008 modalities. Again, instead of stressing how much a deal will reduce the actual amount of

subsidization, more emphasis is needed on explaining why such ceiling bindings are valuable. Agricultural protection and subsidies in OECD countries have reduced the amount of food that is traded internationally and led to greater instability of world prices, with large negative spillover effects on developing countries, whether exporters or importers. Disciplines on the ability of governments to use import or export barriers to insulate domestic markets, and hence make world markets thicker, would be a major source of welfare gain for developing countries (Martin and Anderson 2011).

## Leveraging Critical Mass

Major stakeholders in the negotiations have stressed that more market access concessions are needed for any Doha deal to be acceptable. The contours of any deal to do more to lower applied barriers to trade and agricultural support need to be pursued by the large players on a critical mass basis. A key feature of critical mass agreements is that they need not involve all of the WTO membership. Instead, they imply agreement among the large players, with the associated benefits extended to all WTO members (that is, those who are not part of a deal are allowed to “free ride”). Such an approach is nothing new for the WTO; in practice, negotiations under the General Agreement on Tariffs and Trade (GATT) were always limited to those countries with the greatest interest in a particular area or set of products, with whatever was eventually agreed upon being extended to all members as a result of the most favored nation (MFN) rule. The threshold for agreement has tended to be around 90 percent, that is, some 90 percent of the trade involved in an area or set of products needed to be between the participating countries. A recent example of a critical mass agreement is the Information Technology Agreement, but tariff negotiations in earlier GATT rounds also conform to this rule of thumb (Hoekman and Kostecki 2009).

To date, efforts to extend what is on the table on market access have centered on sectoral approaches and proposals for trade in goods. Developed countries with already low average tariffs have argued that they have little left with which to negotiate and induce emerging market countries to significantly lower their applied tariffs. This argument neglects the fact that concessions need not be limited to merchandise tariffs—they can involve agricultural policies, the procedural rules affecting antidumping, and others. Other elements of the DDA offer significant scope for countries to expand the level of their commitments; services is one such area. Services negotiations have been sidelined for much of the post-2001 period, in part because of a decision that services talks would commence in full force only after a deal on agricultural and nonagricultural market access modalities was concluded.

Trade and investment in services is inhibited by myriad policy barriers that are more restrictive than those applying to trade in goods. Moreover, the extent to which applied policies

are locked in through binding WTO commitments is limited (Gootiiz and Mattoo 2009). This matters for a number of reasons, but most important is that the productivity, and thus competitiveness, of both goods and services firms depends on access to low-cost and high-quality producer services such as telecommunications, transport, finance, and distribution. Services have assumed added significance in the aftermath of the 2008 financial crisis. Because services account for most nonlabor costs of production, action to improve the efficiency of services must be a major policy focus in deficit countries, complementing policies to switch the pattern of expenditures and reduce net consumption. Expanding domestic consumption and investment in surplus countries must also focus on services—including social and health insurance services, pension fund/asset management, and so forth. Expanding the scope for international trade and investment in services can help support the required structural changes.

The market access outcome of the DDA would be greatly enhanced if a critical mass of the 15–20 or so largest WTO members were to agree to bind current levels of openness. The associated reduction in uncertainty would be valuable to firms and encourage greater investment (Hoekman and Mattoo 2010). In addition, if these countries could negotiate a package of liberalization commitments organized around clusters of services that are critical to business users and the smooth functioning of the global economy—such as logistics and supply chain management—they could significantly enhance the relevance of the DDA to global business.

Another DDA area that is of great potential importance from a market access perspective is trade facilitation. The costs created by inefficient trade facilitation—both monetary, and, more importantly, those resulting from delays and uncertainty associated with clearance and regulatory compliance—can be greater than the cost of paying tariffs on the affected imports. Recent trade literature has documented the importance of trade costs as a determinant of whether firms export; that exporters tend to be among the most productive firms; and that the productivity effect of greater trade—deriving from both imports and exports—is an important driver of overall economic growth. Most firms do not export, and those that do often sell into only a few markets. Major factors explaining this include lack of information, difficulties in obtaining credit, and the various costs associated with entering each new export market. Trade clearance and associated regulatory compliance requirements are elements of such market entry costs that impede smaller firms from participating in export activities.

A trade facilitation agreement that reduces such costs will expand trade along what trade economists call the “intensive” and “extensive” margin. The first of these refers to greater exports of products that are already being shipped to a given market; the second describes new exports—either new markets or new products. An expansion along the extensive margin is par-

ticularly important from a welfare and growth perspective, because new varieties of goods and services account for a large part of the potential gains from liberalization. This is a feature of the DDA that is rarely sufficiently emphasized in discussions of what is on the table. It is not only the effect of a given reduction in trade costs on existing trade flows that generate benefits, more important is that agreements that lower trade costs will generate new trade.

## Defining the Future Path to Be Pursued

There are many systemically important issues that the DDA does not address. One reason for concluding the DDA as rapidly as possible is to be able to move on to address these other significant issues. Indeed, a precondition for successful conclusion of the talks is likely to be agreement to engage in efforts to cooperate in areas that are currently off the table. Some of these issues are well known and have given rise to tensions and disputes, for example: biofuel subsidies and other types of “green” industrial policy measures; the possible use of carbon border adjustment as part of domestic climate change mitigation programs; export taxes on inputs to support domestic downstream industries; and export restrictions on food products as part of an effort to insulate domestic markets. Other important and currently off-the-table issues include discrimination in government procurement; restrictions on foreign ownership of assets (natural resources, real estate, enterprises in sensitive sectors); and allegations of anticompetitive behavior by multinationals or state-owned enterprises.

There is also an important agenda revolving around increasing the transparency of WTO member policies, including nontariff measures and what members do in the context of preferential trade agreements. The financial crisis revealed major gaps in the available information on trade and investment policies. WTO notification requirements are often not satisfied on a timely basis, if at all. In some areas—trade finance, for example—there are no global databases on flows and prices. Very little is known about applied government procurement practices. There are no comprehensive depositories of information on nontariff measures applied by WTO members. Concrete actions to enhance both monitoring and analysis of trade and investment policies and their effects—including the extent to which countries use policies to discriminate in favor of national firms and specific trading partners in the context of preferential trade agreements—will help the WTO fulfill its role of sustaining an open and nondiscriminatory multilateral trading system.

Space constraints prevent a substantive discussion of the issues that WTO members arguably need to come to grips with. The main point here is to recognize that there are various issues that concern all WTO members and that call for multilateral cooperation and agreement on the rules of the game that should be followed to maintain an open trading system. Agreeing on a process to address these matters, or, at the very least, to

define where/how they are best addressed, will provide assurances that issues of interest to all WTO members will be addressed in the future. For example, systematic exchange rate undervaluation is a matter that some observers have argued needs to be addressed through WTO rules so that the WTO dispute settlement mechanism can be used to determine instances where a member should be allowed to impose trade barriers on imports originating in a country that has been found to engage in deliberate undervaluation. At the moment, the WTO does not provide this possibility, other than GATT Article XV,<sup>4</sup> which delegates to the International Monetary Fund the task of determining whether a country is using exchange rate intervention to “frustrate the intent of the provisions of the GATT.” There are good conceptual and practical reasons why the WTO does not include disciplines in this area, and compelling arguments why efforts to go down this path are likely to do much more harm than good in terms of sustaining multilateral cooperation.<sup>5</sup> Whatever one’s views, however, clarifying what is and what is not subject to rules and what are permissible policies to promote investment in/production of tradables is important in defining the boundaries of the WTO.

A major element of any future agenda is to further reduce barriers to trade and investment in services and more generally address the effect of regulatory policies in segmenting markets, including so-called nontariff measures. Given that countries may have legitimate concerns about the effects of liberalization because of inadequate or the absence of regulation, the post-Doha Round action agenda should include developing mechanisms through which WTO members can engage each other on regulatory policies affecting the contestability of markets.

The WTO could do much more to offer effective mechanisms through which members can learn from each other on how to design and implement regulatory systems that support greater trade while attaining underlying regulatory objectives. Regulators, trade and economic affairs officials, the business community, and other stakeholders need to work together to assess current policies and options for improving regulation in a specific area and determine how cooperation between regulators could facilitate more trade. Instituting a parallel process that does not involve negotiations but that instead focuses on the substance of regulation (or the effects of a lack of appropriate regulation) could help countries improve regulatory outcomes and facilitate an expansion in trade. Such processes should extend to regular, systematic discussion and multilateral scrutiny of preferential trade agreement implementation, with the goal of identifying good practices that could be widely adopted by WTO members. Creating such mechanisms for exchange and learning can help avoid a recurrence of the DDA experience with the Singapore issues and help prepare the ground for future negotiations on services.<sup>6</sup>

Moving forward to discuss new issues of common interest need not wait for the conclusion of the Doha Round. Adding

new subjects to the agenda may eventually help conclude the Round, although a good case can be made that there is already more than enough on the table, if more is worked out on the services front and the appropriate weight is given to the value of binding policies as opposed to only actual liberalization of applied policies. The main point, however, is that if the talks continue to drag on for some time, the hiatus provides an opportunity to launch discussions under auspices of the relevant WTO committees on subjects such as those noted above. The opportunity cost of waiting for the DDA to conclude is increased substantially if it means delaying discussions on systemically important matters that are not currently on the DDA agenda and require cooperative solutions.

## Conclusion

Concluding the Doha Round is important in itself and for sustaining the cooperation that has resulted in the current open rules-based multilateral trade regime. Continued paralysis is costly for the system because it prevents progress on the legislative side—the negotiation and agreement on rules of the game in new as well as old areas that are important for global markets’ operation. The WTO offers a multilateral umbrella under which the major trading powers can agree on how to manage and support the needed process of “global rebalancing.” Using the WTO to map out rules of the game is likely to be much more productive than the pursuit of unilateral policies to deal with policy externalities—both in terms of supporting the needed structural transformation and in maintaining an open trading system.

Abstracting from the need to put in place mechanisms to support a process of building trust and understanding on how to address the market-segmenting effects of domestic regulation, moving forward arguably does not require fundamental changes to the WTO negotiating process. There has been much discussion in this regard about the Single Undertaking: the notion that nothing is agreed until everything is agreed. This is clearly a factor that can slow down the process of getting to yes. One solution that is often proposed is a greater reliance on plurilateral agreements that bind only those countries willing to sign on, who then may decide not to accord the benefits of what has been agreed to nonsignatories. The main reason to consider plurilaterals is to avoid free riding—an issue that arises if some large countries do not want to join. However, this is not the source of the current deadlock—the problem is that some large countries want more than other large countries are willing to offer.<sup>7</sup>

The Single Undertaking also has benefits—it enhances the legitimacy of any negotiated outcome. But it does imply an opportunity cost if agreements in specific areas must wait for an overall deal agreement. If such areas also generate little in the way of reciprocity value—that is, the issue is not something that trading partners care much about—carving them out of the Single Undertaking will not come at the cost of taking negotiat-

ing chips off the table that could have been used to link to other issues. Alternatively, if the gains and costs of agreement in a specific area are balanced, a carve-out also comes at little cost from a linkage perspective. The best example of such an issue of the first type is duty-free, quota-free access for LDCs, because this is an action that does not entail any reciprocity by the LDCs. An example of the second possibility is trade facilitation. Since inefficient trade facilitation generates mostly socially wasteful costs—as opposed to rents or government revenues—moving forward on trade facilitation is important from an economic welfare perspective, and would come at low cost from a “linkage foregone” perspective, because most of the benefits accrue to the countries that take actions to improve facilitation. Indeed, in an area such as trade facilitation, given that most of the benefits accrue to the countries that pursue reforms, governments should simply do so rather than incur the opportunity costs of waiting for a deal to be struck at the WTO.

## About the Author

Bernard Hoekman is *Director of the International Trade Department* at the *World Bank*, Washington, DC. The views expressed are personal and should not be attributed to the World Bank.

## Notes

1. See Martin and Mattoo (forthcoming) for a recent comprehensive assessment the state of play in the DDA.
2. For a more extensive treatment of some of these arguments, see Hoekman, Martin, and Mattoo (2010).
3. Recent empirical research has shown that the indirect productivity effects associated with opening markets to new imported varieties of goods account for 10 to 25 percent of the typical country's per capita income growth (Broda, Greenfield, and Weinstein 2010). On the export side of the equation, the magnitude of the productivity gains from reducing trade costs come from the expansion of trade along the extensive margin, driven by a process of intraindustry adjustment in which the less productive firms exit and the more productive ones expand (see Redding [2010] for a survey of the recent literature).
4. See [http://www.wto.org/english/docs\\_e/legal\\_e/gatt47\\_01\\_e.htm](http://www.wto.org/english/docs_e/legal_e/gatt47_01_e.htm).
5. The level of the exchange rate is not a policy instrument on which a government can make specific commitments. It is endogenous, and will reflect a mix of fiscal and monetary policies. Whether a government is engaging in deliberate undervaluation is inherently a subjective exercise that requires judgment. Even if this assessment is left to the International Monetary Fund—as is required by the relevant WTO provision (GATT

Article XV) dealing with exchange rates—it will be very difficult to objectively assess to what extent a country is undercutting its trade policy commitments to liberalize access to its markets and/or is subsidizing its exports. There are many other objectives that may underpin an active exchange rate management policy that have nothing to do with seeking to circumvent trade policy commitments. For a detailed analysis and discussion, see Staiger and Sykes (2010).

6. For an elaboration of these arguments, see Hoekman and Mattoo (2010). The Singapore issues refer to transparency in government procurement, investment policy, competition policy, and trade facilitation. In 1997, the WTO established working groups for each of these subjects to determine whether to launch negotiations in these areas. No agreement could be reached in the cases of procurement, investment, and competition policies (see Hoekman and Kostecki [2009]).

7. Plurilateral agreements differ from critical mass agreements in that the latter apply on a MFN basis—that is, they permit free riding by those that are not part of the critical mass.

## References

- Broda, C., J. Greenfield, and D. Weinstein. 2010. “From Groundnuts to Globalization: A Structural Estimate of Trade and Growth.” NBER Working Paper 12512.
- Francois, J. 2001. “Trade Policy Transparency and Investor Confidence: Some Implications for an Effective Trade Policy Review Mechanism.” *Review of International Economics* 9 (2): 303–16.
- Gootiiz, B., and A. Mattoo. 2009. “Services in Doha: What's on the Table?” *Journal of World Trade* 43 (5): 1013–30.
- Handley, K., and N. Limão. 2011. “Trade and Investment under Policy Uncertainty: Theory and Firm Evidence.” Mimeo, University of Maryland.
- Hoekman, B., and M. Kostecki. 2009. *The Political Economy of the World Trading System*. Oxford University Press.
- Hoekman, B., and A. Mattoo. 2010. “Services Trade Liberalization and Regulatory Reform: Redesigning International Cooperation.” *World Bank Policy Research Working Paper 5517*, Washington, DC.
- Hoekman, B., W. Martin, and A. Mattoo. 2010. “Conclude Doha: It Matters!” *World Trade Review* 9 (3): 505–30.
- Laborde, D., W. Martin, and D. van der Mensbrugghe. 2011. “Implications of the Doha Market Access Proposals for Developing Countries.” *World Bank Policy Research Working Paper 5697*, Washington, DC.
- Martin, W., and K. Anderson. 2011. “Export Restrictions and Price Insulation during Commodity Price Booms.” *Policy Research Working Paper 5645*, World Bank, Washington, DC.
- Martin, W., and A. Mattoo. Forthcoming. *Unfinished Business? The WTO's Doha Agenda*. Washington, DC: CEPR and the World Bank.
- Martin, W., and P. Messerlin. 2007. “Why Is It So Difficult? Trade Liberalization under the Doha Agenda.” *Oxford Review of Economic Policy* 23 (3): 347–66.
- Redding, S. 2010. “Theories of Heterogeneous Firms and Trade.” Princeton University and CEPR, [http://www.princeton.edu/~reddings/papers/het-firmstrade\\_080110.pdf](http://www.princeton.edu/~reddings/papers/het-firmstrade_080110.pdf).
- Staiger, R., and A. Sykes. 2010. “Currency Manipulation and World Trade.” *World Trade Review* 9 (4): 583–627.

---

The *Economic Premise* note series is intended to summarize good practices and key policy findings on topics related to economic policy. They are produced by the Poverty Reduction and Economic Management (PREM) Network Vice-Presidency of the World Bank. The views expressed here are those of the authors and do not necessarily reflect those of the World Bank. The notes are available at: [www.worldbank.org/economicpremise](http://www.worldbank.org/economicpremise).