CON-3

AGREP Division Conference Paper
No. 3

HANDBOOK ON MULTILATERAL TRADE NEGOTIATIONS: AGRICULTURE

by Delbert A. Fitchett

March, 1987

Economics and Policy Division
Agriculture and Rural Development Department

Handbook on Multilateral Trade Negotiations

Agriculture

Introduction

1. Pervasive governmental intervention in domestic agricultural markets is the fundamental cause of the current disarray in world agricultural commodity markets and the major force behind the pressures for increasingly protectionist agricultural policies in both the developed and less developed economies around the world. Of course, the agricultural sector has been subjected to a variety of governmental interventionist policies for some time, but there have been some marked changes in the world economic scene in the past two decades or so which have had a significant impact on the nature of global agricultural commodity markets:

(a) The volume of world trade in agricultural commodities has risen considerably and the variety of goods traded has increased;

(b) Major new exporting countries have come onto the world agricultural commodity markets and important new importers have appeared; and

(c) The shift from fixed to variable exchange rate regimes by the principal trading countries has a major impact on both domestic and foreign commodity markets and financial markets, from which domestic farm producers are no longer shielded.

2. In these circumstances the domestic farm policies typically pursued in the past by both the OECD and the less developed countries (LDCs) appear to be poorly designed to encourage economically efficient production, investment and consumption decisions on the part of either producers, traders and consumers. As reported in a recent issue of <u>The Economist</u> Magazine (Dec. 13, 1986), among the anomalies of these policies, as catalogued by the Secretary of the Australian Department of Primary Industries, are the following:

(a) The budgetary costs of the U.S. farm program in 1986, was nearly US$ 700 for each non-farm family; in the EEC the analogous figure was more than US$900;

(b) Consumers in Japan are paying food prices about 60% higher than they would if the fall in world prices and the appreciation of the yen since 1980 had been reflected in internal agricultural prices;

(c) In the EEC and the U.S. the 25% of the farmers with the largest output receive some 75% of total farm support;

(d) The annual transfers from consumers (through higher product dairy prices) and taxpayers to dairy farmers in the EEC represent US$ 410 per cow; in the U.S. the transfers amount to US$ 835 per cow; and

(e) American grain stocks are equivalent to around two years' total world trade in grain; EEC beef stocks are about 30% of annual world trade.

Moreover, the effects of these domestic policies have a penchant -- often unanticipated or inadvertent and probably in most cases unavoidable -- for spilling over unto international markets. In these circumstances, governments have sought to insulate their domestic markets commodity markets from the instability and uncertainty they perceive as reigning on international commodity markets; paradoxically, these narrowly defensive efforts appear to have actually accentuated that instability (IBRD, 1986a).

Varieties of Agricultural Policies

3. In both the LDCs and the developed market economies agricultural policies appear to have been pursued for a variety of objectives:

(a) Stabilize and increase farm incomes;

(b) Abundant food supplies and stable food prices;

(c) Improved external trade balances;

(d) Support to the development of other sectors of the economy;

(e) Technological progress in commodity production and processing; and

(f) Reasonable limits on the fiscal outlays necessary to reach these objectives.

4. As is the case with most sets of multiple objectives, the components of this list may not necessarily be mutually consistent, trade-offs between achieving one or the other have often been necessary. Thus in many LDCs the objective of cheap food -- when pursued through policies which have tended to depress the prices and incomes of the farming population -- have consistently resulted in lowered production performance, had an adverse impact on trade balances and set back a country's economic advancement. On the other hand, despite historically expensive agricultural support programs, the OECD countries are beset by numerous problems. For example, farmers' incomes appear to have dropped precipitously in the U.S. in recent years, the costs of agricultural support programs in both the EEC and the U.S. have reached appallingly high levels, and commodity prices -- especially on world markets -- have by and large limped along at historically low levels in real terms.

5. Concurrently, during the last five years the rate of growth in the overall volume of agriculture trade has fallen and stocks of some

commodities in the hands of the OECD governments have burgeoned. Paradoxically, from a global perspective, the world food economy has performed reasonably well in the past two decades. One recent World Bank Report, Poverty and Hunger, suggested that the specter of famine had been effectively banished; rather the principle remaining problem was one of the exiguous purchasing power of the very poor as not enabling them to assemble the resources to effectively demand an adequate diet (IBRD, 1986b). Nevertheless, while the grotesque juxtaposition in the past of glut and famine may have been exorcised, improved levels of farm production, productivity and income will continue to represent a major opportunity for economic growth and poverty alleviation in the LDCs.

Types of Agricultural Protectionism

6. The variety and ingenuity of measures applied by the OECD governments to limit access of imported agricultural commodities to their domestic markets have served to drive a progressively thickening wedge between the prices observed on world markets and the prices (including product-specific deficiency/restitution payments) received by domestic producers. The trade policy interventions impacting on agricultural commodity trade flows are commonly divided into "border" and "non-border" measures. Tariffs are a very common border measure, but they appear in a myriad of forms, e.g., specific charges or ad valorem; customs valuations based on fictitious minimum or "reference" prices rather than actual invoices; fixed (bound) or variable levies (according to a target price); etc. Similarly, export incentives may take the form of tax drawbacks, restitution payments according to a legislatively mandated or bureaucratically administered target price, bonus commodity certificates, surplus stock disposal through foreign aid, etc. Finally, state trading organizations in both the developed countries and LDCs can be used as instruments to implement certain protectionist policies.

7. Nontariff barriers (NTBs) also represent an important weapon in the protectionist armory against agricultural trade. According to one study (Nogues, et. al., 1986), 19 per cent of nonfuel imports by 16 developed countries were subject to NTBs in 1983; the share of agricultural imports subjected to NTBs was 36 per cent, second only to the 45 per cent rate for textiles. Of the developed countries' imports of LDC agricultural exports, 31 per cent were subject to nontariff barriers. (Actually, an even higher share of such imports from developed countries were subjected to nontariff barriers. In part this may owe to the "complementary" rather than competitive nature of developed country agricultural imports, e.g., tropical beverages.) Quantitative import restrictions -- the ultimate form of which is a total ban on imports -- are the most prevalent type of NTB used to insulate domestic markets from world prices -- and in the process tend to permit extraordinary income to accrue to those fortunate enough to obtain an import permit of the commodity in question. On a commodity category basis, NTBs are most frequently raised against sugar, animal and dairy products (Table 2).

8. These border measures in the developed countries are designed to decouple external market conditions from those governing domestic

markets, which are affected by a variety of market intervention instruments which are intended to protect the prices and incomes received by farm producers. On the one hand, there are target prices and the associated deficiency payments, production loan programs with guaranteed commodity forfeiture values, subsidies or tax exemptions on such inputs as fuel, energy, fertilizers and irrigation water, favorable tax treatment of some farming activities, etc. These various measures have led to an overcommitment of domestic resources to agriculture and progressively larger production surpluses. The various governments are then projecting the results of these domestic policies unto international commodity markets as they attempt to dispose of these quantities. Thus the disarray in international commodity markets in recent years cannot be addressed without a harmonization and rationalization of the respective domestic agricultural policies of the OECD countries.

9. By no means are the LDCs any less ingenious in the variety of instruments they have mobilized in order to intervene in their domestic and international agricultural trading systems. To much larger extent, in most of these instances, taxes on the sector's trade represent a much more important share of their fiscal revenue than in the developed countries. Concurrently, the share of farm products in the typical urban consumption basket is much greater than in the developed countries, thus often intensifying the politicization of LDC government farm commodity price interventions. On balance, protection or maintenance of producer prices and incomes has tended to be of lesser importance than the government's fiscal revenue considerations or short-term urban consumer interests. Finally, in the LDCs it appears that exchange rate manipulations have been much more central to or responsive to pressures on these governments to transfer resources out of the farming sector than has been the case in the developed countries. Overvalued exchange rates and an inordinate level of protection to industry in most LDCs have tended to strongly influence the distribution of income and wealth. On balance, the typical constellation of macroeconomic and sectoral policies has tended to depress the levels of resource allocation, productivity, profitability and income growth in the agricultural sectors of LDCs. In this situation, one can legitimately question the ability of many LDCs to efficiently take advantage of OECD agricultural trade liberalization measures, unless these same LDCs also correct the domestic policy distortions inhibiting the development of their own agricultural sectors.

Estimates of the Cost of Agricultural Protectionism

10. A series of studies have been carried out in recent years in order to establish the magnitude of some of the distortions arising from these market intervention measures. A range of techniques have been utilized in carrying out these studies, but they generally have been based on two approaches:

(a) Static partial equilibrium models of single commodity markets, e.g., the calculation of nominal and effective protection coefficients or producer and consumer subsidy equivalents; and

(b) Commodity market equilibrium models.

11. Nominal protection coefficients for commodities in a number of industrial countries are presented in Table 3 (IBRD, 1986a). These represent only a rough measure of protection, as they are quite sensitive to variability in product prices, exchange rates and product quality. One may nevertheless observe, for example, that diary farmers appear to be generally heavily protected in most countries, that Japanese and European farmers tend to be more heavily protected than farmers in countries relying more heavily on agricultural exports, and that the notable differences in protection levels suggest that relative internal prices may vary considerably from one country to the next. A series of estimates of nominal protection coefficients for a number of African LDCs, also reproduced from that same IBRD report, demonstrates the levels of negative protection, i.e., producer taxation, that are effectively imposed on farmer producers in the LDCs (Table 4).

12. Much more ambitious are the commodity market equilibrium studies, a number of which are reported on in the most recent IBRD World Development Report cited earlier (IBRD, 1986a). Some of the major findings of these studies are summarized in Tables 5 - 6, which present estimates of the magnitudes of the gains which could accrue to both developed and developing countries from either (preferably) jointly or even separately liberalizing their respective agricultural trade regimes. To some extent the values cited in these tables probably tend to actually underestimate the possible gains, given the downward trends in world commodity prices since much of the work was carried out. Table 5 reports the likely changes in the prices and volumes of trade following on commodity trade liberalization by various groupings of countries. For those commodities listed, that study found the results presented in Table 6, i.e., that the major beneficiaries of trade liberalization would be the liberalizers themselves. For the principal trading groups, in fact, obtaining concessions without any liberalizing measures of one's own seems to be a self-defeating strategy. However, when one focuses in greater detail on individual LDCs, in some cases on balance there appears to be a real deterioration in their situation -- e.g., the very low income cereals importers would face higher prices for their cereals purchases from abroad (Zietz and Valdes, 1986).

13. These last findings demonstrate the danger to the LDCs from their standing back from the agricultural trade negotiations and considering the confrontations and interests at play to be primarily those of the U.S. and EEC farm lobbies. Very clearly, if the agricultural trade negotiations are constrained to merely the interests of these two trading blocs, some increasingly important LDC agricultural trading interests may lose out, while the OECD agricultural exporting interests may attempt to further protect their domestic producers and "carve up" export markets. The LDCs should recognize that there are definite gains to the OECD countries to such a strategy; in Table 6 the efficiency gains to the OECD countries from their own trade liberalization process are estimated at US$ 48.5 billion (in 1980 prices). Given the rising fiscal costs of current OECD farm support programs (some US$ 50 billion in 1986) and a growing consumer awareness of the tendency for these

programs to hike food prices, some pressure for such a "partial" solution may not be all that far-fetched. A second clear deterrent to the LDCs "sitting out" the agricultural trade negotiations is the estimate (in that same Table) that "unilateral" agricultural trade liberalization on the part of the OECD countries would represent losses to the LDCs on the order of US$ 11.8 billion (in 1980 prices).

Past Treatment of Agriculture in the GATT

14. In principle, trade in agricultural products is subjected to the same GATT discipline as trade in other commodities. However, several important exceptions exist. Thus, the general prohibition of quantitative import and export restrictions, or quotas, (Article XI) may relaxed in certain circumstances:

(a) Temporary export restrictions may be introduced to prevent or relieve shortages of food or other essential products;

(b) Import restrictions may be introduced where they are necessary to the enforcement of domestic marketing or production control programs or the removal of temporary domestic surpluses; and 1/

(c) Import and export restrictions may be used if necessary for the application of standards of commodity classification, grading or marketing.

15. Further special treatment for agriculture in the GATT derives from the exception, in Article XVI, to the general prohibition of export subsidies in the case of primary products (agricultural or non-agricultural). In the Subsidies Code subsequently signed by some contracting parties during the Tokyo Round of MTNs, an attempt was made to further restrain the Article XVI admonition that the use of such export subsidies on primary products was to be limited so as to not give the subsidizing party "more than an equitable share of world export trade" of the commodity in question. (Subsequently, there has been much argument about what is a "primary commodity" and what constitutes an "equitable share.") As regards domestic subsidies -- including price and income support programs -- which may have an effect on agricultural commodity trade flows, parties are not explicitly enjoined from applying them, but are required to notify GATT of such subsidies and to consult with other members when requested. (That same Code and the Tokyo Round Antidumping Code also provide procedures for applying countervailing measures when subsidies are shown to cause injury.) A number of GATT panels have been convoked in the past decade -- largely at the request of OECD complainants against the practices of other OECD member countries -- to address and recommend resolution of agricultural trade disputes coming under the provisions of the GATT provisions (IMF, 1985).

16. In the past MTN rounds, discussions with respect to agricultural trade -- except for such special issues as, e.g., tropical beverages -- have tended to be between the major developed country participants in that trade. By the time of the Tokyo round in 1973-79 these were the

U.S., the EEC (whose Common Agricultural Policy was only in its formative stages at the previous Kennedy Round) and Japan. Principal agricultural trade concessions related to those three parties, plus the limited achievement of the subsidies code and the establishment of consultative arrangements regarding trade in dairy products and bovine meat. On the other hand, an initiative which did not prosper was the conclusion of a new, more ambitious International Wheat Agreement. In the Tokyo Round negotiations there was no real attempt to grasp the nettle of domestic agricultural policies as representing a major disequilibrating force on international commodity markets.

17. Despite the most favored nation principle underlying the GATT, an enabling clause authorizes developed country members to grant preferential and non-reciprocal tariff concessions to developing countries under the auspices of the General System of Preferences (GSP). Currently about 25 developed countries are granting such GSP concessions. The coverage of agricultural products by these arrangements is limited, however; thus in recent years less than twenty per cent of the imports accorded GSP treatment by the U.S., EEC and Japan have been agricultural products (Congressional Research Service, 1986). Problems remain with respect to the higher rates of duty charged on processed and semi-processed products in contrast to primary products. Moreover, non-tariff barriers fall outside the consideration of the GSP and their formal or informal application/extension (e.g., voluntary restraint agreements, orderly marketing arrangements, etc.) may aggravate LDC access to developed country markets for agricultural commodities. As we discussed above (paragraph 7), it appears to be the case that developed countries tend to raise non-tariff barriers against agricultural commodities more frequently than against manufactured imports.

Background to the Uruguay Round

18. The ink was barely dry on the outcome of the Tokyo Round of MTNs when initiatives were underway for the convening of a new round of trade talks. The changed international economic and trade environment and related actual or threatened protectionist measures on the part of some GATT members -- as well as some continuing concerns about issues left outstanding or unresolved from the Tokyo Round -- led to the convocation of a GATT Ministerial meeting in Geneva in 1982. The concluding declaration of that meeting stressed the need "to bring agriculture more fully into the multilateral trading system by improving the effectiveness of GATT rules.... and to seek to improve terms of access to markets and to bring export competition under greater discipline" (Congressional Research Service, 1986). Concern was expressed with regard to subsidies affecting agriculture, especially export subsidies, and the need to avoid subsidization seriously prejudicial to the trade interests of GATT members.

19. Following on the recommendations of the 1982 Ministerial meeting -- and perhaps spurred on by the crescendo of concern over world agricultural trade issues -- a Committee on Trade in Agriculture, composed of 49 member states, was established in 1982 and instructed to review: 7/

(a) Improvements in the conditions of market access;

(b) Notification and examination of national agricultural policies; and

(c) Distortions to competition in agricultural trade arising from direct and indirect export subsidization.

The recommendations of the CTA focused on strengthening the Article XI injunction on quantitative restrictions; barriers such as voluntary export restraints, variable levies, unbound tariffs and minimum import prices would be brought under the range of measures to be regulated. The use -- and abuse -- of export subsidies would be more closely circumscribed. Both the domestic and agricultural trade policies of members would be subject to regular review (Congressional Research Service, 1986). This move to raise domestic agricultural policies as a central element in international trade in farm products represents a watershed in the MTNs; the opportunity for underdeveloped countries to pursue this theme in order to reduce the disarray on international commodity markets which operates to their disadvantage is an important one which they should exploit.

20. In some respects, the situation may not seem to be a propitious one for meaningful progress in reducing barriers or liberalizing trade in agricultural products. Over the last two and one-half decades, the growth trend in the volume of world agricultural trade has been downward, at a period of time when the growth of world agricultural production has trended upwards (Table 1). This phenomenon may in part derive from the generalized drive to food self-sufficiency undertaken by many countries in the decade of the seventies, in reaction to the then generally-perceived and widely advertised food supply "crisis." A notable expansion of agricultural production infrastructure and on-farm investment occurred in that decade, in part fueled by optimistic market prospects and facile access to investment and commodity trade finance arising from the growth of liquidity on world financial markets. This was accompanied by a rapid uptake of new more highly productive inputs and techniques. Finally, domestic food demand was expanding relatively rapidly in middle- and low-income developing countries at a rate so as to absorb both the domestic production growth and expanded quantities from abroad.

21. Turmoil on financial and foreign exchange markets and lower growth rates in both the industrialized economies and LDCs in the 1980s have punctured the earlier buoyancy of these world commodity markets, while agricultural production has continued to grow. New exporters from the ranks of both the developed and developing economies have appeared in a major way during the past decade to contest the markets and relative positions of long-standing principal suppliers of grains, oilseeds and sugar. In the developed countries domestic agricultural policy initiatives, in an attempt to cope with rising supplies of what now appear to be relatively costly commodities, have typically adopted or intensified existing price and income support measures which have projected this disarray unto world commodity markets.

The Initiation of the Uruguay Round

22. Trade Ministers of GATT member countries (contracting parties), meeting in Montevideo in September, 1986, adopted a Declaration for the Eighth (Uruguay) Round of MTNs which highlighted several issues of agricultural trade which would be subjects of the negotiations (GATT, 1986c):

(a) Improving market access for international trade in agricultural commodities through, inter alia, reduction of import barriers, whether they be of a tariff or non-tariff nature;

(b) Improving the competitive environment by increasing discipline -- including phased reduction -- in the use of direct and indirect subsidies and other measures affecting directly or indirectly agricultural trade; and

(c) Minimizing the adverse effects that sanitary and phytosanitary measures can have on international trade.

There was acknowledgement of an "urgent need" to correct existing restraints and prevent further ones on agricultural trade, including those related to "structural surpluses," so as to reduce the uncertainty, imbalances and instability in world agricultural markets. The Declaration directed that the work carried out by the Committee on Trade in Agriculture was to serve as an important input into the Negotiations.

23. Several other topics on the primary negotiating agenda of the Uruguay Round are also intimately related to agricultural trade issues:

(a) Subsidies and countervailing measures, as provided for under Articles VI and XVI of the GATT and the MTN Codes (Subsidies and Countervailing Duties Code and Antidumping Agreement) on these matters;

(b) Safeguards, as new protectionist initiatives seem to have proliferated outside the GATT framework; and

(c) Dispute settlement procedures under the GATT, which in the case of agricultural trade complaints have been a subject of some criticism.

That the predominant source of all GATT dispute settlement cases has been agricultural trade attest to the timeliness of these topics. Similarly, actions against unfair trading practices under Section 301 of the U.S. Trade Act of 1974 have been primarily on agricultural trade issues (Council of Economic Advisors, 1987). The time appears ripe for developing an improved GATT framework for addressing and resolving these issues.

Are Domestic Farm Policies on the Negotiating Table?

24. There should be no doubt that the domestic farm policies of the U.S., the EEC and Japan are the key to moderating the disarray which

has gripped the global agricultural commodity markets during the 1980s. On the other hand, the economic and political concerns of these various countries with respect to the pace and direction of structural change in their respective agricultural sectors are legitimate. The processes by which and time frame within which their farm producers, processors and suppliers will be encouraged to adjust the present surplus production capacity -- in terms of product composition, scale, geographical distribution and comparative advantage -- in order to more closely adapt production to likely future demand trends cannot be divorced from the move to a more liberal world agricultural trading environment. There appear to be two approaches, poles apart to this adjustment process:

(a) Allocation of production and trade quotas to the principal producer and market participants, so as to manage the supply and prices of principal traded commodities; or

(b) Harmonization of domestic agricultural income and price support policies with agricultural trade policies to remove the "market wedge" required by current domestic support policies.

Grosso modo, the first approach is that apparently preferred by the member nations of the EEC; the second alternative more closely parallels the proposals of the U.S., and is manifested that country's 1985 farm legislation to reduce (if perhaps very timidly) to world market price levels its domestic support and target prices for major traded commodities and further proposals to progressively "decouple" farm income support programs from individual commodity production decisions.

25. Concurrently, a number of LDCs must redress the existing distortions in their domestic agricultural policies which have in the past depressed sectoral productivity and profitability. Furthermore, in order that their agricultural producer, processor and trader sectors can promptly respond to the opportunities provided by a more liberal global agricultural trading environment, the domestic and external trade regimes must experience a parallel liberalization process. Finally, a stable macroeconomic environment should provide an aura of stability and confidence to underpin further development.

<u>Persistent Issues Outside the MTN</u>

26. There are several important issues which are directly relevant to the interests of agricultural commodity producers and traders in both the developed and developing economies, but which will not be frontally addressed in the GATT negotiations:

(a) Problems of expanding world growth and the demand for farm products, e.g., relieving the debt overhang in LDCs, reinvigorating the OECD economies, etc.; and

(b) Ameliorating the instability observed in recent years in world financial and foreign exchange markets, a problem deriving -- as in point (a) above -- from the lack of monetary and fiscal discipline and policy coordination of the OECD countries.

27. An MTN round which successfully launches meaningful agricultural trade liberalization extending over a period of the next several years could provide an important underpinning for a growth/adjustment process. Shaping future national agricultural programs in both the OECD countries and the LDCs so that their respective operation contributes to the broadening of both domestic and international commodity markets -- rather than causing domestic policy distortions to spill over unto them in a disorderly manner as so many of these national programs do at present -- is a major challenge.

Bibliography

Anderson, Kym and Rodney Tyers. 1986. "International Effects of Domestic Agricultural Policies." In R.H. Snape, ed. Issues in World Trade Policy: GATT at the Crossroads. New York: Saint Martins.

Council of Economic Advisors. 1987. Economic Report of the President. Washington, D.C. U.S. Government Printing Office.

Congressional Research Service. 1986. Agriculture in the GATT: Toward the Next Round of Multilateral Trade Negotiations. Washington, D.C. U.S. Government Printing Office.

Economic Research Service, U.S. Department of Agriculture. 1987. Government Intervention in Agriculture: Measurement, Evaluation and Implications for Trade Negotiations. Staff Report AGES861216. Washington, D.C.

The Economist. 1986. "Farm Subsidies: Fat on the Land" 301:7476 (December), 76.

General Agreement on Trade and Tariffs and Trade. 1985. Trade Policies for a Better Future. Geneva.

General Agreement on Tariffs and Trade. 1986a. The Text on the General Agreement on Tariffs and Trade. Geneva.

General Agreement on Tariffs and Trade. 1986b. International Trade, 1985-1986. Geneva.

General Agreement on Tariffs and Trade. 1986c. Focus 41 (October, 1986): 2-5.

General Agreement on Tariffs and Trade. 1987. International Trade in 1986 and Current Prospects: First Assessment by the GATT Secretariat. Geneva.

Hathaway, Dale E. 1986. "Trade Negotiations: They won't solve Agriculture's Problems." Choices, Fourth Quarter: 14-17.

International Bank for Reconstruction and Development. 1986a. World Development Report. Washington, D.C.

International Bank for Reconstruction and Development. 1986b. Poverty and Hunger. Washington, D.C.

Johnson, D. Gale, Kenzo Hemmi and Pierre Lardinois. 1985. Agricultural Trade Policy: Adjusting Domestic Programs in an International Framework. New York: New York University Press.

Miller, Geoff. 1986. The Political Economy of International Agricultural Policy Reform. Canberra. Australian Government Publishing Service.

Nogues, Julio J. 1985. "Agriculture and Developing Countries in the GATT." World Economy. June: 119-133.

Nogues, Julio J., Andrzej Olechowski and L. Alan Winters. 1986. The Extent of Nontariff Barriers to Imports of Industrial Countries. IBRD Staff Working Paper No. 789.

Zietz, J. and A. Valdes. 1986. The Costs of Protectionism to Developing Countries: An Analysis for Selected Agricultural Products. IBRD Staff Working Paper No. 769.

Table 1: GROWTH OF WORLD MERCHANDISE TRADE AND PRODUCTION, 1960-85
(Average annual percentage change in volume)

	1960–70	1970–80	1980–86	1985	1986		1960–70	1970–80	1980–86	1985	1986
EXPORTS						PRODUCTION					
All merchandise	**8 1/2**	**5 1/2**	**2 1/2**	**3 1/2**	**3 1/2**	**All merchandise**	**6**	**4**	**2**	**3**	3
Agriculture	4	3	1 1/2	0	1	Agriculture	2 1/2	2	2 1/2	2	3
Mining	6 1/2	2 1/2	-1	-1	7	Mining	5 1/2	2 1/2	-1 1/2	- 1/2	5
Manufacturing	10 1/2	7 1/2	4 1/2	5 1/2	3	Manufacturing	7 1/2	4 1/2	2 1/2	4	2

Source: GATT 1987

Table 2: THE FREQUENCY OF APPLICATION OF VARIOUS NONTARIFF BARRIERS IN INDUSTRIAL COUNTRIES, 1984
(percent)

Commodity	Tariff quotas and seasonal tariffs (1)	Quantitative restrictions (2)	Minimum price policies: All (3)	Minimum price policies: Variable levies (4)	Total (5)
Meat and live animals	12.3	41.0	26.0	23.8	52.2
Dairy products	6.9	29.6	28.6	25.6	54.6
Fruits and vegetables	15.7	18.8	4.9	0.8	33.1
Sugar and confectionary	0.0	21.7	58.0	58.0	70.0
Cereals	1.7	10.9	21.7	21.7	29.0
Other food	0.8	16.3	13.5	13.2	27.0
Tea, coffee, cocoa	0.4	4.0	2.5	2.5	6.6
Other beverages	18.5	22.9	18.4	0.6	42.3
Raw materials	0.0	7.5	0.3	0.3	7.8
All agriculture	8.2	17.2	11.5	8.2	29.7
Manufactures	2.2	6.7	0.6	0.0	9.4

Note: Data are the number of import items subject to the nontariff barriers shown as a percentage of the total number of import items. The industrial-country markets considered are Australia, Austria, the EC, Finland, Japan, Norway, Switzerland, and the United States.

a. This column will be less than the sum of columns (1), (2), and (3) if some imports are subject to more than one barrier.

Source: IBRD, 1986a.

Table 3: NOMINAL PROTECTION COEFFICIENTS FOR PRODUCER AND CONSUMER PRICES OF SELECTED COMMODITIES IN INDUSTRIAL COUNTRIES, 1980-82

	Wheat		Course grains		Rice		Beef and lamb	
Country or region	Producer NPC	Consumer NPC	Producer NPC	Consumer NPC	Producer NPC	Consumer NPC	Producer NPC	Consumer NPC
Australia	1.04	1.08	1.00	1.00	1.15	1.75	1.00	1.00
Canada	1.15	1.12	1.00	1.00	1.00	1.00	1.00	1.00
EC[b]	1.25	1.30	1.40	1.40	1.40	1.40	1.90	1.90
Other Europe[c]	1.70	1.70	1.45	1.45	1.00	1.00	2.10	2.10
Japan	3.80	1.25	4.30	1.30	3.30	2.90	4.00	4.00
New Zealand	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
United States	1.15	1.00	1.00	1.00	1.30	1.00	1.00	1.00
Weighted average	1.19	1.20	1.11	1.16	2.49	2.42	1.47	1.51

Pork and poultry		Dairy products		Sugar		Weighted average		
Producer NPC	Consumer NPC	Producer NPC	Consumer NPC	Producer NPC	Consumer NPC	Producer NPC	Consumer NPC	Country or region
1.00	1.00	1.30	1.40	1.00	1.40	1.04	1.09	Australia
1.10	1.10	1.95	1.95	1.30	1.30	1.17	1.16	Canada
1.25	1.25	1.75	1.80	1.50	1.70	1.54	1.56	EC[b]
1.35	1.35	2.40	2.40	1.80	1.80	1.84	1.81	Other Europe[c]
1.50	1.50	2.90	2.90	3.00	2.60	2.44	2.08	Japan
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	New Zealand
1.00	1.00	2.00	2.00	1.40	1.40	1.16	1.17	United States
1.17	1.17	1.88	1.93	1.49	1.68	1.40	1.43	Weighted average

a. Averages are weighted by the values of production and consumption at border prices.
b. Excludes Greece, Portugal, and Spain.
c. Austria, Finland, Norway, Sweden, Switzerland.
Source: IBRD 1986a.

Table 4: INDEX OF NOMINAL AND REAL PROTECTION COEFFICIENTS FOR CEREALS AND EXPORT CROPS IN SELECTED AFRICAN COUNTRIES, 1972-83
(1969-71 = 100)

	Cereals				Export crops			
	1972-83		1981-83		1972-83		1972-83	
Country	Nominal index	Real index	Nominal index	Real index	Nominal index	Real index	Nominal index	Real index
Cameroon	129	90	140	108	83	61	95	75
Cote d'Ivoire	140	98	119	87	92	66	99	71
Ethiopia	73	55	73	49	88	71	101	66
Kenya	115	94	115	98	101	83	98	84
Malawi	85	79	106	100	102	94	106	97
Mali	128	79	177	122	101	83	98	70
Niger	170	119	225	166	82	59	113	84
Nigeria	126	66	160	66	108	60	149	63
Senegal	109	79	104	89	83	60	75	64
Sierra Leone	104	95	184	143	101	93	92	68
Sudan	174	119	229	164	90	63	105	75
Tanzania	127	88	188	95	86	62	103	52
Zambia	107	93	146	125	97	84	93	80
All sub-Saharan Africa	122	89	151	109	93	71	102	73

Note: The nominal index measures the change in the nominal protection coefficient with border prices converted into local currency at official exchange rates. The real index measures the change in the nominal protection coefficient with border prices converted into local currency at real exchange rates. Data for Ghana are not available.

Source: IBRD 1986a.

Table 5: INTERNATIONAL PRICE AND TRADE EFFECTS OF LIBERALIZATION OF SELECTED COMMODITY MARKETS, 1985

Country or country group in which liberalization takes place	Wheat	Course grains	Rice	Beef and lamb	Pork and poultry	Dairy products	Sugar
	Percentage change in international price level following liberalization						
EC	1	3	1	10	2	12	3
Japan	0	0	4	4	1	3	1
United States	1	-3	0	0	-1	5	1
OECD	2	1	5	16	2	27	5
Developing countries	7	3	-12	0	-4	36	3
All market economies	9	4	-8	16	-2	67	8
	Percentage change in world trade volume following liberalization						
EC	0	4	0	107	3	34	-5
Japan	0	3	30	57	-8	28	1
United States	0	14	-2	14	7	50	3
OECD	-1	19	32	195	18	95	2
Developing countries	7	12	75	68	260	330	60
All market economies	6	30	97	235	295	190	60

Note: Data are based on the removal of the rates of protection in effect in 1980-82. Data for the EC exclude Greece, Portugal, and Spain.

Source: IBRD 1986a

Table 6: EFFICIENCY GAINS CAUSED BY LIBERALIZATION OF SELECTED COMMODITIES, BY COUNTRY GROUP, 1985
(billions of 1980 dollars)

Country groups	Industrial country liberalization	Developing country liberalization	Industrial and developing-country liberalization
Developing Countries	-11.8	28.2	18.3
Industrial market economies	48.5	-10.2	45.9
East European nonmarket economies	-11.1	-13.1	-23.1
Worldwide	25.6	4.9	41.1

Note: Data are based on the removal of the rates of protection in effect in 1980-82.

Source: IBRD 1986b.