

The World Trade Organization: The Non-Agricultural Market Access (NAMA) Negotiations

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August 19, 2008

Congressional Research Service

7-5700 www.crs.gov RL33634

Summary

Non-Agricultural Market Access (NAMA) in the World Trade Organization's (WTO) Doha Round has emerged as a major stumbling block in the seven-year negotiations Doha round negotiations. NAMA refers to the cutting of tariff and non-tariff barriers (NTB) on industrial and primary products, basically all trade in goods which are not foodstuffs. While the agriculture negotiations have often overshadowed the NAMA talks, trade of industrial and primary products continue to make up the bulk of world trade. Average tariffs in developed countries have declined from 40% at the end of World War II to 6% today through successive rounds of General Agreement on Tariffs and Trade (GATT)/WTO trade negotiations. Developed countries seek the reduction of continuing high tariffs in the developing world, particularly from such countries as Brazil, India, and China. Developing countries seek special and differential treatment and tie their cuts in industrial tariffs to reductions in agricultural tariffs and subsidies.

Several econometric studies have modeled the possible effect of industrial tariff liberalization on the global economy. The studies vary based on the assumptions and data used. All but one found a greater net welfare benefit from liberalization of manufacturing tariffs than from agriculture. The studies indicate that developing countries in the aggregate would gain the most from manufacturing liberalization, at least in relative terms, and that the single largest gainer in terms of net welfare benefit would be China.

A recent summit of WTO trade ministers, held in Geneva on July 21-29, 2008, broke up without agreement over a dispute concerning agricultural safeguards. Over the past year, committee level negotiations have proceeded following the release of a draft modality text in July 2007 and revised in February, May, and, most recently, July 10, 2008. The main stumbling block has been the negotiation of the tariff reduction formula. Members agreed to a Swiss-formula non-linear tariff reduction formula approach at the December 2005 Hong Kong Ministerial, one in which higher tariffs are decreased more than lower tariffs. However, disagreements persist about the size or amounts of the tariff cuts. The talks also seek to reduce the incidence of non-tariff barriers, which include import licensing, quotas and other quantitative import restrictions, conformity assessment procedures, and technical barriers to trade. The use of sectoral tariff elimination and special and differential treatment for developing countries have also proven controversial.

Legislation to implement any agreement that results from the Doha Round negotiations would need to be passed by Congress. U.S. Trade Promotion Authority (TPA), under which Congress agreed to a time line for voting on implementing legislation with no amendments in return for consultation and adherence to Congressional negotiating objectives, expired on July 1, 2007. Consequently, there may be attempts to revise or extend TPA in order to consider legislation resulting from a Doha agreement.

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Introduction

Talks on Non-Agricultural Market Access (NAMA) in the World Trade Organization (WTO) Doha Round refer to the reduction of tariff and non-tariff barriers (NTBs) on industrial and primary products, basically all trade in goods which are not foodstuffs. While the agriculture negotiations have received greater scrutiny in the Doha round, trade of industrial and primary products, the subject of the NAMA negotiations, continue to make up the bulk of world trade. Nearly \$13.6 trillion in manufactures and primary products were traded worldwide in 2007, accounting for 80.5% of world trade activity. In the United States, industrial and primary products accounted for 66% of exports and 81% of imports in 2007. Hence, the outcome of these negotiations could have a substantial impact on the U.S. trade picture and some effect on the overall U.S. economy.

Previous to the Doha Round, industrial tariff negotiations were the mainstay of General Agreements on Tariffs and Trade (GATT) negotiations. These rounds led to the reduction of developed country average tariffs from 40% at the end of World War II to 6% today. However, average tariff figures mask higher tariffs for many labor intensive or value-added goods that are especially of interest to the developing world. Moreover, average tariff levels in developing countries remain high, with average industrial tariffs averaging about 13%.

For the United States and other developed countries, prospective gains from the NAMA talks in this round would be from the reduction of high tariffs in the developing world, particularly from such countries as Brazil, India, and China. Developing countries were exempted from making concessions in market access in previous rounds, thus sustaining the heavy tariff structure in those countries. Developing countries are leery of opening up their markets to competition, often making the argument that protectionist policies were employed in the development of many successful economies, from the European and North American economies in the 19th century to the rise of the East Asian tigers in the 20th century. However, as negotiating positions have made clear, developed countries are demanding more access for their industrial products as a price for opening up their agricultural sectors, where many developing countries have a comparative advantage. Conversely, developing countries have held industrial tariff negotiations hostage to movement on agriculture. This dynamic has been one of the factors contributing to the current deadlock in the negotiations.

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¹ World Trade Organization, World Trade 2007, Table 2, http://www.wto.org/english/news_e/pres08_e/pr520_e.htm

² Bureau of Economic Analysis, "U.S. International Trade in Goods and Services, December 2007," http://www.bea.gov/newsreleases/international/trade/2008/pdf/trad1207.pdf.

Table I. Tariff Averages in Selected Countries

Country	Manufacturing	Agriculture
Quad Countries ^a	4.0	10.7
United States	4.6	9.5
European Union	4.2	19.0
Japan	3.7	10.3
Canada	3.6	3.8
Large Middle Income ^b	13.1	26.6
Lower-Income ^c Countries	13.2	16.6

Source: World Bank, Global Economic Prospects, 2004.

Note: Applied most favored nation, ad valorem tariff averages.

- a. United States, European Union, Japan, Canada (average).
- b. Brazil, China, India, Korea, Russia, South Africa, Mexico, Turkey.
- c. Bangladesh, Indonesia, Guatemala, Kenya, Malawi, Togo, Uganda, Zimbabwe.

Legislation to implement any agreement that results from the Doha Round negotiations would need to be passed by Congress. If considering such legislation, Congress may examine the extent to which a potential agreement opens foreign markets to U.S. exporters through the reduction of both tariff and non-tariff barriers. Congress may also examine a potential agreement by its impact on the health of the U.S. manufacturing sector, and its impact on manufacturing employment.

Evolution of the NAMA Negotiations

The current round of trade negotiations were launched at the 4th Ministerial of the WTO, held at Doha, Qatar in November 2001. The course of the negotiations were set in the Doha Ministerial Declaration, which provided the negotiating objectives of the round in general terms. The objectives for the non-agriculture market access negotiations were described in Paragraph 16, which read:

We agree to negotiations which shall aim, by modalities to be agreed, to reduce or, as appropriate, eliminate tariffs, including the reduction or elimination of tariff peaks, high tariffs, and tariff escalation, as well as non-tariff barriers, in particular on products of export interest to developing countries. Product coverage shall be comprehensive and without *a priori* exclusions. The negotiations shall take fully into account the special needs and interests of developing and least-developed country participants, including through less than full reciprocity in reduction commitments... To this end, the modalities to be agreed will include appropriate studies and capacity-building measures to assist least-developed countries to participate effectively in the negotiations.

The NAMA paragraph was short on specifics and left the modalities for the talks to negotiations. The general nature of the document reflected the reluctance of many members to sign up for the round, and the language has been characterized as the least common denominator of what could be agreed upon at the time. However, the declaration gives certain clues about what path the

negotiations would take. First, the declaration showed a clear intent to address concerns of the developing countries by a commitment to reduce tariff peaks and escalations, to concentrate on products of export interest to developing countries, and to provide special and differential treatment (SDT), including "through less than full reciprocity in reduction commitments" which became a mantra for developing countries. However, the language on reducing tariff peaks, high tariffs, and escalation also suggests the desire for a degree of tariff harmonization. This, in turn, would suggest the use of a non-linear reduction formula (see "Tariff Reduction" below). Paragraph 16 allowed members to take away from the Ministerial what they wanted, and to return to specifics later. This initial ambiguity has haunted the negotiations to this day.

Negotiations proceeded at a slow pace in 2002 and 2003. Several deadlines for agreement on negotiating modalities (i.e., methodologies by which negotiations are conducted) were missed in the agriculture and industrial market access talks. Without agreement, negotiators looked toward the September 2003 Cancún Ministerial to resolve the modalities. In the weeks before Cancún, negotiating documents to achieve this resolution were criticized by all sides, and expectations of the Ministerial were reduced to achieving an agreement on the framework for the modalities to be used in future negotiations.

During this period, the United States favored an aggressive tariff-cutting negotiating strategy. In December 2002, the United States proposed the complete elimination of tariffs by 2015. This proposal would have eliminated "nuisance" tariffs (tariffs below 5%) and certain industrial sector tariffs by 2010, and would have removed remaining tariffs in 5 equal increments by 2015. This proposal applied to all countries and did not contain SDT language. Throughout the negotiations, the United States generally has sought to limit the scope of special and differential treatment, maintaining that it is in the developing countries' own interest to lower tariffs, not least to promote trade among developing countries.

The initial European Union (EU) tariff reduction proposal relied on a "compression formula," one in which all tariffs are compressed in four bands with the highest band being 15%. ⁴ A joint submission by the United States, Canada, and the EU before the Cancún Ministerial first proposed the use of a Swiss-style harmonization (i.e. non-linear) formula for tariff reduction. This joint paper did contain SDT language for developing countries in the form of credits awarded for unilateral liberalization activity. ⁵

In the end, industrial market access was not even discussed at the Cancún Ministerial, which broke up over agriculture and the so-called "Singapore issues." Yet, a draft text from the Ministerial, known as the Derbez text, became the basis for the July 2004 Framework Agreement, which, in turn, formed the basis for subsequent negotiations. The July Framework Agreement reaffirmed the use of an unspecified non-linear formula applied line-by-line that provides flexibilities for developing countries. The text also supported the concept of sectoral tariff elimination as a complementary modality for tariff reduction on goods of particular export interest to developing countries, but it advanced no concrete proposal.

³ Market Access for Non-Agriculture Products, Communication from the United States, (TN/MA/W/18), December 2, 2002

⁴ Market Access for Non-Agriculture Products, Communication from the European Communities, (TN/MA/W/11), October 31, 2002.

⁵ "Non-Agricultural Market Access: Modalities," Joint Communications from the United States, the European Union, and Canada, (TN/MA/W/44), September 1, 2003.

In negotiating the July Framework, developing countries resisted the wholesale inclusion of the Derbez text. They insisted on a paragraph, included as the first paragraph of the text, indicating that "additional negotiations are required to reach agreement on the specifics of some of these elements," the elements being the formula, treatment of unbound tariffs, flexibilities for developing countries, participation in sectoral tariff modalities, and preferential tariff beneficiaries. As in the Doha Ministerial, ambiguity allowed for an immediate agreement, but sowed the seeds of future disagreement.

As in other sectors, subsequent negotiations on NAMA have been conducted on the basis of the July Framework Agreement. Although it was hoped that modalities could be achieved in time for the 6th Ministerial at Hong Kong, this proved optimistic, and progress was limited to incremental steps. For example, while the July Framework called for a non-linear, harmonizing tariff reduction formula, the Hong Kong Ministerial finally settled on the Swiss formula for tariff reduction, but did not settle on coefficients for that formula.⁶ At the Ministerial, WTO members agreed on a new deadline of April 30, 2006, to achieve final negotiating modalities and to establish draft schedules based on these modalities by July 31, 2006. These deadlines were not met, and after a contentious negotiating session on agriculture on July 23, 2006, Director-General Pascal Lamy suspended the Doha Round for a period that was to last approximately six months.

Following the July 2006 suspension, several WTO country groups such as the G-20 and the Cairns Group of agricultural exporters met to lay the groundwork to restart the negotiations. Although these meeting did not yield any breakthrough, Lamy announced the talks were back in "full negotiating mode" on January 31, 2007. Key players in the talks such as the G-4 (United States, European Union, Brazil, India) conducted bilateral or group meeting to break the impasse in the first months of the year. In April 2007, G-6 negotiators (G-4 plus Australia and Japan) agreed to work towards concluding the round by the end of 2007, yet a G-4 negotiating session in Potsdam collapsed anew in June 2007.

On July 17, 2007, the chairman of the NAMA negotiating group released a modalities text to be considered by the negotiating committee. While this text has proved controversial, it served as the basis for continued, if fruitless, Geneva negotiations for the next year revising the texts on February 8, May 19, and most recently, July 10, 2008. However, a summit of WTO trade ministers held in Geneva on July 21-29, while making some progress on NAMA issues, broke up over an intractable dispute concerning agricultural safeguards. Individual modalities proposed by this paper are addressed in the negotiating issues section below.

Possible Effects of a NAMA Agreement

Several studies seek to estimate the potential gains emanating from the reduction of tariffs on industrial products resulting from a successful outcome of the Doha negotiations. These studies typically attempt to quantify the net welfare benefit from various liberalization scenarios. They use models of the world economy known as computable general equilibrium (CGE) models, which provide computer simulations of the world economy through equations that simulate the relationship between economic variables. The models use the versions of the Global Trade Action

⁶ For a detailed treatment of the current status of the negotiations, see "Major NAMA Negotiating Issues" below.

⁷ "Draft Modalities for Non-Agricultural Market Access," hereinafter (TN/MA/W/103), February 8, 2008, (TN/MA/W/103/Rev.1), May 19, 2008, (TN/MA/W/103/Rev.2), July 10, 2008.

Project (GTAP) database, which compiles trade flows, and estimate the economic impact of such flows on tariff revenues, production, prices, and welfare.⁸

Assumptions made in modeling the world economy, as well as the version of the GTAP data used, affect the results of the studies. For example, it has been noted that models that use the most recent data (GTAP version 6, using 2001 data) have found smaller welfare gains to the world economy from trade liberalization. Previous versions of the data did not reflect ongoing trade liberalization such as China's entry into the WTO, the implementation of preferential trading arrangements, or the phase-in of previous liberalization commitments. The results also depend on whether a given model uses static or dynamic assumptions such as constant or increasing returns to scale, or whether the model accounts for unemployment or technology transfer. The focus of these reports are often on the effects of agricultural liberalization or on the potential gains (or losses) of developing countries. However, this section restricts itself to those studies that model industrial or primary product tariff reductions. **Table 2** provides a summary of the model outcomes described below.

One well-known attempt to gauge the impact of the multilateral trade liberalization is the Michigan Model, a multi-country, multi-sector, general equilibrium model that is used to analyze various trade policy changes and scenarios. 10 In this study, conducted at the beginning of the round, the model measures the welfare effects of a 33% reduction in tariffs and subsidies on agriculture, the same reduction on tariffs in manufactures, and service sector liberalization. According to this model, a 33% reduction in manufacturing tariffs would result in a net welfare benefit of \$163.4 billion to the world economy. The United States would achieve a net \$23.6 billion welfare gain, although Japan (\$45.2 billion) and the EU (39.2 billion) would receive greater gains. Overall, the developed countries would achieve \$113.4 billion in net welfare gains and the developing countries led by China (\$10.9 billion) would receive the other \$50 billion in worldwide net benefit. The model's outcome suggests, the United States could gain primarily from services liberalization (\$135 billion), would receive some net welfare benefit from manufacturing tariff liberalization (\$23.6 billion), but could suffer a net welfare loss of \$7.23 billion from the agricultural liberalization assumed in the model. 11 The model suffers from the use of older data from 1995, but is bolstered by more dynamic assumptions such as increasing returns to scale and monopolistic competition.

⁸ For more information, see the GTAP website at Purdue University, https://www.gtap.agecon.purdue.edu/about/center.asp.

⁹ Frank Ackerman, "The Shrinking Gains from Trade: A Critical Assessment of Doha Round Projections," October 2005.

¹⁰ Drusilla K. Brown, Alan V. Deardorff, and Robert M. Stern, "Computational Analysis of Multilateral Trade Liberalization in the Uruguay Round and Doha Development Round," University of Michigan Discussion Paper #489.
¹¹ Ibid., p. 13.

Table 2. Net Welfare Benefits from Manufacturing Liberalization: Results from Selected Studies

		Net Welfare Benefit	
Study	Assumption	(\$billion)	
Michigan Model (2001)	33% Tariff Reduction	\$163.4	
World Bank (2005)	full liberalization	\$105	
	50% developed/33% developing tariff reduction	\$21.6	
Carnegie (2006)	50% developed/33% developing tariff reduction	\$53.I	
	36% developed/24% developing tariff reduction	\$38.6	
UNCTAD (2005)	Full liberalization	\$200.8	
	Swiss formula coefficients,	\$134.7	
	3.4% developed/ 12.5% developing		
	Swiss formula coefficients,	\$107.6	
	6.8% developed/ 25% developing		
OECD (2006)	full liberalization	\$23.4	

The **World Bank** and several other organizations have modeled the effect of trade liberalization using more recent GTAP-6 data from 2001. The World Bank study found that full liberalization of all merchandise trade (including agriculture) could lead to a \$287 billion increase in real income by 2015. Full liberalization in industrial manufactures alone would lead to a \$105 billion increase in real income, divided between a \$38 billion increase from textiles and apparel liberalization, and a \$67 billion increase from liberalization for other manufacturers. Developed countries could receive the largest share of benefit from full liberalization in dollar terms (\$57 billion v. \$10 billion for developing countries), but developing countries may achieve greater benefits in proportion to the size of their economies. The World Bank study found that developing countries would receive a preponderance of the benefits resulting from textile and apparel liberalization (\$22 billion v. \$16 billion in the developed world).

The World Bank study also modeled possible Doha Round outcomes. In computing a 50% reduction by developed country tariffs and a 33% reduction by developing countries for all merchandise trade (agriculture and industrial), the study found that welfare gains from such liberalization could total \$96.1 billion. Of this amount, industrial tariff liberalization could provide \$21.6 billion of extra net welfare benefit with \$7.1 billion accruing to developing countries. 12

A **Carnegie Endowment for International Peace** study¹³ uses an applied general equilibrium model with some novel features that attempt to account for the presence of unemployment in developing countries (most studies assume full employment), and to chart the dynamic effects of

¹² Kym Anderson, Will Martin and Dominique van der Mensbrugghe, "Doha Merchandise Trade Reform: What's At Stake for Developing Countries," World Bank Policy Research Paper, February 2006.

¹³ Sandra Polaski, "Winners and Losers: The Impact of the Doha Round on Developing Countries," Carnegie Endowment for International Peace, 2006, p.70.

technology transfer, which increases along with trade. The model poses two different scenarios for possible manufacturing outcomes of the Doha Round: an ambitious scenario of a 50% reduction in developed country tariffs and a 33% reduction in developing country tariffs and a more modest scenario for manufacturing with a 36% reduction in developed country and a 24% reduction in developing country tariffs. The authors of the model warn the extent of liberalization may be overstated due to the model's use of applied, rather than bound tariffs.

The study found global real income gains from manufacturing were \$53.1 billion for the ambitious scenario and \$38.1 billion for the modest scenario. The liberalization of manufacturing tariffs represented over 90.6% of the gains from the Doha round liberalization in the ambitious scenario and over 87% for the more modest formula. In the ambitious scenario, the gains were apportioned between \$30.2 billion (56.8%) for developing countries and \$23 billion (43.2%) accruing to developed countries. The more modest scenario yielded \$21 billion to developing countries and \$16.4 billion to developed countries. In either scenario, the largest recipient of welfare gains is China at \$14.8 billion and \$10.6 billion, respectively. These figures represent nearly half of all gains shown for the developing world, and slightly more than 1/4 of the gains overall. The study suggests that some regions, such as Sub-Saharan Africa would be net losers in manufactured goods liberalization. In terms of net gains or losses of world export market share for developing country manufacturing exports under the modest scenario, China would be the largest gainer with an approximate 0.33% increase in its share of world exports. Some countries including Brazil, Mexico, South Africa, and the rest of Sub-Saharan Africa would lose industrial market share under the modest scenario. For the United States, the model suggests that real income gains resulting from manufacturing liberalization would be nearly \$6.5 billion for the ambitious Doha scenario and \$4.5 billion in gains for a more modest outcome.

The United Nations Committee on Trade and Development (UNCTAD) also models trade liberalization in industrial sectors. ¹⁴ The UNCTAD model uses a static CGE model that assumes perfect competition and constant returns to scale. The study models welfare gains under free trade and under several "Swiss" formula scenarios, the formula under which negotiations are now taking place (see "Tariff Reduction" below). ¹⁵ Under the complete liberalization scenario, the net welfare benefit accruing to the entire world was estimated at \$200.8 billion, with developing countries accruing \$135.3 billion of that. Over 1/3 of that gain would accrue to China (\$48.6 billion). The EU would receive the largest gains among developed countries at \$28.5 billion, and the study predicted the United States would receive \$11.2 billion in benefits.

The UNCTAD study also models Swiss formula reductions using coefficients equaling the average weighted industrial bound tariff by group (3.4% for developed countries, 12.5% for developing countries) with one scenario modeling the respective coefficients at twice that level. This model generated net welfare gains between \$107.6 billion and \$134.7 billion. Under the scenarios, developing countries gained \$65.2 billion to \$86.9 billion of this figure, nearly 2/3 of the gains. Again, China gained the most between \$34.8 billion and \$41.2 billion, around ½ of total world welfare gains. The model shows U.S. gains of \$5.8 billion and \$7.0 billion, respectively. While this study has the advantage of using an agreed-upon negotiating modality, the study does not use coefficients actually proposed during the negotiations.

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¹⁴ Santiago Fernandez de Cordoba and David Vanzetti, "Now What? Searching for Solutions to the WTO Industrial Tariff Negotiations," http://192.91.247.38/tab/events/namastudy/coping.asp?pf=1.

¹⁵ The study also modeled other tariff cutting modalities that were not adopted by WTO negotiators; these are not considered here.

A 2006 **Organization for Economic Cooperation and Development (OECD)** study found that worldwide net welfare gains from full tariff liberalization in manufactured goods could be \$23.4 billion, which represented 56% of all tariff reduction gains. Seventy-three percent of this gain went to developing countries (\$17 billion) with \$6.3 billion accruing to the developed world. In relation to the size of their economies, developing countries gained relatively more with such gains equaling 0.33% of developing country GDP, versus 0.05% for developed countries. Notable in this survey was an outcome showing that North America would suffer the largest welfare loss from manufacturing liberalization (\$6.8 billion) due to, according to the authors, an unfavorable terms-of-trade effects in the motor vehicle and related industries, resulting from lower prices in the sector. The study also modeled several Swiss formula scenarios, but the models did not differentiate between agriculture and manufacturing tariffs.

Because of the differing assumptions made in these models and the different datapoints generated by them, it is difficult to generalize about their results. All but one found a greater net welfare benefit from liberalization of manufacturing tariffs than from agriculture. The studies suggest that developing countries would gain the most from manufacturing liberalization, at least in relative terms, and that the single largest gainer in terms of net welfare benefit would be China. Most of these studies indicate the United States could achieve modest net welfare gains from manufacturing liberalization.

Major NAMA Negotiating Issues

Tariff Reduction

The principal negotiating issue in the NAMA talks has been over the tariff formula. The December 2005 Hong Kong Ministerial declaration endorsed the use of a non-linear, "Swiss" style, tariff reduction formula. This result builds on previous negotiations, beginning with the Doha Ministerial Declaration, which launched the round in November 2001. That Declaration committed member nations to negotiate the reduction or elimination of tariffs, based on modalities to be agreed in the talks. Negotiating modalities discussed for the NAMA talks included cuts determined by formula, by a request-offer approach, or by agreement to harmonize or eliminate tariffs in a specific sector—all of which had been used in previous rounds of negotiations.

The Doha Declaration called for the reduction or elimination of tariff peaks or tariff escalation. Tariff peaks refer to a country's adoption of the maximum allowable tariff in order to protect sensitive products from competition. Tariff peaks are levied by the United States for certain textile products, footwear, and watches. Tariff escalation is the practice of increasing tariffs as value is added to a commodity. As an example of tariff escalation, cotton would come in with a low tariff, fabric would face a higher tariff, and a finished shirt would face the highest tariff. Tariff escalation is often employed to protect import-competing, value-adding industries. Peak tariffs and escalations tend to be levied particularly against the products of developing countries, thereby adding to the cost of consumer goods in developed countries.

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¹⁶ Prezemyslaw Kowalski, "The Doha Development Agenda: Welfare Gains from Further Multilateral Tariff Liberalization," in *Trading Up: Economic Perspectives on Development Issues in the Multilateral Trading System*, OECD, 2006, p.32.

Negotiations to achieve modalities proceeded at a slow pace, but after more than two years including the ill-fated Cancun Ministerial, the July 2004 Framework Agreement endorsed a nonlinear formula applied on a line-by-line basis as a modality to conduct tariff reduction negotiations. A non-linear formula works to even out or harmonize tariff levels among participants. This type of formula would result in a greater percentage reduction of higher tariffs than lower ones, resulting in a greater equalization of tariffs at a lower level than before. Negotiations on a "line-by-line" basis means that the formula would not be applied as an average to industrial categories, but to the tariff line of each individual product. A harmonization formula would also work to reduce tariff peaks and tariff escalations, another stated goal of the Doha Declaration. By contrast, an example of a linear formula would be one that reduced tariffs by a certain percentage across the board. Consequently, this formula would not change the relative tariff rates among members. A country with relatively high tariffs before undergoing the formula would still have high tariffs relative to other countries afterwards. This approach is generally favored by countries with high tariffs or certain tariff peaks that the country seeks to preserve.

After a further 18 months of largely fruitless negotiations, the December 2005 Hong Kong Ministerial formally adopted the Swiss formula as the non-linear formula by which industrial tariff cuts would be negotiated. It is known as the Swiss formula because it was the formula proposed by Switzerland, and later adopted by GATT members, to cut tariffs in the 1970s Tokyo Round. The Swiss formula is.

$$T = at/(a+t)$$

where T, the resulting tariff rate, is obtained by dividing the product of the coefficient (a) and the initial tariff rate (t) by the sum of the coefficient (a) and the initial tariff (t). Selection of the coefficient is key, because it determines the final tariff; a lower coefficient results in a lower tariff (T). In addition, the equation works in such a way that the coefficient also represents the country's maximum tariff after the formula has been applied.

Although the Ministerial agreed to a Swiss formula, it did not agree on the coefficients that would finalize the negotiating modalities. Before the Round was temporarily suspended in July 2006, negotiations in Geneva were being conducted around the use of two coefficients for the formula, with one value for developed countries and another, higher, value for developing countries. The EU in its cross-cutting proposal of October 2005 proposed a coefficient of 10 for developed countries and 15 for developing and least developed countries (LDCs); this ratio was subsequently endorsed by the United States. ¹⁷ Pakistan proposed that the developed countries have a coefficient of 6 and developing countries a coefficient of 30. ¹⁸ Other proposals suggested a range of figures. New Zealand has suggested that the difference between the two should be no more the five percentage points. ¹⁹ Developing countries contend that they should be afforded a higher coefficient based on language in the Doha Ministerial Declaration affording them "less than full reciprocity in reduction commitments."

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[&]quot;U.S., EU to Work Together on NAMA," Inside U.S. Trade, March 3, 2006.

¹⁸ "The Way Forward, Communication from Pakistan, (TN/MA/W/60), July 21, 2005.

¹⁹ "New Zealand's Ambitious NAMA Plan," Washington Trade Daily, June 9, 2006.

An alternate developing country proposal distinct from the Swiss formula with multiple coefficients was one put forth by Argentina, Brazil, and India, known as the ABI proposal.²⁰ ABI also used the Swiss formula, but it proposed the coefficient to be the tariff average of each country, thus each country would have its own coefficient. ABI would not result in tariff harmonization among countries because there would not be a common coefficient; however, it would result in harmonization across products within each country's tariff schedule.²¹

Just prior to the ill-fated June 30-July 1, 2006 mini-ministerial in Geneva, Pascal Lamy suggested a possible compromise in the form of the 20-20-20 proposal. In addition to advocating a ceiling of \$20 billion in U.S. domestic agriculture support and the use of the G-20 agricultural market access proposal for developed countries, Lamy advocated a developing country of coefficient of 20 for the NAMA Swiss formula. The NAMA element of the proposal was criticized by U.S. and EU officials as lacking ambition. U.S. manufacturing groups scored the proposal as failing to provide sufficient market access to make a deal worthwhile to U.S. manufacturers. Brazil, for its part, attacked the proposal as too ambitious, and renewed its call for a coefficient of 30 for developing countries.

The NAMA chairman's negotiating draft of July 2007 (and reaffirmed in February 2008) suggested a Swiss formula coefficient of [8-9] for developed countries and between [19-23] for developing countries. The chairman calculated that such a coefficient range would yield an average tariff of 3%, 90% of tariffs below 5%, and tariff peaks of 7%-8.5% for the United States and Europe. For developing countries, the chairman calculated the average bound tariff resulting from the suggested coefficients as 12%, with 80% to 90% of tariff lines below 15%. Thirty-one developing countries would apply these tariff reductions; least developed countries (LDCs) would be exempt from reduction commitments and recently-acceded members (such as China, Taiwan, and Vietnam) would be granted a higher coefficient to reflect the ambitious reductions these countries have already undertaken in order to join the WTO.

The July 2007 NAMA draft reflected a middle ground between the more ambitious coefficient range [10-15] of the developed country proposal and that of the NAMA-11 [10-35]. Such a middle ground was proposed by Chile and drew support from Colombia, Mexico, Costa Rica, Hong Kong, Peru, Singapore, and Thailand. This proposal called for a developed country coefficient of "less than 10" and "between the upper teens and low twenties" as a developing country coefficient.²³

Reaction to the July 2007 draft was cool on all sides. The NAMA-11²⁴ group of countries criticized what they considered the asymmetry of the proposal with the agriculture text, claiming that it demanded more from developing countries than the agriculture text did from developed countries. It also claimed that the proposal did not reflect the "less than full reciprocity" commitment for developing countries reflected in the Doha Declaration.²⁵ Three members of

²⁰ "Market Access for Non Agricultural Products," (TN/MA/W/54), April 15, 2005.

²¹ Sam Laird, "Economic Implications of WTO Negotiations on Non-Agricultural Market Access.," http://www.nathaninc.com/nathan/files/ccLibraryFiles/Filename/0000000044/Economic%20Implications_Laird.pdf.

²² "Chairman's Introduction to the Draft NAMA Modalities," (JOB(07)/126), July 17, 2007, p.3. Brackets indicate a range of possible proposals, or disagreement or uncertainty concerning such proposals.

²³ "Developing Country Support Builds For Compromise NAMA Proposal," *Inside U.S. Trade*, July 13, 2007.

²⁴ NAMA-11 is an *ad hoc* negotiating group of developing countries consisting of Argentina, Brazil, Egypt, India, Indonesia, Namibia, Philippines, South Africa, Tunisia and Venezuela.

²⁵ Statement of the NAMA-11 Group, July 25, 2007, available at http://www.iatp.org/tradeobservatory/ (continued...)

NAMA-11, Argentina, Bolivia, and Venezuela, indicated that the draft could not be the basis for further negotiations.²⁶ Meanwhile, the United States and the European Union scored the proposal for not being ambitious enough to provide a satisfactory level of market access.

July 2008 Draft

The current July 2008 draft, as modified by the Lamy proposal at the July 2008 Ministerial and incorporated in the chairman's post summit report, ²⁷ suggests an 8 coefficient value for developed countries and a sliding scale approach for the value of the coefficient for developing countries. Under this proposal, the developing country coefficient would be tied to the use of one of the so-called 'Paragraph 7' flexibilities that had been introduced in the July 2004 framework agreement. Under that agreement, developing countries may choose one of the following flexibilities: (1) apply less than formula cuts for up to 10% of tariff lines provided that the cuts applied are no less than half the formula cuts and that the tariff lines do not exceed 10% of the value of a member's non-agricultural imports, or (2) keep tariff lines unbound or not applying formula cuts for 5% of tariff lines provided they do not exceed 5% of the value of a member's non-agricultural imports. The bracketed percentages were initially posited as working hypotheses, then adopted by the July 2007 draft modality text, and then removed in the February 2008 revised draft. While this was seen by some as a step backward in the negotiations, according to the chairman it was done to increase the range of flexibilities available to developing countries to encourage them to accept the existing range of coefficients in the overall tariff reduction formula.²⁸

The result of these negotiations has been the proposal to tie these Paragraph 7 or 'sliding scale' flexibilities directly to the overall formula cuts. Thus, a developing country adopting coefficient x=20 could choose (1) to apply less than formula cuts for up to 14% of tariff lines provided that the cuts applied are no less than half the formula cuts and that the tariff lines do not exceed 16% of the value of a member's non-agricultural imports, or (2) keep tariff lines unbound or not applying formula cuts for 6.5% of tariff lines provided they do not exceed 7.5% of the value of a member's non-agricultural imports.

A developing country adopting coefficient y=22 would adopt figures in the July 2007 brackets (above). A developing country adopting coefficient z=25 would not avail itself of any flexibilities, as it has made the least formula reductions. The range of values for the coefficient and for the percentages of tariff lines subject to the flexibilities indicate the range of figures subject to final negotiation.

The use of these flexibilities has been further complicated by the so-called 'anti-concentration clause,' which provides that the flexibilities available to developing countries shall not be used to exclude full chapters of the harmonized tariff schedule (HS) from full formula reductions. Both the United States and the EU have been adamant that the flexibilities should not be used in a way to exclude whole industrial sectors from formula cuts, as reflected in the 2 digit HS chapter.

(...continued)

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²⁶ "U.S. Criticizes Draft NAMA Text, Refutes Developing Nation's Arguments on Tariffs," *International Trade Reporter*, July 26, 2007.

²⁷ "Market Access for Non-Agricultural Products," [Job(08)/96], August 12, 2008, available at http://www.wto.org/english/tratop_e/markacc_e/chair_texts_12aug08_e.doc

²⁸ "Draft Modalities for Non-Agricultural Market Access," (TN/MA/W/103), February 8, 2008, p.6.

Meanwhile, developing countries have opposed expanding the scope of the anti-concentration clause beyond the statement that it should not apply to full HS chapters, as agreed by all members at Hong Kong. The Lamy draft modalities set full formula tariff reductions as a minimum of 20% of national tariff lines or 9% of the value of imports of the Member in each HS chapter.

The July 2008 draft also provides for certain flexibilities for countries participating in customs unions such as the Southern African Customs Union (SACU)(South Africa, Namibia, Botswana, Lesotho, and Swaziland) and Mercosur (Brazil, Argentina, Uruguay, and Paraguay). These flexibilities are sought to allow these countries to maintain a common external tariff, while subjecting them to formula cuts.

Countries that have recently joined the WTO, so-called 'recently-acceded members (RAMs), had to commit to tariff reductions and bindings as a part of their accession negotiations. Thus, they have been given some additional flexibilities in the proposed modalities. Albania, Armenia, Macedonia, Kyrgyzstan, Moldova, Saudi Arabia, Tonga, Vietnam, and Ukraine will not be required to undertake any tariff reductions beyond their accession commitments this round, and China, Oman, Croatia, and Taiwan will have extended periods in which to phase-in their tariff commitments. Another group of countries, so-called 'small and vulnerable economies' (SVEs), countries with less than 0.1% of world trade and whose economies are reliant on the production of a few products, would be allowed flexibilities in the amount and structure of their tariff reductions, but would be required to increase the level of their tariff bindings. However, Venezuela's request to be considered as an SVE, due to what it claims to be its concentrated pattern of imports and reliance on petroleum exports, was not looked upon favorably by the United States.²⁹

Tariff Binding

A second issue in the negotiations is the process of tariff binding and the use of bound tariffs in the reduction formula. Under Article II of the GATT, tariffs are "bound" at a specific levels of customs duty when an agreement is reached between nations on a most-favored nation basis to: (1) lower a duty to a stated level; (2) maintain an existing level of duty; or (3) not to raise a duty above a specified level. Tariffs can be bound as a specific duty per item or as an *ad valorem* duty. An *ad valorem* tariff is set as a percentage of the value of an imported good, while a non-*ad valorem* or specific tariff uses some other measurement such as a fixed rate per unit or weight of goods. The binding of tariffs provides for stability and predictability in the trading system by preventing the raising of tariff rates except under strict circumstances accompanied by compensatory actions.

The Uruguay Round achieved success in binding tariffs in both developing and developed countries. For all countries, the percentage of imports under bound rates increased from 68% to 87%. The percentage of imports under bound rates increased from 78% to 99% in developed countries, from 73% to 98% in transition economies, and from 21% to 73% in developing countries. ³⁰

²⁹ "U.S. Firm on NAMA Sectoral Commitments, As Chair Issues Warning on Unresolved Items," *International Trade Reporter*, July 10, 2008.

³⁰ "Understanding the WTO. Tariffs: More Bindings and Closer to Zero," http://www.wto.int/english/thewto_e/whatis_e/tif_e/agrm2_e.htm.

The value of tariff binding to the world trading system is that it sets a maximum tariff which cannot be exceeded without penalty. However, many countries actually apply much lower tariffs to imported goods. These applied tariffs can vary widely from bound tariffs especially in developing countries. Although the United States, the EU, and several other NAMA "Friends of Ambition" advocated the use of applied tariffs as the basis by which tariff formula cuts be made, the 2004 July Framework and the subsequent Hong Kong Ministerial document decided to implement tariff cuts based on bound rates.

This decision had implications for the tariff formula. Because bound tariffs are often significantly higher than applied tariff levels, reductions from applied rates would result in greater cuts to actually applied tariffs. Thus for the negotiations to provide actual market access, as opposed to just cutting the binding rate, the formula coefficient must be lower. Higher coefficients would work to exclude some tariff lines from any actual cuts in applied tariffs, especially in developing countries.

A second goal of the Doha negotiations in this area concerns the binding of tariffs by developing countries. Because the binding process commits a country not to raise tariffs beyond a certain level, binding has been seen as the first step in tariff reduction. Under the 2004 Framework Agreement, reductions in unbound tariff lines would be calculated from twice the currently applied rate. However, the Hong Kong Ministerial Declaration adopted a 'constant non-linear mark-up approach,' but did not adopt any particular formula. Generally, such an approach would add a certain number of percentage points to the applied rate of the unbound tariff line in order to establish the base rate on which the tariff reduction formula would be applied. The July 2008 draft suggests a mark-up of applied rate plus 25 percentage points.³¹

The Framework also provided flexibility for developing countries who have bound less than 35% of their non-agricultural tariff lines. They would be exempt from tariff reduction commitments in the Round provided that they bound the remainder of their non-agricultural tariff lines at an average level of 28.5%. Subsequent discussions on this issue have backtracked somewhat, however, with the July 2008 draft proposes that countries with binding coverage below 15% of tariff lines bind [70-90%] of currently unbound tariffs, and countries and countries with binding coverage at 15% or above bind [75-90%] of their tariff lines.³²

In addition, all tariffs are to be bound in *ad valorem* terms; all remaining non-*ad valorem* tariffs would be converted and bound by a methodology to be determined through negotiation. While *non-ad valorem* tariffs are more prevalent in agriculture, they continue to be employed for non-agricultural tariffs and are not solely a developing country phenomenon. One study calculates that 4.2% of lines in the United States tariff schedule remain non *ad-valorem* and for Switzerland the figure is 82.8%.³³

Special and Differential Treatment for Developing Countries

Aside from the formula-based flexibilities and binding concessions described above, the negotiations, it provides least developed countries (LDCs) with other special and differential

³¹ TN/MA/W/103/Rev.2, p.3.

³² ibid, p. 5.

³³ Marc Bacchetta and Bigit Bora, "Industrial Tariff Liberalization and the Doha Development Agenda," WTO Working Paper, 2003, p. 15.

treatment. LDCs would not be required to apply formula cuts, nor participate in the sectoral cuts, but would undertake to "substantially" increase their level of bound tariffs. The Hong Kong Ministerial also agreed that developed countries and developing countries in a position to do so would grant LDCs duty-free and quota-free access to 97% of their tariff lines as part of their Doha obligations. The negotiations have also acknowledged the challenge of designing tariff reductions for countries that are already beneficiaries to various preference programs such as the U.S. African Growth and Opportunity Act or the EU's Everything But Arms (EBA) Initiative. To ameliorate such preference erosion, the draft modalities provide extended implementation periods for tariff reduction for certain tariff lines on which some developing now receive non-reciprocal tariff preferences.

Non-Tariff Barriers

The industrial market access talks also encompass negotiations on the reduction of non-tariff barriers (NTBs). Non-tariff barriers include such activities as import licensing, quotas and other quantitative import restrictions, conformity assessment procedures, and technical barriers to trade. The 2004 July Framework instructed members to submit notification of NTBs by October 31, 2004, for negotiators to identify, examine, categorize, and ultimately, negotiate. Although this notification procedure occurred, little substantive negotiations on the NTBs identified subsequently took place.

The NAMA drafts have included various horizontal and vertical proposals that would be subject to text-based negotiations under a modalities agreement. The horizontal proposals include a proposed agreement on remanufactured goods and a 2006 EU-and NAMA-11-sponsored mechanism to facilitate solutions to specific NTBs, apart from the dispute settlement system, as they arise. The vertical proposal have been put forward concerning NTBs for chemical products; electronics; electrical safety and electromagnetic compatibility; labeling of textiles, clothing, footware, and travel goods; and automotive products.

Sectoral Approaches

WTO members have agreed to consider the use of sectoral tariff elimination as a supplementary modality for the NAMA negotiations. Sectoral initiatives, such as tariff elimination or harmonization, permit a critical mass of countries representing the preponderance of world trade in a commodity to agree to eliminate tariffs in that good. Such an arrangement requires the participation of the major players, however, because under the most-favored-nation principle those tariffs would be eliminated for all countries, even those not reciprocating. The 1996 Information Technology Agreement is an example of a completed sectoral tariff elimination agreement in which 41 countries have eliminated tariffs on 180 products.

The Hong Kong Ministerial Declaration took note of these sectoral negotiations and instructed negotiators to determine which sectors "could garner sufficient support to be realized." Sectoral

³⁴ The EBA is an EU tariff preference program that provides LDCs with tariff-free, quota-free access for their exports, excluding armaments.

³⁵ Now known as "Ministerial Decision on Procedures for the Facilitation of Solutions to Non-Tariff Barriers," (TN/MA/W/103/Rev.2), Annex 5, p. 20.

³⁶ "Doha Work Program: Ministerial Declaration" (WT/MIN(05)/DEC), December 22, 2005, p. 4.

negotiations have been proposed for automotive and related parts; bicycles and related parts; chemicals; electronics/electrical products; fish and fish products; forest products; gems and jewelry; hand tools; industrial machinery; open access to enhanced health care; raw materials; sports equipment; toys; and textiles, clothing and footwear.³⁷

The United States has been the main proponent of sectoral negotiations and has linked level of overall formula cuts to participation in the sectorals. The United States has sought to have developing countries commit to sectorals and to the level of cuts prior to determining the level of formula cuts.³⁸ Some developing countries have participated in these discussions, and have proposed some sectors, other developing countries have questioned engagement in sectoral negotiations prior to settling on a formula for negotiations.

While the current NAMA draft, as modified by the Lamy proposal and the subsequent chairman's report, reaffirms the voluntary aspects of sectoral negotiations, it calls upon members to commit to negotiate the terms of at least two sectoral initiatives in order to achieve critical mass (or "with a view to making them viable" in the chairman's report). Any developing country member participating in a resulting sectoral initiative would be able to increase its coefficient in the overall tariff reduction formula by an increment to be determined. The July 2008 draft also introduced the possibility of special and differential treatment for developing countries participating in the sectorals including "0 for x" tariff reductions, longer implementation times and partial product coverages. The chairman's statement also broached the exclusion from sectorals of tariff lines for which the Paragraph 7 flexibilities were applied (see above) by developing countries.

The revisions to the NAMA text have proved controversial. The National Association of Manufacturers charges that the chairman's text "undercuts the possibility of meaningful sectoral agreements," through the expansion of special and differential treatment, and urges USTR Schwab not to allow this document to become the negotiating text going forward.³⁹ The switch in the terms used to describe the level of participation that would make a sectoral initiative feasible, from 'critical mass' to 'viable' was also seen as weakening the text. This is because the term "critical mass" has come to mean the initiative would include countries comprising 90% of world trade, thus requiring the participation of China and maybe other developing countries. The term viable, by contrast, does not have such a defined connotation, perhaps giving these countries a pass on participation.⁴⁰

³⁷ TN/MA/W/103/Rev.2, p. 6.

^{38 &}quot;U.S. Firm on NAMA Sectoral Commitments, As Chair Issues Warning on Unresolved Items," WTO Reporter, July 9, 2008.

³⁹ National Association of Manufacturers, "NAM Dismayed by New WTO Industrial Text," Press Release, August 14,

⁴⁰ "U.S. Charges NAMA Report Weakens Sectoral Initiative Language," *Inside U.S. Trade*, August 15, 2008.

Prospects for the Negotiations

Congressional Consideration

Although Doha Round negotiations are continuing, U.S. trade promotion authority (TPA) expired on July 1, 2007. The parties likely will seek to achieve progress in the talks in the hope that the 110th Congress may extend TPA to consider a possible Doha Round agreement. Congressional consideration of TPA extension legislation may provide a venue for a debate on the status of the Round and the prospects for reaching an agreement consistent with principles set forth by Congress in granting TPA.

If progress is not made in the Doha Round, or if it goes into a period of limbo, there may be consequences for industrial tariff liberalization. First, the negotiation of bilateral and regional free trade agreements may accelerate. In the wake of the 2006 negotiation suspension, the United States, the EU, Brazil, and India all announced plans to concentrate on additional bilateral liberalization. While bilateral or regional free trade agreements (FTA) potentially can completely remove tariffs or any other trade distortions between negotiating countries, the proliferation of these agreements may complicate international trade as exporters must navigate competing tariff schedules, rules of origin, or other non-tariff barriers. This prospect can lead to trade diversion, a circumstance in which countries trade based on tariff levels and not on comparative advantage. A related question is whether the proliferation of these agreements may erode the willingness of participating countries to negotiate multilaterally, especially if countries are able to strike deals with their major trading partners.

A further consequence may be the loss of agreements already made at the negotiations. While the NAMA talks are far from completed, some components (such as the Swiss formula) have been agreed. It is possible that prolonged disagreements may imperil the progress that has been made as countries may withdraw what they have agreed to without signs of forward momentum.

It is also unlikely that the NAMA talks can achieve a breakthrough in the absence of progress in the agriculture talks. For good or ill, the agriculture talks have become the linchpin of the negotiations. Aside from the intrinsic importance developing countries place on the agricultural talks, many developing countries appear to have used the NAMA negotiations as a bargaining chip to hold out for better agriculture offers. These countries often hold defensive positions in the NAMA talks and seek expanded agricultural access in protected and subsidized developed country agricultural markets as recompense for any NAMA concessions they might make. Conversely, developed countries seek market openings in industrial products to offset their concessions in agriculture. Because of the negotiating principle of the single undertaking, in which nothing is agreed until everything is agreed, separate agreements in discrete negotiating areas are unlikely.

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