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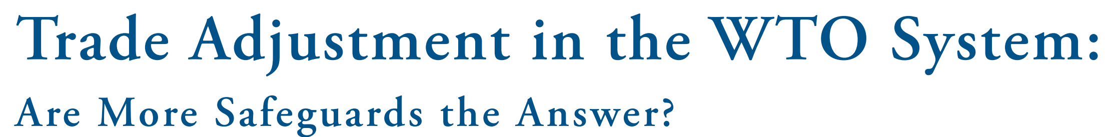

Trade Adjustment in the WTO System:

Are More Safeguards the Answer?

Chad P. Bown
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The Brookings Institution

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Abstract

For countries to engage successfully in the international trading system, their industries, firms, and workers must respond continually to new conditions of competition. The continuing need to adjust arises both from policy changes approved in multilateral negotiations – e.g., implementation of trade liberalization commitments, preference erosion, or adverse terms-of-trade consequences of export subsidy elimination – and from ongoing changes in competitive pressures inherent in a liberal trading system – e.g., effects on comparative advantage of changes in technology or factor supplies. But the political response to a situation calling for adjustment is often a call for "safeguards" – whether as an ex ante provision in negotiated agreements or as an ex post measure once the agreement has been signed and the reality of new conditions takes shape. This paper examines the range of adjustment problems confronting the current and future international trading system, the economic arguments for intervention to deal with these problems, the adjustment environment as set out in the current WTO Agreements, and proposals for reform. While the adjustment problems we discuss apply to both rich and poor WTO member countries, we highlight the issues of adjustment especially relevant for developing countries.

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Introduction

The accelerating pace of globalization has heightened interest in policies to facilitate domestic adjustment to changing conditions and to ensure a socially acceptable division of the resulting gains both within and across countries. We argue that the "adjustment problem" can be used as a lens to help us understand some broader problems currently facing the World Trade Organization (WTO) system. First, some major sticking points in the Doha Round of negotiations concern policy changes that would introduce new adjustment problems for a diverse array of countries, some of which may not anticipate offsetting gains. Second, a history of successful negotiating rounds under the GATT system has increased each country's exposure to global economic conditions. A relatively liberal trading environment translates into a continuing need for "someone" – i.e., some industries, firms, and workers in some countries – to adjust, simply in response to efficiency-enhancing innovation and other sources of change in economic "fundamentals." Yet the cumulative effect of the WTO Agreements has been a set of provisions that are not designed to *facilitate* adjustment and an environment where the rules often create incentives with an anti-adjustment bias. Third, the expectation of future pressure for adjustment frequently leads policymakers to request additional "safeguards" – both as ex ante provisions in newly negotiated agreements and as ex post measures implemented once the agreements are in place and their implications are revealed.

This paper examines the problem of adjustment at the global level and the potential role of the WTO in promoting efficient adjustment. We begin by highlighting a diverse set of politically contentious issues confronting the international trading system and tie them to this common problem of adjustment. We then turn to the economic arguments for policy intervention to deal with these problems before analyzing the adjustment environment as set out by the current WTO Agreements and proposals for its reform. While we identify adjustment problems that apply to rich and poor WTO member countries alike, we highlight the issues of adjustment especially relevant for developing countries under the current trading regime.

It is important to emphasize that what we mean by adjustment is entirely different from, and sometimes even opposed to, typical "adjustment" provisions in trade agreements in the form of "breathing space" for affected sectors. As we discuss in section 4, a basic problem with the "breathing space" approach is that there is no "pro-adjustment" effect inherent in an import-restricting policy; by itself, temporary protection from imports does nothing to cause an industry to become more internationally competitive. Rather, by allowing the industry to continue production in a protected environment, such a policy ends up having an anti-adjustment bias—it does nothing either to induce the industry to shrink or to transform itself to meet the reality of a new and more competitive economic environment. Moreover, because they encourage productive inputs to remain in their current use, policies that slow adjustment *out* of uncompetitive industries also have the effect of slowing expansion of newly competitive industries.

What are the contentious issues relating to adjustment that members of the world trading system now face? A first set of problems all arise from explicit policy changes, and they are especially significant for three key areas of negotiation in the Doha Development Round. First, consider countries taking on additional import market access liberalization commitments. These countries confront the standard problem of internationally uncompetitive domestic industries that were previously protected from imports

but are now required to adjust. Second, consider countries for which multilateral trade liberalization leads to preference erosion. Here some industries that had previously been competitive enough to export (albeit because of a preference margin) now face conditions requiring them to shrink and perhaps to withdraw entirely from some export markets. Third, consider countries that are currently net importers of agricultural products. If rich countries agree to remove their terms-of-trade distorting (export) subsidies in agriculture, food processors and other consuming industries in the countries that are net importers will be forced to reduce their production due to the higher prices of key inputs; households must likewise adjust to higher food prices. And, while each of these three issues concerns an adjustment problem arising from a policy change central to the Doha Round agenda, there are substantial differences among them that rule out a one-size-fits-all remedy.

A second set of adjustment problems stems, ironically, from the past successes of multilateral negotiating rounds under the GATT and the liberal trading environment thereby created. In the current environment, new needs to adjust arise continually as a consequence of innovation and other changes in national economic structure both at home and abroad. Technological innovation and changes in input market conditions produce shifts in comparative advantage and may also allow trade in goods and services that were previously non-tradable. Important new suppliers may become integrated into international markets, thus affecting terms of trade for other trading nations, as has most recently occurred with China. As a result, there is an ongoing need for some industries, firms, and workers to adjust to changes in the conditions of global competition. Because this continuing pressure to adjust can be expected to persist even (and indeed especially) under the holy grail conditions of fully liberal trade, the issue must be a permanent concern in the WTO system. Thus, it is important to determine whether WTO provisions currently create an environment that is pro-adjustment, anti-adjustment, or adjustment neutral.

Given these areas of present and future contention in the international trading system that highlight the issue of adjustment, we examine economic arguments for pro-adjustment policies. We consider whether there are efficiency arguments for intervention—either because of systematic market failures or because of international externalities associated with the lack of adjustment—and thus an efficiency-enhancing role for WTO agreements to promote adjustment. We also consider the specific problem of inducing adjustment when some countries stand to lose (relative to the status quo) from proposals in multilateral trade negotiations such as the Doha Round. Finally, we examine arguments for promoting trade adjustment through capacity-building, an issue that may be especially relevant for developing countries.

After our discussion of the underlying economics, we examine specific WTO rules and provisions affecting the adjustment environment in the international trading system. We begin with safeguards, since these are the provisions most frequently mentioned when countries face situations that call for adjustment. Yet, use of safeguards and related provisions (e.g., antidumping), far from promoting adjustment, can actually have an anti-adjustment bias. We also explore the case for explicit pro-adjustment policies and review some of the adjustment-assistance policies currently in place in WTO member countries. We identify areas of the WTO agreements where new pro-adjustment provisions could be introduced and suggest reforms to reduce the anti-adjustment bias. Finally, we identify hurdles that must be overcome in order to move from the status quo, including the problems of designing economically sensible incentives and finding politically acceptable ways to finance them.

The rest of the paper proceeds as follows. Section 2 reviews the shocks from policy change and shifting economic fundamentals that most commonly trigger the need to adjust, and then considers justifications as viewed from a global perspective for policies to facilitate national adjustment. Section 3 presents our analysis of adjustment, examining in turn the arguments for intervention on the grounds of economic efficiency, possibilities for using compensatory transfers to reach an efficiency-enhancing agreement among subsets of countries when bound by rules of consensus, and the potential role of capacity-building investments. Section 4 describes the elements of current WTO Agreements that generate an implicitly anti-adjustment environment, as well as evidence on members' use of anti-adjustment provisions. Section 5 concludes with a brief summary of our proposals to reform the WTO rules.

Alternative Causes of Trade-Related Adjustment Pressure

In this section we briefly consider a number of high-profile trade-related adjustment pressures and their implications for the type of adjustment required. In practice, several of these pressures may operate simultaneously. We organize them into two subcategories – the direct results of a specific policy change, and the results of shifting economic fundamentals in the market economies of a liberal trading regime.

Adjustment pressures induced by trade policy change

There are several important instances in which sectors must adjust to new conditions of competition. We begin with the standard case of a domestic industry historically protected from import competition but which now faces the need to adjust due to new market-access commitments undertaken by its government. We then turn to two prominent scenarios arising in the current round of negotiations -- preference erosion due to reduction in most-favored-nation (MFN) tariff rates (Hoekman, Martin, and Primo Braga 2006; Amiti and Romalis 2007) and adverse terms-of-trade effects for net food-importing countries due to elimination of agricultural subsidies (Anderson and Martin 2005). These both involve the elimination of policies that have led to an uneven playing field and associated efficiency losses at the global level, but which nonetheless created net benefits for some countries. Eliminating these distortions would raise global welfare. However, some countries would end up as net losers and have opposed these policy changes.[1]

Additional commitments to import market liberalization

An agreement to liberalize trade in a particular product implies but usually does not specify a corresponding commitment to adjust—typically to move resources out of the sector. Both trade negotiators and the affected industry's firms and workers anticipate that the agreement to liberalize will mean less favorable prices for the industry and thus pressure to adjust, but they may have differing and perhaps inconsistent expectations concerning the adjustment process. In reciprocal liberalization, jobs or exports "created" in an industry where the trading partner is committed to liberalize serve as a political counterweight to anticipated losses of output and employment in the import-competing sector. Reciprocal liberalization may also have the economic benefit, relative to unilateral liberalization, of pulling resources into an expanding sector at the same time that they are being pushed out of a shrinking sector.

Since the commitment to adjust is rarely made explicit, it is not possible to be sure what type of adjustment (i.e., downsizing versus transformation) negotiators or the affected industry's firms and workers

may have expected. However, socially desirable policies to promote adjustment should satisfy two conditions: First, they should improve the functioning of the markets for productive inputs, or at least not impede it through imposition of new controls. Second, they should provide a social safety net, but without increasing the incentive for productive inputs to remain in the shrinking sector unless that sector is associated with a significant positive externality.

Erosion of preference margins

The proliferation of discriminatory trade policies (DTPs) among WTO members, such as regional trade agreements and preferential market access extended to developing countries under the Generalized System of Preferences (GSP), has given rise to an additional type of adjustment problem. Exporters of, say, footwear, normally stand to benefit from liberalization of import restrictions on footwear in their export markets. But when an exporter enjoys preferred status in a market because of a DTP, multilateral liberalization will erode the margin of preference and thus require the exporter to adjust. The type and extent of adjustment required depends on the effects of the DTP. Implementation of the DTP itself may have produced up to three types of effects: trade diversion, trade creation (which may in part represent diversion of some *potential* trade that would have occurred if the importer had applied the same rate to all import sources), and investment diversion.

In the case of trade diversion, multilateral liberalization will cause some or even all import demand currently supplied by partners to shift toward lower-cost non-partner producers. However, the same may be true of trade created by the DTP, i.e., increased partner imports due to the lower *domestic* price of those imports. In both cases, the required adjustment entails lower output and exports in the sectors that previously benefited from preferential access. A final adjustment involves the location of footloose firms. In the same way that the DTP may have caused diversion of foreign direct investment toward countries benefiting from preferred access (Baldwin, Forslid, and Haaland 1996), erosion of the preference margin will produce pressure for relocation. Although it is widely acknowledged that recipients of preferential access may resist efforts to liberalize multilaterally, the potential for investment diversion implies that use of preferential trade agreements (PTAs) as a “stepping stone” toward multilateral liberalization may also result in larger overall costs of adjustment to full multilateral liberalization. This is because the PTA member countries have to adjust at least twice on the path to multilateral liberalization—first expanding and then contracting output and employment in the industries that benefit temporarily from the preference margin.

An effect similar to preference erosion can occur when new members are admitted to a PTA, thus putting downward pressure on the internal prices of traded goods and changing the terms of trade of previous members. The shift of direct investment toward new members has been a notable feature of the expansion of the European Union to include an increasing number of transition economies. Another important case is the entry of new members, and especially China, into the WTO. China’s accession to the WTO in 2001 (as well as its earlier eligibility for MFN status in many important markets) reduced the advantage enjoyed by earlier members exporting similar products.[2]

Net food importers and reduction of OECD agricultural subsidies

Many of the poorest countries are net food importers. Large government subsidies in the United States and European Union depress the international prices of agricultural products, thus creating a net benefit for these countries in the form of more favorable terms of trade. Although reduction or elimination of these subsidies would have important efficiency benefits for the world as a whole, net food importers would lose. For example, an UNCTAD report (Peters 2006) predicts a collective net loss for developing countries other than members of the Cairns group of agricultural exporters.

Elimination of export subsidies on agricultural products, a goal of the Doha Round, would relieve governments in richer countries of a major budgetary burden and provide additional savings through improved efficiency in domestic production and consumption. Advocates for poor countries have suggested that the unfavorable terms-of-trade impact of subsidy elimination could be offset by converting just a portion of the savings into supplementary Official Development Assistance. Below we consider the issue of using part of the efficiency gains from this and other policy reforms to compensate countries that would otherwise lose out as a result (i.e., countries that would receive smaller slices of a larger global pie) and thus ease the process of gaining consensus support for efficiency-enhancing policy changes.

Like other trade reforms, elimination of agricultural subsidies would also produce gainers and losers *within* trading countries. Even in countries that are not net importers of agricultural products, the higher world relative prices of most agricultural products would impose significant adjustment costs on consumers as well as industries that use these products as inputs. With higher input costs, firms would reduce or suspend output; workers employed in these industries would experience unemployment or wage reductions. Although this also creates political obstacles to reforms, here the problem is one of internal redistribution of the gains. The most relevant policy for overcoming obstacles due to internal redistribution is to help countries put in place the fiscal systems and safety net arrangements needed to achieve a socially acceptable distribution of national gains. We return to this issue in section 3.3.

Shifting comparative advantage due to changing economic fundamentals

In this section we examine situations where the need to adjust arises from elements inherent in the environment created by a liberal trading system—specifically, ongoing shifts in comparative advantage due to technological change and factor accumulation. We call these influences “economic fundamentals” to distinguish them from policy decisions that also create pressures for adjustment.

As economies evolve through capital investment and changes in the size and composition of labor force, comparative advantage based on relative factor abundance is likely to shift, putting downward pressure on some industries while encouraging others to expand. Unlike changes in global market conditions due to liberalization agreements, changes in comparative advantage and the associated need to adjust are often unanticipated and may thus be more socially disruptive. Furthermore, because loss of comparative advantage typically manifests itself as lower prices in global markets, it may give rise to claims that foreign competitors are dumping.

Although the need to adjust is usually discussed in terms of a shrinking industry, shifting comparative advantage also implies that other domestic industries should be expanding. To the extent that domestic

policies slow the shrinkage of industries that have lost comparative advantage, they also raise costs of attracting inputs to expanding industries and thus slow the expansion of new comparative-advantage industries. It is therefore important that policies designed to promote adjustment and provide a social safety net should not impede the efficient functioning of the markets for labor and other inputs or increase the incentive for inputs to be retained in sectors that have lost comparative advantage.

Comparative advantage also shifts due to adoption of new technologies, including new ways of organizing the production process.[3] In this case, the efficient form of adjustment is more difficult to determine in advance. Should the trade-impacted industry shrink and perhaps even disappear entirely, or can firms retain or even expand their global market share by adopting a new technology? Here the key question for policy is whether technology adoption is associated with positive externalities. In the absence of any positive externality, the policy prescription is the same as for other causes of shifting comparative advantage: adjustment policies should improve the functioning of factor markets and provide a safety net, but without increasing the incentive of labor and other productive inputs to remain in a sector that has lost comparative advantage.

In many cases adoption of new technology does give rise to positive externalities. Employees of early adopters are likely to gain labor skills that can later be transferred to competing firms in the industry. This situation is basic to the infant-industry case for policy intervention, but it also applies to established industries adopting new technologies. In a dynamic world economy there are likely to be many industries that face foreign competitors whose advantage is due mainly to technological superiority. However, it is difficult to identify in advance the situations in which an industry will actually experience an important positive externality due to early adoption by some firms of a new technology. The desirable adjustment policy may be one that provides firms with information about technological choices or that absorbs part of the private cost of generating this type of information (Rodrik 2004).

A further complication is that successful implementation of a new technology may require a different managerial approach or different labor skills. Thus, *firms* currently operating in the industry may be ill-equipped to succeed even though the *country* has a potential comparative advantage in this sector. Here market forces can provide the required adjustment via new entry or mergers and acquisitions, often including inward foreign direct investment (Hoekman and Javorcik 2004). But in this case industry-level output and employment effects may give little indication of the adjustment pressure faced by individual incumbent firms and workers. As new entrants or transformed firms expand, weaker ones will exit.[4] Workers with certain types of skills and experience may be laid off while others with different skills are being hired.

The Economics of Intervention to Promote Adjustment

This section focuses on three possible arguments for policy intervention to promote adjustment—correcting externalities and other market failures, providing compensation/transfers to build consensus, and making capacity-building investments that include improvements in fiscal management and provision of adequate social safety nets.

Efficiency-enhancing intervention to promote adjustment

In some situations, market forces alone cannot produce an efficient outcome, and appropriate policy intervention has the potential to improve economic efficiency. Private adjustment activities may be associated with significant positive externalities, due for example to learning by doing or labor training with benefits that cannot be fully captured by the firms that pay for them. Thus, firms' adjustment activities under laissez-faire will fall short of what economic efficiency requires. The "first best" policy in these situations is a subsidy to the specific activity that gives rise to the positive externality; the size of the subsidy should be equal to the size of the external benefit. However, spelling out these conditions makes it evident that successful intervention to improve economic efficiency requires information rarely available to policymakers. Moreover, political considerations may mean that intervention in instances of "market failure" may simply substitute "government failure." Policies ostensibly intended to correct a market failure but insufficiently tailored to the source and the size of the externality may reduce efficiency rather than raising it.

Another kind of externality that may be relevant in considering trade adjustment concerns the benefits to partner countries from one country's adjustment. For example, a country that adjusts out of an industry where it has lost comparative advantage, rather than delaying adjustment through use of protection, allows a partner country's comparative advantage industry to expand. Because national policymakers are likely to give greatest weight to costs and benefits to the country's own citizens, national policy choices may yield adjustment outcomes that fall short of what would be optimal at the global level. This possibility suggests a role for the WTO in promoting adjustment beyond the point that would be chosen by each member on the basis of national interest.[5]

Although the existence of an externality is one reason for market failure, some markets work poorly due to government-imposed constraints. Because successful adjustment inevitably requires some type of investment in physical or human capital, poorly functioning capital markets are a particular concern, especially in some developing countries. Many countries impose restrictions on interest rates as well as other key market prices (wages, food, fuel). Insecure property rights may also discourage many types of investments. In such cases, the first-best policy is to eliminate existing obstacles to the efficient operation of markets. Even in these situations, there is still a possibility that direct intervention—for example a trade barrier to provide temporary protection for a new industry—could improve the outcome by providing a partial offset to existing market distortions. In practice, however, most types of policy intervention, particularly trade barriers, also create new distortions, making the efficiency argument for using these instruments weak at best.

Compensation to induce adjustment in an agreement with rules of consensus

Because action by the WTO requires consensus among member countries, a trade negotiation is unlikely to succeed if its terms make some countries worse off. Even proposals sure to enhance global welfare may impose trade adjustment costs on certain countries that will not experience sufficient offsetting gains.[6] Indeed, growth of the GATT/WTO system in terms of numbers and diversity of its members may be one reason that some countries have resorted to bilateral negotiations and pursuit of DTPs, where it is relatively straightforward to craft an agreement that promises gains for both sides (though perhaps with costs that will be borne by non-partners).

One way to achieve the consensus necessary for progress in multilateral negotiations is to provide compensation for countries that would otherwise experience *net* losses from adjusting to the new situation. If the proposed agreement would indeed enhance global welfare, it should be possible at least in principle to make sure that all countries can enjoy some part of the gains. But while the principle is appealing, implementation is likely to be problematic at best. The first challenge is estimating the size of the required payments, e.g., the likely losses to countries that benefit from current trade preferences (Hoekman, Martin, and Primo Braga 2006). The second challenge is finding a way to finance such payments. Any system for taxing the winners is likely to introduce new distortions, eroding the gains available for the system as a whole. However, given the realities of multilateral negotiations, the countries that would experience *net* losses from an agreement are likely to be small and poor, i.e., marginal participants in global markets.

If compensation is limited to these nations, one approach would be to provide additional bilateral aid and/or funding from the World Bank or International Monetary Fund as "adjustment compensation." Such funds could be earmarked for projects to improve the recipients' capacity to participate in global trade, i.e., "aid for trade" as discussed in 3.3 below (Hoekman and Prowse 2005). This approach has the advantage of avoiding further additions to the panoply of discriminatory trade arrangements now in place, many of them intended to assist the poorest nations. To insure that countries actually implement the required adjustment, funds could be put into an escrow account. Payments would be disbursed contingent on countries proceeding with adjustment and not backsliding. For example, countries that lose export opportunities in a sector due to preference erosion should not engage in new regional agreements or other discriminatory trade arrangements aimed at restoring the lost preference margin for that sector.

Capacity-building investment to promote adjustment

Poor countries may require help to realize the potential benefits from integration into world markets. The WTO, World Bank, and developed country governments have all recently emphasized the concepts of "aid for trade" and capacity-building to help countries respond efficiently to new opportunities.[7] Much of the recent discussion concerns assistance narrowly focused on trade facilitation: helping countries improve trade policies and regulations, helping firms to identify and exploit trade opportunities, helping governments build appropriate infrastructure for production and export (WTO 2005). Such activities are especially relevant for the least-developed countries with minimal engagement in international markets. Without appropriate investments to build capacity to export, these countries are likely to see multilateral liberalization as largely irrelevant to their own economic situation--or even counterproductive, given that some have recently become the beneficiaries of very generous unilateral preferences.

However, a broader type of capacity-building may be equally important for giving poor countries a real stake in multilateral liberalization. To reduce trade taxes, these countries must be able to raise revenue through alternative (and more efficient) forms of taxation. To be sure, the World Bank and International Monetary Fund have long emphasized the need to put efficient fiscal systems in place. Yet for many developing countries, and especially those in sub-Saharan Africa, trade taxes still represent a major source of government revenue. Until efficient alternatives to trade taxes are available, there is little chance of substantial reductions in those taxes.

A second form of broader capacity-building concerns provision of the social safety net needed to overcome domestic political resistance to trade reforms. Ensuring a socially acceptable internal division of the gains from freer trade remains problematic even in the richest countries, but the situation is likely to be especially difficult in developing countries, where groups likely to lose from freer trade may already be close to the subsistence level. The key challenge is to provide assistance to those adversely affected without reducing market-driven incentives to adjust to new international conditions. For example, payments could be tied to appropriate adjustment, such as finding new employment or moving to areas where newly emerging comparative-advantage sectors are located, rather than to the fact of unemployment. Yet unemployment compensation schemes in which payments cease once a worker has adjusted by finding a new job remain a basic feature of the social safety net in most rich as well as poor countries. Wasmer and von Weizsäcker (2007) observe that although European Union workers displaced by globalization face the challenges of unemployment, lower pay, or a job far from home, it is the unemployed who receive most public support.

In recognition of the need to encourage adjustment to changing economic conditions, some newer trade adjustment assistance (TAA) policies incorporate active labor market policies intended to reinforce rather than offset market-induced pressure to adjust. A recent innovation in the U.S. TAA program is wage insurance for older workers.[8] Under this program, eligible workers accepting new employment at a lower wage receive temporary payments to compensate for income losses (Irwin 2005, 121). Wasmer and von Weizsäcker (2007) propose that the European Global Adjustment Fund, which began operations in 2007, could be used to provide similar "wage insurance" as well as a lump-sum mobility allowance to compensate for the cost of moving to a new job. A third type of public policy to facilitate adjustment is improved access to retraining programs and other types of educational programs that increase workers' capacity to respond to all kinds of changes in market conditions.[9]

Adjustment Implications of WTO Agreements

The WTO's primary goal is to achieve "better, more long-lasting, more predictable, more transparent market access" (Lamy 2005). This entails a commitment on the part of member countries to a continuing process of adjustment. Yet some WTO rules can have anti-adjustment effects when they are used to delay exit of productive resources from certain industries. In this section of the paper, we review the current WTO rules that affect the adjustment environment. In principle, such policies can be pro-adjustment, anti-adjustment, or adjustment neutral in their effects, though we argue that they are often anti-adjustment in practice. In addition to laying out the theoretical argument, we point to evidence of the increasing use of these policies by WTO members, especially developing countries, to postpone adjustment.

In sections 4.1-4.3 we discuss the WTO rules allowing use of trade remedies – safeguards and antidumping – and how the existence of these options may implicitly discourage adjustment in countries that have agreed to liberalize their import markets. Table 1 gives a brief summary of the arguments in this section. In section 4.4, we turn to the WTO rules restricting use of subsidies and the explicitly anti-adjustment bias that may result.[10] Section 4.5 highlights the anti-adjustment implications of WTO provisions permitting discriminatory trade agreements.

The WTO Agreement on Safeguards

Economists have long recognized a potential trade-liberalizing benefit in the GATT/WTO system of including trade remedy laws such as safeguards as part of a negotiated package. Inclusion of a safeguard clause allowing for the temporary suspension of certain elements of the liberal trade agreement under specified circumstances is typically justified by economists through what Hoekman and Kostecki (2001) call the "insurance" and "safety valve" motives.[11] Because safeguard measures usually protect domestic industries from foreign competition, it is an empirical question whether inclusion of Article XIX in the GATT and the Agreement on Safeguards in the WTO have allowed WTO members to achieve "better, more long-lasting, more predictable, more transparent market access" or simply to prolong protection of uncompetitive domestic producers. Although safeguard provisions may indeed have been desirable ex ante and the adjustment implications of the basic texts ambiguous, in practice governments have often used safeguard protection to postpone adjustment. As Table 2 shows, in recent years many developing countries have joined the developed countries as active users of safeguard measures. Indeed, while Finger and Nogués (2006, 39-40) credit skillful use of safeguards and antidumping with facilitating Latin American trade liberalization, they also conclude that current WTO rules are too generous, allowing trade "restrictions that amount to ordinary protection." In particular, the WTO rules on safeguards do not require that likely effects on industrial users and consumers of the imported product be taken into account.

The basic text of the Agreement on Safeguards states, "A Member shall apply safeguard measures only to the extent necessary to prevent or remedy serious injury and to *facilitate adjustment*" (Article 5:1, emphasis added). Thus, while there is explicit recognition of the statute's role in facilitating adjustment, what is left unclear, and perhaps intentionally, is adjustment toward what outcome. Specifically, does "facilitate adjustment" mean helping to restore an industry's competitiveness relative to foreign firms? Or does it mean promoting exit of firms and labor from the industry? These alternative goals would require completely different adjustment strategies. Without a clear articulation of the goal of the adjustment and without appropriate policies in place (as well as improper policy impediments removed), a statute that appears designed to facilitate adjustment out of an uncompetitive industry may instead be anti-adjustment in its effect.

In principle, a national government could apply a WTO-sanctioned safeguard policy to shield a domestic industry temporarily from import competition while it facilitates the exit of firms and workers from the import-impacted industry and their transition to expanding sectors of the economy. In practice, however, safeguards are rarely employed for this purpose. Instead, the law is typically used to implement tariffs, quotas, or tariff-rate quotas that simply offer "breathing space" to domestic import-competing producers by limiting competition from abroad.[12] These safeguards often do nothing to assist the adjustment via exit of firms or workers from a declining industry, and the result is an anti-adjustment bias. The rationale often advanced for safeguard protection is to give the domestic industry a chance to adjust to the changing conditions of market competition by making additional investments, retraining workers to use new technology, and other productivity-advancing measures. But even for cases in which restructuring does have the potential to restore the domestic industry's international competitiveness, there is little evidence to suggest that import protection alone can improve incentives for adjustment.[13]

Nevertheless, when compared with the other trade remedies and forms of import protection described below, safeguards applied according to WTO guidelines do have desirable attributes that can limit the damage when domestic firms seeking protection have no realistic hope of adjusting successfully to the new competitive environment. The relevant provisions are contained in Article 7 and 8 of the WTO Agreement on Safeguards. First, safeguard protection is subject to a time limit of no more than eight years; the duration of the initial policy is limited to four years, with the possibility of one renewal; the degree of import protection must be reduced each year until the policy is ultimately removed. The rules also require the safeguard-imposing country to compensate affected foreign suppliers either (i) immediately, if there has been no demonstrable import surge immediately before the safeguard action, or (ii) after three years, if there has been an import surge. As a result, safeguard protection is usually imposed for no more than three years. Moreover, Article 2:2 requires the safeguard to be applied to a product "being imported irrespective of its source," i.e., on a most-favored-nation (MFN) or nondiscriminatory basis. This means application of safeguard protection is less likely to cause inefficient trade diversion, i.e., substitution of imports from unrestricted export sources. Finally, safeguards are less costly to administer than antidumping as they require evidence only of import-related injury to the domestic industry, not of less-than-fair-value pricing on the part of foreign competitors.

Use of safeguards that conform to WTO rules is also superior to the approach currently used by many developing countries in responding to an increase in import competition. These countries have often bound their tariffs at rates far in excess of actual applied rates, allowing them considerable latitude to raise actual rates to protect domestic producers without violating their WTO commitments. Foreign suppliers thus experience substantial uncertainty about the actual rates they will face in the affected markets. Indeed, from a political-economy point of view, safeguards or even antidumping may be more desirable than other options governments are likely to choose in response to pressures from domestic interest groups adversely affected by increased import competition. For governments that must respond to domestic constituencies, the relevant alternative to safeguards or antidumping is less likely to be domestic adjustment than some other, usually less transparent, form of protection from imports.

While there is nothing explicit in the WTO Agreement on Safeguards (or in GATT Article XIX) about encouraging adjustment of resources *out of* a trade-impacted sector, some member countries have nonetheless included language in their implementing legislation that would allow for use of pro-adjustment policies in addition to, or even in lieu of, import protection. For example, while the U.S. Section 201 safeguard statute allows for the use of import restrictions along lines indicated in the WTO Agreement on Safeguards, and the policy measure implemented is usually an item on the menu of import restrictions, the U.S. law does at least *mention* the use of other policy instruments that would be more pro-adjustment with respect to facilitating movement of resources out of an import-impacted industry.[14] Moreover, Section 201 requires the petitioning industry to submit an "adjustment plan" detailing how the requested relief from foreign competition would promote adjustment. But, not surprisingly, the "adjustment" envisioned by firms in trade-impacted industries almost always entails efforts to restore competitiveness rather than to promote exit.

To improve the adjustment environment in the WTO system, our analysis below suggests that most of the effort should go into *encouraging* greater reliance on the existing Agreement on Safeguards, and thus *discouraging* the use of other trade restrictions (e.g., antidumping) permitted by WTO rules and the ad-

dition of new trade-restricting options (e.g., special safeguards), in situations where a country faces the political need to provide import protection in dealing with an adjustment problem. In addition, three modifications to the current Agreement on Safeguards could reduce the current anti-adjustment bias.

First, safeguard-imposing countries should be required to clarify up front the "adjustment" intentions of the new policy measure. Specifically, is the policy's goal 1) to achieve competitiveness in the industry through restructuring, or 2) to facilitate exit from the industry? When imposing the policy, a government would check one box or the other. The government's complementary policy options would then depend on which "adjustment" box has been chosen. For example, as we discuss below, certain subsidies that might not otherwise be permissible under the WTO's Agreement on Subsidies and Countervailing Measures (i.e., "actionable" subsidies) would be permitted if the "exit" box has been chosen. Rules for compensation of exporting countries adversely affected by a safeguard import restriction might also depend on which box is checked. For example, a country that has checked the box indicating a commitment to facilitate exit from the affected industry could be exempted from the normal requirement to offer rebalancing (via liberalization in a different sector or tariff retaliation by the affected partner); rebalancing of concessions would be required if the "restructuring" box was checked.

Second, whenever safeguard measures are imposed, the only permitted instrument should be an ad valorem tariff. The Agreement should eliminate safeguards in the form of quantitative restrictions, price bands, or other non-tariff measures. Tariffs are less discriminatory, and this choice will be especially beneficial for developing countries that face additional adjustment obstacles associated with loss of government revenue due to reduction or elimination of trade taxes in other areas. And finally, WTO rules on safeguards should be amended to require that likely effects on industrial users and consumers of the imported product be taken into account.

The WTO Agreement on Antidumping

While the WTO Agreement on Safeguards at least mentions the possibility of facilitating adjustment, the WTO provisions governing the use of antidumping, a more frequently used import-restricting policy instrument, make no reference at all to the possibility of domestic adjustment. This omission reflects an assumption that the injury suffered by the domestic industry through lost competitiveness is entirely due to "unfairly" priced imports. Given this assumption, there is no need to adjust but only to bring the delivered cost of imports to a fair, i.e., sufficiently high, level. Table 3 shows that, as with safeguards, many developing countries in the WTO are now major users of antidumping.

Most economists question the entire economic rationale for the antidumping law, and its abuse has been documented in a number of studies. However, the WTO Agreement on Antidumping permits a national government to implement legislation to impose import restrictions (an antidumping duty or price undertaking) after an investigation that determines less than "normal value" pricing by foreign firms and associated injury to the domestic import-competing industry. As with the safeguard statute, the resulting import restrictions reduce incentives for domestic firms and factor owners to adjust to increased international competition, either by becoming more competitive or by shifting into a domestic sector that is expanding.

The first concern about antidumping is that in practice it is often less about foreign unfair behavior than about domestic industries seeking protection from import competition. To the extent this is true, antidumping measures are a substitute for safeguard protection, but with greater potential to reduce welfare and efficiency.[15] Antidumping protection has none of the positive attributes of safeguard policies described in the previous section, i.e., time limits, required compensation, and MFN application. Moreover, the required investigation of foreign suppliers to obtain the specific cost and pricing information needed for the dumping calculation implies a substantial bureaucratic resource cost, which may be particularly onerous for developing countries. In comparison, a safeguard investigation must establish only that the domestic industry is suffering injury caused by a surge in imports. The recent adoption of antidumping laws by many WTO members and their increasing use by developing as well as developed countries may have a profound anti-adjustment impact.[16]

In contrast to the Agreement on Safeguards, which mandates that trade-restricting safeguard measures be subject to gradual liberalization and eliminated after four or eight years, the WTO antidumping provisions require only a “sunset review” after five years. Under the sunset review provision, included in the Uruguay Round reforms, a domestic investigative authority must assess the continued likelihood of dumping and injury to the domestic industry should the antidumping measure be removed. This sunset provision thus has a clear anti-adjustment bias. If firms in the domestic industry were to adjust during the period of antidumping protection, either by leaving the industry or by making themselves more competitive relative to foreign firms, they would be less likely to be injured in the future, and this would increase the probability of antidumping protection being removed after the sunset review. Instead of promoting adjustment, the sunset provision actually rewards firms for their failure to adjust. Cadot, de Melo, and Tumurchudur (2007) present evidence that the five-year sunset review process may have had little impact on the actual duration of antidumping measures imposed. Some countries, including the United States, have continued to impose antidumping measures beyond the five-year window. Other countries do remove them after five years but appear to do so voluntarily, i.e., the evidence suggests that the change in the WTO rules on antidumping is not the reason.[17]

In terms of reforms that could reduce the use of antidumping to delay adjustment, it appears that the most economically beneficial change—eliminating the WTO Agreement on Antidumping entirely and shifting all demand for temporary protection to the Agreement on Safeguards—is unlikely to be politically acceptable. But an important first step would be to get countries like the United States to change their position on sunset review to make the default closer to under the Agreement on Safeguards—i.e., the expectation is *removal* of the policy after five years unless explicit evidence of likely dumping and likely injury can be provided. And, as with safeguards, antidumping measures should be limited to tariffs.

The Proliferation of Special Safeguards under the WTO

In the negotiations leading to creation of the WTO, the GATT escape clause (Article XIX) was augmented by the WTO Agreement on Safeguards. Several additional safeguards, each with its own special rules, have also been added. Those in effect as of January 2007 include the safeguard provisions of the WTO Agreement on Agriculture and the General Agreement on Trade in Services (GATS), both parts of the 1995 WTO package, as well as China-specific transitional safeguards associated with the terms

of China's 2001 WTO accession.[18] Numerous proposals put forward in the Doha Round negotiations would create additional access to special safeguards for agricultural products, especially for farmers in developing countries.[19] Valdes and Foster (2003) suggest that expanded access to special agricultural safeguards would encourage more liberalization by giving import-competing farmers in developing countries some protection during "low price periods." They argue for a price floor policy as a means to manage "low-price risk." Analysts at the Food and Agriculture Organization also stress the need for special safeguards for developing countries "to protect producers from artificially low import prices," noting that the limited potential for raising import duties will decline as bound rates are reduced (FAO 2003).

From an adjustment perspective, the primary concern regarding the proliferation of special safeguard mechanisms in the WTO system is that, like the Agreement on Safeguards and the Agreement on Antidumping, these provide no explicit incentives to adjust out of a declining industry that may be using the provisions to hang on despite a loss of international competitiveness. Because these safeguards can be used to obtain temporary import restrictions, they weaken the incentives for firms and labor in the domestic import-competing industry to adjust by moving into expanding alternative industries.

In addition to this basic concern, which applies to any policy that provides protection and thus allows domestic industries to delay adjustment, all of the special safeguards lack at least one of the attractive features of Article XIX and the more recent Agreement on Safeguards. These are features that make standard safeguards a reasonable second-best policy in situations where temporary protection is sure to be granted and the relevant question is what form the protection will take. But unlike standard safeguards, some of the special safeguard regimes lack transparency in the investigative process and may impose no serious injury test. Also, some of these safeguards are country-specific and thus do not have MFN treatment of foreign suppliers. Special safeguard protection may take the form of quantitative restrictions or minimum import prices instead of ad valorem tariffs. To the extent that existence of these special safeguards makes it easier for industries to obtain restrictions on competing imports, their effect is anti-adjustment.[20]

An important category of special safeguards are the China-specific safeguards included in China's 2001 WTO accession agreement. Table 4 provides evidence on use by WTO members of China-specific safeguards since 2002. The prominent use of China safeguards by developing countries indicates that these countries are not just worried about losing export markets to China but also about imports from China capturing an increasing share of their domestic markets. These special safeguards clearly allow users to postpone adjustment to China's entry into the WTO. However, the inclusion of these safeguard provisions, which are due to expire in 2014, may have been the price of allowing entry of a large and highly competitive new member.

We favor ending the introduction of new "special safeguards" provisions into the WTO Agreement. As described above, the existing Agreement on Safeguards has a number of positive characteristics and offers a well-established mechanism for managing political demands for new import-restricting measures. Special safeguards inevitably add one or more undesirable elements to the mix. These may include the resource cost to the government of a redundant bureaucratic process, creation of a less transparent import-restricting trade policy instrument, or allowing for import-restricting measures that will be undesirable from the perspective of application—because they are discriminatory, are imposed as something other than a tariff, or lack limits on duration.

WTO Agreement on Subsidies and Countervailing Measures

The Uruguay Round negotiations leading to establishment of the WTO also produced the Agreement on Subsidies and Countervailing Measures (SCM).[21] This agreement serves two main purposes: to place restrictions on the types of subsidies members may implement, and to set permissible terms of direct redress (through countervailing measures or dispute settlement activity) available to a country adversely affected by another member's failure to follow the subsidy limitation rules. The major concern underlying the SCM agreement is the use of *export*-contingent subsidy programs. Such programs can lead to excessive production and exports, and thus to distortions/externalities in global markets.[22] It is beyond the scope of this paper to describe in full the evolving rules regarding permissible and non-permissible subsidies. Here we highlight one area of the SCM with potential implications for the WTO adjustment environment—specifically, rules and language of the SCM that may inhibit countries' ability to implement efficient pro-adjustment polices.[23]

The concern arises from the requirement under the SCM that subsidies not be *specific* to any particular firms or industries. This rule is intended to reduce the likelihood that governments would select domestic "winners" and then engage in excessive industrial subsidization to promote these industries. Article 2.1 of the SCM describes the nature of specificity as subsidies being targeted or limited to "an enterprise or industry or group of enterprises or industries…within the jurisdiction of the granting authority." But exactly this type of specific subsidy may sometimes be needed to produce an efficient adjustment outcome. If there is a distortion impeding adjustment out of a particular enterprise or industry, then targeting that specific enterprise or industry (i.e., "picking losers") should be the focus of the policy (Bhagwati and Ramaswami, 1963; Johnson, 1965). This is clearly not the type of firm or industry specificity that the SCM was intended to address. However, the language of the agreement may make countries hesitant to use targeted subsidies to promote adjustment *out of* a particular declining industry because such subsidies might be viewed legally as "specific" and thus potentially actionable (either countervailable, or subject to a violation complaint under the DSU) under the WTO rules.

Part IV of the SCM does include a list of "non-actionable" subsidies that, while perhaps specific, serve the legitimate purpose of dealing with externalities and other sources of market failure. Examples of non-actionable subsidies permitted under the Part IV exception list are assistance for research and development, for disadvantaged regions, and to promote adaptation of existing facilities to meet new environmental laws and standards. These are all situations in which governments can use targeted subsidies as a way to internalize positive externalities. But missing from this list in Part IV is an exception that would make "non-actionable" a subsidy specifically targeted at adjusting productive resources to new international conditions through exit from a well-defined enterprise, group of enterprises, or industry, and into some other productive sector.

Of course, that other productive sector could very well be an expanding export-oriented sector, which might de facto make a subsidy targeted to the *exit* of workers or firms from an import-competing sector appear as if it were instead targeted to the *entry* of resources into a particular export sector. To the extent that SCM rules may have inhibited the use of subsidies to promote the transfer of resources into a more economically viable (on a comparative advantage basis) export sector, this creates an implicit anti-adjustment bias. To be sure, it is also possible, and perhaps more likely, that the adjustment process would

move resources into sectors producing non-tradables, or into many different export-oriented sectors, so that specificity in subsidizing relocation of productive resources would not create an implicit subsidy for any specific destination industry. Nevertheless, we favor adding subsidies to promote exit from an uncompetitive sector to the list of non-actionable specific subsidies. This explicit change to the Agreement would eliminate any possible deterring effect of the SCM on the use of targeted subsidies to promote adjustment.

Permissibility of Discriminatory Trade Agreements

While in principle MFN treatment remains a central feature of the GATT/WTO system, the reality is quite different. As bilateral and regional "free trade" agreements proliferate worldwide, exporters in partner countries gain preferential access relative to other WTO members. Moreover, as we have discussed in Section 2.1.2 above, reductions in MFN tariff rates or other MFN trade reforms erode the benefits derived from such agreements by the earlier members. Thus, the mere existence of such agreements may impede progress toward multilateral reform; countries anticipating losses due to preference erosion may demand compensatory payments even when they are likely to gain overall from lower MFN barriers (Hoekman, Martin, and Primo Braga 2005). Even more worrisome, however, is the negotiation of new DTPs that are actually aimed at delaying adjustment. Bown and McCulloch (2007) note that recent bilateral agreements negotiated by the United States had the effect of sheltering textile and apparel exporters in partner countries from the full force of competition from China after the termination of the Multi-Fiber Arrangement.

Srinivasan (2004) proposes one possible approach that would reduce both the role of free trade agreements (FTAs) in discouraging multilateral liberalization and the incentives to negotiate new FTAs as a means of delaying adjustment. The proposal is to make all FTAs MFN after a period of time to avoid new preference erosion problems in the future. Automatic phase-out would reduce both the incentive to negotiate FTAs in the first place and subsequent complaints about preference erosion as MFN barriers are lowered through multilateral negotiations. A second approach would be to tighten WTO enforcement of GATT Article XXIV through strict limits on excluded sectors and time permitted for phasing in of new agreements, again reducing the incentives to negotiate new FTAs as a means of delaying adjustment.

Conclusion

We have argued that the WTO regime suffers from two conceptually distinct types of adjustment problems. First, achieving gains through multilateral liberalization requires appropriate adjustment within member countries, with previously protected import-competing industries shrinking in size, and current and potential export industries growing. Although most countries can expect to gain overall, they still face the problems of facilitating appropriate adjustment and ensuring a socially acceptable sharing of national gains. Specifically, they must compensate losers such as workers who become unemployed, while avoiding policies that reduce the incentives for productive inputs to remain in uncompetitive uses. But certain countries, including some that experience substantial preference erosion, may not have aggregate gains to redistribute. For these countries, an additional problem for the WTO community is to provide compensatory transfers sufficient to offset what would otherwise be a net loss for the country as a whole.

Second, and in addition to the one-time adjustments that must be made in response to a given set of policy changes, individual WTO members must also adjust to *continuing* changes in competitiveness arising from the natural evolution of member economies, i.e., the effects of ongoing factor accumulation and technological advance that cause shifts in each country's comparative advantage. In fact, while the progress toward the WTO goal of open international markets means enormous joint gains, it also means increased sensitivity within each member country to events elsewhere, and thus increased need for ongoing adjustment to a changing international environment.

Amending the WTO framework to encourage appropriate adjustment consists of three elements. The first is to reduce existing anti-adjustment bias, especially by modifying rules on member use of safeguards and antidumping. The second is to encourage pro-adjustment policies at the national level. The third is to introduce explicitly pro-adjustment elements into the WTO system, including international transfers intended to ensure net gains for all WTO members and thereby facilitate consensus.

Reducing the anti-adjustment bias of WTO rules

Our primary recommendation is to promote the use of global safeguards in the form of ad valorem tariffs as the preferred option for protecting a domestic industry from import competition (in a situation where some type of protection is inevitable) while it adjusts to international market conditions. Although safeguard protection allows industries to delay adjustment, the protection is applied on an MFN basis and is temporary and regressive. To enhance the link to future adjustment, safeguard users should be required to make an explicit commitment regarding the form of adjustment; the country's rights and obligations will then depend on whether the reported purpose is exit or restructuring. The decision to implement safeguards should take explicit account of effects on industrial users and consumers of the imported product.

Although we recognize that antidumping is unlikely to disappear from the arsenal of national trade policy options anytime soon, we recommend measures to make it less attractive as a substitute for safeguards. In particular, we recommend a more effective type of sunset review to keep antidumping policies from becoming semi-permanent forms of protection for industries that are not internationally competitive. We also urge an end to proliferation of special safeguards, which all lack one or more of the positive features of global safeguards.

In addition, we recommend amending the Agreement on Subsidies and Countervailing Measures to include subsidies to promote exit from an uncompetitive sector on the list of non-actionable specific subsidies. Finally, we suggest reducing the role of discriminatory trade agreements in the WTO system and propose two specific measures. The first is to make all preferential agreements apply on an MFN basis after a stipulated period of time. The second is to tighten WTO enforcement of GATT Article XXIV through strict limits on excluded sectors and on time permitted for phasing in of new agreements.

Facilitating trade adjustment at the national level

Although pro-adjustment policies at the national level are largely outside the domain of the WTO, we encourage the WTO to support member countries looking for effective ways to promote the adjustment required to maintain a liberal trading system. While we question the economic rationale for operating a separate program of trade adjustment assistance (TAA), we accept the political reality that domestic political support for trade liberalization may require provision of TAA until a broader program to promote input market flexibility is in place.

The key challenge is to provide assistance to those adversely affected without reducing market-driven incentives to adjust to new conditions. Unfortunately, we have no model of an effective TAA program to recommend to all WTO members, and "best practice" may differ across countries. Nonetheless, we point to two broad principles that socially desirable policies to promote adjustment should satisfy: First, they should improve the functioning of the markets for productive inputs, or at least not impede it through imposition of new controls. Second, they should provide a social safety net, but without increasing the incentive of productive inputs to remain in the shrinking sector unless that sector is associated with a significant positive externality. We caution that in practice it is difficult to identify in advance the situations in which an important positive externality is present, let alone to estimate the size of the externality as would be required in order to implement a first-best policy intervention.

Facilitating international consensus through international transfers

Crafting a liberalization package that benefits each member of a large and diverse WTO may require international transfers between major gainers and the countries that would otherwise lose overall. We focus on two issues that have arisen in the Doha Round: preference erosion and terms-of-trade deterioration for food-importing countries. For a small number of poor countries, the likely Doha package would mean net losses even after adjustment. We support a program of bilateral or multilateral adjustment compensation, in the form of "aid for trade." These transfers would serve the dual purpose of achieving consensus in a complex negotiation and helping the poorest countries to benefit from increased participation in international markets.

Endnotes

1. Because it is impossible to predict accurately the changes resulting from implementation of a complex package, in some cases policymakers may be unduly pessimistic, fearing a net loss that in reality would not materialize.

2. On the effects of China's acceptance into the WTO system on Latin American and Asian exporters, see, for example, IADB (2005), Eichengreen, Rhee and Tong (2004), and Hanson and Robertson (2006). As we discuss in section 4.5, some of the affected countries have sought to restore their preference margins for textile products by negotiating PTAs with major importing nations.

3. Changes in the relative prices of inputs may cause firms at home and abroad to alter technology choices even in the absence of innovation, and changes in relative input prices may provide an incentive for development of new technologies.

4. An example is the U.S. apparel industry, where the rate of new entry into the shrinking industry has been nearly as high as the rate of exit (Levinsohn and Petropoulos 2001). In a theoretical model with heterogeneous firms, even export-driven expansion at the industry level may be accompanied by dislocation at the level of the individual firm (Melitz 2003). In Melitz's model, industry expansion drives up wages, thus forcing the least productive firms to exit.

5. In theory such external benefits of liberalization should be internalized in reciprocal bargaining (e.g., Bagwell and Staiger 2002). In practice, and especially in a negotiation involving a large number of countries, some such benefits are sure to remain un-internalized.

6. Although many developing countries would experience substantial preference erosion or other adverse terms of trade effects (and adjustment pressure) due to an agreement, most would still gain overall due to reductions in MFN tariff rates or other benefits. Simulations by Anderson and Martin (2005) of the effects of Doha Round proposals on agriculture suggest that most developing countries would experience net gains because improvements in market access would more than offset negative terms of trade effects. However, a few least developed countries in Sub-Saharan Africa and elsewhere could experience net losses. Anderson and Martin point out that nearly two-thirds of the total anticipated gains from eliminating all policy distortions of trade in goods would come from agriculture.

7. These efforts can complement programs aimed at helping policymakers improve their country's overall economic performance through reform of domestic regulations and institutions. An example is development of the World Bank's *Doing Business In* database. The database increases transparency by providing convenient access to such information as domestic market conditions that affect formation of new businesses, policies that govern firm exit via bankruptcy, and policies that affect hiring and firing of workers and thus labor market flexibility. Although facilitating trade is not their specific goal, these activities improve the economy's ability to respond to opportunities in international markets.

8. A perennial question regarding TAA is why a particular group of workers should be singled out for preferential treatment when they represent a small fraction of all workers who lose their jobs. One answer is that most job losses are not tied to a specific policy action of the national government; TAA reduces public opposition to trade liberalization and thus allows trade reforms with long-run benefits for the country and the world. Brainard (2007) calls for a new U.S. program to insure against sharp wage declines as well as unemployment for all permanently displaced workers. She points out that the current TAA program "continues to disappoint," in part because of confusion regarding which workers are eligible. Workers in the service industries have been completely excluded despite the increased concern regarding offshore outsourcing. Also see Kletzer (2001), Rosen (2004), and Brainard, Litan, and Warren (2005).

9. Given that most workers are likely to face multiple job transitions during their working lives, programs to improve workers' skills should not be limited to displaced workers. Education or training undertaken while workers are employed could reduce losses from spells of unemployment once a worker is displaced.

10. Sections 4.1-4.3 draw on the analysis in Bown and McCulloch (2005) of the relationship between explicitly WTO-sanctioned trade laws and the adjustment environment in the United States.

11. Governments may be hesitant to sign trade agreements that lead to substantial liberalization without the insurance that a safeguard provision would allow. Also, because governments may later feel pressure to renege on negotiated liberalization commitments, safeguards act as a safety valve that protects the integrity of the rest of the agreement. See also the discussions in Bagwell and Staiger (2002, chapter 6).

12. See, for example, the discussion of the use of import restrictions across WTO members for the 1995-2000 period and the associated empirical analysis in Bown and McCulloch (2004).

13. The main result of protection from competing imports is to raise the profits of domestic firms in the industry and of potential entrants. Whether this aids an efficiency-enhancing transformation of the industry depends on how the additional profits are used and whether new entry occurs. In the U.S. steel industry, vertically integrated producers apparently used their profits mainly to fund future antidumping litigation and thus perpetuate protection. However, higher domestic prices and profits also speeded the expansion of more efficient domestic minimills, thus heightening the need for integrated producers to adjust to changing *domestic* competitive conditions. On the much-discussed "success" of safeguards benefiting U.S. motorcycle manufacturer Harley Davidson, see Irwin (2005, 157). Irwin concludes that import relief played no role in Harley-Davidson's turnaround.

14. In addition to the standard measures of protection of tariffs, tariff-rate-quotas, and quotas, the U.S. statute [§2253(a)(3)] offers alternative policy choices such as: "[O]ne or more appropriate adjustment measures, including the provision of trade adjustment assistance…" and "[A]ny other action […] which the President considers appropriate and feasible…"

15. Although different in theory, "antidumping and safeguards have proven in practice to be quite fungible" (Finger and Nogués 2006, 36). They give the example of Argentina, where protection seekers denied safeguard protection responded by requesting relief under antidumping regulations.

16. Like safeguards, antidumping may serve a safety-valve function by helping policy makers to manage domestic pressure for protection.

17. To address this issue, the authors compare how AD users have treated targeted WTO members and. targeted non-members. There is little difference on the AD durations for the two groups, suggesting that removals of AD measures are "voluntary."

18. Transitional safeguards (Article 6) in the WTO Agreement on Textiles and Clothing expired in January 2005.

19. WTO Agricultural Negotiations: The issues, and where we are now" (2004). On the WTO website at http://www.wto.org/english/tratop_e/agric_e/negs_bkgrnd11_ssg_e.htm (accessed 3/1/2007).

20. As with standard (global) safeguards and antidumping, it is possible that inclusion of special safeguard provisions may help to overcome political resistance to liberalization. Even so, their use postpones the benefits of this liberalization.

21. The Uruguay Round negotiations did not introduce rules on subsidies and countervailing measures into the GATT/WTO for the first time. The SCM largely expanded on the GATT 1947 Article VI regarding rules for countervailing duties, as well as the Tokyo Round Subsidies Code that had been adopted by some member countries on a plurilateral basis.

22. An additional concern is the potential for nonviolation nullification and impairment claims in the case of impacted market access without any rules violation.

23. Bagwell and Staiger (2006) raise a different concern regarding subsidy rules under the SCM. They show that the constraints these rules impose may prevent negotiators from reaching the efficiency frontier through reciprocal trade liberalization.

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Table 1. Adjustment Position of Important WTO Agreements

WTO Agreement	Adjustment Position	Key Anti-Adjustment Provisions
Agreement on Safeguards	Prima facie adjustment neutral, de facto anti-adjustment	Application of safeguard measures such as tariffs, quotas, and quantitative restrictions on imports (Article 5) but temporary and degressive (Article 7)
Agreement on Antidumping	Anti-adjustment	Application of antidumping import restrictions such as provisional measures (Article 7), price undertakings (Article 8), and antidumping duties (Article 9)
Agreement on Subsidies and Countervailing Measures	Anti-adjustment	Specificity (Article 2) combined with export performance (Article 3)
Safeguards provisions found in the *Agreement on Agriculture* (Article 5), *GATS* (Article X), and *China's 2001 WTO Accession*†	Anti-adjustment	All provisions that suggest that appropriate policy to address increased import competition is trade restriction

Note: †Section 16 of Part 1 (Transitional Product-Specific Safeguard Mechanism) in the 2001 Accession of the People's Republic of China, WTO document WT/L/432.

Table 2. International Use of the WTO Agreement on Safeguards, 1995-2005

WTO Member Country	Number of Safeguard Investigations Initiated	Number of Definitive Safeguard Measures Imposed
Developing or transition economy user total	120	59
Argentina	6	4
Brazil	2	2
Bulgaria	6	2
Chile	10	5
China	1	1
Colombia	3	0
Costa Rica	1	0
Czech Republic	9	5
Ecuador	7	3
Egypt	3	2
El Salvador	3	0
Estonia	1	0
Hungary	3	2
India	16	8
Indonesia	2	1
Jamaica	1	0
Jordan	10	5
Latvia	2	2
Lithuania	1	1
Mexico	1	0
Moldova	2	1
Morocco	3	2
Pakistan	1	0
Peru	1	0
Philippines	6	5
Poland	5	4
Slovak Republic	3	2
Turkey	5	2
Venezuela	6	0
Developed economy user total	25	11
Australia	1	0
Canada	2	0
European Union	4	3
Japan	3	0
Korea	4	2
Slovenia	1	0
United States	10	6

Source: data collected from reports to the WTO Committee on Safeguards, made available in Bown (2006).

Table 3. International Use of Antidumping under the WTO, 1995-2005

WTO Member Country	Number of Antidumping Investigations Initiated	Number of Definitive Antidumping Measures Imposed
Developing or transition economy user total	1687	1126
Argentina	204	147
Brazil	122	66
China*	135	79
Colombia	27	12
Egypt	50	30
India	428	315
Indonesia	60	27
Malaysia	35	25
Mexico	86	77
Peru	60	40
Philippines	17	9
South Africa	197	113
Thailand	34	27
Turkey	101	86
Venezuela	31	25
Other	100	48
Developed economy user total	1225	696
Australia	179	67
Canada	134	84
European Union	328	219
Japan	2	3
Korea	81	46
New Zealand	46	17
Taiwan*	50	11
United States	366	234
Other	39	15

Source: Data for the initiations and measures used in this table is taken from WTO (2007a,b). *Since China and Taiwan were not WTO members over the entire 1995-2005 period, their data is taken from Bown (2006).

Table 4. WTO Members' Transitional China Product Safeguard Investigations, 2002-2006†

	Investigating Country	Product	Year of Investigation	Outcome of Investigation
1.	USA	Pedestal actuators	2002	No measure imposed*
2.	USA	Steel wire garment hangers	2002	No measure imposed*
3.	India	Industrial sewing machine needles	2002	Unresolved**
4.	Peru	Textile products and clothing	2003	Definitive safeguard as specific duty
5.	USA	Brake drums and rotors	2003	No measure imposed
6.	USA	Ductile iron waterworks fittings	2003	No measure imposed*
7.	Poland	Footwear	2004	No measure imposed
8.	USA	Uncovered innerspring units	2004	No measure imposed
9.	Canada	Barbeques	2005	No measure imposed*
10.	Colombia	Certain textile products	2005	Definitive safeguard as ad valorem duty
11.	Colombia	Stockings and hosiery	2005	Definitive safeguard as ad valorem duty
12.	Colombia	Made-up products	2005	Preliminary safeguard as ad valorem duty (Definitive safeguard decision unresolved)
13.	USA	Circular welded non-alloy steel pipe	2005	No measure imposed*
14.	India	Industrial sewing machine needles	2005	Unresolved**
15.	Ecuador	Textile products	2006	Unresolved
16.	Turkey	Float glass	2006	Definitive safeguard as quantitative restriction
17.	Turkey	Polyvinyl Chloride (PVC)	2006	Definitive safeguard as specific duty
18.	Turkey	Porcelain tiles	2006	Definitive safeguard as specific duty
19.	Taiwan	Towelling products	2006	Unresolved

Notes: Data compiled by the authors from reports to the WTO Committee on Safeguards, available at www.wto.org, as well as national government sources. †Not inclusive of all textile and apparel safeguard investigations (e.g., US, EU), as China's 2001 WTO Accession terms allowed for a separate transitional safeguard for such products. *Indicate cases in which the domestic investigating agency found evidence of injury/market disruption but the country nevertheless decided against imposing measures. **India re-notified the WTO Committee on Safeguards of the request for consultations with China in 2005.

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