Chapter 3

Measuring Agricultural Tariff Protection

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The focus of the FTAA negotiations differs from that of the multilateral WTO negotiations because the FTAA discussions cover only market access, one of the three WTO "pillars." While FTAA members recognize the need to discipline the use of export subsidies within the region, a second WTO pillar, progress on this issue depends largely on whether importing countries are willing to also forgo buying subsidized products from countries outside the region. As for the third pillar, domestic support, the United States always has insisted that it remain a multilateral issue, and thus not subject to negotiation in regional talks. As a result, market access issues are at center stage within the FTAA, particularly for agricultural trade. In this chapter, we focus on one aspect of market access, tariff liberalization, and the extent to which tariffs in the region pose an impediment to trade in agricultural goods between the United States and its neighbors in the Western Hemisphere.

FTAA members have already achieved substantial tariff reform through a combination of multilateral, subregional, and bilateral pacts trade pacts. Through multilateral negotiations, the WTO Agreement on Agriculture (AoA) resulted in the conversion of nontariff barriers to tariffs. Countries also committed to reducing their agricultural tariffs over the AoA's implementation period. However, even after all the cuts have been realized, the simple global average most-favored-nation (MFN) bound tariff on agricultural imports will exceed 60 percent.[1] While the average MFN bound tariff for countries in the Western Hemisphere is considerably lower at about 30 percent, substantial room remains for further liberalization.[2]

Additional steps have already been taken to reduce tariffs on interregional trade. Between 1990 and 2003, there were over 40 bilateral and subregional trade and investment pacts negotiated within the hemisphere, including several renewals of old initiatives such as the Central American Common Market (CACM) and the Caribbean Community and Common Market (CARICOM). The two largest trading blocs within the hemisphere were also created during this time, the North American Free Trade Agreement (NAFTA) and the Common Market of the South (MERCOSUR).[3] More recently, on December 17, 2003, the United States, El Salvador, Guatemala, Honduras, and Nicaragua concluded negotiations to form the Central American Free Trade Agreement (CAFTA) to promote regional economic integration and growth by phasing out tariffs and other trade and investment barriers. On January 25, 2004, negotiations concluded to add Costa Rica's participation in CAFTA. Subsequent negotiations that concluded on March 15, 2004, will add the Dominican Republic to CAFTA. Many of these subregional agreements provide greater access for agricultural goods by eliminating tariffs and other barriers on substantially all trade. As a result, the agricultural markets of most of the countries in the region have been opened up well beyond their WTO obligations.

[1] Bound tariffs are the maximum duties that a country is permitted to levy on imports. Under WTO rules, a country cannot apply duties higher than the bound level without notifying and compensating other members. In practice, countries often apply duties significantly below the bound levels.

[2] See Gibson et al., for a description of how this average was calculated.

[3] Countries in the Western Hemisphere also are making agreements with those outside of the hemisphere. Mexico negotiated a free trade agreement with the European Union (EU), and Chile and MERCOSUR are negotiating their own bilateral free trade agreements with the EU.

Another outcome of these pacts is that trade within the region is conducted under an array of different tariff rates. Within the United States, agricultural goods imported from some countries may face MFN tariffs, while the same goods imported from NAFTA countries may face lower tariff rates. In addition, exports of certain agricultural goods from other FTAA countries may be eligible for duty-free treatment under the Generalized System of Preferences (GSP), the Caribbean Basin Economic Recovery Act (CBERA), or the Andean Trade Preference Act (ATPA). In 2001, more than 60 percent of U.S. agricultural imports from Western Hemisphere countries were eligible to enter at preferential tariff rates, i.e., rates below the MFN bound rates. At the same time, the duties faced by most U.S. exports in its NAFTA partners' markets are well below MFN levels. In addition, many of the other countries within the hemisphere actually apply duties at rates substantially lower than their permitted MFN bound levels. When trying to gauge the effect that cutting MFN tariffs may have on future trade, the large amount that currently takes place at preferential and applied tariffs below bound MFN rates has to be taken into account.

This chapter addresses a number of tariff-related questions relevant to the negotiations: What are the levels and patterns of tariff protection currently faced by U.S. agricultural exports within the FTAA? To what extent has the United States already opened its agricultural markets to the region? Which are the most important products being exported by our Western Hemisphere trading partners that continue to face high duties in the United States? Do some products within the region face higher protection across the board than do others and to what extent are these products exported by United States?

Trade and Tariffs Within the FTAA Region

The tariff liberalization that took place within the Western Hemisphere in the 1990s was accompanied by impressive growth in intraregional trade. During this period, the annual rate of growth in intraregional trade increased by 11.1 percent, exceeding the 8-percent annual growth rate in hemispheric trade with the rest of the world, as well as the annual growth rate in overall global trade of 6.6 percent per year (U.S. General Accounting Office, 2001). FTAA agricultural trade became an increasingly important component of overall U.S. agricultural trade as well. About 55 percent ($23.1 billion) of all U.S. agricultural imports and about 37 percent ($19.9 billion) of U.S. agricultural exports came from or went to FTAA countries in 2001. NAFTA partners Canada and Mexico accounted for 38 percent of U.S. agricultural imports and 29 percent of U.S. agricultural exports in 2001. Much of this trade already takes place at zero duties. Compared with NAFTA, overall trade with the rest of the FTAA countries is considerably less, accounting for 17 percent of U.S. agricultural imports and 8 percent of exports. It is this share of U.S. agricultural trade that will be most affected by the FTAA. In 2001, the leading U.S. agricultural exports to FTAA countries consisted of coarse grains, red meats, and snack foods. The leading imports were fresh vegetables, coffee, and red meats.

Within the region, the United States is generally the most important destination for exports. During the 1998-2000 period, the FTAA countries relied on the U.S. market for an average of 32 percent of their agricultural exports, although some marked differences existed between individual countries. The level of dependency on the U.S. market as an export destination was greatest for the Dominican Republic, which shipped about 80 percent of its total agricultural exports there. The NAFTA partners are also highly dependent on the United States, with about 73 percent of Mexico's and 55 percent of Canada's agricultural exports destined for the United States. The MERCOSUR countries, on the other hand, tend to trade most heavily with each other, shipping less than 10 percent of their exports to the United States.[4]

[4] MERCOSUR consists of Argentina, Brazil, Paraguay, and Uruguay.

Table 3-1—Value of U.S. agricultural imports from FTAA countries, 2001, categorized by MFN or non-MFN duty faced[1]

	Total		Preferential			MFN duty-free			MFN with duties		
Exporter	Number of tariff lines	Imports ($000)	Number of tariff lines	Imports ($000)[2]	% of total	Number of tariff lines	Imports ($000)	% of total	Number of tariff lines	Imports ($000)	% of total
Antigua & Barbuda	6	180	3	130	72	3	50	28	0	0	0
Argentina	237	613,194	70	47,898	8	75	186,440	30	109	378,856	62
Bahamas	23	7,219	15	5,692	79	7	814	11	4	713	10
Barbados	25	7,662	17	7,014	92	7	635	8	2	14	0
Belize	34	39,085	27	38,702	99	5	85	0	4	298	1
Bolivia	28	16,473	9	3,380	21	13	12,982	79	8	111	1
Brazil	298	1,008,843	108	114,951	11	107	506,492	50	114	387,400	38
Canada	905	10,448,762	634	7,154,384	68	211	3,231,038	31	303	63,339	1
Chile	207	1,029,063	87	87,745	9	61	385,038	37	89	556,280	54
Colombia	229	944,012	149	369,707	39	60	542,296	57	57	32,009	3
Costa Rica	176	820,078	133	395,319	48	42	423,979	52	17	781	0
Dominica	11	83	8	60	72	2	17	21	1	6	7
Dominican Rep.	212	445,092	159	371,447	83	52	71,735	16	14	1,909	0
Ecuador	189	485,500	126	152,678	31	46	325,872	67	51	6,950	1
El Salvador	113	92,372	76	50,727	55	31	41,227	45	18	418	0
Grenada	7	1,863	5	158	8	2	1,705	92	0	0	0
Guatemala	188	607,914	149	175,730	29	37	431,525	71	15	660	0
Guyana	19	7,468	16	7,181	96	3	276	4	2	11	0
Haiti	23	7,040	13	4,158	59	10	2,864	41	1	18	0
Honduras	103	290,186	72	132,064	46	25	154,106	53	14	4,015	1
Jamaica	130	98,731	86	86,433	88	41	11,006	11	15	1,292	1
Mexico[2]	619	5,631,860	469	4,643,476	82	151	963,980	17	89	24,404	0
Nicaragua	75	106,727	54	60,066	56	18	46,351	43	9	310	0
Panama	66	41,132	40	25,420	62	20	15,333	37	10	379	1
Paraguay	26	15,927	8	7,009	44	12	8,016	50	8	903	6
Peru	217	213,186	146	130,103	61	59	72,251	34	48	10,831	5
St. Kitts & Nevis	1	72	0	0	0	1	72	100	0	0	0
St. Lucia	5	314	4	286	91	1	28	9	0	0	0
St.Vincent&Gren.	4	133	3	35	26	1	98	74	0	0	0
Suriname	2	295	1	19	6	1	276	94	0	0	0
Trinidad&Tobago	72	17,227	47	13,014	76	23	3,892	23	6	321	2
Uruguay	73	60,353	20	8,010	13	26	8,209	14	27	44,134	73
Venezuela	83	35,174	38	14,861	42	30	18,914	54	21	1,399	4
Total FTAA	1,255	23,093,219	888	14,107,856	61	302	7,467,603	32	549	1,517,761	7
Total NAFTA	1,079	16,080,622	792	11,797,860	73	255	4,195,018	26	339	87,743	1
Total non-NAFTA	831	7,012,598	493	2,309,996	33	213	3,272,584	47	373	1,430,017	20
Global Total	1,516	42,480,933	930	14,920,159	35	393	15,201,018	36	1,056	12,359,756	29

[1]The definition of agricultural trade corresponds with those tariff lines subject to tariff-cutting committments as specified in Annex 1 of the WTO Agreement on Agriculture.

[2]All trade entered duty-free with the exception of $2.805 billion of imports from Mexico, which came in at duties that have not yet been cut to zero under the NAFTA timetable.

Sources: U.S. International Trade Commission Trade Dataweb, http://dataweb.usitc.gov; Agricultural Market Access Database, http://www.amad.org

Table 3-1 provides some basic statistics on 2001 U.S. agricultural imports from FTAA countries as well as the number of tariff-line products in which trade took place.[5] Almost 70 percent of U.S. agricultural imports from the region came from NAFTA partners Canada and Mexico, both of which tend to have a much broader base in terms of the number of tariff lines and diversity of products exported to the United States. Of the remaining U.S. imports, spread out among the other 31 countries, Chile and Brazil led the way at over $1 billion each, accounting for almost 30 percent of the non-NAFTA total.

Table 3-1 also categorizes imports from Western Hemisphere countries by the amount of trade that came in at MFN versus preferential tariffs. This provides an important gauge of the capacity of the United States to further reduce tariffs under an FTAA as well as an indicator of how much actual trade will be impacted by tariff cuts.

The U.S. market is already relatively open to the hemisphere. In 2001, 49 percent ($11.3 billion) of total U.S. agricultural imports from FTAA countries entered duty-free under either NAFTA or one of the three nonreciprocal trade preference programs, the GSP, CBERA, and ATPA, each of which offers duty-free entry on a range of products. Another 32 percent ($7.5 billion) of total agricultural imports entered at MFN duty-free rates. This means that only about 19 percent of U.S. agricultural imports were assessed duties in 2001. About 12 percent of the total consisted of imports from Mexico at NAFTA rates that, while not yet duty-free, were considerably below MFN rates.[6] In 2001, only 7 percent ($1.5 billion) of the U.S. imports from FTAA countries came in at MFN duties. About 4 percent of U.S. imports were assessed MFN duties under 5 percent, while less than 1 percent came in at duties above 15 percent.

The larger FTAA countries tend to export a fairly wide range of agricultural products to the United States. For many of the smaller countries, however, exports to the United States consisted of only a few products, and often one product dominated. For example, almost 90 percent of Dominica's exports to the United States during 1998-2000 consisted of cigars, while 87 percent of Grenada's were made up of nutmeg. In 10 of the 33 countries, a single commodity accounted for at least one-half of its total exports to the United States.

The value of U.S. duty-free preferences under nonreciprocal trade programs varies across countries, depending on the overall makeup of their agricultural exports. At 99 percent, Belize had the highest share of its products enter under preferential rates. A number of Caribbean nations, including the Bahamas, Barbados, the Dominican Republic, Guyana, Jamaica, and St. Lucia exported over 80 percent of their U.S.-bound agricultural products under either GSP or CBERA. Through NAFTA, 68 percent of U.S. agricultural imports from Canada and 82 percent from Mexico benefited from preferential duties. Some countries, however, including Argentina and Chile, had extremely low shares (under 10 percent) of their U.S.-bound exports enter at preferential rates.

As a result of preferential rates, the simple unweighted average U.S. applied tariffs facing FTAA countries in 2001 were even lower. It is generally recognized that U.S. agricultural tariffs are relatively low, with an overall simple bound tariff mean of 10.4 percent. Due to NAFTA preferences, Canada at 4.7 percent and Mexico at less than 1 percent face the lowest simple average

[5] Product coverage is the same as that specified in Annex 1 of the WTO Agreement on Agriculture. In 2001, the U.S. agricultural tariff schedule distinguished between 1,754 tariff-line items.

[6] These duties are being progressively reduced to zero under the NAFTA timetable.

tariffs among FTAA countries.[7] Countries qualifying for tariff preferences under the CBERA or ATPA programs face simple average tariffs of slightly over 6 percent on agricultural products while other FTAA countries, which benefit only from the GSP, face slightly higher averages of about 9.1 percent.

While the simple averages may appear to be low, the United States continues to maintain relatively high tariffs, with little or no preferential access, on certain agricultural products, many of which are of special export interest to FTAA countries. These include import-sensitive products such as sugar and sugar-containing products, peanuts and peanut butter, certain types of tobacco, orange juice, dairy products, and beef. Tariff rate quotas (TRQs) limit imports of many of these products. A TRQ allows a certain amount of a product to be imported at a generally low "in quota" rate, with any additional imports facing the higher "over quota" rate. For example, the tariffs for tobacco imports within the quota are around 10 percent while the tariffs on over-quota imports are 350 percent.

Table 3-2 shows the extent to which individual FTAA countries' agricultural exports to the United States faced TRQs in 2001. The region as a whole accounted for slightly less than 50 percent ($2.0 billion) of the value of products imported under U.S. TRQs, with Canada alone accounting for 31 percent ($1.3 billion). The remaining amount was spread over 22 countries, from Brazil ($200,235) to Venezuela ($208). The bulk of this trade took place within the quota and most of it was at preferential rates. The small amount of over-quota trade was almost exclusively from NAFTA partners.[8] Neither the GSP, CBERA, nor ATPA program extends preferential access for products subject to over-quota tariffs. That there was very little over-quota trade at MFN rates suggests the trade-chilling effects of these high over-quota tariffs. It also indicates that for those FTAA countries whose exports face high over-quota rates, there would appear to be substantial potential benefit from an elimination of these barriers. A general conclusion from these tariff and trade data is that even though the trade benefits for FTAA countries from negotiating a free trade agreement with the United States might appear small, given the high proportion of trade already taking place at low or zero duties, when one takes into account those sensitive products on which prohibitively high rates are levied, the potential benefits could expand considerably.

Comparing Tariff Protection Across FTAA Countries

Comparing tariffs across countries is neither a straightforward nor a simple exercise. Over 50 years ago, Viner observed that "there is no way in which the 'height' of a country's tariffs as an index of its restrictive effect can be even approximately measured, or for that matter, even defined with any degree of significant precision" (Viner, 1950). While there are numerous approaches to calculate the overall level of tariff protection provided by a country's tariff schedule, none is without some aggregation bias. The easiest and most common approach is to calculate a simple unweighted tariff mean. The main drawback with a simple average is that it gives equal weight to all goods regardless of importance in trade.

[7] These tariff averages are calculated as simple means across the 1,754 tariff-line items found in the U.S. agricultural tariff schedule. Note that tariffs averages calculated from the full tariff schedule differ from those based on 6-digit aggregates of the Harmonized System, as reported in table 3.5

[8] Over-quota imports from Mexico were assessed preferential rates under NAFTA, while Canadian imports would have been assessed the MFN rate. All over-quota imports from other countries would also have been at MFN rates.

Table 3-2—Value of U.S. agricultural imports subject to tariff-rate quotas in 2001

Exporter	In-quota imports ($000)	Over-quota imports ($000)	Total TRQ imports ($000)	Percent of total U.S. TRQ imports accounted for by FTAA countries		
				In-Quota	Over-Quota	Total TRQ
Antigua & Barbuda	0	0	0	0.0	0.0	0.0
Argentina	112,480	1,675	114,155	2.9	0.7	2.8
Bahamas	0	0	0	0.0	0.0	0.0
Barbados	0	0	0	0.0	0.0	0.0
Belize	4,747	0	4,747	0.1	0.0	0.1
Bolivia	3,114	0	3,114	0.1	0.0	0.1
Brazil	200,028	207	200,235	5.2	0.1	4.9
Canada	1,211,154	50,604	1,261,758	31.4	22.4	30.9
Chile	3,341	1,354	4,695	0.1	0.6	0.1
Colombia	12,109	144	12,253	0.3	0.1	0.3
Costa Rica	24,817	5	24,822	0.6	0.0	0.6
Dominica	0	0	0	0.0	0.0	0.0
Dominican Rep.	65,493	0	65,493	1.7	0.0	1.6
Ecuador	4,640	47	4,687	0.1	0.0	0.1
El Salvador	10,431	61	10,491	0.3	0.0	0.3
Grenada	0	0	0	0.0	0.0	0.0
Guatemala	21,178	2	21,180	0.5	0.0	0.5
Guyana	4,952	0	4,952	0.1	0.0	0.1
Haiti	0	0	0	0.0	0.0	0.0
Honduras	15,017	200	15,217	0.4	0.1	0.4
Jamaica	1,579	54	1,633	0.0	0.0	0.0
Mexico	63,352	46,408	109,760	1.6	20.5	2.7
Nicaragua	33,360	27	33,388	0.9	0.0	0.8
Panama	15,607	165	15,772	0.4	0.1	0.4
Paraguay	7,054	10	7,065	0.2	0.0	0.2
Peru	26,824	59	26,883	0.7	0.0	0.7
St. Kitts & Nevis	0	0	0	0.0	0.0	0.0
St. Lucia	0	0	0	0.0	0.0	0.0
St.Vincent & Gren.	0	0	0	0.0	0.0	0.0
Suriname	0	0	0	0.0	0.0	0.0
Trinidad & Tobago	2,851	2	2,853	0.1	0.0	0.1
Uruguay	32,179	5,000	37,178	0.8	2.2	0.9
Venezuela	127	80	208	0.0	0.0	0.0
Total FTAA	1,876,435	106,105	1,982,540	48.7	46.9	48.6
Total NAFTA	1,274,506	97,012	1,371,518	33.1	42.9	33.6
Total non-NAFTA	601,929	9,093	611,022	15.6	4.0	15.0
Global total	3,853,071	226,337	4,079,408			

Sources: U.S. International Trade Commission Trade Dataweb, http://dataweb.usitc.gov; Agricultural Market Access Database, http://www.amad.org

To remedy this deficiency, weighted averages are often calculated in an attempt to emphasize certain tariffs over others. Weighting a country's tariffs based on its import values is a commonly used weighting scheme. However, it provides distorted results because items with the most restrictive tariffs will receive virtually no weight, since little or no trade takes place under such tariffs. Weighting based on shares of domestic value of production would ensure that highly protected commodities produced in large amounts get appropriately large weights, but production data at the tariff-line level are rarely available. Using shares of the domestic value of consumption is another alternative weighting scheme, but also biased to the extent that high tariffs reduce consumption. Similar to production, consumption data are generally not available at the tariff-line level. Weighting by the value of global trade is perhaps the least biased alternative since it gives relatively greater weight to those products most important in international exchange and escapes, in large part, the distortions associated with using own-import weights.

Table 3-3—Top four agricultural exports and concentration ratios - FTAA countries

Country	Top four HS6-digit export categories	1998-00 average export value $000	Percent of total
Antigua & Barbuda	sunflower&safflower oil; peanut oil; raw cane sugar; frsh, chlled or frzn horsemeat	1,664	46
Argentina	soymeal; wheat (other than durum); corn, other than for seed; soybean oil	5,372,464	43
Bahamas	rum; bananas & plantains; natural sponges; sunflowerseed	152,794	95
Barbados	raw cane sugar; rum; food preparations, nes; margarine	48,631	72
Belize	raw cane sugar; bananas & plantains; frozen orange juice; soymeal	112,113	80
Bolivia	soymeal; soybeans; soybean oil; brazil nuts	291,607	65
Brazil	soybeans; unroasted coffee; soymeal; raw cane sugar	6,197,053	47
Canada	wheat (other than durum); durum wheat; rapeseed; live cattle	4,540,897	28
Chile	grapes; wine (< 2 lit); fishmeal; apples	1,693,058	48
Colombia	unroasted coffee; bananas & plantains; cut flowers and buds, fresh; raw cane sugar	2,542,788	80
Costa Rica	bananas & plantains; unroasted coffee; pineapples; melons	1,554,500	65
Dominica	bananas & plantains; cigars & cigarillos; sauces and preparations; unroasted coffee	19,254	82
Dominican Republic	cigars & cigarillos; raw cane sugar; cocoa beans; bananas & plantains	390,388	62
Ecuador	bananas & plantains; cut flowers and buds, fresh; unroasted coffee; cocoa beans	1,635,083	81
El Salvador	unroasted coffee; raw cane sugar; food preparations, nes; prepared cereal products	394,311	69
Grenada	nutmeg; wheat or meslin flour; mace; cocoa beans	16,676	84
Guatemala	unroasted coffee; raw cane sugar; bananas & plantains; cardamoms	1,266,949	65
Guyana	raw cane sugar; rice, husked (brown); rice, broken; rum	141,809	92
Haiti	unroasted coffee; guavas, mangoes, mangosteens; cocoa beans; essential oils	21,554	79
Honduras	unroasted coffee; bananas & plantains; coffee substitutes containing coffee; cigars & cigarillos	628,844	70
Jamaica	raw cane sugar; rum; bananas & plantains; unroasted coffee	187,685	56
Mexico	beer; unroasted coffee; tomatoes, frsh or chlled; spirits (incl.cordials, liqueurs, & vodka)	2,230,683	30
Nicaragua	unroasted coffee; raw cane sugar; boneless frsh & chlled beef; shelled peanuts, unroasted	246,582	58
Panama	bananas & plantains; raw cane sugar; unroasted coffee; melons	312,689	75
Paraguay	soybeans; soymeal; cotton (uncarded, uncombed); soybean oil	647,747	75
Peru	fishmeal; unroasted coffee; asparagus, prepared or preserved, unfrozen; fish oil	1,184,997	75
St. Kitts & Nevis	raw cane sugar; mineral & aerated waters; cane molasses; nonalcoholic beverages	8,147	93
St. Lucia	bananas & plantains; beer; mineral & aerated waters; peppers	51,716	96
St. Vincent & Grenadines	bananas & plantains; wheat or meslin flour; milled rice; roots and tubers	38,226	85
Suriname	bananas & plantains; rice, husked (brown); unmilled rice; milled rice	31,031	81
Trinidad & Tobago	rum; mineral & aerated waters; raw cane sugar; cookies & wafers	94,871	42
United States	soybeans; corn, other than for seed; cigarettes; wheat (other than durum)	18,092,007	24
Uruguay	boneless, frozen beef; milled rice; boneless, frsh & chlled beef; cigarettes	460,386	38
Venezuela	cigarettes; bananas & plantains; unroasted coffee; sesame seeds	188,140	36

Using the value of global trade as a weighting scheme may still not provide countries with the information that is needed to evaluate the level of protection their exports face in each importing country. Even though two countries' exports may face exactly the same tariffs in a third country, the average tariff each faces can differ based on the composition of each of the country's exports. The restrictive effect that an importing country's tariff schedule has on each of its trading partners' exports depends on how high its duties are on the basket of products being exported by each of these trading partners. Table 3-3 ranks selected FTAA countries based on the percent of total agricultural export value accounted for by the top four export categories. The degree of dependency on a few products is extremely high throughout almost the entire region, with the top four exports (at the HS 6-digit level) accounting for over 90 percent of total exports in the cases of St. Lucia, the Bahamas, St. Kitts and Nevis, and Guyana.[9] All but 10 countries earn over one-half of their agricultural export earnings from only four products. This concentration level demonstrates the importance that a relatively small subset of tariffs can have on trade between two partners. Even the United States, which has the most diversified export sector in the region, does not export every product nor is it equally concerned with every one of its trading partners' tariffs. The challenge is to devise a meaningful method of measuring and comparing relative levels of tariff protection between trading partners that distinguishes between "important" and "unimportant" tariffs.

The information found in tables 3-4 and 3-5 is one way to achieve this goal (see appendix 3-1). Each table contains three sets of tariff means—a simple, unweighted mean of applied tariffs and two trade-weighted means, one of applied tariffs and one of bound tariffs.[10] Table 3-4 contains tariff means faced by U.S. agricultural exports in each of the selected countries, while table 3-5 contains the tariff means faced in the United States by each of these countries' agricultural exports. The means are based on tariff and trade data at the HS 6-digit level (encompassing 682 categories).[11] The tables contain 3 sets of tariff means calculated across the 682 categories. In the case of the weighted means in table 3-4, the weights used to calculate each mean are based on global U.S. agricultural exports, not exports to the individual country. In turn, the weighted means in table 3-5 are generated using the global agricultural exports of each U.S. trading partner as weights. The export-weighting scheme seeks to overcome the usual concern about import-weighting schemes, that high tariffs lead to zero or small imports and thus are underrepresented in import-weighted averages. Using the exporting country's *total exports* as weights ensures that the greatest emphasis is placed on those tariffs in the importing country that are of most importance to the exporting partner. It also provides a valuable starting point for considering the effect that a country's tariff regime has on its trading partner's exports.[12]

From the U.S. perspective, the most protected country in the sample is the Dominican Republic, whether one uses the simple or weighted mean as an indicator. Based on the weighted mean, if

[9] The Harmonized System (HS) provides an internationally recognized nomenclature for classifying globally traded goods. The World Customs Organization establishes the definitions of HS commodity groupings.

[10] All tariff rates were first aggregated in the form of simple averages from the national tariff-line level (usually the HS 8-digit level) to the HS 6-digit level.

[11] The U.S. tariff averages found on the previous page were calculated across the 1,754 bound HS-8 tariff-lines found in the U.S. schedule. The tariff averages found in tables 3-4 and 3-5 were calculated by first calculating simple averages for the 682 6-digit levels and then using these averages to calculate the weighted and unweighted overall means.

[12] See the appendix to this chapter for a detailed discussion of the export-weighting methodology. Like other weighting schemes, export weights have some limitations. Differences in the composition of a country's bilateral trade flows may result from differences in its trader partners' consumer preferences or from policies such as historical quota rights, rather than the partners' tariffs.

Table 3-4—Tariff averages faced by United States in selected FTAA countries

	Applied rates weighted by U.S.exports at the HS6 level	Simple unweighted MFN applied rates (HS6)	MFN bound rates weighted by U.S.exports at the HS6 level
Argentina	12.7	12.9	34.9
Brazil	12.7	12.7	40.0
Canada [1]	7.0	6.1	12.8
Chile	9.0	9.0	25.0
Colombia	15.0	14.8	104.3
Costa Rica	13.0	11.5	35.7
Dom Rep	18.5	21.4	40.0
Ecuador	14.0	14.3	26.7
El Salvador	9.6	10.3	43.4
Guatemala	9.4	9.2	54.7
Haiti	16.0	16.0	16.0
Honduras	12.1	11.0	35.0
Jamaica	16.1	17.7	100.0
Mexico [1]	8.6	2.9	51.8
Nicaragua	8.0	7.0	59.5
Panama	12.4	12.5	27.8
Paraguay	12.1	12.6	34.9
Peru	16.9	17.2	30.0
Uruguay	12.5	12.7	36.8
Venezuela	15.0	14.8	56.2

[1]Applied rates in the case of Canada and Mexico are the 2001 NAFTA rates.

Table 3-5—Tariff averages facing FTAA exports to the United States

	U.S. applied rates[1] Mean weighted by total exports	Simple unweighted mean	U.S. MFN bound rates weighted by total exports
Argentina	6.1	3.9	6.5
Brazil	12.8	3.9	13.6
Canada	1.2	1.2	4.2
Chile	2.1	3.9	2.7
Colombia	2.2	1.8	3.9
Costa Rica	1.1	1.8	3.8
Dom Rep	8.9	1.8	13.4
Ecuador	0.6	1.8	2.0
El Salvador	5.1	1.8	6.7
Guatemala	6.3	1.8	8.4
Haiti	0.1	1.8	3.0
Honduras	1.1	1.8	3.4
Jamaica	10.3	1.8	15.5
Mexico	0.8	0.4	5.5
Nicaragua	8.4	1.8	10.6
Panama	3.0	1.8	5.0
Paraguay	4.2	3.9	4.4
Peru	0.5	1.8	2.7
Uruguay	6.1	3.9	7.4
Venezuela	7.0	3.9	8.7

[1]Applied rates include tariff preferences extended under nonreciprocal tariff preference programs (GSP, CBERA, and ATPA). In the case of Canada and Mexico they are the 2001 NAFTA rates.

all U.S. agricultural exports had gone to the Dominican Republic during the base period, the average duty faced would be about 18.5 percent. This average is due to tariffs of 30 percent or higher on such important U.S. exports as tobacco products, pet foods, almonds, apples, and baked goods. These tariffs are assigned relatively heavy weights in the calculations. Peru had the second highest tariff protection on U.S. agricultural exports due to fairly high (25-30 percent) rates on meats and grains, other important U.S. exports. On the other end of the spectrum, five countries—Canada, Nicaragua, Mexico, Chile, and Guatemala—all have weighted tariff means of less than 10 percent.

U.S. exports face applied tariffs in Western Hemisphere markets that are considerably lower than the bound rates. The lowest applied rates tend to be concentrated in products of use to farmers (seeds, cuttings and live plants, semen, breeding stock, etc.) or plant and animal materials with commercial uses (gums, resins, essential oils, extracts, and hides and skins). Regional trade in many of these products is fairly modest. However, some products that are very important to U.S. agriculture, including wheat, soybeans, and cotton, also face low applied tariffs in many, although not all, countries within the hemisphere. It is also the case, however, that many products face uniformly higher-than-average tariffs within the region. From the standpoint of U.S. exports, the most important of these are tobacco products, meats, rice, beer, wine, and distilled spirits. Certain fruits and vegetables including apples, grapes, oranges, grapefruit, potatoes, and onions also face higher-than-average applied tariffs in many markets especially during specific times of the year when domestic production is available. Finally, dairy products, sugar, and processed products containing dairy products and sugar tend to face higher-than-average applied tariffs in most countries.

Comparing the weighted and simple unweighted applied means of each country gives a good indication of the level of bias each country's tariff schedule contains against U.S. exports. To the extent that a country levies higher tariffs on those products that are important from a U.S. export perspective than on those products not important to the U.S., the weighted average will exceed the unweighted one. In this respect, Mexico's tariff schedule demonstrates the highest relative bias against U.S. exports. When weighted by U.S. exports, Mexico's mean applied tariff is almost three times the simple unweighted mean. This is understandable, however, since under NAFTA tariffs on some products were immediately cut to zero while others were reduced to zero by the end of 2003. In the case of the most import-sensitive commodities, however, tariffs will not reach zero until 2008. In 2001, Mexico was still levying tariffs on several important U.S. export commodities, including corn, poultry, and tobacco/tobacco products. In general, however, there is not much difference between the weighted and unweighted tariff means in table 3-4 partly because countries within the hemisphere tend to have relatively low levels of dispersion across both their bound and applied tariffs.

The overall, export-weighted, average applied rate for the countries found in table 3-4 is 12.5 percent, less than one-third of the bound average of 43.3 percent. The difference between the applied rates that U.S. exports face and the bound rates are especially large for Jamaica, Nicaragua, and Colombia. Mexico also shows a large difference, with U.S. agricultural exports facing an export-weighted, average NAFTA tariff in Mexico of 8.6 percent versus an average bound tariff of over 50 percent. This is an indication of the maximum level of protection that U.S. exports could have faced if NAFTA did not exist and if Mexico applied tariffs at the bound levels. But, Mexico also tends to apply tariffs at levels below the MFN bound rates. Thus, a more accurate indication of the impact of NAFTA would be to compare the NAFTA average with an export-weighted average of Mexico's applied tariffs. If NAFTA were not in place, U.S. exports would have faced an export-weighted, average MFN applied tariff in Mexico of 35.4 percent versus the NAFTA average of 8.6 percent. In the case of Canada, the only other market

in the hemisphere where the United States received preferential treatment in 2001, the MFN applied and bound rates are the same. Thus, in the absence of NAFTA, U.S. exports would have faced a weighted MFN bound rate of 12.8 percent in Canada instead of the lower NAFTA average of about 7 percent.

Table 3-5 reports the tariffs that each of the 20 FTAA countries faces in the U.S. market. The first two columns contain the unweighted and weighted means of U.S. applied tariffs, which can differ by exporter based on eligibility for tariff preferences under either NAFTA or one of the nonreciprocal tariff preference programs GSP, CBERA, or ATPA. Again, we provide a weighted average of bound tariffs for comparison purposes.

Given the mix of agricultural products it exports globally, Brazil, at 12.8 percent, faces the highest export-weighted duties in the United States. The United States levies relatively high tariffs on a number of Brazil's important exports, including sugar, orange juice, tobacco, and soybean oil. Jamaica was the only other country facing an export- weighted average tariff of over 10 percent, largely a function of the importance of its sugar exports, which make up over one-quarter of total exports. On the other end, the exports of four countries—Haiti, Peru, Ecuador, and Mexico—all faced average tariff rates below 1 percent in the U.S. market. The top exports from each of these countries tend to face very low or zero duties in the United States. In fact, for the region as a whole (excluding NAFTA partners) the top four exports are coffee, bananas, soymeal, and soybeans, all of which face low or zero duties.

Even though the averages are low, the export-weighted applied rates exceed the unweighted ones in all but six of the countries, and in some cases they are over three times as large. Is this an indication that the U.S. tariff schedule is biased against the exports of most FTAA countries? The answer is more complicated than it appears, because of the size and importance of the U.S. market and the structure of the U.S. tariff schedule. In the previous section, we demonstrated that the U.S. market is already relatively open to agricultural trade within the hemisphere, for two reasons. First, the United States has bound 22 percent of its agricultural tariffs at zero in the WTO, and most of the remaining rates have been bound at low levels. As a result, the United States has the lowest simple mean bound tariff in the region. Additionally, under the CBERA and the ATPA programs, eligible countries are granted duty-free access on their exports to the United States. The two programs extended duty-free access to about 65 percent of all agricultural tariff lines in the U.S. tariff schedule. With a total of 87 percent of all agricultural tariff-lines being duty-free, it is not surprising that CBERA and ATPA countries face simple applied tariff averages of only 1.8 percent.[13] However, these low averages conceal a number of relatively high tariff peaks, many of which are found on products of export interest to some FTAA countries, including sugar, tobacco, frozen orange juice, soybean oil, and peanuts. When these tariffs are weighted by each country's exports, the weighted averages tend to exceed the unweighted ones.

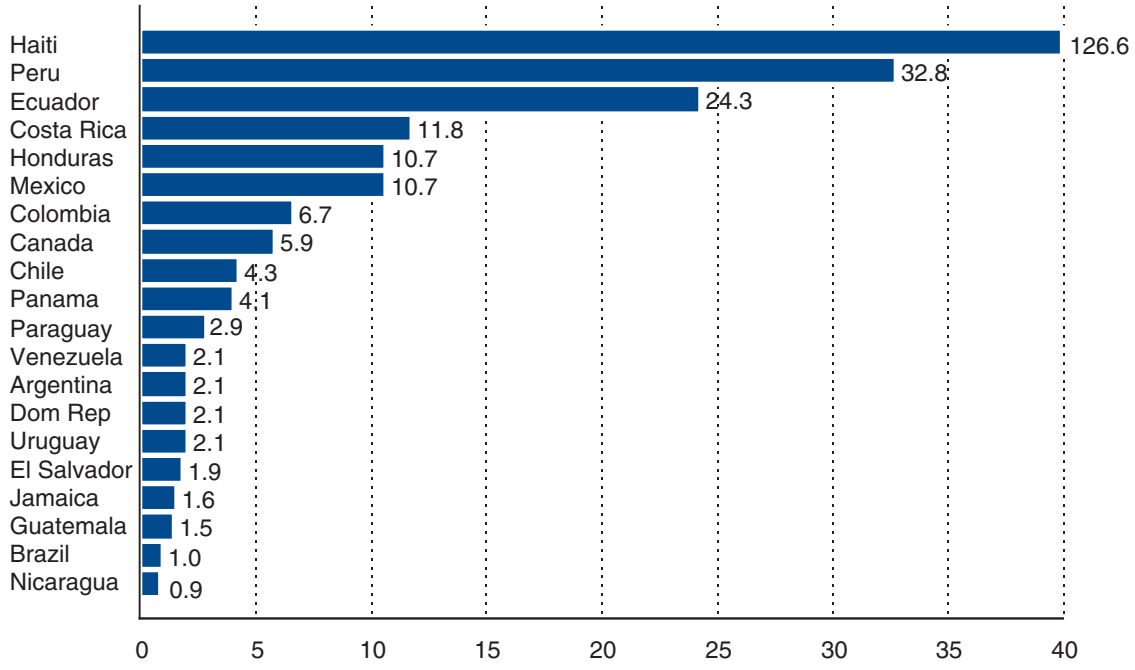
For some countries in the hemisphere, the differences in the weighted and unweighted averages demonstrate that there are considerable potential trade benefits from reducing U.S. tariffs. This conclusion would not have been evident based solely on the low simple average tariffs these countries face. For some of these, however, market access is being provided through tariff-rate quotas. This can skew the weighted tariff averages found in table 3.5. Sugar, the fifth most

[13] The simple averages reported in the previous section are higher than those reported above because they are an average over all 1,754 HS 8-digit tariff-lines in the U.S. schedule. In this section, we first calculated simple averages at the HS 6-digit level. This collapsed the tariff database to 682 HS 6-digit tariffs. This allowed us to use each country's exports, which are only available at the HS 6-digit level, as weights.

important export from FTAA countries is a good example, since it faces high average duties in the United States, as a result of steep over-quota tariffs. For almost one-half of the countries in table 3-5, U.S. sugar tariffs are the largest component of the weighted average (see table 3-3). The high weight accorded to sugar in our calculations is potentially misleading in the case of those countries whose sugar exports are largely a result of the quota allocation they receive under the U.S. sugar TRQ. This is particularly true of some Caribbean countries, where the quota allotment they receive is equal to more than one-half of their total exports to the world. Some of these countries are actually net importers of sugar, and it is likely that the value of their sugar exports would be significantly less were they not guaranteed a high price on their within-quota exports to the United States. When countries are allocated part of a lucrative quota, the result might be to create a trade flow that might otherwise not have taken place under free trade.

Comparing the preferential and MFN bound tariff averages is also revealing. In percentage point terms, the differences are perhaps not as great as one might expect, especially in view of the extension of duty-free access on 65 percent of all tariff-lines under the CBERA and ATPA programs. However, most of the eligible products under these programs already face low duties. In fact, the simple average tariff across those lines on which preferences are extended is about 7 percent, while the simple average of the remaining 13 percent of dutiable tariffs on which no preferences are extended is about 47 percent. The conclusion here is that the GSP, CBERA, and ATPA have not significantly diluted the potential value of an FTAA to the region. There are still many products of export interest to our regional trading partners that do not receive preferences under U.S. programs. In addition, just as U.S. trading partners in the region can legally raise their applied rates to their bound levels, the United States can always withdraw or modify the preferential access it gives under these programs. This should provide these countries an incentive to lock in duty-free access to the U.S. market through a reciprocal agreement like the FTAA.

Figure 3-1
Relative tariff ratio indices[1]



[1] Ratio of weighted tariff mean faced by U.S. exports in selected countries over weighted tariff mean faced by that country's exports in the United States.

Sources: U.S. International Trade Commission Trade Dataweb, http://dataweb.usitc.gov; USDA-ERS International Bilateral Agricultural Trade Database (compiled from the U.N. COMTRADE database).

To give expression to the relative importance of two trading partners' tariffs, Sandrey utilizes the sort of information found in tables 3-4 and 3-5 to create a tariff- and trade-based measure called the Relative Tariff Ratio Index (RTR).[14] The RTR is a useful way to combine the trade and tariffs of two trading partners into a single and concise figure. Figure 3-1 contains RTRs calculated as the ratio of the trade-weighted average tariff that U.S. exports face in the selected countries from table 3-4 (the numerator) and the equivalent average faced by their exports in the United States from table 3-5 (the denominator). A ratio of one would reflect similar protection in the respective tariff schedules of the two trading partners. A ratio greater than one means that U.S. agricultural exports face higher average tariffs in the trading partner's market than its exports face in the U.S. market. RTRs range from well over 100 for Haiti and to below 1 for Nicaragua (fig. 3-1). These ratios do not reflect the levels of tariffs, but rather the relative tariff protection faced at the respective borders of bilateral trading partners. In the case of Haiti, for every tariff percentage point, on average, that Haitian agricultural exports face in the United States, the United States faces 126.6 percentage points in Haiti. In 6 of the 20 countries surveyed, U.S. agricultural exports face average tariffs more than 10 times as high as their exports face in the United States. Nicaragua is the only country in which the tariffs faced by U.S. exports are less than those faced in the United States by its trading partner's exports.

Conclusion

Through a combination of multilateral, intraregional, and bilateral pacts, Western Hemisphere countries have made significant progress in reducing agricultural tariff protection over the last decade. In an effort to build on the trade and investment ties created by these pacts, 34 countries in the hemisphere resolved to form a FTAA. One of the main goals of the FTAA is to progressively eliminate tariffs on substantially all trade within the hemisphere.

It is in the interest of all Western Hemisphere countries to reduce tariff protection in order to obtain cheaper sources of supply and to achieve the increased level of economic activity made possible by a more efficient utilization of resources. Free trade permits these efficiency gains by allowing greater specialization according to each country's "comparative advantage." Trade liberalization will make possible important economic benefits such as greater exploitation of economies of scale and increased domestic and foreign investment in response to new export opportunities. An FTAA would stimulate the U.S. agricultural economy by reducing the high tariff barriers on U.S. agricultural exports to the region. U.S. agricultural exports face weighted average tariffs within the largest non-NAFTA markets in the region that range from just under 10 percent to almost 20 percent. The bound rates that these countries committed to in the WTO are even higher, with the weighted averages ranging from 16 percent to over 100 percent. The extent of the gains from increased trade to the United States depends not just on the level of applied tariffs to its exports but also on what these barriers might be in the future if no FTAA were established. There is always the possibility that these countries could raise their applied rates to the much higher bound levels.

Over the past decade, Western Hemisphere countries have actively pursued liberalizing and integrating their economies through a wide variety of interregional free trade and customs union agreements. The United States currently has negotiated free trade agreements with nine countries in the region: Canada and Mexico through NAFTA, the five Central American countries

[14] Sandrey attributes the original concept for the RTR to John Luxton, former Associate Minister for Foreign Affairs and Trade in New Zealand. See appendix for more information on the RTR.

plus the Dominica Republic through CAFTA, and Chile through the U.S.-Chile FTA. In the remaining countries in the hemisphere U.S. exporters often compete with other countries in the region whose exports are subject to considerably lower duties. From the U.S. perspective, a strong argument in favor of an FTAA is that it would eliminate the disadvantage U.S. exporters confront when competing with exports from countries facing preferential rates, thus enabling them to expand market share.

Opening hemispheric markets has presented negotiators with a number of challenging issues, including reaching agreement on which tariff rates to use as a starting point, how quickly to phase in the elimination of tariffs, and how to treat sensitive products (those most vulnerable to import competition). Negotiators have agreed to use tariffs that were actually being applied in October 2002 as the base rates from which cuts will be made (Spitzer, 2003).[15] Starting the cuts from applied tariffs is important for U.S. exports since our analysis shows that the weighted-average bound tariffs facing U.S. exports are on average 3.5 times higher than applied tariffs. Therefore, progressively eliminating tariffs from their bound levels would mean that significant trade liberalization for some U.S. products might not begin until the end of the implementation period. By agreeing to use the applied rates as the starting point, U.S. exporters will gain increased market access within the first year of the agreement.

Negotiators also have established four elimination categories: category A tariffs are to be eliminated immediately; category B in the short term (up to 5 years); category C in the medium-term (up to 10 years); and category D in the long term (longer than 10 years) for a limited number of the most sensitive commodities. To date, there has been no definitive agreement on the extent to which countries will be able to place sensitive agricultural products into category D, but according to the WTO rules governing the formation of FTAs, tariffs must be eliminated on substantially all products within 10 years after the agreement's initial implementation date.

This analysis has focused on one aspect of market access—tariff liberalization—and the extent to which tariffs in the region pose an impediment to trade in agricultural goods between the United States and its trading partners in the hemisphere. Using an index that combines trade flows and tariffs into one simple measure has allowed us to compare the levels of tariff protection that U.S. exports face in other countries with the average levels faced by those countries in the U.S. market. Using a country's trading partner's total exports as weights allows us to escape, in large part, the distorting effects that high tariffs have on the country's imports. This approach could provide a useful aggregate measure to compare how an individual country's allocation of products across categories with different tariff elimination timetables might affect the export barriers that it faces over the course of the implementation period.

While we cannot formally project the potential FTAA-induced expansion in U.S. agricultural exports in this analysis, our detailed comparison of the levels of trade and tariff protection within the region shows that there would be considerable potential benefits to the United States from further trade liberalization within the hemisphere. The average level of tariff protection in these countries is considerably higher than in the United States. As a result, an FTAA would require larger cuts in FTAA country tariffs than in U.S. ones. However, it does not necessarily follow that after all adjustments have had time to take place, we would see a significant imbalance in trade gains. Even in the short term, countries that export a large share of products such as sugar, peanuts, tobacco, and orange juice, on which protection is generally higher in the United States,

[15] An exception has been granted for the CARICOM countries, which will be allowed to start their reductions from WTO bound rates for some agricultural products.

are likely to benefit. In the longer term, because of its size and wealth, the U.S. market should provide ample incentive for countries currently protected by high tariffs to restructure their industries in order to compete with U.S. producers. Indeed, one of the main incentives for Latin American countries to form an FTAA is to attract the investment that would allow them to eventually diversify and expand their exports.

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