Accommodating Food Security Concerns in a World of Comparative Advantage: A Challenge for GATT's International Trade System

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I. INTRODUCTION

A central theme of international trade law is the tension between economic and non-economic objectives. This tension underlies many of the most divisive trade policy debates, and constantly challenges the architects of international trade regimes.

In 1817, David Ricardo formulated the theory of comparative advantage to explain the benefits of international trade. Since that time, most students of international trade policy have accepted the basic premise of his theory of comparative advantage—the standard of living of all trading partners will be maximized if each nation exports the products that it produces most efficiently, and imports the products that it produces least efficiently.1

Most western economists agree that national standards of living decline whenever governments distort the natural flow of trade from countries that enjoy comparative advantages in the production of particular products to countries that are subject to comparative disadvantages. Nonetheless, trade-distorting measures abound in virtually every national and international system of international trade law. Other objectives (e.g., the preservation of national security, the protection of infant or declining industries, or the preservation of a particular way of life) must be accommodated in international trade regulatory systems, and in some cases, may be considered more important than national wealth-maximizing objectives.2

1. DAVID RICARDO, ON THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION (1817). To be certain, the debate on international economic theory did not end in 1817. Later day economists offered refinements and substituted “technological gap” or “product cycle” theories for labor economics-based explanations of relative production efficiencies. See, e.g., BERTIL OHLIN, INTERREGIONAL AND INTERNATIONAL TRADE (1933); MILTIADES CHACHOLIADES, INTERNATIONAL TRADE THEORY AND POLICY 305-06 (1978); EDWARD E. LEAMER, SOURCES OF INTERNATIONAL COMPARATIVE ADVANTAGE (1984). Hereinafter “comparative advantage” will refer to all economic theories that accept the basic premise that the standard of living of all trading partners will be enhanced by encouraging natural trade flows from nations in which goods are produced relatively efficiently to nations in which they are produced relatively inefficiently.

2. For the purpose of this article, the term “economic objectives” refers to macro-economic goals of increasing national wealth. The term “non-economic objectives” refers to other goals, including the micro-economic goals of particular individuals or industries that may be contrary to the interests of the national economy as a whole. See JOHN H. JACKSON, THE WORLD TRADING SYSTEM 17-21 (1989) for a good general discussion of the competition between economic and non-economic objectives in the formulation of trade policy.
The General Agreement on Tariffs and Trade (GATT)\textsuperscript{3} uses a rules-oriented approach\textsuperscript{4} to accommodate the contracting parties'\textsuperscript{5} mix of economic and non-economic objectives. With the exception of customs import duties (or tariffs), GATT generally prohibits national measures that distort natural trade flows, including export subsidies, import quotas and non-tariff trade barriers. At the same time, the Contracting Parties have adopted numerous exceptions to these rules to accommodate important non-economic objectives. For example, Article XII of the General Agreement permits emergency import restrictions to safeguard balance of payments positions, Article XIX (the "Escape Clause") authorizes import restraints to protect domestic industries imperiled by import competition and Article XXI allows restrictions against imports that threaten national security.\textsuperscript{6}

For over forty years GATT policies relating to agricultural trade tipped decisively in favor of non-economic objectives. Exceptions that were built into, or were later grafted onto, the GATT system allowed nations to impose quotas on agricultural imports, subsidize exports and otherwise distort the natural flow of trade in these products. As a result, current patterns of agricultural trade often have little to do with comparative advantage.

\textsuperscript{3} The General Agreement on Tariffs and Trade, \textit{opened for signature} Oct. 30, 1947, 4 U.S.T. 639, T.I.A.S. No. 1700, 55 U.N.T.S. 187; Protocol of Provisional Application of the General Agreement on Tariffs and Trade, Oct. 30, 1947, 4 U.S.T. 687, T.I.A.S. No. 1700, 55 U.N.T.S. 308. Since 1947, the General Agreement on Tariffs and Trade has grown to include an interlocking series of over 100 international agreements, tariff schedules, protocols and codes of conduct. Hereinafter "GATT" will be used to refer collectively to these documents. The term "General Agreement" will be used to refer to the thirty-eight articles of the initial GATT agreement, as amended—the basic rules by which the contracting parties agreed to conduct their international trade.


\textsuperscript{5} In accordance with the standard convention, the term "Contracting Parties" (with capitalization) will be used in this article to refer to the signatories to the General Agreement acting formally as a body. The term "contracting parties" (without capitalization) will be used to refer to signatories acting in their individual capacities.

\textsuperscript{6} General Agreement, \textit{supra} note 3, at Art. XII, XIX, XXI. Each of these exceptions permits the imposition of restrictions against import sales which comply with all requirements of GATT. Other provisions permit the imposition of restrictions against import sales which violate GATT rules, such as dumping practices and export subsidies. \textit{Id.} at Art. VI.
Saudi Arabia's status as a net exporter of wheat\(^7\) provides an intuitive example of the triumph of non-economic policies over principles of comparative advantage. More precise indications of the gap between industrialized countries' farm programs and the principles of comparative advantage can be found by measuring the transfers of wealth from consumers to domestic farmers (primarily through higher prices resulting from import restrictions) or from taxpayers to domestic farmers (primarily through farm income support programs). Estimates of the cost of these trade-distorting practices in the agricultural trade sector range from $200 billion to almost $300 billion per year.\(^8\)

A diverse array of non-economic justifications have been formulated to justify the cost of excluding agricultural trade from GATT's mainstream trade rules including the following: (1) the environmental benefits of maintaining open spaces; (2) the maintenance of minimum farm incomes as a means of insulating farmers from special risks such as inclement weather, erratic domestic supply and demand conditions and unstable world markets; (3) the social benefits of encouraging people to stay on the farm; and (4) the political realities of politicians' dependence on rural votes. Although the factors involved in the formulation of farm policies vary from country to country, many nations appear to have concluded that their interests are best served by isolating their domestic agricultural markets from the vicissitudes of the international trading system.

Many of those non-economic objectives could be achieved through the application of economic solutions. By providing farm income support through "decoupled" programs in which benefits are not tied to the farmers' level of production, most agricultural nations could provide the financial support needed to keep farmers on the land, preserve open spaces and maintain the vitality of rural areas, while minimizing distortions of natural trade flows and decreasing the cost of their farm programs.\(^9\)

On the other hand, one crucial non-economic policy that conflicts

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8. See infra section IV.A.2.
9. Some trade officials and commentators have used the term "decoupled benefits" interchangeably with "non-trade-distorting benefits." Strictly speaking, these terms are not interchangeable. Any benefit that encourages the farmer to stay on the farm and continue to produce, distorts international markets by increasing the world supply of those products. As a matter of trade policy, however, the distortions caused by decoupled programs would be acceptable to most proponents of agricultural trade liberalization. For purposes of this article, the term "non-trade-distorting" benefits or programs includes "decoupled" benefits and other programs that minimize their distortions on international trade by severing the linkage between production levels and benefits.
FOOD SECURITY CONCERNS

with the application of GATT's basic free trade objectives—the desire to insure food security—cannot be solved by economic means. Within the lifetimes of millions of Japanese and West European citizens, a large portion of the population was undernourished when World War II curtailed food imports. Many Less Developed Countries (LDCs), particularly those that are dependent upon a few export products for foreign currency earnings, are concerned about their ability to pay for food imports in a world market subject to unstable currency values and commodity prices.

Trade officials have made little progress in resolving the food security issue in the Uruguay Round of GATT negotiations. The United States, supported by many LDCs and other industrialized countries with relatively efficient agricultural producers, initially proposed that national trade-distorting measures be phased out (or at least reduced to minimal levels) over a ten year period as a means of allowing efficient agricultural producers to exploit their comparative advantages. Opposition to this proposal arose primarily from two quarters. The European Economic Community (EEC) contended that these proposals threaten the economic livelihood of European farmers and the food security and self-sufficiency objectives of its Common Agricultural Policy (CAP). Similarly, while Japan reluctantly has agreed to open most of its agricultural market to imports over the past

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10. The decoupled farm income support proposal for maintaining current farm income, while liberalizing agricultural trade, has underlying political concerns. Current national farm income support programs are implemented through import quotas or tariffs, causing consumers to bear the burden of the program by paying higher prices for their food—which is far less obvious than when taxpayers pay the cost through direct subsidy programs. Since the full cost of any decoupled farm income support program would be in the form of an obvious subsidy item in the budget, farmers have to be concerned that taxpayers might not be willing to pay the price of the farm income support program in the future. Moreover, the prospects for maintaining that level of support (especially from legislators who represent largely urban districts) probably diminish when governments experience chronic and massive budget deficits. Finally, even if that level of financial support for farmers could be assured, decoupled benefits that would be paid without regard to their production may sound too much like a welfare program to hardworking people who seldom demand anything more than a "fair" price for their products. Although this problem is as challenging as the food security issue, it will have to remain the subject of another article.

11. The current round of negotiations—the eighth in GATT's history—was launched at a meeting of trade ministers from the contracting parties at Punta del Este, Uruguay. KENNETH R. SIMONDS & BRIAN H.W. HILL, LAW AND PRACTICE UNDER THE GATT, III.A.3 (1988); General Agreement on Tariffs and Trade/1396 Press Communique. It is commonly referred to as the Uruguay Round.

12. See infra section II.D.

13. See Opinion of the [EEC] Economic and Social Committee on the Current State and Future Prospects of the GATT/Uruguay Round Negotiations as regards Agriculture and the Agro-food Sector, Art. 6; SIMONDS & HILL, supra note 11, at § III.B.4; 5 INT'L TRADE REP. (BNA) 1508 (Nov. 16, 1988).
decade, it draws the line at importing rice—its basic food staple.14

As the Uruguay Round neared the end of the scheduled negotiating period in December of 1990, the contracting parties' trade ministers had made little progress in bridging the gap between the initial, and persistent, positions of the major agricultural exporters and importers. Since the United States had linked an agreement on agricultural trade issues to its acceptance of proposals on any and all other items on the Uruguay Round agenda, the prospects for successfully concluding the trade round were so dim that negotiations broke down.15 Subsequently, the contracting parties extended the target date for concluding the negotiations,16 and returned to the bargaining table. By the summer of 1992, they still seemed far from agreement on agricultural trade issues.

If this round of trade negotiations ends in failure, it is entirely possible that the result may not be a return to the status quo, but to an increased reliance on protectionism reminiscent of trade policies that were pursued between World War I and World War II. Other alternatives include greater reliance on regional trading blocks, or the substitution of a managed trade system for GATT's current rules-oriented system.17 Thus, the western world's trading system may be poised at a crossroads—with one road leading toward an expansion of GATT and the other leading toward a search for alternatives to GATT. At this juncture, therefore, the success or failure of the Uruguay Round agricultural trade negotiations may play a key role in determining the future of the entire GATT system.

In any event, the tension between comparative advantage principles and food security objectives will remain after the Uruguay Round succeeds or fails. If a break-through in principle on agricultural trade issues occurs, the contracting parties will have to implement those agreements by establishing legal procedures to balance conflicting objectives. If the Uruguay Round fails, and the current EEC/U.S. agricultural trade war continues unabated, sooner or later the cost of the trade war will force trade officials to return to the task of finding a way to accommodate economic efficiency and food security objectives.

The primary purpose of this article is to consider whether the dispute between the advocates of agricultural trade liberalization and the proponents of insuring food security inevitably must end in a deadlock, or whether their negotiators should be able to find common

15. 7 INT'L TRADE REP. (BNA) 1876 (Dec. 12, 1990).
17. See ROBERT F. LITAN & PETER SUCHMAN, U.S. Trade Policy at a Crossroad, 247 Sci. 31 (1990) for a brief discussion of these alternatives.
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Ground within the basic framework of GATT's existing rules-oriented system. This analysis begins with a review of the current agricultural trade system, which insulates that sector of trade from GATT's mainstream trade-discipline rules. Sections II and III trace the origins of these rules and exceptions by reviewing the Western allies' post-World War II international economic objectives, the incompatible national farm policies of many GATT contracting parties (primarily the United States) that threatened GATT's viability at several points in its history, and other factors that removed agricultural trade from GATT's mainstream. The analysis then moves on to an evaluation of competing economic efficiency and food security objectives in Section IV. To the extent possible, the economic costs of distorting natural agricultural trade flows are quantified, and compared to the unquantifiable risks that nations incur when they cannot guarantee adequate supplies of food from domestic sources during international crises. Finally, Sections V and VI consider whether GATT's mainstream trade-discipline rules, or adaptations of those rules, could accommodate both GATT's basic economic efficiency objectives and many contracting parties' legitimate food security objectives.

As will be discussed in this article, after an inauspicious beginning, GATT has survived for over four decades by avoiding conflicts that would have forced contracting parties to choose between a liberal trade system that rewards comparative advantage and their fundamental non-economic objectives. For the most part, these conflicts have been avoided by employing balancing mechanisms within the system that require contracting parties to justify their derogations from basic GATT principles, limit the scope of those derogations to the minimum extent necessary to achieve legitimate objectives, and provide compensation to trading partners that are adversely affected by those actions. In this author's opinion, that flexibility should be recognized, and employed to accommodate both the principle of comparative advantage and the legitimate concerns of many of its contracting parties about their food security.

II. HISTORY OF GATT

A. The Establishment of Post-World War II International Economic Institutions

As World War II drew to a close and some of the Western allies' statesmen began to turn their attention to post-war policies, they recalled the post World War I experience. The war that was supposed to end all wars, became a dress rehearsal for World War II twenty years later.

18. Readers with a background in agricultural trade may wish to skip to section IV.
During the first decade of the interregnum between the world wars, the belligerents experienced disparate economic situations—most of the Western allies' economies boomed, while Germany suffered from runaway inflation rates, volatile currency exchange rates and a substantial decline in its overall economic situation. By the second half of the interregnum, the international economic system suffered a worldwide collapse. In the wake of the stock market crash of 1929, Congress enacted the Smoot-Hawley Act of 1930 as a recession-fighting measure. By sharply increasing U.S. import duty rates (to an average *ad valorem* rate of approximately sixty percent), Congress intended to shift demand from imported to domestic products, thereby increasing employment opportunities for U.S. workers, and exporting unemployment problems to our trading partners.

U.S. trading partners refused to cooperate, however. Many of the other industrialized countries, which had experienced their own economic declines, retaliated with a variety of programs to stimulate their exports and inhibit their imports, including: increases in their import duty rates, arbitrary manipulations of their currencies through devaluations and multiple currency systems, restrictions on the transfer of foreign currency reserves, direct prohibitions on foreign purchases, and other "beggar thy neighbor" policies.

There are few issues on which economists agree, but most seem to conclude that the successive rounds of protectionism that were unleashed in the 1930s were a major cause of the transformation of the U.S. recession into a severe worldwide depression. Likewise, the Western allies concluded that the international economic frictions of the interregnum exacerbated the political and military disputes that led to the resumption of warfare in 1939.

The Western allies' plans for keeping the peace in the post-war era, therefore, focused on economic, as well as political and military concerns. Under the leadership of the United States and Great Britain, the allies convened an international conference at Bretton Woods.

20. See *Jackson*, *supra* note 2, at 31 for a discussion of the interwar period.
22. The United Nations occupied a central, but not an exclusive, peace-keeping role in the allies' vision of a post-war international order. As President Truman recognized in 1946: "The experience of cooperation in the task of earning a living promotes both the habit and techniques of common effort and helps make permanent the mutual confidence on which the peace depends. *United States Proposals, supra* note 21, at 1.
New Hampshire in 1944, where they began the process of creating international institutions to implement their objectives for cooperation in economic policy during the post-war era.

During the Bretton Woods Conference, the allies got off to a good start. They created the International Bank for Reconstruction and Development to help finance the rebuilding of Europe. In time, its mission and that of its sister institution, the International Development Association (which are referred to collectively as the World Bank), shifted to the promotion of economic and social progress in developing countries by lending funds, providing advice and serving as a catalyst to stimulate investments by others. The International Monetary Fund (IMF) was created to stabilize international currency exchange rates, and provide short or medium-term loans for nations experiencing currency reserve problems.23

As successful as it was, the Bretton Woods Conference did not address all of the allies' post-war international economic cooperation objectives. The allies intended to follow up their Bretton Woods institution-building phase with the creation of a "third pillar in the institutional structure of specialized agencies" to promote post-war economic cooperation and reconstruction.24 U.S. State Department officials (after consulting with the British) proposed an International Trade Organization (ITO) to promote those objectives. That proposal was outlined in a State Department pamphlet entitled Proposals for Expansion of World Trade and Employment in 1945,25 published in the form of a draft charter in 1946, and amended in conferences held in London, New York, Geneva and Havana between 1946 and 1948.26

By 1947, many of the negotiators had agreed to reduce import tariffs at a Geneva tariff conference—before the full negotiating group had finished creating an organization to administer the agreement. Demonstrating their pragmatic nature, the negotiators recorded the results of their tariff concessions, incorporated the commercial policies of the draft ITO charter into the agreement to insure that those concessions would not be undercut by other trade measures, and entered into a protocol of provisional acceptance of the resulting document (the General Agreement).27

In 1948, delegates from fifty-four countries met in Havana to amend the ITO charter one last time—producing the Havana Char-

25. United States Proposals, supra note 21, at 10 (reprinted in Dep't St. Bull., XIII at 912, 918 (1945)).
27. Id.
They completed their assignment as architects of post-war international economic policy by designing the planned third pillar in the interconnected structure of international economic institutions, but fell short when it came to building the planned institution. By 1948, the Cold War had intervened, and the United States and Great Britain lost their enthusiasm for grand international institutions. In current legislative terminology, the ITO Charter was dead upon its arrival at the Havana Conference.

By necessity, the General Agreement (which had been accepted by twenty-three contracting parties on a provisional basis) was forced into service as the founding document for a system of coordinating international trade and commercial policy during the post-war period. Lacking an institution, GATT had to be enforced through a combination of voluntary compliance and direct action of the Contracting Parties.

B. GATT's Impact on International Trade

The General Agreement employs four basic principles to discipline international trade:

BINDING TARIFF CONCESSIONS. Reflecting its origins as an agreement on tariffs, GATT provides a framework for periodic rounds of multilateral trade negotiations in which the contracting parties are urged to negotiate reciprocal reductions in their tariff rates. When such agreements are reached, the parties bind their tariffs (i.e., agree not to raise them above a stipulated level unless and until changes are negotiated at a subsequent round of negotiations). 29

MOST-FAVORED NATION TREATMENT. As the General Agreement extends most-favored-nation treatment to all contracting parties, once a tariff is bound at a round of multilateral trade negotiations, the new, lower rate applies to all of those parties. 30

TRANSPARENCY. The General Agreement does not prohibit the use of all trade-distorting measures; but, a review of its provisions reveals the Contracting Parties' intent that any trade-distorting measures normally should be confined to tariffs. In that form, they can be readily observed; their impact can be quantified; and they can be reduced over time through binding mutual tariff concessions. Trade practices that are designed to increase exports through the award of export subsidies or to decrease imports through quotas or non-tariff barriers are prohibited or discouraged. 31

CONSULTATION AND CONCILIATION. Finally, the General Agreement requires the contracting parties to advise each other of trade problems, consult with each other and use GATT dispute resolution mechanisms to resolve their trade disputes. 32

By most measures, GATT has successfully decreased national in-

29. General Agreement, supra note 3, at Art. II.
30. Id. at Art. I.
31. Id. at Art. III, VI, VIII, IX, XI, XVI, XVII and XVIII.
32. Id. at Art. XXII and XXIII.
terference with natural trade flows resulting from the forces of comparative advantage. Over the course of three decades and seven subsequent rounds of multilateral trade negotiations conducted under GATT’s auspices, the Contracting Parties steadily reduced their import tariff rates. Average U.S. tariffs on dutiable manufactured imports, for example, dropped from about fifteen percent in 1948 to less than six percent after the Tokyo Round negotiations of 1979. Some nations maintain even lower tariffs. Japan, for example, maintains a comparable average tariff rate of less than five percent.

As these tariff barriers (and some non-tariff barriers) to trade decreased, the volume of international trade increased significantly. Between 1963 and 1983, for example, the annual rate of growth of world exports has been about fifty percent greater than the growth in total world output.

Although the United States was the principal architect of GATT, by the mid-1980s—as the United States experienced substantial and persistent trade deficits—our trade officials concluded that GATT’s international trade rules had become inadequate to meet our needs in the modern world economy.

Since trade in manufactured products generally is subject to GATT’s discipline, nations enjoying a comparative advantage in manufacturing industries are able to exploit that advantage close to its full potential. For many mature, labor-intensive industries requiring routinized manufacturing skills, however, the United States does not enjoy a comparative advantage in labor, capital or other crucial factors of production.

In other sectors of the economy, such as agriculture, services and high-technology manufacturing however, trade officials concluded that the United States has retained its comparative advantage. Unfortunately (from the U.S. perspective), those are among the sectors of trade in which GATT discipline is weakest or non-existent. Most of GATT’s principles do not cover trade in agriculture; GATT does not apply to trade in services; and in the opinion of the United States it provides inadequate protection for patents, copyrights and other forms of intellectual property that facilitate profitable transfers of technology. In other words, for those trade sectors in which the United States is often subject to a comparative disadvantage, GATT has been reasonably effective in prohibiting protectionist measures that distort the natural flow of trade from trading partners enjoying comparative advantages to the United States—the largest consumer market in the

33. *Strengthening the Legal Framework, supra* note 4, at 17.
35. *General Agreement on Tariffs and Trade, International Trade* 1983/84 at 2 (Table 1)(1984).
36. *Id.* at 2 (see appendix Table 1).
world. For many sectors of trade in which we enjoy a comparative advantage, however, GATT has been ineffective in disciplining the use of trade restraints to distort the flow of trade from the United States to trading partners with comparative disadvantages.37

As the U.S. trade deficit worsened, three totally different policy approaches were advocated by economists, trade officials, international trade lawyers and other commentators. One approach was to expand GATT’s rules-oriented system to categories of trade of increasing importance to the United States, such as agriculture, high-tech products and services, and to strengthen the overall functioning of the GATT system. A diametrically opposed proposal was to admit that GATT’s rules-oriented system is a failure, abandon it, and substitute a managed trade (or results-oriented) approach. A third faction proposed that the United States organize a regional trading block (along the lines of the EEC) as a primary means of insuring fair and efficient trading relations.38

U.S. trade officials adopted the first approach by calling for a new round of multilateral trade negotiations to consider its proposals for expanding and strengthening GATT’s rules-oriented approach. Impliedly, however, it retained the option of abandoning GATT, or accepting its decline into an increasingly irrelevant system, if the negotiations failed to produce satisfactory reforms.

C. The Uruguay Round of Multilateral Trade Negotiations

In September of 1986, trade ministers from GATT’s Contracting Parties met in Punta Del Este, Uruguay to launch the Uruguay Round. The United States concerns about the continued vitality of GATT were reflected in the agenda for Uruguay Round negotiations, set forth in the Ministerial Declaration of September 20, 1986.39 It began by stating that Uruguay Round negotiations should aim to:

— bring about further liberalization and expansion of world trade to the benefit all countries, especially less-developed Contracting Parties, including the improvement of access to markets by the reduction and elimination of tariffs, quantitative restrictions and other non-tariff measures and obstacles;
— strengthen the role of GATT, improve the multilateral trading system based on the principles and rules of the GATT and bring about a wider coverage of world trade under agreed, effective and enforceable multilateral disciplines;
— increase the responsiveness of the GATT system to the evolving international economic environment...; and
— foster concurrent cooperative action at the national and international

37. U.S. Trade Representative Carla Hills estimates that one-third of world trade (valued at approximately $1 trillion) is not subject to any effective international trade rules. 7 INT’L TRADE REP. (BNA) 789 (June 6, 1990).
38. LITAN & SUCHMAN, supra note 17.
39. SIMONDS & HILL, supra note 11.
levels to strengthen the inter-relationship between trade policies and other economic policies affecting growth and development.40

Uruguay Round negotiators broke down the agenda into fifteen separate topics (each of which was addressed by a separate negotiating group). These topics included: agriculture, subsidies and countervailing measures, trade in services, trade-related aspects of intellectual property rights (TRIPS), tariffs, non-tariff measures, tropical products, natural resource-based products, textiles and clothing, GATT articles, safeguards, MTN (Multilateral Trade Negotiations) agreements and arrangements, dispute settlement, functioning of the GATT system (FOGS) and trade-related investment measures (TRIMS). 41

D. Uruguay Round Agricultural Trade Negotiations

As the declaration turned from general objectives to more specific subjects for the agricultural negotiations, it stated that: “Contracting Parties agree that there is an urgent need to bring more discipline and predictability to world agricultural trade by correcting and preventing restrictions and distortions including those related to structural surpluses so as to reduce the uncertainty, imbalances and instability in world agricultural markets.”42

The United States submitted a sweeping proposal for bringing more discipline to agricultural trade. In brief summary, the United States proposal emphasized five main points:

1. Import access would be liberalized through a tariffication procedure. In the first stage, each contracting party would adopt tariffs for each agricultural product which would achieve the same level of protection as all current import quotas and non-tariff barriers. Then, over a period of ten years, the contracting parties would phase out those tariffs through a frequent series of multilateral negotiating sessions.

2. Export subsidies would be phased out over a five year period.

3. Trade-distorting internal farm income support programs (i.e., farm programs which link benefits farmers receive to the amount of agricultural products that they produce) would be phased out over a five year period.

4. The Contracting Parties would adopt uniform food health and safety regulations (in Uruguay Round terminology “sanitary and phyto-sanitary rules”) to ensure that health and safety standards are not employed as non-tariff trade barriers.

5. Special and differential rules would be applied to LDCs, enabling them to obtain liberalized access to markets in developed countries without being required to adopt reciprocal measures until their economies attained higher stages of development.43

By the scheduled conclusion of the Uruguay Round in December of

40. Id. at 26.
41. Id. at 29-32.
42. Id. at 29.
43. The United States submitted its agricultural trade liberalization proposal at the GATT mid-term review session in 1989. That proposal is reprinted at 6 INT’L TRADE REP. (BNA) 1395-99 (Oct. 25, 1989), [hereinafter U.S. Agricultural Trade
1990, little progress had been made in reconciling the positions of the major agricultural producers and importers. The United States scaled back its proposal to a ninety percent reduction in export subsidies and a seventy-five percent reduction in domestic subsidies. The Cairns Group—a group of fourteen self-proclaimed agricultural free traders—generally supported the U.S. proposal. The EEC proposed a thirty percent reduction in domestic and export subsidies over a ten year period beginning in 1985 (thus taking into account existing reductions from its peak levels of subsidization). Japan still objected to any revisions in GATT that would obligate it to open its domestic market to rice imports. By the summer of 1992, despite the occasional optimistic communique and the GATT General Directors' attempt to break the deadlock by offering his own detailed compromise proposal to the negotiators, no further progress in reconciling those positions had been reported.

III. NATIONAL AGRICULTURAL POLICIES AND GATT'S AGRICULTURAL TRADE PROVISIONS

By the time the contracting parties' agricultural trade negotiators arrived at Punta del Este, the opportunity had long passed (if it had ever existed) for them to be guided by the allies' post-war principles of comparative advantage, disciplined trade practices and economic interdependence. In 1947 or 1948, the contracting parties might have had the opportunity to bring their national legislation in line with GATT's objectives and rules—as was the case for most sectors of the economy that are disciplined effectively by GATT. Instead, they designed GATT to conform to existing domestic agricultural programs, especially those of the United States. GATT's agricultural trade rules (including provisions of the original General Agreement and subsequent amendments, waivers and codes), therefore, must be considered in the context of the agricultural policies of the United States and other major trading nations.


44. USDA, GATT Uruguay Round Highlights 3 (May 7, 1990).
45. 7 INT'L TRADE REP. (BNA) 1724 (Nov. 14, 1990).
46. Prime Minister Kaifu was still resisting intense pressure from the United States and other teaching partners to eliminate its near total ban on rice imports in the summer of 1991. 8 INT'L TRADE REP. (BNA) 1042 (July 10, 1991).
47. 9 INT'L TRADE REP. (BNA) 38 (Jan. 1, 1992).
48. This very brief overview is presented to provide a context for the issue of whether a liberal agricultural trade system can accommodate both comparative advantage principles and legitimate food security concerns—the merits of any particular Uruguay Round proposal is not addressed.
A. National Agricultural Policies of Principal Contracting Parties in 1947

The United States Government has been involved in agricultural policy since the early days of the republic; but for most of our history this policy was debated, enacted and implemented with little regard for international trade implications. Until the early 1930s, the federal government did not intervene in domestic or international agricultural markets to any appreciable extent. Probably its greatest impact on U.S. agriculture was the development of an agricultural infrastructure through legislation that encouraged the rapid settlement of public lands outside the original colonies, the construction of railroads and the establishment of land grant colleges.\(^{50}\)

During the Great Depression, however, the federal government adopted activist agricultural programs in response to the collapse of farm prices in the United States.\(^{51}\) Beginning with the Agricultural Adjustment Act of 1933,\(^{52}\) the federal government attempted to shore up farm incomes through depression era legislation that brought about large-scale interventions into the production and marketing of agricultural products. Price support programs provided nonrecourse loans to eligible farmers at a specified minimum price for the crop. If the market price exceeds the specified price, the farmer sells his crop in the market and uses the proceeds to pay off his loan; if the market price is less than the specified price, he discharges his debt by forfeiting the crop to the government.\(^{53}\) To keep costs under control, Congress also authorized the Department of Agriculture to impose production controls. Producers receiving price support assistance are required to reduce the harvested acreage of the price-supported crops.\(^{54}\)

From the U.S. perspective, therefore, the General Agreement’s agricultural trade rules had to permit the contracting parties to manipulate supply and demand within their countries through price supports and rigid production controls. The inward-looking programs that pro-

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51. HATHAWAY, supra note 49, at 81.
52. 7 U.S.C. § 601 et seq.
53. The loan amount could be set at an amount that merely evened out seasonal price fluctuations, or at a amount that compensated farmers at some level in excess of prevailing market price. When the loan amount is fixed in excess of market prices, the federal government determines both the purchase price (when it takes title to the forfeited crop) and the sales price (when it resells the crop to a food processor).
vided the foundation for U.S. agricultural policy (and remain in current U.S. farm legislation) reflected the interests of a domestically oriented constituency that had little interest in international markets.55

B. Exceptions for Agricultural Trade in the 1947 General Agreement

Due to the bargaining position and leadership role of the United States, the Contracting Parties accorded special treatment to agricultural trade from the outset. In fact, the realization that the U.S. Senate would not ratify an agreement that required the United States to dismantle its agricultural programs (or made them ineffective), shaped the General Agreement's agricultural trade provisions.56 In attempting to make the GATT system compatible with U.S. agricultural programs, however, the Contracting Parties had to insulate agricultural trade from a significant portion of the General Agreement's basic principles.

1. Quantitative Restrictions

Article XI.1 of the General Agreement prohibits the use of quantitative restrictions (import or export quotas) except in a few specified circumstances. Some of these exceptions apply to all imports (e.g., Article XII permits the use of quotas to preserve scarce foreign reserves in a balance of payments crisis); but most of the exceptions relate solely to trade in agricultural products. In particular, Article XI.2(c) provides that the prohibitions of Article XI.1 shall not extend to import restrictions on agricultural products necessary to the enforcement of governmental programs that operate to restrict the production of agricultural products or to remove temporary surpluses from the market. A contracting party invoking Article XI.2(c) however, was required to restrict domestic supplies proportionately in order to maintain relative domestic and foreign shares of the market.57

A comparison of the terms of Article XI and relevant portions of U.S. law reveals the careful drafting of exceptions to the General Agreement's basic rules to avoid conflicts with then current U.S. agricultural programs. The exceptions to GATT's general prohibition on the use of quantitative restrictions contained in Article XI.2(c) were tailor-made for then current U.S. price support and production control programs.58

56. HATHAWAY, supra note 49, at 103.
57. General Agreement, supra note 3, at Art. XI.2(c).
2. The Section 22 Waiver

By the early 1950s, however, it became apparent that although Article XI was "largely tailor-made to United States requirements... the tailors cut the cloth too fine." More precisely, the suit fit when the cloth was cut in 1947, because the Agricultural Adjustment Act of 1933 originally imposed import controls on agricultural products only when supply controls were imposed upon domestic products as well. When later amendments authorized the imposition of import controls on dairy products without accompanying domestic supply controls, the Netherlands observed that the suit no longer fit and filed a complaint with GATT. The Contracting Parties eventually found that the U.S. import quotas violated Article XI. In 1950, however, Congress responded to the complaint by amending Section 22 of the Agricultural Adjustment Act to provide that no trade agreement of the United States could be implemented in a manner that would be contrary to the requirements of that legislation.

With the possibility that the major economic power in the world might be forced to withdraw from GATT looming over the Contracting Parties, they granted the United States a broad waiver pursuant to Article XXV. Commonly known as the Section 22 waiver, it authorizes the United States to impose quantitative restraints when imports render ineffective, or tend to render ineffective, U.S. farm programs or substantially reduce the amount of any product subject to such programs. Pursuant to this waiver, the United States has imposed import quotas on cotton, peanuts, dairy products, oats, rye and other products.

3. Subsidy Rules

The ambivalence that many nations exhibit toward the subsidy issue is reflected in the tortuous history of GATT's subsidy rules. On the one hand, all nations spend tax revenues to provide some subsidies to their producers—public roads, bridges and ports are examples of near universal business subsidies. Many nations provide subsidies to

59. DAM, supra note 26, at 270.
61. Even with its precarious status as an unratified provisional agreement, it is reasonably clear that, for purposes of U.S. domestic law, the later legislation would prevail over the inconsistent provisions of the earlier agreement.
encourage businesses to locate in areas of high unemployment, to stimulate economic development or to promote other social and economic objectives. On the other hand, most nations object when their competitors artificially enhance their producers' competitiveness in world markets by directly assuming a portion of their costs of production.

Originally, the General Agreement contained only the provisions now found in Article XVI.1. These provisions merely require the subsidizing nation to report "any subsidy, including any form of income or price support, which operates directly or indirectly to increase exports of any product from, or reduce imports of any product into its territory, to other parties." Later, as it became evident that export subsidies significantly distort natural trade patterns, Article XVI was amended to prohibit contracting parties from granting export subsidies on manufactured products which result in the sale of the product for export at less than the comparable domestic price, and restrain their use of export subsidies for primary products (including agricultural products) to gain "more than an equitable share of world export trade."

More recently, the primary product export subsidy issue was addressed in the Tokyo Round Subsidies Code—which has been signed by approximately one-fourth of the contracting parties. In adopting that code, the signatories attempted to improve Article XVI around the margins by defining an "equitable share" in the context of the displacement of traditional exporters in particular primary product export markets by competitors who receive export subsidies.

4. Unbound Tariffs

Finally, many tariffs on agricultural products are unbound, and set

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64. HATHAWAY, supra note 49, at 105.
66. Article XVI.3 states:

Accordingly, contracting parties should seek to avoid the use of subsidies on the export of primary products. If, however, a contracting party grants directly or indirectly any form of subsidy which operates to increase the export of any primary product from its territory, such subsidy shall not be applied in a manner which results in that contracting party having more than an equitable share of world trade in that product, account being taken of the shares of the contracting parties in such trade in the product during a previous representative period, and any special factors which may have affected or be affecting such trade in the products.

General Agreement, supra note 3, at Art. XVI.3.

at levels that significantly distort natural trade patterns. In 1983, for example, applied tariffs for eleven market economies averaged 3.0 percent for all imported items and 5.3 percent for food products. For LDCs, the disparity was even more pronounced—2.7 percent for all imports and 5.5 percent for food products. In addition, developed countries generally subject a far greater percentage of agricultural imports to non-tariff barriers than manufactured imports.68

Although U.S. agricultural policy was inward-looking during this period, its impact was not limited to domestic markets. Section 22 import quotas obviously distorted trade in products covered by those quotas by shifting sales from foreign producers enjoying comparative advantages to higher-cost U.S. producers. Somewhat less obviously, combinations of domestic price supports, deficiency payment programs and tariffs on competing imports diminished opportunities for low cost foreign producers to fully exploit their comparative advantages in the U.S. market. Production control programs have the opposite effect on international trade by decreasing the amount of U.S. agricultural products available for export.69

C. United States Agricultural Policies after 1947

In 1954, with the adoption of the Food for Peace Program, more commonly known as PL-480,70 the federal government began to intervene more directly in foreign markets. PL-480, as amended, permits the distribution of surplus U.S. food to nations in need under three different programs: Title I authorizes export sales under concessional terms (twenty to forty year loans at interest rates as low as two or three percent); Title II authorizes grants of food for humanitarian purposes; and Title III permits loans to be forgiven if the recipient country agrees to use local currencies generated by selling Title I food to its citizens for agricultural development purposes.71

Congress was guided, in part, by humanitarian considerations when it enacted PL-480. After witnessing the positive contribution of U.S. food shipments to post-war reconstruction efforts in Western Europe and Japan, it seemed only natural to use some portion of U.S. farm surpluses to feed hungry people in LDCs.72 But, Congress was

69. Amstutz, supra note 55, at 325.
71. Id.
also influenced by the positive impact of those programs on the U.S. farmers who supplied the food transferred to needy nations. Since 1954, PL-480 has accounted for U.S. agricultural exports in the neighborhood of $1 billion per year.\(^{73}\)

Although PL-480 was viewed as a surplus disposal program when it was enacted in 1954, in retrospect, it was one of the early signs of a shift in agricultural policies. During the depression and early post-war years, the federal government had relied primarily on strict production control measures to bring domestic supply and control into balance, and thereby assure adequate farm income. Starting with the enactment of PL-480, Congress gradually began to rely more upon market-oriented policies and the expansion of markets for U.S. agricultural products to assure adequate farm incomes.

In 1963, the shift in U.S. agricultural policy became more apparent when the federal government responded to the wheat producers' rejection of a mandatory acreage control program by loosening production controls. Over the course of the next ten years, the federal government shifted the emphasis of its farm income support programs from a system of relatively high price supports and tight production controls to a deficiency payment system.\(^{74}\)

Although the federal government supported farm income by guaranteeing that eligible farmers would receive specified minimum prices for their crops under both programs, the deficiency payment program places increased reliance on the market as a determinant of farm income. Eligible producers sell on the open market, and receive deficiency payments if average prices for their commodities (which may be different from the prices they actually received) are less than specified target prices. Thus, with a deficiency payment system, the market determines the price of eligible commodities (unlike the price support system) even if domestic farmers receive coupled benefits under both farm programs.

By enacting the Food for Peace Act of 1966, Congress again sought to increase U.S. farm income by promoting export sales. The original legislation authorized the Commodity Credit Corporation (CCC) to provide short and intermediate-term financing for commercial exports of eligible U.S. agricultural products. Later amendments added export loan guarantees and blended credits (combinations of guarantees and financing) to the CCC’s arsenal of export promotional programs.\(^{75}\)

As a result of these shifts in U.S. agricultural policies, American farmers were well positioned to take advantage of a sudden upsurge in demand for food imports in the 1970s. For several years, U.S. farmers

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\(^{73}\) See USDA STATISTICS, supra note 7, at 510 (Table 693), 512 (Table 703), 563 (Table 778), 579 (Table 779), 588 (Table 815), 602 (Table 833)(1988).

\(^{74}\) Amstutz, supra note 55, at 323.

steadily devoted additional acreage to production, and foreign importers absorbed all they could produce.\textsuperscript{76} In 1973, U.S. agricultural exports jumped by about $7.4 billion over the previous year (in constant 1983 dollars). Between 1973 and 1981, they continued to increase at a rate of approximately $1.7 billion per year, as compared to an average annual increase of about $415 million from 1940 to 1972 (again in constant 1983 dollars).\textsuperscript{77}

This "Golden Age" for U.S. agricultural exports was characterized by a number of favorable conditions: fairly widespread growth in the world economy, a relatively low value for the dollar in relation to major foreign currencies, easy credit, and increased financial liquidity occasioned by the recycling of petrodollars.\textsuperscript{78} Although the United States was involved in several agricultural trade disputes on alleged foreign protectionist measures, such as the EEC's variable levy and Japan's import quotas, it was able to exploit its comparative advantage fairly effectively during this period.

The "Golden Age" did not last very long. By the early 1980s, growth in the world economy slowed substantially, and declined in a number of debt-burdened LDCs, the value of the dollar increased in relation to major foreign currencies, and foreign competition increased. U.S. agricultural exports plummeted from their high point of $43.7 billion in 1981 to $26.3 billion by 1986—a decline of almost forty percent.\textsuperscript{79} This spurred U.S. trade negotiators to scrutinize our major trading partners' agricultural policies more closely, and to escalate our objections to those policies which limited our agricultural producers' ability to penetrate foreign markets.

D. Japanese Agricultural Policies after 1947

Japanese trade policy in the immediate post-war era was influenced by both its wartime experience and the reconstruction policies of the United States occupation government. During the decade after the end of the war, Japan developed as a trading nation by importing raw materials, protecting its domestic industry through high tariffs and import quotas, and providing incentives to promote exports of manufactured products. It protected its scarce foreign reserves by adopting foreign exchange controls.\textsuperscript{80}

Although Japan positioned itself to become a major industrial power through its policy of simultaneously protecting infant domestic

\textsuperscript{76} Mayer, supra note 72, at 426.
\textsuperscript{77} Amstutz, supra note 55, at 325.
\textsuperscript{78} Id.
\textsuperscript{79} USDA STATISTICS, supra note 7, at 503 (Table 689).
\textsuperscript{80} AUSTRALIAN BUREAU OF AGRICULTURAL AND RESOURCE ECONOMICS POLICY MONOGRAPH NO. 3, JAPANESE AGRICULTURAL POLICIES 9 (1988)[hereinafter JAPANESE AGRICULTURAL POLICIES].
industries from import competition while providing incentives for exporters of manufactured products, during the immediate post-war era it relied upon an agricultural base. The agricultural economy (including forestry and fishing) accounted for about twenty-five percent of its gross national product, and close to half of its labor force. The principle objectives of its agricultural policies (which were reflected in its Staple Food Program of 1942, its Land Reform Program of 1946 and its Agricultural Cooperative Program of 1948) were the following: to provide staple food supplies and alleviate hunger, to carry out national land reform, to create rural employment opportunities, and to democratize rural society.

Shortly after the United States occupation of Japan ended in 1952, the U.S. sponsored Japanese accession to GATT. As a result of the United States leadership, Japan acceded to GATT on a provisional basis in 1953, and became a full member in 1955. Not all major trading nations, however, shared the United States enthusiasm for extending GATT membership to Japan. Fourteen countries, including the United Kingdom, France and other major trading nations, exercised their right under Article 35 of the General Agreement to refuse to apply GATT in their trade relations with Japan. By the early 1970s, however, most of the major trading nations had accepted Japan as a full member of GATT.

As a contracting party, Japan gradually began to liberalize its trade policies. Of the 1,143 commodities subject to import quotas in 1960, 161 remained in 1963 and 79 remained in 1980. By the mid 1970s, Japanese import duties were lower than those of most other trading nations.

Until very recently, however, Japan resisted pressure to eliminate agricultural import quotas for agricultural products on food security grounds. It retained "residual" quotas (i.e., quotas not permitted under GATT) on twenty-two agricultural products through the mid-1980s. In 1987, Japan responded to a GATT panel decision (initiated by a complaint from the United States) that its quotas on ten agricultural products were in violation of its GATT obligations by eliminat-

81. Id.
82. Id. at 10.
85. Id. at 192.
86. Id. at 193.
87. Komiya & Itoh, supra note 84, at 206.
88. 4 INT’L TRADE REP. (BNA) 1382 (Nov. 11, 1987).
ing its quotas on eight of the ten items. In 1988, Japan liberalized its quotas on beef and oranges, promising to phase them out entirely within a few years, pursuant to a bilateral agreement with the United States. By the time the Uruguay Round began, Japan's near total ban on rice imports remained as the major point of contention between it and the major agricultural exporters.

E. EEC Agricultural Policy after 1947

Although one of the most basic GATT principles is most-favored-nation treatment for all contracting parties, Article XXIV of the General Agreement authorizes the creation of customs unions and free trade areas, which require members to extend better than most-favored treatment to each other. In both of these forms of international economic integration the members eliminate virtually all tariffs and quantitative restrictions for imports from other members.

In 1957, France, the Federal Republic of Germany, Belgium, the Netherlands, Luxembourg and Italy relied upon Article XXIV in creating the EEC through the Treaty of Rome. After the Treaty of Rome was ratified and the Common Customs Tariff was introduced, the EEC replaced its individual member states as the legal entity with responsibility for compliance with GATT.

The founders of the EEC went beyond the usual customs union tariff-harmonization stage by establishing common commercial policies to govern trade among members of the trade block and with non-member nations. In particular, the agricultural nations of the EEC (most notably, France) insisted upon the establishment of common agricultural policies that would protect the interests of their farmers in the new economic environment. In large part, the objectives of the agricultural nations of the EEC were similar to those of the United States during the depression—to ensure an adequate income for farmers. Unlike the United States, however, Western Europe had exper-

90. Id.
91. Id.
92. The EEC was established by The Treaty Establishing the European Economic Community, Mar. 25, 1957, 298 U.N.T.S. 11 (more commonly known as the "Treaty of Rome"). It is one of three institutions which comprises the European Community—the others being the European Steel and Coal Commission and the Atomic Energy Community.
94. Treaty of Rome, supra note 92, at Art. 3.
enced severe food shortages during and shortly after World War II. Reflecting this experience, one of the basic objectives of the CAP, which is memorialized in the Treaty of Rome, is to assure the "availability of supplies." The EEC has organized four market organizations, each of which is responsible for a specific segment of the agricultural economy, to administer the CAP. Some of the market organizations guarantee minimum prices for EEC farmers through an intervention mechanism. Using the archetypal cereal regime as an example, the market organization establishes several prices for the commodities it regulates. The target price is a politically determined price designed to return a "fair" profit to EEC producers. It is used as a base for determining other specified prices, including the intervention price, which is the minimum that the EEC guarantees to its farmers by buying their products at that price whenever the market price slips below that level. To ensure that lower-priced imports do not disrupt internal markets, all EEC marketing organizations impose variable levies. Under this system, the market organization sets a threshold price, which is set slightly below the target price (to reflect internal EEC transportation costs) and imposes a tariff equal to the amount required to raise the delivered price of the imported product at Rotterdam to the threshold price.

For close to twenty years, the EEC variable levy and other protectionist aspects of its CAP did not provoke many official complaints from other contracting parties, despite its questionable validity under GATT. Many of the contracting parties accepted the EEC's position that since most of its agricultural tariffs are unbound, the variable levy does not violate its tariff concessions. Although the variable levy can have the same effect as an impermissible import quota, some contracting parties may be reluctant to question the practice in view of the United States Section 22 waiver. Others recognize that it would be inadvisable to challenge the variable levy while they were engaged in similar practices.


96. Treaty of Rome, supra note 92, at Art. 39.1(d). The other basic objectives cited in the treaty are: to increase agricultural productivity; to ensure a fair standard of living for the agricultural community; to stabilize markets; and to ensure that supplies reach consumers at reasonable prices. Id. at Art. 39.1.


98. See JACKSON, supra note 2, at 131.

99. FOLSOM ET AL., supra note 63.
In any event, although the CAP isolated EEC farmers and consumers from the world market, few contracting parties seemed particularly concerned as long as the EEC remained a large net importer of major agricultural commodities. By the late 1970s, however, the EEC was well on its way to exceeding the self-sufficiency level for many basic agricultural products. Since EEC agricultural products were produced at costs in excess of world market prices, the CAP was expanded to provide export subsidies as a means of selling those surpluses in foreign markets at prevailing world market levels. With the assistance of these subsidies, the EEC quickly became a major exporter of wheat, dairy products and other agricultural commodities—and in the process displaced traditional exporters in foreign markets.

F. The United States/EEC Trade War

As foreign markets were lost to the EEC in the early 1980s, representatives of U.S. agricultural interests responded on several different levels. At the bilateral level, U.S. trade authorities attempted to persuade the EEC to eliminate, or at least reduce, its export subsidies. At the multilateral level, they brought several complaints before GATT, contending that the EEC had used its export subsidies to displace traditional wheat exporters in third country markets, thereby capturing an "inequitable share" of world trade in violation of Section 10.2 of the Subsidies Code. Neither approach curbed EEC export subsidies to an appreciable degree, or lessened the growing friction between the United States and the EEC on agricultural trade issues.

Eventually, the United States responded to EEC agricultural export subsidies in kind through the adoption of the Export Enhancement Program (EEP) provisions of the 1985 Farm Bill. This massive export subsidy program was designed to meet the short-term policy objective of enabling U.S. agricultural exporters to compete with subsidized EEC exporters in world markets, and the longer term objective of forcing the EEC to enter into serious negotiations to

100. For example, the ten current members of the EEC were net importers of over 21 million metric tons of wheat and coarse grains in 1960-61. That figure fell to 11.54 million tons in 1977-78, to 6.50 million tons in 1978-79 and 2.65 million tons in 1979-80. By 1985-86, they were net exporters of 17.13 million tons. HATHAWAY, supra note 49, at 10.

101. Bentil, supra note 95, at 360.

102. Boger, supra note 97, at 229-30.

103. Id. at 208-14.


105. From May 1985 through February 1989, the USDA awarded 71 U.S. agricultural exporters EEP bonuses worth $2.3 billion. A year later, that total had grown to $2.7 billion. GENERAL ACCOUNTING OFFICE, EXPORT ENHANCEMENT PROGRAM'S RECENT CHANGES AND FUTURE ROLE 8, 9 GAO/NSIAD-90-204 (June 1990).
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liberalize its agricultural trade policies. From 1985 to the present, Congress’s package of assistance to U.S. agricultural interests that compete with subsidized EEC exporters expanded to include: additional funding for the EEP, an expansion of the number of eligible export markets, the establishment of the Targeted Export Assistance (TEA) program’s matching grants for promotional campaigns, and generous funding for existing CCC loan guarantee programs.

Although there is a question as to who fired the first shot, the United States and the EEC have been engaged in a full-fledged agricultural trade war for at least the past six years. The arsenal of each trading partner includes measures to insulate all or part of its domestic market from import competition (primarily U.S. quotas and EEC variable levies) and export subsidies to assist exporters to penetrate foreign markets by selling at less than their cost of production.

IV. ANALYSIS OF THE CONFLICT BETWEEN GATT’S ECONOMIC OBJECTIVES AND FOOD SECURITY CONCERNS

Taxpayers and/or consumers always pay a price when their nations adopt trade-distorting policies. Sometimes the price may be considered an investment—for example, when an industry is insulated from import competition during its infancy, but thereafter becomes an unprotected efficient competitor in world markets. In other situations, taxpayers and consumers may be willing to pay the price of protectionism on a long-term basis because non-economic objectives outweigh those costs. And, in some cases, taxpayers and consumers may pay the price of protectionism simply because they are unaware of its consequences or lack the political power to change those policies.

The first step in resolving the apparently intractable dispute between GATT’s basic economic efficiency objective and the food security objectives of many nations is to analyze the policy issues relating to each of those objectives.

A. Economic Efficiency Objectives

The extent to which current agricultural trade policies deviate from usual GATT economic efficiency objectives and distort natural trade flows can be measured in a number of ways. A non-exhaustive review of recent articles by trade economists includes estimates and forecasts of the cost of import restrictions on a product by product basis, aggregate costs of consumer and taxpayer transfers to farmers, distortions in natural trade flows, and net welfare losses.

106. Id.
1. Extent of Protection for Specific Products

The U.S. International Trade Commission (ITC) recently prepared two reports to the President on the degree of protection extended to a number of foreign and domestic agricultural products. In both studies, the ITC staff employed a tariff equivalent methodology to measure the levels of protection provided by major agricultural exporting nations, that is, it calculated the tariff rate that would have the same effect as the protection presently extended through quotas and other non-tariff measures.

As noted in Appendix Table A, which is reproduced from the ITC study, ad valorem tariffs generally ranging from about 50 to 200 percent would be required to provide the same degree of protection as was provided in 1988 by U.S. Section 22 import quotas on sugar, dairy products and peanuts. Relatively modest tariffs—in the approximate range of zero to seven percent—would compensate for an elimination of import quotas on beef and cotton.

The EEC extends even greater levels of protection to a number of products that were included in the ITC study. As noted in Appendix Table B, it concluded that on products like cheddar cheese, nonfat dry milk and sugar, import tariffs ranging from 166 to 182 percent would provide a level of protection that is equivalent to current CAP farm programs.

According to the ITC, however, Japanese farm programs provide the highest levels of protection to domestic farmers. As noted in Appendix Table B, the ITC concluded that Japanese producers of sugar, butter and rice are the beneficiaries of quotas that could be converted to tariff equivalents of 360, 507 and 700 percent respectively.

Certainly, these levels of protection are not representative of agricultural nations' farm programs as a whole, or of the levels of protection extended by the United States, EEC or Japan to their farmers as a whole. These data, however, illustrate the extent to which current farm programs can distort the price of particular farm products in domestic markets, and reflect the political power of specific agricultural


111. Foreign Tariff Equivalents, supra note 108, at vi.

112. Id.
interests that will have an interest in maintaining current farm programs.

2. Costs to Taxpayers and Consumers

The costs of trade-distorting agricultural policies can be borne by domestic taxpayers or consumers (or both). Taxpayers bear the cost when their governments use tax revenues to provide income support to eligible farmers—whether they are domestic income support programs, such as nonrecourse loans or deficiency payments, or export subsidies. Consumers bear the cost when import quotas or other import restrictions reduce available supplies and force them to buy products at prices that exceed the world market price.

The annual Monitoring and Outlook Reports of the Organization for Economic Cooperation and Development (OECD) provide estimates of the total annual costs incurred by the major trading nations' taxpayers and consumers in maintaining their agricultural policies. The estimated costs of those transfers by the eleven major industrialized members of the OECD are reproduced in Appendix Table C.

As noted in Table C, consumers and taxpayers in Japan, the United States and the EEC transferred $57.8 billion, $67.2 billion and $97.5 billion to their farmers, respectively, pursuant to their countries' 1989 farm support programs.\textsuperscript{113} Taxpayers and consumers in the United States and the EEC alone spent over $668 billion during four years of their agricultural trade war to maintain current agricultural policies. The OECD estimated the total costs of transfers from taxpayers and consumers to farmers in eleven OECD nations at: $272.2 billion in 1986; $290.4 billion in 1987; $289.4 billion in 1988 and $251.1 billion in 1989.\textsuperscript{114}

Not all of these expenditures would be considered trade-distorting in the usual sense of the term. For example, the OECD includes government expenditures for agricultural research, training and extension services, food inspections and disease control programs in its calculation of transfers from taxpayers to farmers. Although these programs may promote domestic agricultural interests in a general way, few trade negotiators would argue that they distort trade significantly or should be prohibited by GATT.

Recognizing that some agricultural programs would easily pass muster under GATT's basic principles, trade negotiators and economists have used the ballpark figure of $200 billion to estimate the cur-


\textsuperscript{114} \textit{Id.}
rent annual cost of the major trading nations trade-distorting agricultural policies.\textsuperscript{115} Viewed from another perspective this approximate figure of $200 billion per year is the potential “peace dividend” that taxpayers and consumers in developed nations could obtain by negotiating an end to the current agricultural trade war.

3. Distortions in Trade Flows

Another way to measure the magnitude of current agricultural policies is to estimate the distortive effects of current farm programs by comparing current trade flows to the trade flows that would be expected if the trade-distorting aspects of current programs were eliminated. Static estimates of transfers from taxpayers and consumers to farmers help to identify the costs of present agricultural policies, but do not tell us how consumer and taxpayer costs and farm incomes would change if trade-distorting measures were eliminated. Fortunately, general equilibrium economic models have been developed to forecast the impact of agricultural trade liberalization—which presumably would produce natural trade flows by eliminating the trade-distorting effects of current farm programs.

The International Institute for Applied Systems Analysis (IIASA) recently developed one of the more ambitious general equilibrium econometric models.\textsuperscript{116} Its model, the Basic Linked System (BLS), links sophisticated models for eighteen individual countries and two economic communities (the EEC and the Council for Mutual Economic Assistance) and fourteen simplified models for other groups of countries.\textsuperscript{117}

IIASA assumed that the nations liberalizing their agricultural trade policies would eliminate all trade-distorting measures immediately—an assumption that seems to have been picked to simplify the model, rather than to reflect the probable implementation of any agreement to liberalize agricultural trade. Using these assumptions, it then applied the model to several possible scenarios, including two that roughly correspond to the primary options available to the contracting parties concerning the coverage of any Uruguay Round agricultural trade liberalization agreement: (a) its mandatory application to developed nations, but optional application to LDCs; and (b) its mandatory application to all contracting parties.

\begin{itemize}
\item \textsuperscript{116} The IIASA's ran a number of scenarios through its econometric model and published the results in \textit{Parikh}, \textit{supra} note 95.
\item \textsuperscript{117} \textit{Id.} at 29-32.
\end{itemize}
IIASA first forecasted the changes in production, trade and welfare benefits that would occur if only OECD nations eliminated trade-distorting agricultural policies. That scenario roughly corresponds to the situation that would occur if all contracting parties, with the exception of LDCs, were required by GATT to eliminate all trade-distorting aspects of their farm programs.

As noted in Appendix Table D, the BLS model predicts that worldwide agricultural production under the OECD trade liberalization scenario would increase only modestly, as compared to projected production for the same period without liberalization (the reference run). Changes in production levels range from a negative 1.5 percent for non-food agriculture to an increase of 3.3 percent for bovine and ovine products (primarily beef) in the year 2000. Even though prices would decrease significantly in nations providing high levels of protection to their farmers, domestic consumption would increase only slightly because the demand for food is relatively inelastic. In particular, people in developed nations usually do not increase their total food consumption significantly when food prices decline.118

Although the IIASA's model predicts modest growth in worldwide production, it forecasts a substantial increase in agricultural trade—i.e., an increase in the share of food that is produced in nations enjoying comparative advantages and exported to nations with comparative disadvantages, and a decrease in the share of food produced and consumed within domestic economies subject to comparative advantages. For example, as indicated in Appendix Table D, by the year 2000, IIASA forecasts that trade in rice and beef would increase by 37.4 and 34.9 percent respectively under its trade liberalization scenario.

The model also indicates that national trade patterns would shift significantly. In general, the IIASA model predicts that OECD nations with highly protected domestic agricultural economies would substantially increase their imports of agricultural products, and nations with relatively low levels of protection would substantially increase their exports. As noted in Appendix Table E below, many of these shifts in trade patterns would be dramatic—and catastrophic from the viewpoint of highly protected domestic agricultural interests. For example, Japanese rice imports would be almost twenty-five times higher than current levels, and EEC wheat exports would plummet by 98 percent. Of course, these losses would be offset by other nations' gains. Several nations would increase their dairy exports significantly (Austria by 235 percent and Argentina by 507 percent). The model forecasts the United States as a relatively clear winner in this regard.

118. Id. at 94-96.
For example, it forecasts respectable increases in wheat and coarse
grain exports (nineteen and twelve percent respectively), with by far
the largest absolute volume increases for these commodities (36.8 mil-
lion and 82.0 million bushels, respectively) of any of the trading
partners included in the model.

As noted previously, many of the major agricultural countries
heavily subsidize the cost of domestically produced agricultural prod-
ucts. Some of the domestic subsidies (e.g., taxpayer-financed farm in-
come programs) and all of the export subsidies tend to reduce the
world price of agricultural products. Under its trade liberalization
scenario, IIASA estimates that the world price of agricultural prod-
ucts would rise by about ten percent in comparison to nonagricultural
prices.

Agricultural prices would decrease in nations that eliminate exten-
sive restrictions against imports. Although world market prices for
agriculture would increase, they would still be less than the domestic
prices currently paid to many farmers who are protected from import
competition by substantial restrictions on imports.

The model also predicts that significant changes in farm income
would occur. In general, farm income would increase in nations that
currently provide relatively modest levels of protection to their farm-
ers, and decrease in nations that provide extensive protection. Mea-
sured on a parity basis (the relationship between domestic farm and
non-farm per capita income), farm income would increase by twenty-
nine percent in New Zealand, twelve percent in Australia and Canada
and seven percent in Austria; it would decrease by thirty-five percent
in Japan, four percent in the EEC and two percent in the United
States.

Finally, the model suggests that the World Gross Domestic Product
(GDP) would increase by a relatively small percentage, but by a rela-
tively large absolute amount. On a global scale, the IIASA model
predicts a 0.22 percent increase in aggregate Gross Domestic Product
(GDP). Although that is a small percentage factor, in 1980 dollars it
amounts to about $50 billion (compared, for example, to total OECD
nations' development assistance of $27 billion in that year).

b. Forecasted Changes under OECD and LDC Liberalization

IIASA also ran the assumption of trade liberalization by both the
OECD and LDCs in its model. Consistent with its first run under the
OECD liberalization scenario, IIASA predicted that the OECD coun-

119. Id. at 102, 103 (Table 5.10).
120. Id. at 131.
121. Id. at 122, 132.
122. Id. at 129 (Table 5.29).
123. Id. at 119, 132.
tries would realize the bulk of the benefits to be obtained from agricultural trade liberalization. But IIASA concluded that if the OECD countries liberalized their agricultural trade, the LDCs would be better off by liberalizing as well, rather than by exercising an option to retain trade-distorting policies.\textsuperscript{124}

4. \textit{Net Welfare Benefits}

The IIASA model also predicted that the impact of agricultural trade liberalization under either scenario (liberalization by all nations or solely by developed nations) on net welfare benefits to the country as a whole would be quite different for developed and undeveloped countries.

\textbf{a. Developed Countries}

In general, the IIASA predicts a net welfare gain for most OECD countries under any agricultural trade liberalization scenario, but it predicts a substantial decline in income parity for Japanese and EEC farmers. Those losses of income, however, are less than the costs of the current agricultural policies to their nations’ consumers and taxpayers. Accordingly, even Japan and the EEC could maintain farm income at current levels, while reducing taxpayer and consumer expenditures by substituting decoupled farm subsidies for current agricultural programs.\textsuperscript{125}

The U.S. Department of Agriculture (USDA) reached the same conclusion in its analysis of agricultural trade policy reforms.\textsuperscript{126} It concluded that, on average, for every dollar that a farmer in an industrialized country gains through protectionist policies, consumers and taxpayers in that country lose \$1.42. Taxpayers and consumers in the United States, EEC and Japan pay \$1.38, \$1.45 and \$1.48, respectively, to transfer \$1.00 to their farmers.\textsuperscript{127} The USDA concludes that this excess cost to taxpayers and consumers, as compared to benefits received by farmers, is caused by inefficient uses of resources that are encouraged by current farm programs.

The inefficient use of resources attributed to current farm programs can be measured in other ways. For example, Clyde Prestowitz notes that: “Protection of some of the world’s highest-cost agriculture has resulted in half of Japan’s scarce (non-mountainous) land being reserved for rice growing, while the 94 percent of Japanese who are

\textsuperscript{124} \textit{Id.} at 232.
\textsuperscript{125} \textit{Id.} at 132.
\textsuperscript{126} \textsc{Vernon O. Ronningen} and \textsc{Praveen M. Dixit}, \textit{How Level is the Playing Field?} (USDA Economic Research Service, Foreign Agricultural Economic Report No. 239; Dec. 1989).
\textsuperscript{127} \textit{Id.} at 25.
not farmers make do on the other half.”128 As a result, a typical two-bedroom condominium, an hour and a half from Tokyo by train, costs nearly $600,000. To buy it, the Japanese couple typically puts 30 percent down, assumes a mortgage of six to ten times their annual income and depends upon their children to complete their mortgage payments.129 In Prestowitz’s words: “The fact is that while Japan is rich, the Japanese are not.”130

b. Less Developed Countries

Under current agricultural policies, the EEC, the United States and other developed countries depress the world price of food by paying subsidies to their agricultural producers. The elimination of those subsidies is the main reason the IIASA model forecasts a ten percent increase in world prices with agricultural trade liberalization. If the world price of food increases, net importers among the LDCs will have to use more of their scarce foreign reserves to purchase food for their population—raising the distinct possibility that already hungry populations would be able to buy even less food.

c. Summary of Economic Efficiency Objectives

A fairly convincing body of economic literature indicates that the distortion of natural agricultural trade flows is extremely costly, and counterproductive to the international economy as a whole. Stated conversely, an impressive school of economic theory indicates that the elimination of current trade-distorting farm programs would produce net welfare benefits of sufficient magnitude that it would be possible to reduce consumer and taxpayer costs, while maintaining current farm incomes through decoupled farm income support programs. Other economists may quibble with the econometric models used in those studies, or vehemently reject their overall conclusions. Nonetheless, it appears that if economic efficiency were the only objective of agricultural trade policy, the negotiators at the Uruguay Round would have reached agreement on an agricultural trade reform package in relatively short order.

B. Food Security Objectives

While few dispute the macro-economic benefits of trade liberalization, national trade policies and international trade agreements are not, and never have been, based solely on economic considerations. The history of sacrificing economic efficiency to achieve non-economic

129. Id. at 311.
130. Id.
objectives is as old as economics itself.\textsuperscript{131} Even Adam Smith, the founding father of \textit{laissez-faire} economics, observed that, “Defense is of much more importance than opulence.”\textsuperscript{132} Similarly, in referring more directly to trade policy, John Stuart Mill wrote: “Economic welfare is not the sole goal of life. Political considerations are also important. Thus, it may be necessary to become partially self-sufficient in certain types of activity, even at great cost because of fear of future wars.”\textsuperscript{133}

Reflecting Mill’s comments on the interplay of economic and political objectives, an OECD report on agricultural trade policies concluded:

A reliable supply of food and feedstuffs is perhaps the most important policy in all OECD countries and domestic agriculture is expected to make a substantial contribution towards this goal. In particular, countries with relatively low levels of self-sufficiency in food and feed production often take measures to maintain a certain level of farm production, some of them even at a relatively high cost.\textsuperscript{134}

1. \textit{War Time Disruptions to Food Supply}

The concerns articulated by Smith and Mill are reflected, to a greater or lesser degree, in the trade policies of virtually all nations, and are supported by logic and history.\textsuperscript{135} During this century, the flow of food imports to the civilian populations of belligerent countries has been curtailed in virtually every major conflict.

Many disruptions to the food supply, moreover, have been deliberate rather than unintended byproducts of war. Acting upon their analysis of food supply as “the weakest link in Britain’s chain of defense,” German military planners in World War I directed their submarine fleet against allied North Atlantic shipments to defeat England by starvation.\textsuperscript{136} Complaints about wartime shortages of food in Britain soon evolved into demands for the adoption of food security policies to guard against future wartime shortages.\textsuperscript{137}

\begin{itemize}
\item \textsuperscript{132} Adam Smith as quoted in Charles P. Kindleberger, \textit{Int’l Econ.} 116 (1968) and Saxonhouse, supra note 131, at 218.
\item \textsuperscript{133} John Stuart Mill as quoted in Paul Anthony Samuelson, \textit{Econ.} 626 (1980) and Saxonhouse, supra note 131, at 218.
\item \textsuperscript{134} \textit{Organization for Economic Cooperation and Development, Problems of Agricultural Trade} 90 (1982).
\item \textsuperscript{135} Among the major countries most actively involved in current agricultural trade negotiations, the United States is one of the few that would be virtually immune from food security problems during my foreseeable crisis.
\item \textsuperscript{136} M. Olson, \textit{The Economics of the Wartime Shortage: A History of British Food Supplies in the Napoleonic War and in World War I and II} 6 (1983).
\item \textsuperscript{137} Id.
\end{itemize}
Of course, Great Britain (joined by the United States after it entered the world wars) used its own blockade to curtail the flow of imported food to Germany's civilian population. The blockade was especially effective in World War I. An estimated 769,000 German civilians perished as a result of the meager rations available to them,\textsuperscript{138} leading many German and British authorities alike to conclude that without the blockade, the allies would not have won the war.\textsuperscript{139}

European food shortages did not end with the cessation of hostilities. Even with the stockpiles of food that were accumulated shortly after the end of World War II, the allied governments feared famine in the winter of 1945-46. Food shortages were not overcome for another three years.\textsuperscript{140}

Japan's experience during World War II provides even more graphic evidence of the vulnerability of countries that are not self-sufficient in the production of food during wartime. Before Pearl Harbor, Japan was able to maintain a food supply that was adequate by Asian standards for the time (an average per capita caloric intake of 2,000 calories per person per day), but modest by Western standards (the comparable U.S. average was 3,400 calories per day).\textsuperscript{141} Its production was obtained through intensive cultivation of the limited arable land and extensive fishing operations. As the war progressed, the allies used their naval superiority to restrict the fishing grounds available to Japan's fleets, and to interdict the shipments of food and the petroleum and fertilizer required to obtain high crop yields. Despite the rationing programs that began in 1941, the food situation soon became critical. Average per capita caloric intake declined to about 1,680 calories by the end of the war. Since military personnel, coal miners and heavy industrial workers needed more than average rations in order to do their work, the remainder of the civilian population received less than the per capita average.\textsuperscript{142}

In surveys conducted shortly after the war ended, sixty-four percent of Japanese respondents stated that they had reached the point prior to surrender where they personally felt they were unable to go on with the war effort. Relatively few attributed their opinions to Japanese military defeats, including the fall of Saipan. Instead, those surveys indicated that cuts in food rations, along with air attacks on Japanese cities, devastated morale.\textsuperscript{143}

\begin{itemize}
\item \textsuperscript{138} The average daily ration by the fall of 1916 contained only 1,344 calories. \textit{Id.} at 79.
\item \textsuperscript{139} \textit{Id.} at 80.
\item \textsuperscript{141} \textit{The United States Strategic Bombing Surveys} 93 (1946), \textit{reprinted by Air University Press} (1987).
\item \textsuperscript{142} \textit{Id.} at 93-94.
\item \textsuperscript{143} \textit{Id.} at 95.
\end{itemize}
2. Peacetime Disruptions to Food Supply

Economic and political power, as well as military power, can be a potent force for disrupting food imports. The United States, for example, has participated in a number of embargoes over the past two decades that have disrupted trade in agricultural products.

In some circumstances, trade embargoes have been employed as close substitutes for the use of military force in an attempt to achieve military objectives. For approximately six months before the United States and its allies' armed forces eventually drove Iraq out of Kuwait, they relied upon an extensive United Nations embargo against trade with Iraq to accomplish their objectives. Recognizing the strategic vulnerability resulting from Iraq's dependence on food imports for a substantial portion of its requirements, the embargo applies to Iraq's food imports other than UN-supervised shipments for humanitarian purposes. Other instances in which trade embargoes have been used as an alternative to military force include UN-sponsored embargoes of Southern Rhodesia (now Zimbabwe) and South Africa, and the United States unilateral embargoes against Cuba and Nicaragua. The United States singled out food as a trade weapon when it embargoed U.S. grain exports to the Soviet Union in retaliation for its invasion of Afghanistan.

In other circumstances, nations have curtailed agricultural exports for purely economic reasons. For example, in 1973 President Nixon responded to a petition by U.S. food processors by briefly banning the export of soybeans. The President granted the requested relief to promote domestic objectives—to prevent the inflationary pressures that the processors predicted would result from an expected shortage of domestic supply. But, the international impact of his decision was to remind foreign purchasers who had begun to rely upon U.S. exports—primarily the Japanese—that food imports can be disrupted for economic, as well as military, motives.

3. Cumulative Impact of Trade Disruptions in Japan

Japan provides a good case study of the cumulative impact of military and economic disruptions to food imports on the way that nations assess the objective of maintaining minimum levels of agricultural self-sufficiency.

Despite its wartime experience, the Japanese Government steadily lowered barriers to trade in agricultural products, and reduced its

145. Id. (especially Resol. 666(6)).
146. Komiya & Itoh, supra note 84, at 211.
level of agricultural self-sufficiency for almost thirty years. But, as noted by Japanese commentators:

[T]he year 1973 was the turning point in the history of Japan's agricultural protection policy. Until then, a majority of Japanese did not feel uneasy about depending on imported food supplies. This was one factor behind Japan's sharply increasing dependence of imported food throughout the 1960s . . . . In 1973, a series of events, including the oil crisis, sharp worldwide rises in food prices, and the U.S. embargo of soybean exports to Japan, shook the so-far complacent Japanese. Suddenly they came to realize the vulnerability of the Japanese economy to external shocks and began to think that a further increase in the degree of dependence on food and energy imports would be unsafe and undesirable. This change in attitudes strengthened the political basis of agricultural protectionism.147

Clyde Prestowitz, an American who has studied Japan as a college student, business executive and trade official since 1960, provides a non-Japanese viewpoint on their deep-seated commitment to self-sufficiency in his book Trading Places:

[T]he Japanese lay great stress on self-sufficiency—and do so all the more precisely because Japan knows it cannot be self-sufficient. Most Japanese reiterate the theme that their country is a small island nation with no natural resources in order to rationalize and justify its efforts to the dependent on nothing beyond natural resources simply not available in Japan. For example, during a hiking vacation in the mountains of Japan, I came across a government-run farm which provided grazing for cattle trucked in by farmers for the summer months. During the rest of the year, the cattle remained indoors or cooped up in small spaces. With its lack of open space, Japan is far from a paradise for cattle raising. Nevertheless, as a result of the efforts of the Ministry of Agriculture, Japan is supplying 70 percent of its own beef.

Another time, several years ago, I was negotiating on behalf of a chemical manufacturer who wished to enter the Japanese market. Eventually every discussion came down to the point of whether my client was willing to maintain a one-year inventory in Japan . . . . Thus, the very people who expect Americans and others to be content to depend on a flow of goods from a Japanese supplier ten thousand miles away, insist on domestic production and the maintenance of large local inventories. The Japanese see nothing strange in this dichotomy; they know Japanese can be relied upon, but they are not so sure of foreigners.148

As important as food security objectives have been to the Japanese since World War II, advocates of agricultural protectionism have not had a free hand in shaping Japanese trade policy during the post-war era. Instead, those objectives have been balanced against competing economic objectives.

For the most part, the source of the competing economic objectives in Japan has not been consumer demands for access to lower-priced imports. A survey conducted for the Prime Minister in 1987, for example, reported that sixty-seven percent of Japanese white collar

147. Id.
148. PRESTOWITZ, supra note 128, at 93-94.
workers supported the government's food security programs. Instead, the primary source of opposition has been relentless pressure from its major trade partners, and a pragmatic realization that Japan could not continue indefinitely to sell its manufactured products in relatively open foreign markets while closing its agricultural market to foreign competition.

In the face of overwhelming pressure from its trading partners, therefore, Japan slowly and grudgingly has become more dependent upon foreign sources of food. In 1960, domestic sources accounted for ninety percent of its total food consumption. That measure of agricultural self-sufficiency dropped significantly to seventy-eight percent by 1970. Despite the increased demands for protectionism after 1973, Japan's agricultural self-sufficiency ratio continued to decline (albeit at a lower rate) throughout the next decade, and reached the seventy-two percent level by 1980. In 1990, a Japanese government spokesman indicated that the self-sufficiency rate of the Japanese people on a caloric basis was only forty-nine percent—the lowest of any industrialized nation. That self-sufficiency ratio will fall even further over the next several years as its beef and citrus quotas are liberalized and then removed.

Although Japan slowly dismantled many of its barriers to agricultural imports over the past thirty years, and has promised to phase out most of the remaining barriers over the next several years, it has drawn the line on rice imports. Due to the historic role of rice in Japan as the basic and essential source of food, the Japanese Government imposes a complete ban on imports of rice, with the exception of a small amount of a specialized type of rice used in the manufacture of sake that is not grown in Japan. Until recently, this sentiment was so strong that U.S. trade negotiators acknowledged that rice remained "sacred territory" in Japan, beyond the scope of any possible negotiations—despite the demands of the U.S. industry to open the Japanese market to lower priced imports.

In the event of a war or other crisis that would cut off imported food supplies, at current levels of self-sufficiency Japan would be hard pressed to maintain minimal nutrition levels for its population. If Japan's level of self-sufficiency decreases as is expected and particularly if its rice fields have been paved over to construct housing and VCR factories, mass starvation could occur during a prolonged conflict.

149. JAPANESE AGRICULTURAL POLICIES, supra note 80, at 325.
151. 7 INT'L TRADE REP. (BNA) 555-56 (Apr. 18, 1990).
152. For a good summary of Japan's rice marketing control system, see ORGANISATION OF ECONOMIC CO-OPERATION AND DEVELOPMENT, NATIONAL POLICIES AND AGRICULTURAL TRADE: COUNTRY STUDY, JAPAN 35-41 (1987).
153. Reich, supra note 150, at 191.
Under those circumstances, it would be difficult, if not impossible, to maintain a war effort.

Japan presents the starkest example of the vulnerability that would occur if a developed country exploited its comparative advantage in the production of manufactured products to the extent that it did not maintain minimal levels of self-sufficiency in domestic food production. Although the economic benefits to be gained by bringing agricultural trade within GATT's mainstream may be enormous, few nations will gamble on their ability to survive during a crisis situation in order to maximize their standards of living.

4. Structural Vulnerability of LDCs

For many LDCs, the vulnerability resulting from a failure to maintain minimal levels of agricultural self-sufficiency is structural and persistent, rather than the product of an occasional crisis. The dimensions of this vulnerability can be viewed from several different perspectives.

An analysis of LDC food security concerns should begin with a recognition that those countries are subject to all of the forces that cause developed countries to enact farm programs to insure minimal levels of agricultural self-sufficiency. The primary difference between developed country and LDC vulnerabilities is a matter of degree. LDCs have been involved in more than their share of armed conflicts since World War II; they tend to have less military capability than developed countries to protect their supply lines from interdiction; and they tend to have less bargaining power than developed countries to maintain foreign sources of supply in the event of shortages or other economic crises. In addition, LDCs must respond to food security concerns that have no counterpart in developed countries.

We can quantify some of the potential costs of LDC dependence on foreign sources of food by considering the reverse side of the potential savings that developed countries would realize by eliminating their agricultural subsidies. As noted previously, developed countries could save approximately $200 billion per year by eliminating trade-distorting subsidies; but much of the developed countries' savings would occur at the LDCs' expense. World market prices would have to increase if farmers in developed countries are to cover their full unsubsidized costs (the IIASA model projects a ten percent increase).1

LDCs having difficulty in purchasing enough imported food to make up for shortfalls in domestic production at current world price levels, would be hard pressed to maintain those imports at substantially higher prices.

Economic studies have attempted to quantify the effect of higher

154. See supra note 113 and accompanying text.
agricultural prices on world hunger. As noted in Appendix Table F, a 1980 World Bank study predicted that as many as 913 million additional people in Latin America, Asia, the Middle East and Africa slip beneath the minimum caloric intake levels recommended by the Food and Agriculture Organization (FAO) and World Health Organization (WHO) when food prices increase by one percent per year (in constant dollars).

No known economic model forecasts the additional number of people in LDCs that would slip beneath Food and Agriculture Organization/World Health Organization recommended minimum nutrition levels as a result of the elimination of existing agricultural subsidies under specific trade liberalization scenarios. Conceivably trade liberalization could trigger spurts of LDC growth rates of sufficient magnitude to overcome or at least blunt the effects of rising food prices on hunger in LDCs. Despite the lack of precise quantification, however, the data and common sense quite clearly highlight the danger that increases in world food prices brought about by agricultural trade liberalization could threaten the lives and health of millions of people in the third world.

5. Summary

In simple terms, the costs associated with removing agricultural trade from GATT's basic economic efficiency objectives are immense. However, the risks that many countries would incur if they cannot satisfy legitimate food security concerns are incalculable.

V. PROPOSALS FOR BALANCING ECONOMIC EFFICIENCY AND FOOD SECURITY OBJECTIVES

The inherent nature of international trade disputes often precludes the recommendation of a single, universal solution to complex problems. As a practical matter, political realities (including perceptions or even misperceptions of national interests) may mean that the best conceptual solutions are not viable alternatives. In these instances, less ambitious alternatives may be the most that is attainable in the short or long term. Moreover, solutions that are appropriate for trade among developed nations may be inappropriate for trade involving LDCs.

A. Best Solution for Trade among Developed Countries

A basic premise of this article is the generally accepted view that GATT has worked reasonably well in accommodating the contracting parties' essential economic and non-economic objectives over the past four decades, as they steadily increased the volume of their trade in manufactured products. Indeed, without a satisfactory mechanism for
balancing those objectives, GATT would not have survived its inauspicious beginning and the lack of a true international institution to enforce its rules.

Somewhat surprisingly, this record of successfully accommodating economic and non-economic objectives within the framework of GATT's mainstream rules seems to have been largely overlooked by both the proponents of economic efficiency-driven agricultural trade rules and those who insist that nations must remain free to adopt trade restrictions as necessary to insure food security. The logical first step in the search for a resolution of the seemingly intractable conflict between economic efficiency and food security objectives in the agricultural trade sector is a critical review of GATT rules and practices that have facilitated the accommodation of economic efficiency principles and conflicting non-economic objectives in sectors of trade subject to GATT's mainstream provisions.

1. Extension of GATT's Basic Economic Efficiency Provisions to Agricultural Trade

By most accounts, GATT has worked reasonably well in increasing trading partners' standards of living by allowing nations to exploit their comparative advantages in sectors of trade covered by its mainstream rules. To accord approximately the same level of assurance to nations enjoying comparative advantages in agriculture as those enjoying comparative advantages in manufacturing industries, comparable GATT rules on tariffs, import quotas and other non-tariff barriers and subsidies must be extended to trade in agricultural products.

GATT's transparency principal establishes import tariffs as the accepted method of insulating domestic producers from full exposure to the rigors of competition with foreign competitors. As the contracting parties steadily reduced their tariffs over the course of seven previous rounds of multilateral trade negotiations, they significantly diminished the distortive impact of those restraints on the natural flows of trade.

The first basic requirement for extending GATT's economic efficiency objectives to agricultural trade is to equalize levels of transparent protection for domestic producers of agricultural and manufactured products. Although the various proposals of the United States, the Cairns Group and other proponents of agricultural trade liberalization differ in detail, they all reflect the ultimate goal of

155. The United States' Uruguay Round proposals approach, but do not match, this benchmark level of acceptable tariff protection. It originally proposed a total elimination of tariffs on agricultural products (over a ten year phase-out period), thereby suggesting less protection for farmers than manufacturers. Later, it proposed a 75 percent reduction in the tariff equivalent of all forms of domestic protection over ten years, which probably would result in appreciably higher tariff
extending approximate, if not equal, levels of tariff protection for manufactured and agricultural products. Moreover, tariffs on agricultural products must be bound to the same extent as tariffs on other products subject to its trade discipline.

The converse of the transparency principal is the prohibition of import quotas (or quantitative restrictions) to protect the domestic industry. In order to achieve GATT's economic efficiency objectives, both the original U.S. agricultural exceptions in Article XI.2(c) of the General Agreement, and the Section 22 waiver, must be eliminated.156

The third essential requirement for rewarding economic efficiency within the framework of the existing GATT system would be to establish subsidy rules for agricultural products that are comparable to the rules governing sectors of trade currently subject to its mainstream trade discipline rules. When nations distort natural trade flows by assuming part of their producers' costs, they enable them to compete through artificially low prices rather than inherent comparative advantages.

One possible approach to extending GATT's mainstream economic efficiency objectives to trade in agricultural products while maintaining its consideration of competing non-economic objectives, focuses exclusively on the text of the subsidy provisions in the General Agreement and Subsidies Code. For legal technicians (but not necessarily trade negotiators), it would be a relatively simple matter to eliminate the primary product exceptions of Article XVI and the Subsidies Code. Under this approach, Subsidies Code signatories would resolve their subsidy disputes by distinguishing between prohibited export subsidies and permissible domestic subsidies.157

Permissible domestic subsidies under Article 11 of the Subsidies Code include subsidies that are used to promote social and economic policies such as eliminating economic disadvantages in specific regions, sustaining employment, encouraging worker retraining and redeploying industry to avoid congestion and environmental problems.158 Signatories granting permissible domestic subsidies are required to weigh the adverse effect of those subsidies, to the extent that is practicable, on conditions of normal competition before granting the domestic subsidy, and to consult with signatories that could be adversely

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156. The United States proposed to phase out agricultural import quotas by first converting quotas and other forms of non-tariff protection to tariff equivalents, and then eliminating those tariffs through negotiations conducted over a ten year period. Id.


158. Id. at Art. 11.1(a) and (c).
affected by those measures. Under the Subsidies Code, a signatory's adoption of permissible domestic subsidies does not create any basis for retaliation by other signatories that are adversely affected by those measures.

The issue of whether any aspect of a domestic farm program subsidy unfairly distorts trade, however, cannot be resolved by attaching a label of domestic or export subsidy to it. Natural trade flows are disrupted by domestic loan guarantee systems that encourage production in excess of domestic needs by guaranteeing farmers target prices above world market levels. In either case, by coupling domestic farmers' production of crops to the governmental benefits they receive, the farm program, rather than natural comparative advantage, provides the incentive to produce—whether the production occurs in the marginally productive fields of a generally efficient agricultural nation, or in entire nations that lack the requisite soil, climate and other factors of production. Moreover, a substantial portion of the annual $200 billion outlay for the major agricultural nations' domestic farm programs are domestic subsidies that are granted to promote the type of worthwhile social goals set forth in Article 11 of the Subsidies Code.

Few Subsidy Code signatories abide by all of the requirements of Article 11 in the sectors of trade that usually are governed relatively effectively by GATT's mainstream provisions. As a general proposition, signatories that adopt domestic subsidy programs to promote the economic and social goals enumerated by Article 11 show little evidence of assigning much weight to the adverse effects of those programs on conditions of normal international competition. Signatories whose own industries are injured by permissible domestic subsidies, often retaliate by imposing countervailing duties. GATT is an agreement that no contracting party is expected to observe to the letter. Experience indicates that Article XVI and the Subsidies Code would be even less capable of bringing an acceptable degree of trade discipline to the agricultural sector than it has been for sectors of trade that have been subject to its mainstream rules for the past forty-five years.

Recognizing the limitations to the mere repeal of the primary product exceptions to existing subsidy rules, the United States

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159. Id. at Art. 11.2.
160. Id. at Art. 11.1.4.
161. In the United States, for example, foreign domestic subsidies that are established to promote the objectives enumerated in Article 11 of the Subsidies Code are countervailable if they are limited to specific industries. See 19 U.S.C. § 1677(5)(B)(1988).
162. See ROBERT E. HUDEC, THE GATT LEGAL SYSTEM AND WORLD TRADE DIPLOMACY (1975) for a good historical review of the GATT legal system and the contrasting parties' expectations concerning acceptable records of compliance with its rules.
adopted a preferable approach in its Uruguay Round proposals. It sought to eliminate all subsidies that distort natural trade flows, whether labeled as export subsidies, border measures (i.e., barriers to imports) or domestic farm programs, while permitting nations to provide decoupled income support to farmers.

2. Reliance upon GATT's Existing Mechanisms for Accommodating Non-economic Objectives

The General Agreement is also a good source of conceptual approaches that have been utilized to the reasonable satisfaction of the contracting parties for over four decades to balance a wide variety of non-economic objectives against the agreement’s basic economic efficiency objectives. Some of its articles contain generally applicable provisions that would apply to trade in agricultural products if current agricultural trade exceptions were repealed. Forty-five years of experience in applying GATT principles in GATT dispute resolution panels and national tribunals also provides useful precedent that can be employed to strike the proper balance between competing economic efficiency and food security objectives.

a. GATT's Article XXI National Security Provisions

From the outset, the General Agreement has authorized contracting parties to restrict imports on weapons and military supplies and otherwise protect essential security interests. Article XXI provides that each contracting party is permitted to take any action "which it considers necessary for the protection of its essential security interests" relating to: the prevention of the disclosure of security information, the regulation of traffic in fissionable materials or military weapons or supplies, actions taken in time of war or other emergency in international relations, and the fulfillment of its obligations under the United Nations charter.163

On its face, this article does not seem to apply to the objective of maintaining adequate domestic supplies of food to lessen the nation’s vulnerability in case of war. In practice, however, the combination of the self-judging provisions of the article ("actions which the contracting party considers necessary") and the catch-all category of "other emergencies in international relations," perhaps supplemented by the reality that treaty obligations usually give way to nations’ perceptions of their national security interests, has meant that the contracting parties have deferred almost completely to the judgment of the party invoking Article XXI.164

163. General Agreement, supra note 3, at Art. XXI (b),(c).
164. JACKSON, supra note 2, at 204-05.
b. U.S. Implementation of Article XXI

The United States experience in the implementation and exercise of the authority granted by Article XXI provides a useful preview of how that authority might be used to balance economic efficiency and food security objectives.

Congress first enacted implementing legislation in 1955, authorizing the Executive Branch to invoke national security-based trade restraints as exceptions to GATT's normal economic efficiency objectives.\(^ {165}\) Under the current law, Section 232 of the Trade Expansion Act of 1932,\(^ {166}\) the Secretary of Commerce is required to investigate potential threats to national security caused by imports. The criteria for exercising the power granted by Article XXI reflects the self-judging character of that provision:

If the Secretary finds that such article is being imported into the United States in such quantities or under such circumstances as to threaten to impair the national security, he shall so advise the President . . . [and] the President shall take such action, and for such time, as he deems necessary to adjust the imports of such article so that such imports will not threaten to impair the national security . . . .\(^ {167}\) In the administration of this section, the Secretary and the President shall further recognize the close relation of the economic welfare of the Nation to our national security, and shall take into consideration the impact of foreign competition on the economic welfare of individual domestic industries; and any substantial unemployment, decrease in revenues of government, loss of skills or investment, or other serious effects resulting from the displacement of any domestic products by excessive imports shall be considered, without excluding other factors, in determining whether such weakening of our internal economy may impair the national security.\(^ {168}\)

Thus, Congress has taken full advantage of the considerable discretion traditionally accorded to nations invoking the national security clause. Most significantly, it has pushed the limits of Article XXI by requiring the Executive Branch to consider the adverse economic effects of allowing imports to displace domestic products on national security.

The Executive Branch has adopted a sophisticated methodology to determine whether national security interests in a specific situation outweigh economic efficiency objectives.\(^ {169}\) Recent Section 232 investigations have turned on the ultimate issue of whether supplies of the product in question would be sufficient to meet anticipated requirements during a national emergency.\(^ {170}\) Although the relevant factors

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\(^ {168}\) Id. at § 1862(d).


of a strategic supply analysis will vary from industry to industry, most recent Section 232 decisions consider several factors.

The logical starting point for any strategic supply analyses is the current state of the domestic industry that produces the article in question, including domestic demand for the article, domestic supplies and trends in the market.\(^\text{171}\)

Probably the strategic analysts' most difficult responsibility in Section 232 cases is to adopt reasonable assumptions on the duration, scope and intensity of a future national security emergency. In recent decisions, Executive Branch scenarios for emergencies have assumed that normal trade flows would be interrupted from one to three years as the consequence of a major conventional war. During that time frame, the strategic analyst must also predict shipping losses, changes in demand for the product, diversion from civilian to military consumption and other relevant factors affecting supply and demand during the emergency.\(^\text{172}\)

The reliability of imports depends upon both the political reliability of existing and potential new foreign suppliers and their geographic reliability in the context of forecasted emergency. For example, in the *Industrial Fastener Decision*, the State Department determined that all of our major foreign suppliers would be willing to supply fasteners during an emergency. Under the forecasted emergency scenario, however, predicted shipping losses on the North Atlantic would render European suppliers geographically unreliable. Thus, the strategic supply analysis in this case assumed that the United States would have to rely upon imports from current sources in geographically reliable Asia and Canada, and potential new sources of supply in South America.\(^\text{173}\)

Deliberately maintained stockpiles and unplanned excess inventories of strategic products can provide a valuable hedge against emerg-

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\(^{171}\) See, e.g., The Molding Machines Decision, *supra* note 170, at 13398 (the national security analysis assumed a one year mobilization period followed by one year of a major conventional conflict); The 1989 Petroleum Decision, *supra* note 169, at 6558 (the national security analysis assumed a three year large scale conventional conflict).

\(^{172}\) The Uranium Decision, *supra* note 170, at 47100; The Nuts and Bolts Decision, *supra* note 170, at 8843-44.

\(^{173}\) The Nuts and Bolts Decision, *supra* note 170, at 8845.
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gency shortfalls. In a short-lived national security emergency, they could fill the entire gap left by a reduction in imports; in a longer emergency, they may give the nation sufficient time to secure other foreign sources of the product or expand domestic production.

Section 232 strategic supply analyses do not rely upon static estimates of production by domestic sources. Just as analysts must consider existing downward trends in domestic production, they should determine whether the relevant industry could be revived, and domestic production expanded if imports were cut off during the predicted national emergency.

Although it is important to develop a reasonable methodology for determining whether imports threaten national security, a contracting party's record in granting or denying relief may provide a more reliable test of whether Article XXI can be relied upon to strike an acceptable balance between national security concerns and GATT's economic efficiency objectives. In the United States, despite the broad scope of Presidential authority to protect national security, the eight Presidents who occupied the office since 1955 exercised the power granted to them by Section 232 rather sparingly.

Collectively, they denied requests for import relief under Section 232 to petitioners representing industries producing: flourspar (twice), cordage, stencil silk, jewelled watches, clinical fever thermometers, analytical balances, photograph shutters, pin lever clocks, watches and timers, wool textiles, wool felt, wooden boats, fine mesh wire cloth, dental burs, heavy electric power equipment, cobalt, tungsten, steam turbine generators, work knit gloves, surplus military rifles, transistors and related products, all textiles, industrial fasteners (nuts and bolts), anti-friction bearings, plastic injection molding machines, and uranium. To date, Section 232 import relief has been provided only to the petroleum industry (on five different occasions), and the machine tool industry (through a Voluntary Restraint Agreement with Japan and Taiwan).

c. Proposed Application of Article XXI to Legitimate Food Security Objectives

Although all trade cases must be resolved on the basis of specific,

174. The Uranium decision, supra note 170, at 47099-100.
175. The Molding Machines Decision, supra note 170, at 13398.
176. A good history of Section 232 cases through 1988 is provided by David D. Knoll, Section 232 of the Trade Expansion Act of 1962: Industrial Fasteners, Machine Tools and Beyond, 10 MD. J. INTL. L. & TRADE 55 (1986).
177. Id. at 68. For § 232 investigations after 1986 see The Anti-Friction Bearing Decision, supra note 170, at 1974; The 1989 Petroleum Decision, supra note 170, at 6556; The Molding Machine Decision, supra note 170, at 13397; The Uranium Decision, supra note 170.
178. Knoll, supra note 176, at 68.
concrete factual situations, the United States experience in Section 232 investigations suggests a number of basic principles that should be considered by contracting parties in determining whether import relief is justified by legitimate food security concerns, or by GATT dispute resolution panels in considering disputes among contracting parties. Some of the specific principles that should be applied to address legitimate food security objectives are addressed next.

The first proposed principle is that contracting parties should not be permitted to adopt food security-based import restraints that distort natural trade flows, unless they previously adopted reasonable non-trade-distorting measures and can demonstrate that those measures were insufficient to protect their national security interests. As recognized in recent U.S. Section 232 investigations, the output of the domestic industry is but one factor in determining whether adequate supplies would be available during a national security crisis. Some additional factors, such as politically and geographically-reliable foreign suppliers, must be factored into the strategic supply analysis, but probably cannot be affected very much by national policy. Other highly effective non-trade-distorting means of protecting national security, however, are available to nations with national security concerns.

Perhaps the best example of the interplay between trade-distorting and non-trade-distorting measures is presented by the strategic vulnerability that exists when nations depend upon foreign sources of strategic minerals and petroleum. The United States, for example, has lessened its vulnerability resulting from reductions of petroleum imports during international crises both by adopting import restraint measures under Section 232, and by maintaining a Strategic Petroleum Reserve of crude oil. Section 232 measures restricted imports while the Strategic Petroleum Reserve stimulates international trade, as it is filled entirely with imported crude.

Japan has responded in similar fashion to reduce its strategic vulnerability in non-food areas. For example, it maintains a 142 day stockpile of petroleum (the largest such stockpile in the world) in ten locations scattered throughout the country.179

Just as nations that are vulnerable to reductions in imports of petroleum maintain oil reserves, we should expect nations that are concerned about their vulnerability to reductions in food imports would maintain food stockpiles.180 In fact, the history of maintaining food stockpiles to provide a measure of food security precedes the establish-

180. Naturally, storage methods for food and petroleum are different. Periodically, supplies must be added to food stockpiles and released from the stockpile to the market in order to maintain their edibility. But, in both cases the stockpile provides the security of additional resources to take the place of reduced imports during an international crisis.
ment of petroleum stockpiles by at least several millennia, and continues, in part, as an inevitable result of current national farm support programs.

The establishment of governmental food stockpiles pursuant to GATT principles would allow contracting parties to obtain supplies from a number of different sources. In many nations, the original stock would come from excess supplies acquired by the government pursuant to existing trade-distorting farm programs. After trade-distorting programs were phased out, GATT Procurement Code signatories and non-signatories would be subject to different rules as they replenished their strategic reserves. Non-signatories could continue to favor domestic suppliers, while signatories would be required to permit other signatories to compete for their government procurement contracts (subject to the Code's exceptions). Whatever the domestic and foreign composition of the stockpile, however, the maintenance of stockpiles sufficient to meet a large portion of the nation's needs over the course of an extended conflict would permit it to decrease its vulnerability to disruption of food imports during an international crisis.

It would be impossible to forecast the size and cost of a food stockpile that would be sufficient to meet the legitimate food security of any particular nation without conducting a complex strategic analysis. That process would require specific facts concerning the domestic supply of the relevant product, reliable estimates of changes in supply and demand conditions during a crisis, reasonable estimates of changes in domestic production resulting from the dismantling of trade-distorting measures, and faith in the ability of analysts to predict the nature and duration of a potential national emergency. The Australian Bureau of Agricultural and Resource Economics recently used a novel approach to bypass much of this analysis in its study of Japanese agricultural policies. It began by recognizing that, in any event, a stockpile of a particular commodity that was sufficient to meet the annual needs of the Japanese population would serve national security interests just as

181. Upon realizing that the Pharaoh's dreams provided a warning that seven years of abundance would be followed by seven years of famine, Joseph advised:

   Let Pharaoh proceed to appoint overseers over the land and take the fifth part of the produce of the land of Egypt during the seven plenteous years. And let them gather all the food of these good years that are coming, and lay up grain under the authority of Pharaoh for food in the cities, and let them keep it. That food shall be a reserve for the land against the seven years of famine which are to befall the land of Egypt, so that the land may not perish through the famine.


The Pharaoh followed Joseph's advice. "The seven years of plenty that prevailed in the land of Egypt came to an end; and the seven years of famine began to come as Joseph had said. There was famine in all lands; but in all the land of Egypt there was bread." Id.

182. JAPANESE AGRICULTURAL POLICIES, supra note 80.
effectively as maintaining current levels of domestic production for a year through its existing farm support programs.\textsuperscript{183} Taking rice as an example, the Bureau concluded that the cost of purchasing a one year supply of rice on the world market, and storing and handling it for a year, would be substantially less than the cost of maintaining Japan’s rice support programs for one year.\textsuperscript{184}

Nations that maintain strategic reserves of basic food stocks, would continuously buy and sell products to maintain adequate levels of edible products. For example, if the “shelf life” of rice is three years, one-third of the inventory would be bought and sold each year.\textsuperscript{185}

If nations were permitted to grant preferences to their domestic producers in purchasing supplies for their strategic reserves of food (which would be the case for contracting parties that have not signed the Procurement Code), theoretically at least they might be able to use food stockpiles as an effective substitute for current trade restraints. Returning to the rice stockpile example, a nation could maintain an effective total import ban by maintaining a stockpile at three times the level of annual domestic consumption. Each year, it would purchase the annual current domestic production at a preferential price, and sell the oldest third of the stockpile to domestic consumers.

To guard against abuse, the size of the stockpile should be limited to a maximum of one year’s domestic consumption of the product in question. Non-signatories to the Procurement Code could prefer their own producers when they purchase supplies for the stockpile (just as their government procurement agencies can prefer domestic producers of all other products), but the bulk of their private consumer market would be open to competition from the most efficient foreign producers.

In summary, food stockpiles appear to be customary, efficient and cost-effective means of reducing a nation’s vulnerability to disruptions in the supply of food imports during wartime. Other measures such as long-term bilateral food purchase agreements and private investments in nations enjoying comparative advantages in agricultural production could provide a measure of security during less serious international crises. If a contracting party has not maintained food stockpiles at a level suggested by reasonable strategic analyses or pursued other ef-

\textsuperscript{183} In fact, the population’s total annual consumption of a particular commodity probably would be at the extreme upper range of a reasonable stockpile. In relative terms, it would be about two and a half times as large as Japan’s 142 day supply of petroleum.

\textsuperscript{184} \textit{Id.}

\textsuperscript{185} Stockpiles might not be feasible for extremely perishable products such as fresh fruits and vegetables; but those products are not required for food security purposes. In a crisis the nutritionable value of perishables can be provided by canned, dried or other preserved varieties of those products, or alternative nutritional sources.
effective non-trade-distorting measures, it seems reasonable to infer that its food security-based invocations of Article XXI are motivated by the economic or political interests of domestic interests, rather than by legitimate national security concerns. In those circumstances, national-security based claims for import relief should not be accepted.

A second proposed principle to be applied is that contracting parties should not be authorized to impose ineffective trade-distorting measures to protect food security. In some situations, domestic farm support programs may be ineffective in ensuring food security, as well as trade-distorting. For example, the maintenance of current levels of food production in Japan is dependent upon the uninterrupted flow of petroleum imports to produce fertilizers and pesticides, and to power farm equipment and fishing fleets. Sharp declines in fertilizer supplies alone would reduce Japanese yields of wheat and barley by 25 percent and rice by 30 percent.\(^{186}\) Thus, if enemy naval forces cut off Japan from foreign sources of petroleum during wartime, the costly farm support programs that Japan currently maintains would not forestall a food security crisis for very long.

If a contracting party seeking to justify a trade-distorting farm program under Article XXI cannot employ a reasonable strategic analysis to demonstrate that the program at issue would effectively contribute to the achievement of legitimate national security objectives, it should be prohibited.

The third proposed principle is based upon a judgment that no contracting party requires total food self-sufficiency levels in order to achieve adequate levels of food security. Several nations have announced that their goal is total domestic self-sufficiency in particular commodities, or in agricultural production as a whole.\(^{187}\) But, experience shows that nations do not need to achieve self-sufficiency levels to meet legitimate food security objectives during wartime.

Changes in food consumption patterns during wartime can stretch reduced food supplies without endangering the nutritional needs of the population. Grains can be consumed directly by humans instead of by livestock, which produce beef at a conversion rate of five to ten pounds of grain for one pound of meat. Whole wheat bread can be substituted for white bread, thereby utilizing the hulls and other parts of the kernel that are discarded in the production of white bread.

\(^{186}\) Id.

Luxury food items can be eliminated from the diet.\textsuperscript{188}

Moreover, contrary to the assumptions of many advocates of food security, domestic production often increases during wartime to cover import shortfalls. Many Americans, for example, remember backyard "Victory Garden" vegetables on their tables during World War II—although the effort may have had more to do with promoting citizen morale than increasing food production. In addition to similar programs, the United Kingdom, which had more significant food security concerns, adopted a number of more ambitious measures to increase domestic food production, including: reducing livestock levels, using grazing land to produce cereals and potatoes, cultivating idle (usually marginal) agricultural fields, and forcing inefficient farmers to turn over their fields to more efficient managers.\textsuperscript{189} These measures actually contributed to an increase in total U.K. caloric output from 18.7 billion calories in the average pre-war year to 29.0 billion calories in 1943-44 (an increase of 55 percent).\textsuperscript{190}

Thus, contracting parties should not be permitted to maintain trade-distorting domestic farm support programs that produce non-essential food products, or basic commodities in excess of reasonable food security needs. The level of a nation's legitimate food security needs must take into account the more efficient use of available food resources and the surges in domestic food production that can be achieved in wartime, as well as predicted sources of supply from politically and geographically-reliable exporters.

The fourth and final proposed principle prohibits the practice of allowing contracting parties invoking Article XXI to be the sole judge of their compliance with GATT food security-based import restraints. Although GATT's history is replete with questionable trade practices, broad exercises of self-judging powers and unresolved trade disputes, by most accounts, contracting parties usually meet the modest goal of observing their basic requirements most of the time, and avoiding blatant violations. Indeed, that tolerance factor probably has been one of the key factors in its relative success over the past four decades.

GATT's liberal tolerance factor, however, should not be transformed into a self-judging clause should GATT's mainstream rules be expanded to regulate agricultural trade. Although Article XXI may have been applied on a virtual self-judging basis in practice with respect to trade in manufactured goods over the past four decades, that relatively non-controversial practice occurred in the context of trade in a sector that had been subject to GATT's mainstream trade discipline from the outset. Agricultural trade, by contrast, has been based upon loopholes and national farm programs that run directly counter

\textsuperscript{188} \textit{Olson}, supra note 136, at 10.
\textsuperscript{189} \textit{Id.} at 120-24.
\textsuperscript{190} \textit{Id.} at 125.
to GATT's mainstream principles. Accordingly, contracting parties who invoke Article XXI to justify trade-distorting farm programs should be subject to challenge by other parties, and required to demonstrate that their programs meet legitimate food security interests (subject to the criteria discussed above) before GATT dispute resolution panels.

d. Resort to GATT Escape Clause

In some situations, domestic political pressures may force contracting parties to restrict food imports or subsidize exports whether or not legitimate food security needs can be achieved by other means. In short, some contracting parties might be forced by domestic political pressures, or their objective perception of legitimate food security interests, to restrict food imports whether or not they can convince their trading partners or GATT dispute resolution panels that such actions are justified under a reasonable national security analysis.

As a practical matter, the contracting parties should recognize that some important trading nations might withdraw from GATT if forced to dismantle food security-based import restraints, no matter how unreasonable its justifications under a national security analysis may appear to the other parties. In some cases, it might become necessary to force nations to choose between further participation in GATT or maintaining important national policies. Those situations should be avoided if possible.

GATT's existing Escape Clause, however, should provide the flexibility needed to keep the most ardent agricultural protectionists in GATT, without unfairly infringing upon the rights of parties that are willing to abide by liberalized agricultural trade policies. Under the Escape Clause:

If, as a result of unforeseen developments and of the obligations incurred by a contracting party under this Agreement, including tariff concessions, any product is being imported into the territory of that contracting party in such increased quantities and under such conditions as to cause or threaten serious injury to domestic producers in that territory of like or directly competitive products, the contracting party shall be free, in respect of such product, and to the extent and for such time as may be necessary to prevent or remedy such injury, to suspend the obligation in whole or in part or to withdraw or modify the concession.

Thus, contracting parties may impose trade restraints on imports naturally flowing from countries enjoying comparative advantages in the relevant industry, and resulting from entirely fair trade practices, simply because the imported products cause, or threaten to cause, serious injury to the domestic industry. But, there is a price to be paid for

191. General Agreement, supra note 3, at Art. XIX.
192. Id. at Art. XIX.1(a).
invoking the Escape Clause. After specified notification and consulta-
tion procedures are exhausted, if the exporting and importing coun-
tries cannot resolve their differences:

(1) the party invoking the Escape Clause may be free to adopt import re-
straint measures to protect the domestic industry that is injured or threatened
by imports; and
(2) parties adversely affected by such import restraints may suspend the “ap-
lication to the trade of the contracting party taking such action . . . of such
substantially equivalent concessions or other obligations under this Agree-
ment the suspension of which the contracting parties do not disapprove.”

In other words, when a contracting party invokes the Escape Clause, it
may be required to pay compensation to trading partners adversely
affected by that trade restraint.

This element of flexibility should ameliorate the tension between
GATT’s economic efficiency objectives and the most ardent protec-
tionist’s food security objectives. If those nations can justify their im-
port restraints on the basis of a reasonable strategic supply analysis
(taking into account all relevant factors), they should be authorized to
invoke national security-based import restraints pursuant to Article
XXI without penalty. If they cannot, they should be permitted to im-
pose import restraints to meet perceived food security requirements
upon payment of appropriate compensation to contracting parties ad-
versely affected by those restraints.

3. Repeal of Existing GATT Rules Authorizing Agricultural
Export Embargoes

For the most part, the General Agreement’s mainstream rules pro-
vide a suitable framework for balancing economic efficiency and food
security objectives. One provision, however, would seriously under-
mine any efforts to subject the agricultural sector to its trade
discipline.

After establishing the general principle prohibiting quantitative re-
strictions on imports or exports, Article XI of the General Agreement
goes on to authorize contracting parties to impose temporary export
prohibitions or restrictions “to relieve critical shortages of foodstuffs
or other products essential to the exporting contracting party.”

With this exception, GATT’s architects undermined the confidence of
nations lacking agricultural comparative advantages in the reliability

193. Id. at Art. XIX.3(a).
194. Compensation is also required under Article XXIV.6 when the establishment or
expansion of free trade agreements and customs unions adversely affects trading
partners. For example, the EEC agreed to ensure minimum annual purchases of
about 2.7 metric tons of U.S. corn and sorghum to compensate the United States
for grain sales that allegedly were lost as a result of Spain’s accession to the EEC.
Id. at Art. XXIV.6. See also 4 INT’L TRAD. REP. (BNA) 122 (Feb. 4, 1987).
of food imports to meet the nutritional needs of their populations. When the United States embargoed soybean exports pursuant to this provision in 1973, the potential unreliability of food imports became a reality.196

If nations that enjoy a comparative advantage in agriculture wish to exploit that economic efficiency to its fullest extent by exporting freely to foreign markets, they should be willing to forsake the short-supply exceptions to increase net agricultural importers’ assurance of continued supplies. At most, contracting parties should be allowed to reserve a portion of the available domestic production equal to the average proportion of domestic sales to total sales over a representative period.197

4. New International Assurances

In addition to the confidence-building measures that are or could be incorporated in GATT, net agricultural importers can adopt a number of self-help commercial measures that would enhance food security without distorting natural trade flows. For example, net food importers can enter into long-term supply contracts with foreign producers and encourage joint ventures and other private investments in those countries that produce agricultural products most efficiently. The major limitation to most self-help commercial measures, however, is they are often among the first casualties of war or severe international emergencies.

As noted in the discussion of strategic supply methodologies that should be used to judge the validity of national security-based trade restraints, some common self-help measures can enhance food security without distorting trade. For example, nations can import food from geographically and politically reliable producers and maintain food reserves.

In the future, nations concerned with their vulnerability to curtailments of food imports during war time might also seek assurances from international sources. For example, they might take the initiative in establishing independent international institutions to acquire, manage and control the distribution of emergency international food stockpiles. Those nations might also take the lead in clarifying the

196. See supra notes 138-39 and accompanying text.
197. For an illustration of this proposal, assume that over the representative period an average of 25 million tons of U.S. wheat were consumed per year in the United States, and an average of 25 million tons were consumed in foreign markets (total average sales of 50 million tons per year). If U.S. wheat production fell to 40 million tons in the year in question, a maximum of 20 million tons could be reserved for the domestic market (i.e., the same percentage of this year's crop as the percentage of crops consumed in foreign markets over the representative period).
rules of international humanitarian law by recognizing (at a minimum) that, in times of war or other international emergencies, civilian populations of belligerent nations have an absolute right to import food.198

5. Summary

The contracting parties' Uruguay Round negotiators probably would have been able to balance economic efficiency and food security objectives long ago if either of those competing objectives were insubstantial, or if both objectives could be quantified and one was demonstrated to be less substantial than the other. It is much more difficult to balance the enormous $200 billion potential gain in economic efficiency against the incalculable potential costs that could be paid by the civilian populations of net food importing nations whose food imports can be interdicted during wars or other international emergencies. Our experience in balancing GATT's economic efficiency and national security objectives, however, provides a solid basis for concluding that legitimate food security concerns can be accommodated within the framework of GATT's existing system.

B. Less Ambitious Solution for Trade among Developed Countries

In any event, the contracting parties should recognize that no nation's legitimate or perceived food security objectives can justify the subsidization of agricultural exports. All conceivable food security objectives are fulfilled when a nation produces one hundred percent of its population's nutritional needs. Thus, subsidies that reduce the cost of its agricultural products in export markets (whether labeled domestic or export subsidies) distort international agricultural trade without increasing the exporting nation's food security.

The contracting parties eventually may conclude that food security concerns (or other non-economic objectives) are so entrenched in the agricultural policies of some of the key trading nations that their markets simply will not be opened in the foreseeable future—whatever the implication of that fact on agricultural trade in particular, or GATT in general. If they fail in their attempt to devise a balance be-

198. As with most issues of public international law, it would be easier for the international community to recognize this right than to enforce it. The combination of United Nation's influence, collective and individual self-help, diplomacy and other horizontal enforcement measures, however, has led Professor Henkin and other authorities to conclude that: "It is probably the case that almost all nations observe almost all principles of international law and almost all of their obligations almost all the time." L. Henkin, HOW NATIONS BEHAVE 47 (2d ed. 1979). This usual observance of the rules of international law even applies to rules governing the conduct of war. L. Henkin, Law and War after the Cold War, 15 Md. J. INTL. L. & TRADE 1 (1992).
tween economic efficiency and food security goals that would work across the agricultural trade spectrum, at least they should be able to find a way to permit those objectives to coexist. Rather than return to the status quo on agricultural trade (or worse), the contracting parties could permit food security concerns to prevail internally, while applying normal GATT rules to promote its economic efficiency objectives in international markets. In the words of a recent Institute of International Economics policy analysis: "If a country chooses to have agricultural programs that make its agriculture less competitive, it should have the right to do so, as long as the programs do not expand agricultural output at the expense of other [nations'] producers."199

As a nation’s agricultural programs can expand output at the expense of other nations’ producers in a variety of ways, the implementation of this concept would require changes in a number of trade-distorting measures. Certainly, contracting parties would be required to dismantle explicit export subsidies, such as the U.S. Export Enhancement Program and EEC export subsidies, which distort export trade in an obvious manner by providing bonus payments to eligible producers for each ton (or other unit of volume) exported.

Not as obviously, the contracting parties would be required to revise domestic subsidy programs that reduce the cost of that portion of domestic output that is sold in international markets. For example, if one-half of U.S. wheat production were exported over a representative period, the payment base for the U.S. deficiency payment program (i.e., the acreage which is eligible for the program) could be reduced by one-half. If it wished, the United States could double the deficiency payment rate to produce the same level of farm income support on the smaller base, and the farmer could produce wheat for export on the remaining acreage without governmental support or control.200 The implementation of this alternative would require similar types of adjustments for the existing domestic farm price support programs of all contracting parties.201

C. Trade with LDCs

Most of the literature on agricultural trade liberalization has emphasized the benefits that developed countries would gain by phasing out the trade-distorting aspects of current domestic farm support programs. Using $200 billion as a ball park estimate of the cost of those subsidies, the potential benefits that would accrue to taxpayers and consumers in developing countries as those transfers to farmers were curtailed is readily apparent. Moreover, the economic models dis-

199. HATHAWAY, supra note 49, at 144 (emphasis in original).
200. Id. at 153.
201. Id. at 144-53.
cussed earlier suggest that net welfare benefits in most developed countries would be of sufficient magnitude to permit the contracting parties to maintain present farm income levels through decoupled subsidies, while reducing taxpayer and consumer outlays.

Many LDCs’ food security concerns, however, are broader, and more immediate, than the concerns of developed countries. For some LDCs, the food security crisis is immediate and devastating while for others, it is only as far away as the next bad harvest. In either situation, while LDCs share the developed countries’ potential vulnerability resulting from wartime disruptions to food imports, that risk would seem remote in comparison to their continual struggle to meet their citizens’ nutritional needs.

1. Immediate Effects of Agricultural Trade Liberalization

For most LDCs, the most immediate impact of a decision by industrialized countries to eliminate trade-distorting subsidies would be a substantial increase in the price of the agricultural products in the world market. As noted previously, the IIASA model forecasted a ten percent increase in world market prices.

Although LDCs share many common concerns, agricultural trade liberalization would not have a uniform effect on these countries. Many LDCs’ interests would be served by a liberal agricultural trade system (subject only to the exceptions available to all contracting parties). Some would benefit immediately while others would benefit over the long run.

Some LDCs, such as Argentina and Thailand, have been able to compete rather successfully in international markets over the past decade without matching the subsidy levels of the United States, the EEC and Japan. If the United States and the EEC eliminated current subsidies that enhance their exporters’ competitive position in domestic or international markets, LDCs that enjoy comparative advantages in agricultural production would begin to bring their economic efficiencies to bear in international markets in short order. The IIASA econometric model’s predictions of changes in agricultural trade pat-

202. The United States’ Uruguay Round has proposed that special and differential agricultural trade rules be applied to LDCs. See U.S. Agricultural Trade Proposal, supra note 43, at 1398. In summary, LDCs would be permitted to maintain trade-distorting programs that developed contracting parties were required to dismantle, without forfeiting their right to export to developed countries pursuant to the proposed liberal agricultural trade regime. The issues that are most relevant to this discussion are whether LDCs would be adversely affected by the developing countries elimination current farm programs that lower the world market price of food, and whether the LDCs should open up their markets to a liberal agricultural trade system.

terns among the major agricultural exporters and importers under an agricultural trade liberalization scenario suggests that India, Pakistan, Argentina and Thailand might substantially increase their net export earnings.\textsuperscript{204}

Another example of potential LDC beneficiaries is illustrated by the changes in trade flows that could be anticipated if the United States opened up its market to sugar imports. Under the United States original Uruguay Round proposal, it could initially substitute a duty rate of 102 percent for current raw sugar import quotas,\textsuperscript{205} and then phase out the duty over a ten year transition period. Since a number of Caribbean and Latin American LDCs are among the most efficient producers of sugar, the opening of the U.S. market would enable them to substantially increase exports and foreign exchange earnings, reduce their foreign debts and increase their import purchases.\textsuperscript{206}

Many LDCs, however, are net agricultural importers. For many of these countries, any increase in their agricultural export earnings would be insufficient to compensate for the higher cost of food imports resulting from the elimination of subsidies by developed nations. The net increase in food costs could be crippling to LDCs experiencing low or negative rates of economic growth.

2. Long Term Effects of Agricultural Trade Liberalization

In the long run, however, the proponents of agricultural trade liberalization who have forecasted the impact of those policies on LDCs often argue that even net agricultural importers would benefit from the elimination of trade-distorting farm subsidies.

The opportunity for net food-importing LDCs to purchase food imports at subsidized prices may even increase their food security problems, by depressing domestic food prices and eliminating their farmers' ability to recover costs of production. As world market food prices increase to account for the elimination of subsidies in developed countries, farmers in LDCs should have more incentive to increase production.\textsuperscript{207}

Moreover, many LDC farmers enjoy a natural form of protectionism that would enable them to be competitive in their own countries
even if they are not among the world's most efficient producers of their crops. Particularly in landlocked countries and countries with poor transport and infrastructure systems, the world market price is not particularly relevant. By the time a delivered price to an ultimate destination in the hinterland is fixed (by adding distribution costs to the world market price), a local farmer with relatively high costs of production may be able to compete quite effectively with the most efficient farmers in countries enjoying all of the comparative advantages.\(^{208}\)

3. Effect of Agricultural Trade Liberalization on Food Aid

Many LDCs, however, do not have the luxury of planning for the long run. For an LDC that is struggling to generate the foreign currency reserves needed to purchase subsidized food imports in sufficient quantity to meet the minimum nutritional needs of its population, the forecasted ten percent increase in food prices resulting from agricultural trade liberalization could be catastrophic. As noted previously, some studies suggest an increase in world market price levels of as little as one percent per year could increase the number of hungry people in LDCs by more than 900 million people.

Some of the most effective measures that could be adopted to protect legitimate LDC food security needs do not raise difficult trade issues. For example, a World Bank staff working paper suggests that developed countries could most effectively insulate LDCs from the shock of higher international food prices, or adverse fluctuations in currency exchange rates, by providing direct cash grants.\(^{209}\) Comparing the size of the $200 billion savings that would accrue primarily to developed countries through the elimination of trade-distorting subsidies to their total foreign aid assistance of approximately $27 billion per year in 1980,\(^{210}\) suggests that those grants could be generated by transferring a portion of developing country benefits to LDCs.

Other reliable international food security measures would raise only collateral trade issues. For example, the maintenance of international food stockpiles might provide the necessary degree of assurance that food stocks would be available in case of natural disasters (such as droughts, floods, crop infestations and other causes of bad harvests) and economic emergencies (such as shortages of foreign currency reserves occasioned by sudden declines in demand for an LDC's primary exports).


\(^{209}\) World Bank Staff Working Paper No. 393, in FOOD SECURITY IN FOOD DEFICIT COUNTRIES 3 (1980); see also PARIKH, supra note 95, at 231.

\(^{210}\) PARIKH, supra note 95, at 119, 113.
Trade issues would arise primarily in the context of the standards to be used for obtaining supplies for the stockpiles. Under the preferred approach suggested in this article, for example, the developed countries might provide an international stockpile administrator with sufficient funds to purchase those supplies on straight commercial terms from the most efficient agricultural exporters.

If the contracting parties adopted the less ambitious solution, however, countries that maintained domestic price support programs might be convinced to donate any surpluses not needed to assure domestic food security needs to the stockpile. Excess supplies might inadvertently result from higher than expected yields. Alternatively, those countries might find it politically desirable (in both the domestic and international sense) to deliberately encourage production somewhat in excess of domestic needs, and donate excess supplies to international food stockpiles, as a means of supporting domestic farm income and providing crucial foreign aid, without unduly distorting international commercial markets.

Other measures, particularly governmental programs that permit LDCs to purchase food on concessional terms, would have a more direct effect on trade policy. The U.S. Commodity Credit Corporation, for example, provides export financing and loan guarantees to U.S. agricultural exporters at less than prevailing market rates. If U.S. exporters had to obtain comparable financing and insurance through the private market, we would expect both their costs and the prices paid by LDCs to increase. The United States also sells surplus agricultural products to LDCs under concessionary terms pursuant to PL-480 by accepting payment in local, non-convertible currencies, and applying those currencies to economic development projects in the recipient country.

If the developed countries agree to insulate LDCs from some of the risks of opening their markets to a liberal international agricultural trade system by means other than cash grants or outright donations of food, they may consider establishing additional concessionary sales programs. For example, some policy analysts have suggested that grain insurance programs would provide the necessary measure of assurance to LDCs that they will not be subject to wild fluctuations in international commodity prices if they place more reliance on the world market. In order to extend this assurance to LDCs that could not afford to pay the premiums for that type of insurance program, major agricultural nations might be willing to offer it at no cost or at below market rates.

The purist's free trade approach would be to authorize outright

food aid, but prohibit sales to LDCs on concessional terms. If the developed countries provided cash grants to LDCs that could be used to purchase food from any source, the comparative advantage ideal would flourish as LDCs imported their food from the most efficient producers. In recognition of political realities, however, most free trade advocates probably would not object to contracting parties' donations of surplus commodities to LDCs. Even though the donation might have some adverse effects on other agricultural exporters that might have obtained a sale to the LDC but for the donation, at least the donor country's motivation probably would not be to gain a commercial advantage.

Countries offering agricultural commodities to LDCs on concessional terms, however, usually do so to promote a diverse range of charitable and commercial interests, including: the enhancement of domestic farm incomes; the development of close trading relations, particularly if there are prospects for commercial sales to the LDC in the future; and the alleviation of hunger in the recipient country. Thus, concessional sales may adversely affect the interests of the most efficient agricultural exporting nations by distorting natural trade flows, while providing valuable commercial advantages to less efficient producers in the country offering the concessionary terms.

This is one of those cases in which no amount of refining the provisions of the General Agreement to establish balancing tests or flexible trade rules will solve the dilemma. We have to choose between two important principles. Either we conclude that the economic efficiency objectives are predominant, and therefore prohibit trade-distorting concessionary sales to LDCs; or we conclude that it is more important to encourage the international community to provide food aid by any means that can be supported through the domestic political process, even if it means that the most efficient agricultural exporting nations cannot exploit their comparative advantage to its full potential.

In this instance, when food security is not an abstract or hypothetical issue but involves decisions as to whether tens of millions of additional people in LDCs will be denied minimum nutritional requirements as food prices increase, free trade theory simply cannot be pushed to its ultimate limits. We should be willing to accept explicit provisions in the General Agreement authorizing the contracting parties to provide any type of food aid they wish, including donations and sales on concessionary terms, to LDCs that are subject to immediate and severe food security crises.

VI. CONCLUSION

GATT's architects understood the need to create an international trade system that respects both free market economics and the contracting parties' essential social and security policies. Over the past
four decades, the GATT system has induced the contracting parties to permit principles of comparative advantage to act as the basic determinate of flows of trade in manufactured products, while reserving their right to divert natural international trade flows when necessary to protect essential national security interests. With a few adaptations, GATT's rules-oriented system for balancing economic and non-economic objectives can, and should, be employed to extend its trade discipline to agricultural products, while assuring contracting parties that they may adopt reasonable measures to protect their legitimate food security interests.
### APPENDIX

#### TABLE A

**ESTIMATED TARIFF EQUIVALENTS OF U.S. QUOTAS ON SELECTED AGRICULTURAL IMPORTS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad valorem</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>percent</td>
<td></td>
<td></td>
<td>cents/kilogram</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Sugar</td>
<td>223</td>
<td>203</td>
<td>102</td>
<td>29.76</td>
<td>30.01</td>
<td>22.80</td>
</tr>
<tr>
<td>Refined Sugar</td>
<td>163</td>
<td>163</td>
<td>62</td>
<td>32.01</td>
<td>32.28</td>
<td>19.52</td>
</tr>
<tr>
<td>Boneless Cow Beef</td>
<td>1.6</td>
<td>6.1</td>
<td></td>
<td>2.9</td>
<td></td>
<td>12.2</td>
</tr>
<tr>
<td>Peanuts: In-shell, unroasted</td>
<td>34.3-51.2</td>
<td>35.7-52.8</td>
<td>69.1-90.1</td>
<td>6.9-10.3</td>
<td>7.1-10.5</td>
<td>11.2-14.6</td>
</tr>
<tr>
<td>Shelled, unroasted or roasted</td>
<td>31.4-38.6</td>
<td>32.4-39.7</td>
<td>55.2-63.6</td>
<td>12.7-15.6</td>
<td>13.0-15.9</td>
<td>19.1-22.0</td>
</tr>
<tr>
<td>Cotton:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type &quot;A&quot;</td>
<td>7-25</td>
<td>0-8</td>
<td>0-4</td>
<td>7.19-24.67</td>
<td>0-10.94</td>
<td>0-5.20</td>
</tr>
<tr>
<td>Type &quot;B&quot;</td>
<td>17-40</td>
<td>0-7</td>
<td>0-7</td>
<td>12.83-30.31</td>
<td>0-8.40</td>
<td>0-7.17</td>
</tr>
<tr>
<td>ELS cotton</td>
<td>0-4</td>
<td>0</td>
<td>0</td>
<td>0-9.04</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Dairy:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Whole Milk</td>
<td>160.6</td>
<td>164.1</td>
<td>64.5</td>
<td>148.4</td>
<td>151.3</td>
<td>97.5</td>
</tr>
<tr>
<td>Nonfat Dry Milk</td>
<td>142.5</td>
<td>67.6</td>
<td>5.7</td>
<td>99.9</td>
<td>68.3</td>
<td>9.3</td>
</tr>
<tr>
<td>Butter</td>
<td>190.2</td>
<td>182.1</td>
<td>95.9</td>
<td>192.5</td>
<td>177.5</td>
<td>128.3</td>
</tr>
<tr>
<td>Butteroil</td>
<td>273.7</td>
<td>271.2</td>
<td>200.9</td>
<td>321.7</td>
<td>312.2</td>
<td>271.0</td>
</tr>
<tr>
<td>Cheddar Cheese</td>
<td>132.5</td>
<td>121.8</td>
<td>47.3</td>
<td>145.8</td>
<td>134.0</td>
<td>78.0</td>
</tr>
</tbody>
</table>

TABLE B
ESTIMATED TARIFF EQUIVALENTS OF CERTAIN FOREIGN NONTARIFF BARRIERS ON AGRICULTURAL IMPORTS

<table>
<thead>
<tr>
<th>Importing country/region and item</th>
<th>Ad valorem</th>
<th>Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Community:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy products:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter</td>
<td>212</td>
<td>65</td>
</tr>
<tr>
<td>Cheddar cheese</td>
<td>275</td>
<td>95</td>
</tr>
<tr>
<td>Nonfat dry milk</td>
<td>471</td>
<td>115</td>
</tr>
<tr>
<td>Sugar</td>
<td>188</td>
<td>222</td>
</tr>
<tr>
<td>Wheat</td>
<td>96</td>
<td>100</td>
</tr>
<tr>
<td>Japan:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy products:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter</td>
<td>595</td>
<td>648</td>
</tr>
<tr>
<td>Nonfat dry milk</td>
<td>544</td>
<td>250</td>
</tr>
<tr>
<td>Sugar</td>
<td>542</td>
<td>542</td>
</tr>
<tr>
<td>Rice</td>
<td>733</td>
<td>620</td>
</tr>
<tr>
<td>Canada</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy products:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter</td>
<td>270</td>
<td>308</td>
</tr>
<tr>
<td>Cheddar cheese</td>
<td>295</td>
<td>317</td>
</tr>
<tr>
<td>Nonfat dry milk</td>
<td>189</td>
<td>113</td>
</tr>
<tr>
<td>Eggs and poultry:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td>13</td>
<td>36</td>
</tr>
<tr>
<td>Chicken</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>Turkey</td>
<td>28</td>
<td>58</td>
</tr>
</tbody>
</table>

1Specific rates are in cents per dozen.

Source: Foreign Tariff Equivalents, supra note 108, at vi.
### TABLE C
TOTAL TRANSACTIONS ASSOCIATED WITH AGRICULTURAL POLICIES
(in billion U.S. dollars) 1986-89

<table>
<thead>
<tr>
<th>Country</th>
<th>Transfers from taxpayers (1)</th>
<th>Transfers from consumers (2)</th>
<th>Budget revenues (3)</th>
<th>Total transfers (1)+ (2)− (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>United States</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>59.4</td>
<td>29.6</td>
<td>0.9</td>
<td>88.1</td>
</tr>
<tr>
<td>1987</td>
<td>50.3</td>
<td>30.4</td>
<td>0.7</td>
<td>81.0</td>
</tr>
<tr>
<td>1988</td>
<td>49.1</td>
<td>26.0</td>
<td>0.8</td>
<td>76.3</td>
</tr>
<tr>
<td>1989</td>
<td>46.3</td>
<td>21.6</td>
<td>0.7</td>
<td>70.2</td>
</tr>
<tr>
<td><strong>EC-12</strong></td>
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<td></td>
<td></td>
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<tr>
<td>1986</td>
<td>31.7</td>
<td>71.9</td>
<td>0.7</td>
<td>102.9</td>
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<td>1987</td>
<td>38.2</td>
<td>78.3</td>
<td>0.7</td>
<td>115.9</td>
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<tr>
<td>1988</td>
<td>45.8</td>
<td>63.7</td>
<td>0.7</td>
<td>108.8</td>
</tr>
<tr>
<td>1989</td>
<td>44.1</td>
<td>54.1</td>
<td>0.7</td>
<td>97.5</td>
</tr>
<tr>
<td><strong>Japan</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>13.9</td>
<td>48.8</td>
<td>8.6</td>
<td>64.1</td>
</tr>
<tr>
<td>1987</td>
<td>18.4</td>
<td>55.3</td>
<td>10.4</td>
<td>63.3</td>
</tr>
<tr>
<td>1988</td>
<td>18.7</td>
<td>60.8</td>
<td>13.7</td>
<td>65.9</td>
</tr>
<tr>
<td>1989</td>
<td>15.6</td>
<td>52.4</td>
<td>10.2</td>
<td>57.8</td>
</tr>
<tr>
<td><strong>Canada</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>4.4</td>
<td>3.6</td>
<td>0.1</td>
<td>7.9</td>
</tr>
<tr>
<td>1987</td>
<td>5.7</td>
<td>3.6</td>
<td>0.1</td>
<td>9.2</td>
</tr>
<tr>
<td>1988</td>
<td>5.1</td>
<td>3.6</td>
<td>0.1</td>
<td>8.6</td>
</tr>
<tr>
<td>1989</td>
<td>4.2</td>
<td>3.1</td>
<td>0.1</td>
<td>7.2</td>
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<tr>
<td><strong>Australia</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>0.4</td>
<td>0.5</td>
<td>0.0</td>
<td>0.9</td>
</tr>
<tr>
<td>1987</td>
<td>0.3</td>
<td>0.4</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>1988</td>
<td>0.2</td>
<td>0.4</td>
<td>0.0</td>
<td>0.6</td>
</tr>
<tr>
<td>1989</td>
<td>0.3</td>
<td>0.4</td>
<td>0.0</td>
<td>0.6</td>
</tr>
</tbody>
</table>

**Notes:**

1. "Transfers from taxpayers" corresponds to public expenditures for agriculture under the following items: research, training, extension, inspection services and disease control, rationalization of production, structural improvement, rural development, processing, marketing, subsidies to consumers, and price and income support. It concerns federal expenditure and expenditure by the States, Provinces and Länder respectively for the United States and Australia, for Canada, and for Austria and Germany. For the EEC, these expenditures cover not only community expenses but also Member States expenses.

2. "Transfers from consumers" was estimated as the impact of these policies at the borders (customs duties or equivalent) on domestic prices; it was calculated per product applying the corresponding tariffs or the difference between the domestic and foreign prices to the respective levels of consumption and deducting consumer subsidies borne by taxpayers.

3. "Budget revenues" arising from price distortions should only exist for the products in which a country is not self-sufficient; they were estimated by multiplying the tariff or the price differential by the difference between the consumption and production levels of these products.

**TABLE D**
PERCENTAGE CHANGES IN GLOBAL TRADE, PRODUCTION, AND HUMAN CONSUMPTION UNDER OECD TRADE LIBERALIZATION RELATIVE TO THE REFERENCE SCENARIO IN 1990 AND 2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>1.1</td>
<td>0.5</td>
<td>-3.0</td>
<td>-1.5</td>
<td>-0.6</td>
<td>-0.8</td>
</tr>
<tr>
<td>Rice</td>
<td>1.2</td>
<td>1.2</td>
<td>42.8</td>
<td>37.4</td>
<td>-0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Coarse grains</td>
<td>0.7</td>
<td>1.7</td>
<td>-6.5</td>
<td>-4.5</td>
<td>-0.4</td>
<td>-0.4</td>
</tr>
<tr>
<td>Bovine and ovine</td>
<td>0.9</td>
<td>3.3</td>
<td>33.0</td>
<td>34.9</td>
<td>1.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Dairy</td>
<td>0.8</td>
<td>1.9</td>
<td>19.9</td>
<td>12.5</td>
<td>0.9</td>
<td>1.0</td>
</tr>
<tr>
<td>Other animal products</td>
<td>0.4</td>
<td>0.8</td>
<td>6.2</td>
<td>16.8</td>
<td>0.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Protein feed</td>
<td>2.5</td>
<td>2.0</td>
<td>5.1</td>
<td>5.0</td>
<td>-0.1</td>
<td>-0.2</td>
</tr>
<tr>
<td>Other food</td>
<td>0.3</td>
<td>0.2</td>
<td>4.2</td>
<td>10.1</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>Nonfood agriculture</td>
<td>0.2</td>
<td>-1.5</td>
<td>5.0</td>
<td>5.1</td>
<td>0.6</td>
<td>1.4</td>
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<tr>
<td>Nonagriculture</td>
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<td>0.0</td>
<td>15.4</td>
<td>17.0</td>
<td>0.2</td>
<td>0.4</td>
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</table>

Source: PARikh, supr note 95, at 96 (Table 5.5).
### TABLE E
PERCENTAGE CHANGES IN AGRICULTURAL TRADE PATTERNS IN 2000 UNDER OECD TRADE LIBERALIZATION TO THE REFERENCE SCENARIOa

<table>
<thead>
<tr>
<th>Country</th>
<th>Wheat</th>
<th>Rice</th>
<th>Coarse Grains &amp; Bovine Dairy</th>
<th>Other Animal Products</th>
<th>Protein Feed</th>
<th>Other Food</th>
<th>Non-Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>19</td>
<td>6</td>
<td>12</td>
<td>114</td>
<td>-177</td>
<td>+b</td>
<td>3</td>
</tr>
<tr>
<td>Canada</td>
<td>-9</td>
<td>-4</td>
<td>-79</td>
<td>108</td>
<td>+b</td>
<td>36</td>
<td>-82</td>
</tr>
<tr>
<td>Australia</td>
<td>5</td>
<td>-2</td>
<td>-53</td>
<td>75</td>
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a In all similar tables the percentage change figures for trade should be interpreted with care. A negative percentage change implies reduction in net exports or imports. A negative percentage change that exceeds 100 shows a reversal of trade direction. A positive percentage change shows an increase in traded quantity.

b No percentage change is given when the traded volume in the reference scenario does not exceed 2% of domestic disappearance. In these cases a plus is used to indicate an increase in net exports (increased export or decreased import), and a minus is used to indicate a decrease in net exports.

Source: PARIKH, supra note 95, at 104 (Table 5.11).
TABLE F
PROJECTED NUMBER OF PEOPLE AND SHARE OF POPULATION WITH CALORIE INTAKES BELOW REQUIREMENTS IN SELECTED COUNTRIES BY REGIONS

<table>
<thead>
<tr>
<th>Region</th>
<th>1990 Constant food price</th>
<th>Rising food price (1% year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Income growth*</td>
<td>Income growth*</td>
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<td>Low (1965)</td>
<td>1973</td>
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<tr>
<td>Latin America</td>
<td>97(.49)</td>
<td>115(.46)</td>
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<tr>
<td>Asia</td>
<td>540(.71)</td>
<td>613(.67)</td>
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<tr>
<td>Middle East</td>
<td>45(.52)</td>
<td>49(.47)</td>
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<tr>
<td>Africa</td>
<td>22(.59)</td>
<td>31(.66)</td>
</tr>
<tr>
<td>Total</td>
<td>704(.66)</td>
<td>808(.61)</td>
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</tbody>
</table>

B. Calorie Intake Below 90% of FAO/WHO Requirements

<table>
<thead>
<tr>
<th>Region</th>
<th>1990 Constant food price</th>
<th>Rising food price (1% year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Income growth*</td>
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<tr>
<td></td>
<td>Low (1965)</td>
<td>1973</td>
</tr>
<tr>
<td>Latin America</td>
<td>72(.37)</td>
<td>92(.37)</td>
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<tr>
<td>Asia</td>
<td>456(.56)</td>
<td>448(.49)</td>
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<tr>
<td>Middle East</td>
<td>34(.40)</td>
<td>34(.33)</td>
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<tr>
<td>Africa</td>
<td>16(.44)</td>
<td>25(.53)</td>
</tr>
<tr>
<td>Total</td>
<td>578(.50)</td>
<td>599(.46)</td>
</tr>
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</table>

* Low "income growth" refers to the historical growth rates (1960-74) in per capita income in the respective countries, except that where the growth rate was lower than 1% growth was assumed. High income refers to 1.5 times the historical growth rates in the respective countries, or 1.5% annually, whichever was greater.