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NON-TARIFF MEASURES AND INDUSTRIAL NATION IMPORTS OF AGRICULTURAL PRODUCTS

Don P. Clark

Abstract

Trade coverage ratios were calculated to assess the 1989 incidence of non-tariff measures (NTMs) on imports of agricultural products by major industrial nations. Overall, 36 percent of all food items were found to be covered by one or more NTM in the European Community. Corresponding figures for Japan and the United States were 59 and 17 percent, respectively. Imports of agricultural products confront a wide variety of NTMs in markets of industrial nations. Results of the analysis were used to shed light on prospects for reaching agreements on agricultural reform issues in the Uruguay Round of multilateral trade negotiations.

Key words: non-tariff measures, protectionism, agricultural trade policy

Little progress has been made in liberalizing trade in agricultural products during previous rounds of multilateral trade negotiations conducted under the auspices of the General Agreement on Tariffs and Trade (GATT). Trade intervention using non-tariff measures (NTMs) is necessary to validate domestic price-support and income policies used by industrial nations to influence agricultural production. Agreements on trade policy issues have not been reached because some industrial nations have resisted intrusion into their national policies. Agricultural protection in the form of NTMs has persisted. Industrial nations have increased their reliance in recent years on bilateral or discriminatory measures, such as voluntary export restraint agreements and anti-dumping/countervailing duty actions, to restrict imports of agricultural products.

The research reported here calculated trade coverage ratios to assess the 1989 incidence of NTMs on agricultural imports of the European Community (EC), Japan, and the United States.¹ Three features of this study are unique. First, trade coverage ratios, expressing the share of imports subject to a given NTM, were calculated using the most recent data available.² Estimates of NTM incidence reflect important changes in NTM use that have occurred in recent years.³ Second, unlike previous studies, three major NTM categories and a variety of selected NTMs were evaluated to provide a more complete picture of both the incidence and diversity of NTMs used by industrial nations. A third distinguishing feature of this study relates to the level of product aggregation used. Since trade coverage ratios for aggregate product groups tend to obscure the importance of NTMs for certain agricultural imports, results are reported for selected agricultural products known to confront NTMs, as well as for major product groups. Inter-country comparisons of NTM use are expected to shed light on prospects for reaching agreements on agricultural reform issues in the Uruguay Round of multilateral trade negotiations.

This paper is arranged in the following manner. Issues related to the measurement of NTM trade coverage are discussed in the next section, followed by an analysis of the results. Major conclusions are summarized in the final section.

NON-TARIFF MEASURES

Non-tariff measures encompass any measures (public or private), other than traditional tariffs, that can be used either directly or indirectly to distort international trade flows. NTMs raise prices of both imports and import-competing goods. These meas-

¹Domestic agricultural support programs at the root of trade distortions were not considered here. Hayami, Koester and Tangermann, and Gardner discussed domestic agricultural programs.

²Walter reported 1967 trade coverage ratios for 2-digit SITC product groups using one NTM category. Laird and Yeats (1990a) calculated 1986 trade coverage ratios for "all food" group using two NTM categories. Additional estimates of 1986 trade coverage ratios based on five NTM categories, and 2-digit SITC product groups are presented in Laird and Yeats (1990b).

³A list of NTMs implemented or renewed during the 1986-1989 period is presented in the United Nations Conference on Trade and Development (1989, pp. 1-3).

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ures favor domestic over foreign supply sources by causing importers and foreign exporters to charge higher prices and/or restrict import volumes.⁴

Industrial nations use a variety of NTMs to support domestic policies intended to raise domestic prices and farm incomes in their agricultural sectors. These NTMs can be arranged into groups according to whether they operate primarily as quantitative restrictions, or through prices and costs. Quantitative restrictions operate to limit the quantity of imports. Included here are non-automatic import licensing procedures, quotas/prohibitions, voluntary export restraints, and single channels (state monopolies) for imports.

Non-automatic import licenses are issued on a discretionary basis and are used to restrict imports of a given product. Licensing requirements can restrict the volume of imports, as does a quota, or they can be used to impose on the exporter or importer specific conditions that result in lower levels of imports. Examples of the latter would be to require the importer to purchase a specified amount of the domestically produced substitute, or to agree to an authorized use for the import as a prior condition to importation.

Import quotas specify a maximum quantity of a product that may be imported during a given time period. Quotas are administered either on a global first-come first-served basis, or on a bilateral basis to restrict shipments from a specific supply source. A prohibition is an unconditional ban on imports. Imports can also be prohibited for specific uses.

Voluntary export restraint agreements are negotiated between an exporting country and an importing country. The exporting country voluntarily restricts the maximum quantity of a product shipped to the importer's market over a given time period. This bilateral agreement is generally motivated by the exporter's desire to avoid imposition of mandatory restrictions by the importer at a later date.

A single channel for imports specifies that imports of designated products must be channeled through state-owned or state-sanctioned agencies. Government-authorized trade monopolies have economic effects similar to those of other quantitative restrictions when they are used to control the trade volume to achieve a designated level of production in domestic import-competing activities.

Price control measures restrict imports by increasing prices of imported products. Included here are

price actions (variable levies, minimum prices, reference prices), anti-dumping/countervailing duty actions, automatic licensing requirements, and a variety of para-tariff measures.

The most restrictive price action is considered to be the variable levy, the cornerstone of the EC's Common Agricultural Policy (CAP). Variable levies are sliding-scale tariffs that raise import prices to a level deemed to be consistent with domestic policy goals. Exports of surpluses are encouraged through the use of sliding-scale export subsidies. Variable import and export levies insulate the domestic market from world price fluctuations, and their destabilizing impact on world prices is well known (Sampson and Snape; Sampson and Yeats).

The original intent of anti-dumping/countervailing duty actions was to counter unfair trading practices abroad. Over time, these measures have become protectionist tools. The threat of imposing such actions and the potential harassment involved in the investigative procedures can restrict trade flows in the same way as other NTMs.⁵ Since these actions can be focused on a specific product from a particular supply source, they are often referred to as "made-to-measure" protectionist devices. Anti-dumping measures include investigations to determine whether imports are sold at less-than-fair-value, duties to offset dumping, and undertakings on the part of the exporter to counter the effects of dumping. Countervailing measures include investigations to determine whether imports are sold at less-than-fair prices as a result of foreign subsidization, duties to offset this practice, and undertakings offered by the foreign supplier to offset effects of prior subsidization.

Automatic import licenses are granted freely, generally with the importing nation intending to monitor imports. However, these import surveillance measures are often interpreted as a signal of concern over import surges, and can discourage imports as do other trade control measures. License procurement places additional administrative and financial burdens on the importer, and may also increase costs by delaying shipments.

Para-tariff measures include a variety of charges that increase the cost of imports in a manner similar to traditional tariffs. Measures other than traditional tariffs that are used to discourage imports of agricultural products include seasonal tariffs and tariff-quotas.⁶ Seasonal tariffs refer to import charges in effect

⁴NTMs and non-tariff barriers (NTBs) are often treated as synonymous terms. NTBs exert pronounced restrictive effects, and are considered to be a subset of NTMs. NTMs also include trade distortions that exhibit restrictive effects that depend on the manner and extent to which they are applied. Examples include anti-dumping duties and automatic import licenses (Baldwin).

⁵The protective effects of anti-dumping duty actions have been studied by Herander and Schwartz, and by Messerlin.

for a given period of the year. Tariff-quotas designate a primary charge for a specified initial quantity of imports, while a higher charge is assessed on imports in excess of the quota amount.

METHODOLOGY

Non-tariff measures include a variety of specific trade distorting instruments which differ in degree of restrictiveness. The United Nations Conference on Trade and Development's (UNCTAD) Data Base on Trade Control Measures codes more than 100 different product-specific NTMs. A necessary step in assessing the extent of NTM application on imports is to establish meaningful NTM categories. The UNCTAD secretariat uses three basic working definitions: "broad" definition NTMs; "narrow" definition NTMs; and quantitative restrictions.

The broad definition of NTMs includes all NTMs applied at national borders for which information is recorded in UNCTAD's data base. Included here are para-tariff measures, automatic licenses, anti-dumping/countervailing duty actions, price actions, non-automatic licensing, quotas/prohibitions, voluntary export restraint agreements, and single channels for imports.

The narrow definition is derived by excluding from the broad definition para-tariff measures, anti-dumping/countervailing duty actions, and automatic licensing requirements. Excluded NTMs are those which have a potential for restricting imports, but are viewed as being less restrictive in impact than NTMs retained in the narrow definition group. Price actions (including variable levies), non-automatic licensing, quotas/prohibitions, voluntary export restraint agreements, and single channels for imports are included in the narrow definition.

Quantitative restrictions (QRs) operate directly to restrict the quantity of imports of a particular good from all sources, or from a single supply source. Non-automatic licenses, quotas/prohibitions, voluntary export restraints, and single channels for imports are included in this NTM category. These NTMs exhibit pronounced restrictive impacts on imports. Quantitative restrictions, along with the variable levy (a price action), are commonly referred to as "hard-core" NTMs.⁷ Considerable importance is attached to these hard-core measures when assess-

ing the severity of NTMs on imports of agricultural products.

The ideal measure of restrictiveness associated with a specific NTM would compare actual imports entering under protection with what imports would have been under free trade. Since such a comparison cannot be made, the incidence of NTMs was assessed in this study using the trade coverage ratio, which measures the share of total imports (by value) subject to a given NTM (Walter; Nogues et al.; Sampson). The trade coverage ratio indicates the extent of NTM application on products rather than the specific effects of NTMs on prices, production, consumption, and import volumes.

NTMs are often imposed on imports of a specific product from a specific supply source. It was therefore necessary to start the analysis at the tariff-line level of product aggregation. Agricultural imports of the EC, Japan, and the United States from individual supply sources were identified from GATT trade tapes.⁸ The value of imports covered by a given NTM for each product was determined by matching imports at the tariff-line level from each supply source with information on product- and country-specific NTMs applied in 1989, contained in UNCTAD's Data Base on Trade Control Measures (United Nations Conference on Trade and Development, 1990). When a single tariff-line product was covered by more than one NTM, the individual trade flow was counted only once when calculating trade coverage. Trade coverage figures were aggregated, and trade coverage ratios were calculated for product groups and NTM definitions.⁹

Shortcomings associated with the use of trade coverage ratios should be kept in mind when assessing results of the analysis (Laird and Yeats 1990a, 1990b). Certain sets of trade coverage ratio calculations understated the extent of NTM application because some NTMs, including government procurement policies, production and export subsidies, health and safety requirements, and restrictive business practices, were not coded in the data set.¹⁰ Trade coverage ratios were calculated using NTM-distorted import values, and are therefore subject to the familiar "own import" bias. Protection tends to be understated for product groups facing extremely restrictive NTMs, since calculations embody the

⁶ Additional examples of para-tariff measures include customs charges, additional import charges, and advance import deposits.

⁷ The term "hard-core" NTM is reserved for the most restrictive NTMs (Laird and Yeats 1990a, 1990b).

⁸ Two major agricultural importers, Australia and Canada, were not included in the analysis due to data unavailability.

⁹ For example, the trade coverage ratio (TC) for a particular NTM applied on a global basis (to imports from all suppliers) would be calculated using the following formula: $TC = (\sum_i D_i * V_i / \sum_i V_i) * 100$, where V_i is the value of imports in tariff-line item i , and D_i is a dummy variable, equal to one if an NTM is applied, and zero otherwise.

¹⁰ Information on omitted NTMs is not available from any other source.

lower NTM-distorted import values. Calculations were performed at the tariff-line level of product aggregation, and were based on annual import figures. NTM coverage tends to be exaggerated in cases in which an NTM applied only to part of a tariff-line, and when the NTM was in effect during part of the year.

INCIDENCE OF NON-TARIFF MEASURES

Table 1 presents 1989 trade coverage ratios calculated for NTMs applied to imports of agricultural products by major industrial nations. Trade coverage ratios, expressing the share of imports, by value,

subject to NTMs, are shown for broad and narrow definition NTMs, for quantitative restrictions, and for selected NTM subcategories of importance to imports of agricultural products.¹¹ For example, the first line of Table 1 pertains to EC imports of all food items, and shows that 36.1 percent of these imports were covered by one or more broad definition NTMs, 33.8 percent by one or more narrow definition NTMs, 20.5 percent by one or more quantitative restrictions, and so on.

Overall, 36 percent of all food items were found to be covered by one or more NTMs in the EC. Corresponding figures for Japan and the United States

Table 1. Trade Coverage of Non-Tariff Measures, 1989^a (percentages)

SITC	PRODUCT COVERAGE	Broad Definition ^b									
		Narrow Definition									
		Quantitative Restrictions (QR)									
		Total	al	ad/cv	Total	Price	Total	nal	q/p	VERs	sc
EUROPEAN COMMUNITY ^c											
0+1+22+4	ALL FOOD ITEMS	36.1	3.2	0.1	33.8	27.2	20.5	18.1	1.7	2.2	0.0
0	Food and live animals ^d	42.9	3.8	0.1	40.2	32.5	24.1	21.4	2.0	2.6	0.0
1	Beverages and tobacco	7.0	0.4	0.0	6.9	5.6	5.5	5.5	0.0	0.0	0.0
22	Oil seeds and nuts	1.4	0.5	0.0	1.0	0.0	1.0	1.0	0.0	0.0	0.0
4	Animal/vegetable oils	4.1	0.2	0.0	3.9	1.1	3.8	1.0	2.8	0.0	0.0
JAPAN											
0+1+22+4	ALL FOOD ITEMS	59.0	0.0	0.0	53.3	6.5	46.8	33.7	14.1	0.0	11.2
0 ^f	Food and live animals	64.2	0.0	0.0	57.6	7.5	50.1	39.0	16.0	0.0	9.3
1	Beverages and tobacco	68.4	0.0	0.0	68.4	0.0	68.4	0.0	0.0	0.0	68.4
22	Oil seeds and nuts	3.3	0.0	0.0	3.3	0.0	3.3	0.0	3.3	0.0	0.0
4	Animal/vegetable oils	9.3	0.0	0.0	9.3	0.0	9.3	9.3	0.0	0.0	0.0
UNITED STATES											
0+1+22+4	ALL FOOD ITEMS	17.4	4.4	5.8	5.5	2.5	5.5	0.0	5.5	0.0	0.0
0	Food and live animals	20.9	5.3	7.0	6.6	3.0	6.6	0.0	6.6	0.0	0.0
1	Beverages and tobacco	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	Oil seeds and nuts	3.3	0.0	0.0	3.3	0.0	3.3	0.0	3.3	0.0	0.0
4	Animal/vegetable oils	1.6	0.0	1.4	0.2	0.0	0.2	0.0	0.2	0.0	0.0

Source: UNCTAD Trade Control Measures Information System.

^aComputations were performed at the tariff-line level, using 1986 import values. Results were aggregated to form relevant product groups.

^bNTM abbreviations are al = automatic licensing, ad/cv = anti-dumping/countervailing duty actions (including investigations, duties, undertakings), Price = price actions (variable levies, minimum pricing), nal = non-automatic licensing, q/p = quota/prohibition, VERs = voluntary export restraint agreements, and sc = single control (state monopoly) of imports.

^cIncludes Belgium-Luxemburg, Denmark, Germany, FR, France, Greece, Great Britain, Ireland, Italy, and the Netherlands. Intra-EC trade was excluded from the calculations.

^dIncludes live animals, meat and preparations, dairy products, fish and seafood, cereal and preparations, fruit and vegetables, sugar and honey, coffee and cocoa, animal feeds, and food preparations.

¹¹When a single tariff-line product was covered by more than one NTM, the individual trade flow was counted only once in the corresponding total. For example, the trade coverage ratio for total quantitative restraints (QRs) would show the percentage, by value, of imports subject to one or more NTMs.

were 59 and 17 percent, respectively. Imports of all food items confronted a variety of NTMs in markets of industrial nations. NTM use tended to be concentrated in the food and live animals (SITC 0) product category.

The EC relies heavily on NTMs to manage trade flows of agricultural products. Narrow definition NTMs and quantitative restrictions covered one-third and one-fifth of imports, respectively. Measures taken under the Common Agricultural Policy (CAP) to achieve minimum guaranteed domestic price supports included price actions (variable levy, minimum prices, reference prices, price surveillance), automatic and non-automatic licenses, and import quotas. NTMs with the largest trade coverage ratios included price actions (variable levy), and non-automatic licensing. These NTMs covered fish, eggs, milk, poultry, grains, and a variety of additional food items. Other NTMs used to control imports of agricultural products included automatic licensing, anti-dumping/countervailing duty actions, and voluntary export restraints.

Japan was found to have the highest trade coverage ratios of all industrial nations. Narrow definition NTMs covered more than one-half of all food item imports. Quantitative restrictions covered nearly 47 percent of imports. Non-automatic licensing and quotas were the most important quantitative restrictions used to maintain domestic price supports. Imports of meat, fish, shellfish, and animal/vegetable oils were subject to non-automatic licensing. Import quotas covered meat, fish, shellfish, dairy products, eggs, fruit, vegetables, barley, flour, starches, sugars, and various processed foods.¹² Price actions (differential price duties) covered imports of pork and refined sugar. Government control (single channel) of distribution channels applied to various products, including alcoholic beverages, salt, and rice. Tariff-quotas and seasonal tariffs (broad definition NTMs) applied to a variety of products, including live animals, cheese, certain citrus fruits, tropical products, flours, and meals.

The United States was a major exporter of agricultural products, and relied less on NTMs to manage trade in these products than did other industrial nations. Both narrow definition NTMs and quantitative restrictions covered slightly more than 5 percent

of imports. Use of import quotas and flexible import fees is governed by Section 22 of the Agricultural Act of 1933. Section 22 authorized the use of NTMs to maintain government price support and stabilization programs operated by the U.S. Department of Agriculture. Sugar, dairy products, peanuts, and cotton were the primary items covered by import quotas. Price actions (sliding scale variable import charges) covered sugar imports. Meat imports were covered by automatic licensing procedures.¹³ Seasonal tariffs and tariff-quotas (broad definition NTMs) applied to live animals, fish, eggs, dairy products, fruit, and vegetables. Unlike other nations, the United States made considerable use of anti-dumping/countervailing duty actions to discourage imports of agricultural products. Sectors most affected by these actions included live animals, wheat, animal/vegetable oils, and sugar.

Trade coverage ratios reported for all food items and for major food categories tend to obscure the importance of NTMs for certain agricultural products. Table 2 shows trade coverage ratios for broad and narrow definition NTMs, and for quantitative restrictions applied against imports of selected agricultural products known to confront significant protection levels in industrial nations. For example, the first line of Table 2 shows that 54.5 percent of the EC's imports of live animals were covered by one or more NTMs falling in both the broad and narrow definition categories, 46.6 percent were covered by one or more quantitative restrictions, and so on. Trade coverage ratios tended to be large, ranging up to 100 percent for imports of meat, fish, dairy, cereals, flour, sugar, and other agricultural products.

Non-automatic licensing and quotas were the major quantitative restrictions used in the EC. Price actions, including variable levies and other pricing schemes, applied to imports of virtually all of the products shown in Table 2. Discrepancies between broad and narrow definition totals are accounted for by the use of automatic import licenses.

Quantitative restrictions used by Japan included quotas on imports of many agricultural products, non-automatic licensing, and government control (single channel) of distribution channels. Price actions (differential price duties) were applied to imports of refined sugar and meat (pork). Tariff-quotas

¹²The import quota on rice was a major source of friction between Japan and the United States during the Uruguay Round.

¹³The Meat Import Act of 1979 authorized the Secretary of Agriculture to set a base quantity for imports of certain meats which varies in a countercyclical manner with U.S. production. When imports are projected to exceed this level by a specified amount, the President is required to impose import quotas. During years when quotas appeared to be inevitable, voluntary export restraint agreements were negotiated with foreign suppliers under authority of the Agricultural Act of 1956, section 204. Quotas were imposed only once, during the fourth quarter of 1976. Voluntary export restraints were used only sporadically, and such agreements were not negotiated in 1989 (United States International Trade Commission 1990, p. 6-2).

Table 2. Trade Coverage of Non-Tariff Measures, Selected Agricultural Products, 1989^a (percentages)

Product	EUROPEAN COMMUNITY			JAPAN			UNITED STATES		
	Broad ^b	Narrow	QR	Broad	Narrow	QR	Broad	Narrow	QR
Live Animals	54.5	54.5	46.6	9.7	2.9	1.0	8.5	0.0	0.0
Meat, fish	84.6	71.2	54.5	65.2	65.2	22.7	39.5	0.0	0.0
Meat, smoked	89.6	89.6	27.1	100.0	100.0	100.0	0.0	0.0	0.0
Meat, processed	94.7	94.5	86.2	97.3	97.3	97.3	0.0	0.0	0.0
Poultry	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fish, fresh	42.5	42.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0
Fish, salted	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
Fish, preserved	53.5	53.5	10.7	100.0	100.0	100.0	0.0	0.0	0.0
Crustaceans	69.1	69.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
Milk, fresh	100.0	100.0	100.0	0.0	0.0	0.0	100.0	85.8	85.8
Butter	100.0	100.0	100.0	100.0	84.6	84.6	100.0	94.4	94.4
Margarine	95.5	95.5	0.0	0.0	0.0	0.0	100.0	100.0	100.0
Cheese	100.0	100.0	100.0	100.0	84.6	84.6	85.9	85.9	85.9
Eggs	98.4	98.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0
Wheat	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0
Rice	100.0	100.0	100.0	100.0	100.0	100.0	11.8	0.0	0.0
Barley	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0
Maize	100.0	100.0	100.0	29.8	0.0	0.0	0.0	0.0	0.0
Bran	99.8	99.8	99.8	34.5	34.5	34.5	0.0	0.0	0.0
Wheat flour	100.0	100.0	100.0	52.3	52.3	52.3	0.0	0.0	0.0
Potatoes	36.8	36.6	36.6	0.0	0.0	0.0	100.0	0.0	0.0
Sugar, refined	100.0	100.0	100.0	100.0	100.0	3.1	100.0	100.0	100.0
Chocolate	100.0	100.0	0.4	0.0	0.0	0.0	24.0	24.0	24.0
Wine	95.9	95.9	95.9	0.0	0.0	0.0	2.1	0.0	0.0
Tobacco, raw	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0

Source: UNCTAD Trade Control Measures Information System.

^aComputations were performed at the tariff-line level, using 1986 import values. Results were aggregated to form relevant product groups.

^bThe Broad Definition includes all NTMs in the data set. The Narrow Definition includes Price Actions plus Quantitative Restrictions (non-automatic licensing, quotas/prohibition, voluntary export restraint agreements, and single channel for imports).

and seasonal tariffs account for differences between the broad and narrow definition totals.

Import quotas were the only quantitative restrictions used by the United States. Price actions (sliding scale variable import charges) were used on imports of refined sugar. Anti-dumping/countervailing duty actions were applied against imports of live animals and fresh meat. Differences between the broad and narrow definition totals in Table 2 can be attributed to the use of seasonal tariffs and tariff-quotas.

CONCLUSIONS

This study calculated trade coverage ratios to assess the 1989 incidence of NTMs on imports of agricultural products by the EC, Japan, and the United States. The EC and Japan were found to rely

heavily on hard-core NTMs to regulate imports in order to support domestic farm income policies. Trade coverage of NTMs was highest in Japan, where considerable emphasis was placed on the use of import quotas and discretionary import licenses. Variable levies and restrictive licensing schemes were the primary NTMs used by the EC. The United States relied less on NTMs to regulate trade flows than did either the EC or Japan. Anti-dumping/countervailing duty actions and import quotas were the primary measures used to restrict imports. The United States placed greater reliance on anti-dumping duty actions to discourage imports than did any other importer.

Intercountry comparisons of the intensity of NTM use hold important implications regarding prospects

for reaching agreements on agricultural reform issues in the Uruguay Round of multilateral trade negotiations. The heavy reliance on hard-core NTMs by the EC and Japan reflects the importance attached by these countries to domestic support programs that are at the very root of the trade distortions. Agreements have not been reached on liberalizing trade because the EC and Japan have been unwilling to reduce domestic support for agriculture. However, participants in the GATT negotiations recognize that trade liberalization will require reform of domestic agricultural policies. GATT members, including the EC and Japan, recently agreed to conduct negotiations to reach specific binding commitments in three main areas: (1) domestic support, (2) barriers to market access, and (3) export subsidies (United States International Trade Commission 1991, p. 8).

The United States' proposal for agricultural reform would require gradually phasing out internal sup-

port programs, non-tariff measures, and export subsidies, while the EC and Japan favor less protection, but maintain that special provisions must continue to apply to trade in agricultural products.¹⁴ A gradual reduction of agricultural support programs will be necessary if any progress is to be made regarding trade liberalization in Uruguay Round negotiations. The United States' proposal to eliminate all trade distorting policies in agriculture over a ten-year period may be unrealistic (Runge and Stanton). If negotiations fail to produce meaningful results, U.S. exporters who stand to gain from trade liberalization might push for retaliation against foreign exporters. This retaliation could entail greater use of bilateral measures such as anti-dumping/countervailing duty actions, or invoking Section 301 of U.S. trade law, which gives the President authority to retaliate against unfair trading practices that discourage U.S. exports.

REFERENCES

- Baldwin, Robert E. *Non-Tariff Distortions of International Trade*. Washington, D.C.: The Brookings Institution, 1970.
- Gardner, Bruce L. "The Why, How, and Consequences of Agricultural Policies: The United States." *Agricultural Protectionism in the Industrialized World*. Fred H. Sanderson, ed. Washington, DC: Resources for the Future, 1990.
- Hayami, Yujiro. "The Why, How, and Consequences of Agricultural Policies; Japan." *Agricultural Protectionism in the Industrialized World*. Fred H. Sanderson, ed. Washington, DC: Resources for the Future, 1990.
- Herander, Mark G., and J. Brad Schwartz. "An Empirical Test of the Impact of the Threat of U.S. Trade Policy: The Case of Antidumping Duties." *So. Econ. J.*, 51(1984): 59-79.
- Koester, Ulrich, and Stefan Tangermann. "The Why, How, and Consequences of Agricultural Policies: The European Community." *Agricultural Protectionism in the Industrialized World*. Fred H. Sanderson, ed. Washington, DC: Resources for the Future, 1990.
- Laird, Sam, and Alexander Yeats. "Trends in Nontariff Barriers of Developed Countries, 1966-1986." *Weltwirtschaftliches Archiv.*, 126(1990a): 299-325.
- _____. *Quantitative Methods for Trade Barrier Analysis*. New York: New York University Press, 1990b.
- Messerlin, Patrick A. "The EC Antidumping Regulations: A First Economic Appraisal, 1980-85." *Weltwirtschaftliches Archiv.*, 125(1989): 563-587.
- Nogues, Julio, Andrzej Olechowski, and L. Alan Winters. "The Extent of Nontariff Barriers to Industrial Countries Import." *World Bank Econ. Rev.*, 1(1986): 181-199.
- Runge, C. Ford, and Gretchen Heimpel Stanton. "The Political Economy of the Uruguay Round Negotiations: A View from Geneva." *Am. J. Agr. Econ.*, 70(1988): 1146-1152.
- Sampson, Gary P. "Non-Tariff Barriers Facing Developing Country Exports." *Developing Countries and the Global Trading System*. Vol. 1, John Whally, ed. Ann Arbor: University of Michigan Press, 1989.
- Sampson, Gary P. and Richard H. Snape. "Effects of the EEC's Variable Import Levies." *J Pol. Econ.*, 88(1980): 1026-1040.

¹⁴The United States proposes converting quotas, variable levies, and other NTMs to tariffs that can be reduced along with domestic supports. The EC does not favor converting NTMs to tariffs.

- Sampson, Gary P., and Alexander J. Yeats. "An Evaluation of the Common Agricultural Policy as a Barrier Facing Agricultural Exports to the European Economic Community." *Am. J. Agr. Econ.*, 59(1977): 99-106.
- United Nations Conference on Trade and Development. *Protectionism and Structural Adjustment: Problems of Protectionism and Structural Adjustment, Addendum*. TD/B/1240/Add.1, United Nations, Geneva, 1989.
- _____. *The UNCTAD Data Base on Trade Control Measures*. UNCTAD/DDM/Misc. 18, United Nations, Geneva, 1990.
- United States International Trade Commission. *The Economic Effects of Significant U.S. Import Restraints, Phase II: Agricultural Products and Natural Resources*. USITC Publication 2314, Washington, DC, 1990.
- _____. *International Economic Review*. Washington, D. C., July 1991.
- Walter, Ingo. "Non-Tariff Protection Among Industrial Countries: Some Preliminary Evidence." *Economia Internazionale*, 25(1972): 335-354.