

International Economics Policy Briefs

More Pain, More Gain: Politics and Economics of Eliminating Tariffs

Gary Clyde Hufbauer and Ben Goodrich

Gary Clyde Hufbauer is Reginald Jones Senior Fellow at the Institute for International Economics. He is coauthor of World Capital Markets: Challenge to the G-10 (2001) and coeditor of The Ex-Im Bank in the 21st Century: A New Approach? (2000). Ben Goodrich is a research assistant at the Institute.

© Institute for International Economics. All rights reserved.

Introduction

In November 2002, the United States proposed that members of the World Trade Organization (WTO) eliminate their tariffs on nonagricultural products.¹ World exports of nonagricultural goods, which were \$5.4 trillion in 2001 (WTO 2002), would substantially expand if the US proposal were adopted. In percentage terms, some of the largest gains would come in

trade *between* developing countries—South-South trade—simply because high tariffs severely restrict it. The United States offered the following initial proposal:

1. Tariffs currently less than 5 percent on nonagricultural products should be eliminated by 2010, as should tariffs (regardless of the level) on nonagricultural products that are “highly traded.”
2. Tariffs in excess of 5 percent on other goods should be reduced to less than 8 percent using a “tariff equalizer” formula, which cuts higher tariffs at faster rates.
3. Between 2010 and 2015, all remaining tariffs should be reduced in equal annual increments until they are eliminated.

The United States also suggested eliminating nontariff barriers on nonagricultural products. The earlier (July 2002) US proposal on agriculture, if adopted, will drastically scale down agricultural tariffs and subsidies and reverse much of the Farm Security and Rural Investment Act of 2002 (i.e., the US Farm Act of 2002).

The United States has also proposed liberalizing trade in services. However, the recent (March 2003) US proposal on services does not contemplate genuinely new liberalization. It merely offers to “lock in” unilateral liberalization of services trade—which the United States has undertaken since the Uruguay Round—provided that other countries are willing to liberalize their imports of services. The essence of the US position on services is that the

¹ See USTR (2002) for a summary of the proposal. Bilateral trade among countries that have agreed to a free trade agreement (e.g. the North American Free Trade Agreement, European Union, Mercosur) would not be affected by this proposal because their trade with each other already faces, or will face, low or no tariff barriers by the time the US proposal would be implemented.

United States is already more open than almost all other countries; therefore, other countries should liberalize before the United States makes additional concessions. While this posture may seem logical domestically, it is not helpful for completing a global trade deal. In particular, the US position does not respond to the demand of developing countries for increased access by their professional workers to temporary jobs in the United States and other industrial nations.²

While the US proposal for cutting nonagricultural tariffs was an immediate hit with the Manufacturers Alliance and the National Foreign Trade Council (two US business lobbies), it predictably ran into a major sticking point.³ Developing countries that have high tariffs would have difficulty convincing their producers to go along, particularly since the tariff equalizer formula would reduce higher tariffs at faster rates.⁴ Indeed, many developing countries assert that the agreement reached in Doha in November 2001 implies that developing countries should be given *more* flexibility than rich countries to implement trade liberalization agreements. “Flexibility” is WTO-speak for *lesser obligations* to reduce trade barriers. Developing countries correctly point out that the US tariff equalizer formula would compel many of them to undertake *greater obligations*: faster and thus more painful trade liberalization than would be required of rich countries (which already have low average tariffs). Like eating spinach and exercising, trade liberalization is certainly good for the user, but it’s not necessarily pleasurable. Thus, from a political economy perspective, developing countries did not instantly welcome the US proposal. Furthermore, even Japan and the European Union objected out of fear that the US proposal would harm politically sensitive sectors.⁵

A few political leaders in highly protectionist countries have successfully used trade negotiations to surmount entrenched domestic interests. For

example, President Miguel de la Madrid overcame intense opposition to Mexico’s accession to GATT and President Carlos Salinas did the same in the North American Free Trade Agreement (NAFTA) negotiations. President Jiang Zemin surmounted entrenched domestic industrial interests to se-

In percentage terms, some of the largest gains [from eliminating tariffs] would come in trade between developing countries—South-South trade—simply because high tariffs severely restrict it.

cure China’s accession to the WTO. By extracting “concessions” from developed countries, these farsighted political leaders were able to convince their constituents that the pain of trade liberalization was worth undertaking.

The majority of the developing countries have not subscribed to the same vision. In multilateral GATT rounds, developing countries have typically resisted substantial trade liberalization, even though their barriers are high. And developed countries have accepted this fact of life to achieve a multilateral consensus. The Doha Round has been showcased as a development round. Unfortunately for themselves and the world trading system, most developing countries interpret this label to mean that—as in prior GATT rounds—they are under little obligation to reduce their own tariff barriers. At least that is their negotiating position as of mid-2003. One hopes this position will change as the negotiations proceed.

Meanwhile, the US position has evolved in light of the predictable opposition from developing countries and skepticism from the European Union and Japan. In early May 2003, US Trade Representative Robert Zoellick and EU Trade Commissioner Pascal Lamy floated a plan (without specifics) that would allow more flexibility for developing countries.⁶ Developing countries would be permitted to reduce their tariffs at a slower rate and, at the end of the process, retain higher average barriers. In addition, WTO members would eliminate their “nuisance tariffs” (those below a threshold of 2 percent [EU proposal] or 5 percent [US proposal]) and accelerate their tariff reductions on sectors of “particular

² See “Demands for worker access emerge as new hurdle in services talks,” *Inside U.S. Trade*, May 16, 2003. Access for temporary workers is called “Mode 4” services trade, in the language of the General Agreement on Trade in Services (GATS).

³ See Preeg (2003) for a report of reactions from various quarters. Interestingly, the National Association of Manufacturers urges a selective sector-by-sector approach; not surprisingly, the American Textile Manufacturers Institute vigorously opposes the US proposal as “an outright gift to China.”

⁴ Preeg (2003) gives this report: “India’s ambassador to the WTO called the proposal clearly unfair and a Malaysian representative said that Malaysia would jealously defend its right to maintain customs duties in order to protect its infant industries. Other initial critics include Brazil, South Korea, the Philippines, and Pakistan.”

⁵ According to Preeg (2003), “an EU official characterized the U.S. proposal as ‘unrealistic’, while a Japanese trade diplomat similarly doubted that it is ‘practical or realistic’.”

⁶ See “Zoellick, Lamy float common concept for industrial tariff cuts at OECD,” *Inside U.S. Trade*, May 2, 2003.

interest” to developing nations, such as textiles, clothing, and footwear. The last two suggestions would sweeten the tariff offer of developed nations as viewed by most developing countries.

In mid-May 2003, the chairman of the WTO Negotiating Group on Market Access, Pierre-Louis Girard, floated his own proposal for a tariff-cutting formula.⁷ The chairman’s proposal fits within the mercantilist traditions of GATT and the WTO: roughly reciprocal cuts by all members. His formula starts with bound tariff rates (which, for developing countries, generally exceed applied rates by a substantial margin). Countries with high bound rates at the beginning of the Doha Round would still have high bound rates at the end of the implementation process. Needless to say, the United States did not acclaim the chairman’s proposal.

In light of the mercantilist atmosphere that has historically guided tariff negotiations in the GATT and WTO, this policy brief outlines the political arithmetic of the original US proposal from the perspective of 23 economically important countries. It concludes that the original US proposal, as put forward, is unlikely to gather adequate support in the WTO, as long as members adhere to the mercantilist tradition. This is true, even though most opponents of the US proposal stand to gain the most from sub-

Developing countries correctly point out that the US tariff equalizer formula would compel many of them to undertake greater obligations: faster and thus more painful trade liberalization than would be required of rich countries.

stantial trade liberalization. As early reactions have indicated, if the US vision of a tariff-free world is to become a reality, the United States and other rich countries must be willing to eliminate their tariffs rather quickly, put additional concessions on the table in agriculture and services, and allow some developing countries to phase out their tariffs at a far slower pace.

⁷ See WTO (2003a). The chairman’s proposal was tabled with a view toward reaching agreement on modalities by May 31, 2003, the deadline agreed in the Doha declaration (but not met). Prior to the chairman’s proposal, the WTO secretariat published a note evaluating various formula approaches to tariff negotiations. See WTO (2003b).

If the Doha Round bogs down and fails to liberalize trade, some countries may be tempted to adopt protectionist “solutions” when problems arise. For example, in the United States, the agricultural sector became *more* protected through enlarged subsidies during 1995–2002, when the absence of “fast track” trade promotion authority effectively blocked multilateral trade negotiations. This experience illustrates the “bicycle theory” of trade liberalization—when the bicycle was not moving forward, it fell over. If other rich countries take similar steps backward in the wake of a failed Doha Round, the adverse implications could be significant, especially for developing nations.

Payoff from Trade Liberalization

Almost all economists argue that trade barriers diminish a country’s income. Conversely, trade liberalization makes a country richer. If governments and their citizens took this advice to heart, trade barriers would have been completely eliminated long ago. For reasons of political arithmetic—which are discussed later—most countries cling to their protective armor. This section puts some numbers forward to illustrate how much countries might gain if they would shed that armor and embrace the US tariff proposal.

Brown, Deardorff, and Stern (2002) simulated the effect of a 33 percent reduction in trade barriers (including both tariff and nontariff barriers) in manufactured trade using a computable general equilibrium model. They found that global income would increase by \$163 billion annually. The US proposal contemplates a 100 percent reduction in tariffs on manufactured goods and other nonagricultural products. The United States also proposes slashing nontariff barriers. In rough terms, the payoff from the US proposal might be three times as large as the Brown, Deardorff, and Stern estimates, which translates into a global income gain of about half a trillion dollars annually, when the barriers are completely phased out.

Table 1 shows how these gains might be distributed for a sample of countries based on a tripling of the Brown, Deardorff, and Stern estimates. Their model indicates that all countries and regions gain from trade liberalization and that trade balances stay about the same. In terms of economic payoff, the US proposal should sell itself, particularly because developing countries, which have the highest tariffs, gain the most from trade liberalization. While developed countries should expect annual income gains of less than 2 percent of GDP, developing countries in Asia might expect annual income gains exceeding 4 percent of GDP.

Table 1. Payoff from free trade in manufactured goods

Country/region	Export increase <i>(billions of dollars)</i>	Import increase <i>(billions of dollars)</i>	GDP increase <i>(billions of dollars)</i>	GDP increase <i>(percent)</i>
Philippines	14	12	15	16.4
Malaysia	14	13	9	7.7
Korea	25	24	26	4.5
China	58	48	33	3.6
Thailand	12	10	5	2.6
Indonesia	7	7	6	2.5
Turkey	5	4	5	2.5
India	12	10	9	2.2
Japan	47	57	136	2.1
Australia/New Zealand	10	11	8	1.6
EU/EFTA	69	70	118	1.1
Mexico	3	3	4	1.1
Canada	6	6	8	1.0
United States	55	61	71	0.8

Source: Brown, Dearnorff, and Stern (2002). Their estimates of gains due to a 33 percent reduction in manufactured trade barriers are tripled in this table to more closely reflect the US proposal.

Nevertheless, as already noted, many developing countries have expressed strong reservations to the US proposal, and the chairman of the negotiating group has proposed his own less ambitious formula. The next sections explain how the political economy calculations, which drive the negotiating position of countries, differ substantially from the economic payoff calculations.

Methodology for Political Economy Calculations

The data are taken from the World Bank's World Integrated Trade Solution Database (2003), using the most recent year for which data are available, usually 2001 or 2002. This database contains bilateral trade data and tariff data for manufactured products at the 4-digit level of the International Standard Industrial Classification (ISIC), revision two.⁸ The tariff data are applied (not bound) rates that take into consideration existing preferential arrangements.

We define "perceived pain" as the theoretical tariff revenue forgone due to the elimination of the

tariff.⁹ For each of the 23 economically important countries, we calculate perceived pain using a formula that considers a country's imports M from an exporter e of product p and the trade-weighted W and simple S tariff rates in that country's c tariff schedule:

$$\begin{aligned} \text{Perceived pain} &= \text{theoretical tariff revenue forgone} \\ &= \sum_{e,p} M_{ep} * 0.5 (W_{cp} / 100 + S_{cp} / 100) \end{aligned}$$

In theory, this measure should roughly equate to the tariff revenue forgone when an importer re-

⁸ Among industrial countries, applied and WTO-bound rates are generally similar. Among developing countries, bound rates generally exceed applied rates.

⁹ A good economic argument can be made that the formula $\Delta t / (1+t)$ better correlates with the increase in market access from a tariff cut than the formula Δt (where Δt is the percentage point change in the tariff and t is the base tariff in percent ad valorem). For example, if Δt is 10 percentage points and the base tariff is 20 percent ad valorem, the increase in market access from eliminating the tariff is greater than if Δt is 10 percentage points and the base tariff is 50 percent ad valorem. However, as a practical matter, importers and exporters look more closely at Δt values than $\Delta t / (1+t)$ values. Assuming that the tariff cut is passed along to domestic purchasers in a lower landed price, in the first instance a 10 percentage point tariff cut will reduce the landed price by 8.3 percent ($0.10/1.20$); in the second instance, a 10 percentage point tariff cut will reduce the landed price only by 6.7 percent ($0.10/1.50$). Hence the $\Delta t / (1+t)$ formula better reflects the additional market access made possible by a tariff cut.

moves its tariffs. In practice, the actual amount of tariff revenue may be different (probably much lower) due to special arrangements and outright corruption. We average the trade-weighted and the simple tariff rates to reflect both the differing importance of tariff lines (measured by actual imports) and the discouraging effect on imports of very high tariff. However, for most countries, the weighted average tariff level and the simple average tariff level are very similar.¹⁰

As economists know and preach—and as the results from Brown, Deardorff, and Stern demonstrate—for a country as a whole, the economic gains to household and industrial consumers from greater imports outweigh the loss of tariff revenue and transitional costs of reallocating resources to more productive sectors. But economists, or even industrial consumers, seldom drive the political arithmetic of trade negotiation. Instead, directly affected producers—import-competing firms and exporting firms—usually drive the process. Our measure of “perceived pain”—tariff revenue forgone—is a measure of the anticipated economic hardship faced by import-competing firms in the event of liberalization. In rough terms, the “perceived pain” reflects market access awarded to foreign suppliers as a consequence of eliminating tariffs.¹¹

Analogously, for a country’s exporting firms, we define “perceived gain” as the tariff revenue forgone by importing m countries for their purchases of manufactured products p that the subject country exports X , based on the importing countries’ trade-weighted W and simple S tariff rates:

$$\begin{aligned} \text{Perceived gain} &= \text{theoretical tariff revenue forgone} \\ &= \sum_{m,p} X_{mp} * 0.5 (W_{mp} / 100 + S_{mp} / 100) \end{aligned}$$

We are not claiming that the tariff revenue is transferred from the destination country to the exporting country. Rather, our measure of perceived gain is a proxy for the anticipated scope of increased market opportunities for exporting firms when partner countries eliminate tariffs. Politicians usually size up a trade agreement by asking: “How much did we cut and how much did you cut?” Our measures of pain and gain are intended to capture this crude political arithmetic, regardless of its economic merit.

¹⁰ The correlation between the two averages for the 23 countries in our sample is almost 1.0.

¹¹ See Hufbauer and Elliott (1994, 33–34) for diagrams and formulas to calculate (in static terms) the loss in producer surplus, the gain in consumer surplus, the loss of government tariff revenue, and the gain in economic efficiency resulting from a tariff cut. Our measure of protection very roughly correlates with the loss of producer surplus.

Using our figures for perceived pain and perceived gain, it is possible to calculate average tariff cuts on each country’s imports and exports. The tariff cut on a country’s imports is equal to perceived pain divided by that country’s total manufactured imports. Analogously, the tariff cut on a country’s exports is equal to perceived gain divided by that country’s total manufactured exports.

For each of the 23 countries, our “political arithmetic index” is equal to the difference between that country’s perceived gain and perceived pain divided by the sum of that country’s perceived gain and perceived pain. The political arithmetic index reflects the relative balance between perceived pain and perceived gain from the perspective of each country’s producers. When multiplied by 100, the political arithmetic index lies between negative 100 and positive 100.¹²

We also calculate a salience index, which is equal to the sum of a country’s perceived gain and perceived pain divided by that country’s total trade. When multiplied by 10, the salience index is always greater than zero and in practice is less than two. The reason for the salience index is that, for coun-

A tariff elimination proposal needs to be carefully tailored to maximize the benefits to developing countries while giving them ample time to accept, and adjust to, the changes that trade liberalization will require.

tries such as Canada, tariff cuts negotiated in the WTO do not matter much, because those countries already get and give tariff-free access to their dominant trading partners. For Canada, the dominant trading partner is the United States, and NAFTA provides tariff-free access. In mercantilist terms, Canada should care very little whether or not the US proposal is accepted, so its salience index is close to zero.¹³

¹² For example, Argentina’s political arithmetic index value is 59.7. This indicates that Argentina’s exporters are likely to be significantly more vocal in their support of the US proposal than Argentina’s importers are in their support. By comparison, Australia’s political arithmetic index value is –4.1, which indicates that Australia’s imports are likely to be slightly more vocal than Australia’s exporters.

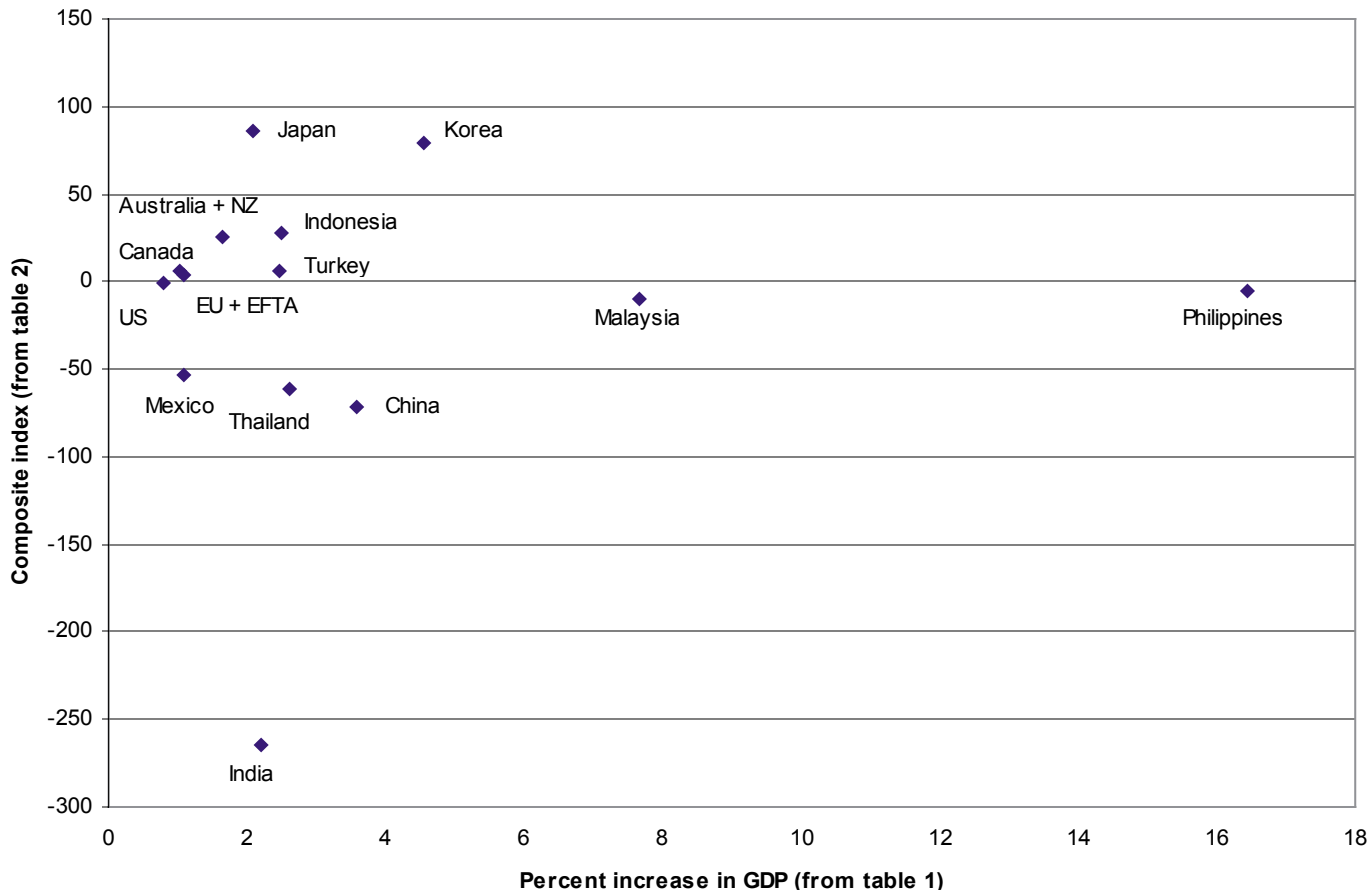
¹³ Argentina’s salience index is 0.8 while Australia’s is 0.5. This indicates that Argentina’s firms should care more about the US proposal than Australia’s firms.

Table 2. Political economy calculations

A	B	C	D	E	F	G	H	I	J
Country	Partners' tariff revenue forgone ("gain")	Country's total manufactured exports	Tariff cut on exports [B/C] (percent)	Country's tariff revenue forgone ("pain")	Country's total manufactured imports	Tariff cut on imports [E/F] (percent)	Political arithmetic index [100*(B-E) / (B+E)]	Saliency index [10*(B+E) / (C+F)]	Composite index [H*I]
Argentina	1.4	9.8	14.5	0.4	1.5	23.9	59.7	1.6	94.0
Australia	3.9	32.1	12.2	4.2	53.4	7.9	-4.1	1.0	-3.9
Brazil	3.2	33.0	9.7	2.5	12.0	21.0	12.0	1.3	15.3
Canada	2.1	175.0	1.2	0.1	143.0	0.1	90.2	0.1	6.2
China	19.4	300.0	6.5	55.4	206.0	26.9	-48.1	1.5	-71.1
EU	61.0	1,670.0	3.7	47.0	1,960.0	2.4	13.0	0.3	3.9
Egypt	0.4	3.3	11.3	0.5	2.2	22.0	-13.7	1.6	-21.5
India	3.1	33.1	9.3	20.0	31.1	64.5	-73.4	3.6	-264.3
Indonesia	4.0	28.8	13.8	2.5	23.9	10.6	22.1	1.2	27.4
Japan	40.2	371.0	10.8	3.7	55.5	6.6	83.3	1.0	85.7
Korea	14.9	122.0	12.2	3.0	27.0	11.1	66.5	1.2	79.7
Malaysia	5.3	82.4	6.4	6.7	65.6	10.2	-11.9	0.8	-9.7
Mexico	1.7	123.0	1.3	17.6	174.0	10.1	-82.8	0.6	-53.7
New Zealand	1.2	8.6	13.9	0.6	12.0	5.0	33.6	0.9	29.3
Nigeria	0.0	0.7	4.5	1.9	5.0	39.0	-96.8	3.5	-335.5
Pakistan	1.1	7.0	16.2	0.3	1.0	29.1	59.6	1.8	105.9
Philippines	1.6	29.6	5.4	1.9	26.2	7.3	-9.3	0.6	-5.9
Russia	2.8	36.1	7.7	0.5	3.0	15.3	71.6	0.8	59.3
South Africa	1.8	17.7	10.3	2.0	17.7	11.5	-5.5	1.1	-6.0
Taiwan	11.9	81.7	14.5	7.7	89.6	8.5	21.6	1.1	24.6
Thailand	4.7	49.0	9.6	10.8	50.2	21.5	-39.1	1.6	-61.2
Turkey	3.8	23.6	16.1	3.5	32.3	10.8	4.3	1.3	5.6
United States	39.4	684.0	5.8	39.8	961.0	4.1	-0.5	0.5	-0.2

Note: Manufactured trade under ISIC, revision two, includes processed agriculture.

Figure 1. GDP increase versus composite index



Our composite index is equal to the political arithmetic index times the salience index. The composite index is intended to capture a country's likely opinion of the US proposal (the political arithmetic index) and how intensely that country should care about the US proposal (the salience index). Some countries (like Canada) could have unambiguous, yet weak opinions about the US proposal due to an extreme political arithmetic index but a negligible salience index. Many developing countries have salience indexes that are higher than Canada's, so if those developing countries have unambiguous opinions on the US proposal, their composite index values will be extreme.

Results of the Political Economy Calculations

Table 2 presents the political economy calculations (and repeats the formulas used to make the calculations). For developed countries, in general, the political arithmetic index and the salience index are close to zero; thus, the composite index is low. Japan is an exception, but the figures are somewhat

misleading. Japan has a large surplus in manufactured trade and low tariff barriers. However, Japan has high nontariff barriers in the manufacturing sector, which are not taken into account in this analysis.

Developing countries have higher salience values and more extreme political arithmetic values. However, some developing countries have positive political arithmetic values (and thus positive composite index values), and some have negative political arithmetic values. For example, oil is Nigeria's primary export, which faces few tariff barriers. Hence, Nigeria gains little from the US proposal. However, Nigeria's manufacturing sector is highly protected, so it would experience a lot of political pain if the US proposal were adopted. Nigeria also has a high salience value, so its composite value is very negative. On the flip side, Russia has a very positive composite index due to high salience and large gains relative to pain if it gets tariff-free access to the European market.

Figure 1 shows the relation between the composite index and the economic payoff (as a percent

of GDP) for countries where payoff data are available from table 1. Japan and Korea have positive composite index values that are relatively large and GDP gains that are large for developed countries. The other developed countries have small but positive composite index values and GDP gains. However, the prospective enthusiasm of these countries is offset by potential negative evaluations from Mexico, Thailand, China, and especially India. In these four countries, moderate GDP gains may be overlooked since their composite index values are very negative. Malaysia and the Philippines both have large GDP gains but negligible composite indexes, which suggests that the supporters (exporters) and opponents (importers) should be roughly balanced in these two countries.

WTO negotiations operate by consensus and by the principle of a single undertaking (no aspect of the negotiations, such as manufactured tariffs, agricultural subsidies, intellectual property, etc., is agreed to until all aspects of the negotiations are agreed). Thus, if only a few countries object to the US proposal, they can bring the entire process to a halt. Many countries have already opposed the US proposal, and the political economy calculations in this policy brief explain why.¹⁴

Conclusion

In order for a tariff-free world to come into existence, WTO members will have to embrace the

proposition that imports as well as exports are good for national well-being. Imports bring cheaper goods for industrial and household consumers and force competing domestic firms to become more efficient. Political leaders need to explain that increased imports are a harbinger of national prosperity, even when competing producers suffer. Everyone knows that larger exports are a political blessing. The tough political assignment is to sing the virtues of imports. Affected producers usually nourish close connections with government leaders, and numerous politicians depend heavily on those who have the most to lose from trade liberalization. It is easy to demagogue free trade when the strongest foreign competitors are multinational corporations.

Thus, a tariff elimination proposal needs to be carefully tailored to maximize the benefits to developing countries while giving them ample time to accept, and adjust to, the changes that trade liberalization will require. Tariff elimination could bring great benefits in terms of increased trade and higher incomes. However, if rich countries insist that developing countries quickly slash their tariffs, it seems unlikely that tariff elimination will command a WTO consensus.

Trade liberalization should not stop with tariff barriers. The United States and other industrial countries should be generous in their proposals to reduce subsidies to their farmers and eliminate nontariff barriers on agricultural imports. Also, the United States in particular should offer more on services trade, particularly in "Mode 4," which allows for temporary foreign workers. Unless rich countries put additional concessions on the table, WTO agreement to eliminate tariff barriers may be postponed for years.

¹⁴ In an earlier draft of this policy brief, we experimented with different tariff-staging approaches—for example, complete elimination of industrial country tariffs much faster than developing-country tariffs. Our political economy conclusions were not materially affected, so long as all countries are committed to eliminate their tariffs.

References

Brown, Drusilla K., Alan V. Deardorff, and Robert M. Stern. 2002. Computational Analysis of Multilateral Trade Liberalization in the Uruguay Round and Doha Development Round. University of Michigan School of Public Policy Discussion Paper 489. Ann Arbor, MI: University of Michigan.

Hufbauer, Gary Clyde, and Kimberly Ann Elliott. 1994. *The Costs of Protection in the United States*. Washington: Institute for International Economics.

Preeg, Ernest H. 2003. Global Free Trade in Manufactures Would Be an Historic Step Forward. *European Affairs* 4, no. 2 (Spring).

United States Trade Representative (USTR). 2002. *U.S. Proposes Tariff-Free World*. Washington: USTR. www.ustr.gov/new/Zero_Tariff.htm (accessed May 30)

World Trade Organization (WTO). 2002. Merchandise Exports by Product, 2001. In *International Trade Statistics 2002*. Geneva: WTO. www.wto.org/english/res_e/statis_e/its2002_e/section4_e/iv01.xls (accessed May 30).

World Trade Organization (WTO). 2003a. Draft Elements of Modalities for Negotiations on Non-Agricultural Products. TN/MA/W/35 (May 16, 2003). http://docsonline.wto.org/gen_home.asp?language=1&_=1 (accessed May 30).

World Trade Organization (WTO). 2003b. Formula Approaches to Tariff Negotiations. TN/MA/S/3/Rev.2 (April 11, 2003). <http://docsonline.wto.org/DDFDocuments/t/tn/ma/s3R2.doc> (accessed June 11).