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The Elimination of Export Subsidies and the Future of Net-Food Importing Developing Countries in the WTO

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Abstract

Before providing an overview of the current situation, Section I of this Essay examines past trends in the world agricultural trade in order to demonstrate how the share of the world's agricultural trade from developing and least-developed countries has stagnated compared to those of the industrialized countries. Section II discusses the factors which have led to this stagnation, including one of the most significant factors — the use of export subsidies, as exemplified by CAP. Section III analyzes the implications of eliminating such protectionism for NFIDCs, which form the main focus of this Essay. Section IV briefly addresses the implementation of the Uruguay Round mandate for removal of export subsidies in industrialized countries. Finally, this Essay concludes by recapitulating the main arguments and analysis within this Essay and offers policy recommendations based on these conclusions.

THE ELIMINATION OF EXPORT SUBSIDIES AND THE FUTURE OF NET-FOOD IMPORTING DEVELOPING COUNTRIES IN THE WTO

Tashi Kaul*

INTRODUCTION

While the mandated elimination of agricultural export subsidies by the World Trade Organization¹ ("WTO") is considered a positive development for net-food exporting countries, it is commonly perceived as a detriment for net-food importing developing countries² ("NFIDCs"). The latter perception in fact has been sanctified as a pretext for continuing the subsidization of agriculture in industrialized countries. In this Essay, I question the myth of subsidized exports as a solution to the problems of food security in NFIDCs. In doing so, I examine the implications, especially for NFIDCs, of the elimination of agricultural export subsidies in industrialized countries, using the subsidies within the European Community's Common Agricultural Policy ("CAP") as an example. While recognizing that such elimination could in the short-term harm consumers of food in NFIDCs, I argue, in the final analysis, in its favor. I conclude that given appropriate domestic and international policy measures, a removal of export subsidies in industrialized countries could, inter alia, promote agricultural production. Contrary to conventional

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^{1.} Marrakesh Agreement Establishing the World Trade Organization, LEGAL IN-STRUMENTS—RESULTS OF THE URUGUAY ROUND vol. 1, 33 I.L.M. 1144 (1994) [hereinafter WTO Agreement].

^{2.} While several studies conclude that developing countries that are *net-food export*ers would benefit from agricultural trade liberalisation in the North, it is commonly believed that those that are *net-food importers* would not. See E. Sadoulet & A. de Janvry, Growth and Welfare Effects of a GATT Agreement in Agriculture on the Low Income Countries: An Integrated Multimarket General Equilibrium Analysis, in AGRICULTURAL TRADE LIBERALI-ZATION: IMPLICATIONS FOR DEVELOPING COUNTRIES 343-70 (Knudsen & Goldin eds., 1990) [hereinafter Growth and Welfare Effects]; Rod Tyers & Kym Anderson, How Developing Countries Could Gain from Agricultural Trade Liberalization in the Uruguay Round, in AGRICULTURAL TRADE LIBERALIZATION: IMPLICATIONS FOR DEVELOPING COUNTRIES, supra at 41-70.

arguments, the increase in agricultural production could occur not only in developing countries that are net-food exporters, but also in those countries that are net-food importers, thereby increasing, rather than decreasing, food security in *each of the two* categories.

A Discussion Paper submitted by a developing country delegation to the WTO as part of the on-going agricultural negotiations mirrors this view.³ This paper, in part, states: "Far from being a permanent solution for concerns with food security, the perpetuation of export subsidies constitutes, in fact, a special and differential treatment in favour of some rich developed countries."⁴ The use of export subsidies typically leads to an over-supply of agricultural commodities, artificially depressing prices at the cost of more efficient producers elsewhere. The subsidizing country, therefore, can begin to specialize in industries where it actually holds a comparative *dis*advantage, a phenomenon better known as "trade diversion."

Industrialized countries began organizing themselves in the 1950s into regional free trade areas and customs unions in order to claim larger trade shares in the world agricultural market. Developing countries have also started organizing themselves into trade blocs-the Common Market for Eastern and Southern Africa ("COMESA"), the South Asian Association for Regional Cooperation ("SAARC"), and the Association of South-East Asian Nations ("ASEAN")-sometimes even with industrialized countries, such as the North American Free Trade Agreement ("NAFTA"). However, while most industrial economy trade blocs practice agricultural protectionism, developing economies in fact have taxed agriculture in order to finance and protect industry. Regional trade blocs and protectionist barriers against non-members, therefore, have enabled industrialized countries, despite their inherent comparative disadvantage in agriculture, to convert themselves from net-importers to net-exporters of food.

In the past four decades, sovereign governments have taken advantage of the ambiguity of the General Agreement on Tariffs

^{3.} Export Subsidies—Food Security or Food Dependency?, Discussion Paper presented by Argentina, Bolivia, Brazil, Chile, Costa Rica, Paraguay, and Uruguay, G/AG/NG/W/38 (Sept. 27, 2000).

^{4.} Id.

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& Trade⁵ ("GATT") rules on agriculture. The fact that until only recently agriculture had been exempted from most of the clauses under the GATT, the primary vehicle promoting free trade, demonstrates the special treatment rendered agriculture.6 In the past, there was no support from the developed countries for the inclusion of agriculture on the liberalization agenda. The United States and the major industrialized countries of Europe in pursuit of self-sufficiency in agriculture were generally captive to strong protectionist lobbies that had constructed elaborate mechanisms of agricultural income support. The United States, for instance, sought and received a waiver in 1955 from the obligations of GATT under Article II and XI, for action taken under Section 22 of Agricultural Adjustment Act of 1933, as subsequently amended.7 Since 1935, the U.S. Department of Agriculture used Section 35 of the Agricultural Adjustment Act to restrict imports that interfered with U.S. farmers' interests. The United States used a variety of measures, together with an assortment of trade restrictions, to support prices or subsidize farmers.⁸ The U.S. Agricultural Adjustment Act also allowed the use of export subsidies for stimulating exports of agricultural products.⁹ Since the 1950s, industrialized countries have followed their own agricultural interests arbitrarily, frequently flouting the general guidelines of GATT, negligent of the resulting distortions created in the international agricultural trading system.

In its agenda for liberalization, the Uruguay Round¹⁰ ("UR") of multilateral trade negotiations, however, addressed agriculture, with more defined rules on export subsidies. The

^{5.} General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, T.I.A.S. 1700, 55 U.N.T.S. 194 [hereinafter GATT].

^{6.} Loopholes for agriculture were written into Articles XI and XVI from the start. See J. BHAGWATI, PROTECTIONISM (1988).

^{7.} REMY JURENAS, CONG. RESEARCH SERV., U.S. AGRICULTURAL IMPORT PROTECTION AND GATT NECOTIATIONS, Brief No. IB92029, *available at* http://www.gwjapan.com/ ftp/pub/policy/crs/1993/93.b111.txt.

^{8.} The price support system deployed by the United States covered almost all major commodities viz., wheat, coarse grains, cotton, rice, soybean, dairy products, groundnut, and tobacco.

^{9.} A. Hoda, Developing Countries in the International Trading System 194 (1987).

^{10.} Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, LEGAL INSTRUMENTS—RESULTS OF THE URUGUAY ROUND vol. 1 (1994), 33 I.L.M. 1125 (1994) [hereinafter Final Act].

implementation of the UR mandate on export subsidies is the subject of on-going agricultural negotiations in the WTO. Before providing an overview of the current situation, I examine in Section I past trends in the world agricultural trade in order to demonstrate how the share of the world's agricultural trade from developing and least-developed countries ("LDCs") has stagnated compared to those of the industrialized countries. In Section II, I discuss the factors which have led to this stagnation, including one of the most significant factors-the use of export subsidies, as exemplified by CAP. In Section III, I analyze the implications of eliminating such protectionism for NFIDCs, which form the main focus of this Essay. In Section IV, I briefly address the implementation of the Uruguay Round mandate for removal of export subsidies in industrialized countries. Finally, in the conclusion, I recapitulate the main arguments and analysis within this Essay and offer policy recommendations based on these conclusions.

I. TRENDS IN THE WORLD AGRICULTURE TRADE: 1960-1980 & 1980-1997

From 1960-1980, the average rate of growth of trade in agricultural commodities (4.3%) was relatively higher than that of world agricultural production (2.5%). The rate of growth of agricultural exports continued to exceed agricultural output from 1980-1997.¹¹ Between 1990-1997, the volume of world merchandise exports of agricultural products increased by 37%, compared to a 15% increase in world agricultural output.¹²

A. Industrialized And Developing Countries' Shares Of World Exports: 1967-1997

From 1967-1980, export shares of countries in the Organisation for Economic Co-operation and Development ("OECD"), on average, tended to increase (0.8%). LDC export market shares, in contrast, reflected an average decline (0.5%). Interestingly, the one commodity for which LDC average annual shares *decreased* significantly, namely *feedgrains*, happened to be

^{11.} Except between 1980-1985 when output growth was higher.

^{12.} See World Trade Organization, WTO Annual Report: International Trade Statistics 1998 (1997) [hereinafter WTO Annual Report].

the very commodity for which OECD shares *increased* the most.¹³ Consistently, the very commodity for which OECD shares decreased the most (i.e., oilseeds), *increased* significantly in LDC shares.¹⁴

This negative correlation between the magnitude of export shares of OECD and LDC countries is an established relationship that extends to several other commodities, and it has been systematically proven.¹⁵ For instance, the share of agricultural raw materials, which comprises the traditional export crops of many LDCs, tended to increase for the OECD while correspondingly declining for LDCs.

An example that illustrates well the growing trade shares of industrialized countries at the expense of LDCs is the European Economic Community ("EEC") and its gradual takeover of the world sugar market. The European Community's Common Agricultural Policy has eroded the market share of LDC producers and, thus, has significantly reduced their export revenues. The first Lomé Convention¹⁶ in 1975 had guaranteed some developing countries substantial sugar quotas. The EEC, ignoring these quotas, continued to increase its domestic sugar production past the stage of self-sufficiency and became a significant world sugar exporter. From 1974-1982, the EEC's share of world sugar imports fell from 10% in 1974 to 4.8% in 1982. Correspondingly, the EEC's share of world sugar exports increased from 5.1% in 1974 to a substantial 18.3% in 1982. The sugar example is one of many cases where industrialized countries' export shares grew at the cost of those of LDCs, in effect, gradually "diverting" trade away from relatively low-cost, efficient producers.

Table 1 shows the trade shares from 1980-1997 of fifteen leading food exporters, which were primarily industrialized countries with the exception of Argentina, Brazil, China, and Thailand. In 1990, Western Europe and North America claimed

^{13.} A 1.9% increase in Organisation for Economic Co-operation and Development ("OECD") feedgrain shares for a 1.4% decrease in least-developed countries ("LDC") feedgrain shares.

^{14.} There was a 1.5% decrease in OECD oilseed shares for a corresponding 1.7% increase in LDC shares.

^{15.} Organisation for Economic Co-operation and Development, Agricultural Trade with Developing Countries (1984) [hereinafter Agricultural Trade].

^{16.} European Economic Community-African, Caribbean, and Pacific Countries Convention ("ACP-EEC Convention"), Feb. 28, 1975, 14 I.L.M. 596 [hereinafter Lomé I].

TABLE 1

LEADING EXPORTERS AND IMPORTERS OF AGRICULTURAL PRODUCTS, 1997 (Billion dollars and percentage)

	Value	Share in world exports/import		
	1997	1980	1990	1997
Exporters				
United States	77.27	17.1	14.3	13.3
France	41.51	6.9	9.0	7.2
Netherlands	35.36	5.7	7.7	6.1
Canada	33.09	5.0	5.4	5.7
Germany	28.80	4.2	5.9	5.0
United Kingdom	20.88	3.1	3.6	3.6
Australia	18.80	3.3	2.9	3.2
Belgium-Luxembourg	18.74	2.4	3.2	3.2
Brazil	18.30	3.4	2.4	3.2
Italy	16.72	2.1	2.9	2.9
Spain*	16.60	1.4	2.3	2.9
China	15.73	1.5	2.4	2.7
Argentina	13.56	1.9	1.8	2.3
Thailand	12.64	1.2	1.9	2.2
Denmark	12.55	2.1	2.6	2.2
TOTAL	380.56	61.3	68.2	65.6
Importers				
Japan	67.10	9.4	11.0	10.7
United States	61.83	8.5	8.7	9.9
Germany	48.97	9.5	10.3	7.8
United Kingdom	35.50	6.4	6.5	5.7
France	32.32	5.9	6.3	5.2
Italy	32.21	6.2	6.8	5.1
Netherlands	21.35	4.2	4.1	3.4
Belgium-Luxembourg	18.55	3.1	3.2	3.0
Spain*	17.15	1.8	2.7	2.7
Hong Kong, China	14.64	1.2	1.8	2.3
Retained imports	8.06	0.9	1.0	1.3
China	14.63	1.9	1.7	2.3
Canada**	13.66	1.7	2.0	2.2
Korea, Rep. Of	13.54	1.5	2.1	2.2
Russian Fed.*	13.25	-	-	2.1
Taipei, Chinese	9.78	1.1	1.4	1.6
Above 15	407.89	62.1	67.8	65.1
* Includes Secretariat estimates.				
** Imports are valued f.o.b.				

Source: WTO Annual Report, "International Trade Statistics, 1998."

the major share of world agricultural exports (45.3% and 19.7% respectively). By 1997, however, Asia's claim of 19.6% of world agricultural exports surpassed North America's (19.0%) and performed much better than Latin America (11.9%), Africa (3.7%), and the Middle East (1.0%). In 1997, developed countries accounted for 65% of the total value of world agricultural exports, developing countries 31.2%, and economies in transition 3.7%.¹⁷ These figures indicate that industrialized countries' agricultural export shares continued to dominate the world agricultural market in the 1990s. The successful performance of the newly industrialized countries ("NICs"), however, had significantly raised Asia's share of world agricultural exports in the 1990s.

Although Asia's share of world agricultural exports has increased from 1990-1997, it must be noted that this increase is attributable *only* to an increase in its exports *within* Asia.

Asia's exports to industrialized regions, like Western Europe, as a share of world exports fell, while its exports to North America remained stagnant from 1990-1997. Similarly, the share of world agricultural exports of Latin America, Central and Eastern Europe, and Africa to Western Europe and North America also remained stagnant from 1990-1997. According to a recent WTO study, Western Europe's share of the total agricultural exports from developing countries declined from 30.5% in 1990 to 28% in 1998. Western Europe is by far the most important developed country market for agricultural exports from developing countries. The share of developing countries' exports to destinations other than Australia, Japan, New Zealand, North America, and Western Europe, in contrast, rose from 39.5% in 1990 to 43% in 1998.¹⁸

B. OECD And Developing Country Shares Of World Imports: 1967-1997

From 1967-1980, OECD agricultural import shares, on the whole, tended to fall. Like export shares, the import shares of LDCs and OECD countries also were negatively correlated. An

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^{17.} See WTO Annual Report, supra note 12.

^{18.} See Statement by India, Second Special Session of the Committee on Agriculture, G/AG/NG/w/33 (July 13, 2000).

TABLE 2EXPORTS OF AGRICULTURAL PRODUCTS BY REGION, 1997(Billion dollars and percentage)

	Value	World exports		Annual percentage change		
	1997	1990	1997	1990-97	1996	1997
Western Europe						
World	237.9	45.3	41.0	3	0	-4
Western Europe	177.6	35.4	30.6	3	-1	-6
C./E. Europe/ Baltic States/CIS	15.8	1.4	2.7	16	14	4
Asia	14.6	2.2	2.7	7	2	-2
North America	14.0	2.2	1.9	3	8	6
Africa	7.9	1.8	1.3	0	-12	0
	6.4					
Middle East		1.4	1.1	1	0	-2
Latin America	3.9	0.7	0.7	4	-18	1
Asia						
World	113.6	17.4	19.6	7	3	2
Asia	73.8	9.9	12.7	9	4	1
Western Europe	16.3	3.0	2.8	4	2	0
North America	11.8	2.0	2.0	5	3	7
Middle East	4.7	0.9	0.8	3	• 6	2
Africa	2.9	0.5	0.5	6	-6	8
C./E. Europe/ Baltic States/CIS	2.2	0.9	0.4	-7	-4	. 8
Latin America	1.8	0.3	0.3	8	19	10
North America						
World	110.4	19.7	19.0	4	1	-3
Asia	39.7	7.6	6.8	3	-4	-10
North America	30.1	4.2	5.2	8	7	9
Western Europe	17.8	4.0	3.1	1	-9	-1
Latin America	13.4	1.7	2.3	10	20	1
Africa	3.4	0.6	0.6	4	-6	-6
Middle East	3.3	0.6	0.6	3	-3	3
C./E. Europe/ Baltic States/CIS	2.3	0.9	0.4	-6	56	-17
Latin America						
World	68.8	9.6	11.9	8	5	12
Western Europe	22.5	3.2	3.9	8	0	17
North America	17.0	2.5	2.9	. 7	6	10
Latin America	12.0	1.1	2.1	15	11	5
Asia	10.5	1.0	1.8	15	2	13

2000]

C./E. Europe/ Baltic States/CIS	2.4	1.3	0.4	-10	30	24
Middle East	2.3	0.3	0.4	9	11	14
Africa	2.1	0.2	0.4	11	7	2
C./E. Europe/ Baltic States/CIS						
World	21.9	3.0	3.8	8	3	0
Western Europe	11.4	1.9	2.0	5	-2	-1
C./E. Europe/ Baltic States/CIS	5.1	0.4	0.9	16	3	10
Asia	3.0	0.4	0.5	10	2	-4
Middle East	0.8	0.0	0.1	21	21	4
North America	0.6	0.1	0.1	8	62	-23
Africa	0.5	0.1	0.1	4	-5	3
Latin America	0.1	0.1	0.0	-18	13	-36
Africa						
World	21.7	3.9	3.7	4	4	0
Western Europe	11.8	2.4	2.0	2	-3	-3
Asia	4.0	0.6	0.7	7	7	2
Africa	2.8	0.5	0.5	5	4	6
North America	1.1	0.2	0.2	4	25	1
C./E. Europe/ Baltic States/CIS	0.6	0.1	0.1	1	-2	-3
Middle East	0.5	0.1	0.1	4	17	1
Latin America	0.4	0.0	0.1	31	92	16
Middle East						
World	5.7	1.1	1.0	3	5	-9
Western Europe	2.3	0.5	0.4	1	10	-5
Middle East	2.0	0.2	0.3	10	4	5
Asia	0.6	0.1	0.1	11	-12	5
All other regions	0.7	0.2	0.1	-3	8	-5
World exports	579.9	100.0	100.0	5	1	-1

Source: WTO Annual Report, "International Trade Statistics, 1998."

increasing import share of LDCs in world trade is strongly associated with an increasing share for OECDs for all commodities except foodgrains.¹⁹ For the OECD, the decline in average annual imports (1.1%) exceeded the increase in average annual exports (0.8%). For LDCs, the increase in import share (0.6%) exceeded the decline in export share (0.5%). In 1982, LDCs began importing more agricultural products than they exported af-

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^{19.} See Agricultural Trade, supra note 15.

ter years of running a trade surplus, implying a decline in their net share of world trade. LDCs as a whole experienced a 14% decline in export earnings between 1980-82, while their imports remained at the same level.²⁰ Data on Latin America shows that the value of agricultural imports rose from US\$15,900,000,000 in 1990 to US\$21,180,000,000 in 1993, while that of agricultural exports remained almost stagnant-US\$39,250,000,000 in 1990 to US\$39,020,000,000 in 1993. Similarly, data on Africa shows that of agricultural imports increased the value from US\$15,680,000,000 in 1990 to US\$16,120,000,000 in 1993, while the value of agricultural exports remained stagnant— US\$15,450,000,000 in 1990 to US\$15,300,000,000 in 1993. Data on Western Europe, by contrast, shows that the value of agricultural imports changed little, from US\$208,230,000,000 in 1990 to US\$209,080,000,000 in 1993, while the value of agricultural exports increased substantially, from US\$187,660,000,000 in 1990 to US\$196,560,000,000 in 1993.21

Table 3, for instance, shows that food imports for Western Europe from Africa as a percentage of total food imports *fell* from 8.1% in 1982 to 4.5% in 1992, and that food imports from Latin America *fell* from 11.9% in 1980 to 9.3% in 1992. Agricultural trade *within* industrialized countries, however, has been on the rise. Food imports from Western Europe itself as a share of total food imports, for instance, increased from 55.5% in 1982 to 71.5% in 1992. In 1997, 70.5% of the total value of developed country agricultural imports originated from other developed countries, 26.5% from developing countries, and 3% from economies in transition.²² In the following section, I examine why LDCs and other developing countries should have started importing agricultural commodities that they had traditionally exported.

^{20.} M.J. Roarty, The EEC Common Agricultural Policy and its Effects on Less Developed Countries, NAT'L WESTMINSTER BANK Q. Rev. (1985).

^{21.} WTO SECRETARIAT, INTERNATIONAL TRADE: TRENDS AND STATISTICS (1994)

^{22.} See WTO Annual Report, supra note 12.

TABLE 3

EUROPE AND ASIA BY REGION, 1980-1992 (Percentage)									
Origin Destination	Year	North America	Latin America	Western Europe	C./E. Europe and the f. USSR	Africa	Middle East	Asia	World
Shares									
North America	1980	16.8	36.9	18.1	1.2	6.6	0.2	20.2	100.0
•	1985	18.2	33.7	23.6	0.9	4.3	0.5	18.6	100.0
	1990	23.1	31.7	21.4	1.0	2.1	0.3	20.4	100.0
	1991	24.6	30.1	20.9	0.9	2.2	0.3	21.0	100.0
	1992	26.3	28.7	20.4	0.8	1.9	0.3	21.7	100.0
Western Europe	1980	14.8	11.9	55.5	2.1	8.1	0.9	6.6	100.0
	1985	9.2	13.2	60.5	2.2	7.5	1.0	6.4	100.0
	1990	6.3	9.9	69.4	2.7	5.0	1.0	5.5	100.0
	1991	5.8	9.7	70.6	2.5	4.8	0.9	5.5	100.0
	1992	6.0	9.3	71.5	2.4	4.5	0.8	5.5	100.0
Asia	1980	40.6	5.2	7.2	0.6	4.0	0.2	42.3	100.0
	1985	37.2	5.7	8.1	0.7	2.5	0.2	44.7	100.0
	1990	36.0	5	12.1	1.0	2.3	0.3	42.3	100.0
	1991	32.7	5.3	12.8	1.3	2.1	0.3	45.4	100.0
	1992	33.3	5.2	12.7	1.6	1.9	0.3	45.0	100.0

IMPORTS OF FOOD INTO NORTH AMERICA, WESTERN EUROPE AND ASIA BY REGION, 1980-1992 (Percentage)

Source: GATT (1994), Trends and Statistics: International Trade

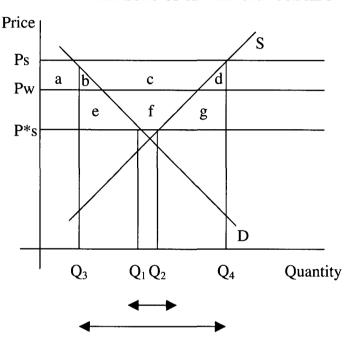
II. DETERMINANTS OF CHANGES IN TRADE VOLUME AND TRADE SHARES.²³ THE USE OF EXPORT SUBSIDIES IN INDUSTRIALIZED COUNTRIES

A. Conceptual Framework: Aggregate Economic Welfare, Implications of an Export Subsidy in the Domestic Market

Consider a perfectly competitive market with respect to pro-

^{23.} Another primary reason behind increasing export shares of industrialized countries relative to those of developing countries lies in the higher income elasticity of demand for their exports; in particular, animal products and the feedgrains used to produce animal products. The rapid growth of world income in the last two decades has increased the demand for industrialized country exports as opposed to a stagnation and variability for developing country primary exports. In some developing countries, overvalued exchange rates and/or policies that favor consumers over producers and industry over agriculture have also served to depress agricultural production.

duction, consumption, and trading. The following is a basic partial equilibrium analysis of the effects on aggregate economic welfare of an export subsidy.²⁴



GRAPH 1 EFFECTS OF AN EXPORT SUBSIDY

> Producer gain: a + b + cConsumer Loss: a + bCost of Govt. Subsidy: b + c + d + e + f + g

With the imposition of the export subsidy:

1) Price in the exporting country rises from Pw to Ps, so that domestic producers have an incentive to increase production. There also is a concomitant fall in price in the importing country from Pw to Ps*.

2) In the exporting country, producers gain a + b + c, consumers lose a + b, and the government loses b + c + d + e + f + g. The area below the price and above the supply curve gives the

^{24.} See Graph 1.

producer gain. The area below the demand curve and above the price curve gives the consumer loss. Government loss is equivalent to the expenditure on the subsidy.

3) The sum of all the above-mentioned areas, b + d + e + f + g, gives the net welfare loss, of which b and d represent consumption and production losses, respectively.

4) There is a resultant decline in the terms of trade owing to the decline of the price of the export in the world market, implicit in a decline in the world market price from Pw to Ps*. The terms of trade loss imposes an additional cost amounting to e + f + g, which is equal to Pw – Ps, or Q4 - Q3. The cost of an export subsidy in terms of aggregate economic welfare, therefore, clearly exceeds its benefits.

B. Export Subsidies under CAP

The increasing shares of industrialized countries in agricultural trade, relative to developing countries, can be largely attributed to growing protectionism and regionalism in the north. This trend has led industrialized countries to trade largely among themselves rather than with developing countries. Table 3 illustrates that shares of food imports into Western Europe and North America from Western Europe and North America increased from 1980-1992, while those from Latin America and Asia decreased significantly. In 1997, imports of food into the European Union from Western Europe accounted for 69.7% of total food imports flowing into the region, compared to 10.2% from Latin America, 5.9% from Asia, and 5.1% from Africa.²⁵ The composition of major regional flows in world agricultural exports in 1997 indicates that intra-Western Europe trade accounted for 30.6% of the total world agricultural export flows. By contrast, trade flows from Asia to Western Europe accounted for only 2.8%, while trade flows from Latin America to Western Europe accounted for 3.9%.26

An analysis of the mechanisms of CAP helps clarify the impact of protectionism on world agricultural markets. The EC formulated CAP as a protectionist support mechanism for European farmers in order to guarantee them high prices by having the EC buy agricultural products when prices fell below specified

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^{25.} See Table 4.

^{26.} See Table 2.

TABLE 4

IMPORTS OF FOOD INTO THE EUROPEAN UNION, NORTH AMERICA AND SELECTED ASIAN ECONOMIES BY REGION, 1990-1997 (Billion dollars and percentage)

		•
	Value	Share
	1997*	1997*
European Union (15)		
World	203.88	100.0
Western Europe	142.04	69.7
Latin America	20.86	10.2
Asia	12.12	5.9
North America	12.07	5.9
Africa	10.41	5.1
C./E. Europe/Baltic States/CIS	4.59	2.3
Middle East	1.47	0.7
North America**		
World	55.55	100.0
Latin America	17.24	31.0
North America	15.45	27.8
Western Europe	10.60	19.1
Asia	10.29	18.5
Africa	1.18	2.1
C./E. Europe/Baltic States/CIS	0.60	1.1
Middle East	0.18	0.3
* Or nearest year.		
** Imports of Canada are valued f.o.b.		

Source: WTO Annual Report, "International Trade Statistics, 1998."

support levels. This policy was complemented by the imposition of tariffs amounting to the difference between domestic and world agricultural prices, in order to prevent the inflow of imports and to level prices.

CAP was later transformed into a massive export subsidy scheme, since the initial support scheme resulted in an accumulation of massive stockpiles of food. By 1985, European stocks amounted to 780,000 tons of beef, 1,200,000 tons of butter, and 1,200,000 tons of wheat. Promoting exports through subsidization, therefore, was perceived as the best way of disposing of surplus production. The costs from subsidizing were estimated at approximately US\$15,000,000,000 annually.²⁷

Agricultural support pricing under CAP, as illustrated in Graph 2, sets domestic prices not only above the world price that would have existed in its absence, but also above the domestic equilibrium price. Therefore, in the case of CAP, not only do export subsidy support prices perform the conventional role of subsidizing and, in effect, promoting exports, but also of "diverting" trade towards the EC by converting them from food importers into food exporters. At free trade world market prices, the EC would in fact be a food importer. Graph 2 illustrates how under free trade, Europe would be *importing* quantity M' - M. With the export subsidy, it is now *exporting* quantity X' - X.

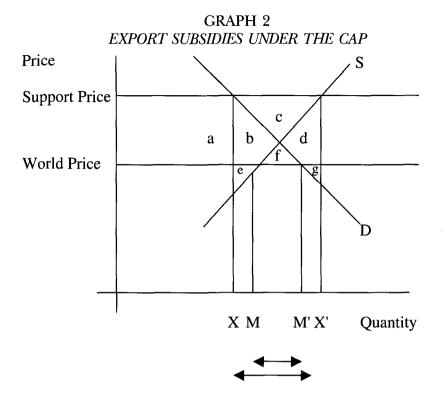
Agricultural support in the form of producer and export subsidies, import levies, etc. increases domestic consumer prices and agricultural output and depresses domestic demand in the EC. The output surplus created, in turn, reduces world prices and distorts the relative prices of agricultural and manufactured goods. This phenomenon has undermined the export earnings of many low-cost, efficient agricultural commodity producing developing countries.

III. IMPACT OF EXPORT SUBSIDY ELIMINATION ON NFIDCS

A withdrawal of agricultural support in industrialized countries would reduce the surplus in output and, thereby, raise world prices of agricultural commodities.²⁸ The removal of subsides under CAP, for instance, would induce two key changes. First, domestic EC agricultural prices would fall from artificially raised levels. Second, the resultant decline in EC agricultural output would exert an upward pressure on the free trade world prices. That this rise in world prices would benefit developing countries that *are net-exporters* of agricultural commodities via terms of trade improvement is an established fact. The issue is the perception that higher food prices would harm the interests of NFIDCs. This view, in fact, has served as an excuse for indus-

^{27.} P. KRUGMAN & M. OBSTFELD, INTERNATIONAL ECONOMICS: THEORY AND POLICY 207 (3d ed. 1994).

^{28.} An overall world price increase for cereals, meat products, and sugar is estimated to range between 10% to 30%. See Growth and Welfare Effects, supra note 2.



Producer gain: a + b + cConsumer Loss: a + bCost of Govt. Subsidy: b + c + d + e + f + gNet Welfare Loss: b + d + e + f + g

trialized countries to continue subsidizing agriculture.²⁹ Higher prices, however, could significantly benefit NFIDCs. The implication of higher prices for a NFIDC depends significantly on whether its imports are *substitutable* for domestic produce or not. So far, imports have been cheaper than domestic substitutes, precisely the reason why NFIDCs choose to import food rather than promote production. However, if prices of imports rise higher than the prices of domestic substitutes, NFIDCs would

^{29.} Tyers and Anderson estimate a 11.8% decline in GNP of developing countries and a 28.2% gain in that of industrial market economies as a result of industrial country liberalization. *See* Tyers & Anderson, *supra* note 2.

find more economic sense in substituting imports with domestic production. Due to substitutability for imports, the increase in world prices transmits itself to domestic prices, raising domestic producer prices significantly. The resulting *improvement* in terms of trade for agriculture would raise domestic production. Production of domestic substitutes could in fact be raised to such a level that NFIDCs could well begin exporting these commodities. The perception that all *net-food importing* developing countries would inevitably lose out from such a price rise via increases in food expenditure or reduction in food availability overlooks the extent to which import substitutability could counteract the impact of the increase in world prices on domestic food availability.

A. Impact of Increase in World Prices on NFIDCs: A Graphical Analysis in Partial Equilibrium.

1. Scenario 1, Country A

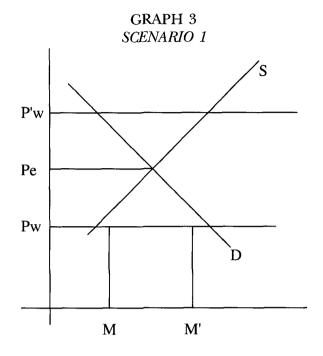
In Graph 3, Country A is a net-food importing country where *imports are substitutable* with domestic production. For conceptual clarity, it is assumed that domestic production is a *perfect* substitute for imports in the domestic market so that the imported commodity M and its substitute share identical supplydemand functions. In this case, the price differential between the world price and the domestic equilibrium price will not be large, and it is possible that an increase in the world price could bring it to exceed the domestic equilibrium price. Country A in that case would not import commodity M any more.

In Graph 3, at world price level, Pw, it is cheaper for Country A to practice free trade and to import the quantity M' - M than to produce domestically. However, if world prices rise to Pw, thereby exceeding the domestic equilibrium price Pe, Country A would now find it cheaper to substitute imports with domestic production. Import-substitution, therefore, would make perfect economic sense for Country A, since the higher world food prices would not lower its domestic food availability.

2. Scenario 2, Country B

In Graph 4, Country B is a net-food importer with *non-substitutable imports*. Since the imported commodity cannot be produced domestically, the price differential between domestic

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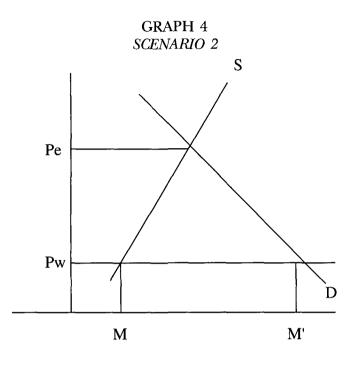
Country A Imports are Substitutable

equilibrium price, Pe, and the world price, Pw, is very high. Contrary to scenario 1, there is low or no probability of world prices exceeding domestic prices. This implies that it will almost always be cheaper for Country B to continue importing despite the price rise. Due to resulting macroeconomic changes described in Africa I, Country B actually would end up allocating resources towards promoting exports of other agricultural commodities or "doing what they are best at" in order to earn foreign exchange to meet the demands of rising import bill for commodity M.

This argument is consistent with the simulation findings of Sadoulet and de Janvry,³⁰ who constructed general equilibrium models to study the impact on poor cereal *importers* of a 20% increase in world prices of cereals and animal products following

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^{30.} See Sadoulet & de Janvry, supra note 2.



Country B Imports are non-substitutable

OECD liberalization.³¹ They contrasted African countries where cereal imports are not substitutable with domestic production (Africa I) with African & Asian countries where cereal imports are substitutable (Africa II & Asia).³²

The authors reach important conclusions about how import substitutability could counteract the potential negative effects of an increase in world prices on domestic food availability. They found that the producer prices of wheat, rice, and corn in the domestic market *follow* the price of cereal imports. The impact of a price increase of imported cereal on domestic producer and consumer prices of food crops will depend fundamentally on *the degree of substitutability* between imported cereals (wheat, rice,

^{31.} These poor cereal importers are low-income countries that, in the World Bank classification, had per capita incomes below US\$500 in 1985.

^{32.} Africa I: Burkina Faso, Burundi, Central Africa Republic, Ghana, Lesotho, Mauritania, Mozambique, Rwanda, Senegal, Sudan, and Togo. Africa II: Benin, Ethiopia, Guinea, Kenya, Liberia, Madagascar, Mali, Sierra Leone, Somalia, and Tanzania. Asia: Bangladesh, Pakistan, Papua New Guinea, Philippines, and Sri Lanka.

and corn) and domestic food crops (wheat, rice, corn, and other food crops). More generally, the effect of an increase in international cereal prices on domestic producer prices of crops will depend on (i) the elasticity of substitution in consumption between domestic food crops and cereal imports, (ii) import dependency ratio of food crops, and (iii) supply and demand elasticities. Alternatively stated, an increase in international cereal prices will have a relatively *small* effect on the producer prices of food crops if (i) domestic production is a poor substitute for imports, (ii) the share of imports is small, or (iii) the supply elasticity is large.

Consumer prices, by contrast, always increase. The rise, however, is higher with higher substitutability, with a greater share of imports, and with a lower demand elasticity for domestic food production. Additionally, given adequate substitutability, the rise in consumer prices is smaller given a higher supply elasticity for domestic food production.

In sum, Sadoulet and de Janvry conclude that an increase in world prices would be transmitted on to domestic producer and consumer prices if the imports are substitutable. The degree of price transmission would depend on, among other things, the degree of substitutability. The resulting increase in domestic prices then would encourage import substitution through domestic food production, thereby lowering the possibility of a decline in food availability due to more expensive food imports.

3. Simulation Results³³

The most significant macroeconomic impact is reflected in the rising food import bills and exchange rate depreciation in Africa I, where imports are *non substitutable*, and the *opposite* in Africa II and Asia, where imports, by contrast, are *substitutable*.

a. Africa I: Non-Substitutable Imports

In the short-run, domestic food prices, due to non-substitutability of food imports with domestic produce, rise by only 3% in response to the 20% world food price increase. Consumption of both imported and domestically produced food, therefore, falls by 2.3%. However, the 20% rise in the price of im-

TABLE 5

IMPACT OF A 20% INCREASE IN THE PRICE OF CEREALS AND ANIMAL PRODUCTS ON THE POOR AFRICAN AND ASIAN COUNTRIES (Percent changes over base values)

	Africa I	Africa II	Asia	Long-run effects Asia
Macroeconomy				
GDP at market prices	-0.3	-1.0	-0.8	-1.5
Absorption	-0.8	-1.4	-1.0	-1.6
International Trade				
Nominal Exchange Rate	0.7	-2.4	-4.8	-4.9
Agricultural Exports	0.6	-2.1	-3.9	-4.5
Cereal Imports	-10.7	-24.9	-76.7	-76.9
Producer prices				
Agri terms of trade	-0.4	2.0	5.3	5.0
Price of agriexports	0.7	-2.4	-3.5	-3.4
Price of food crops	0.1	5.9	8.8	8.6
Price of other agriculture	-1.6	-1.9	2.1	1.9
Agricultural production				
Total Agriculture	0.0	0.0	0.2	-0.3
Agri exports	0.6	-2.0	-2.3	-2.7
Foodcrops	0.0	1.6	2.9	2.3
Other Agriculture	-0.4	-0.2	0.1	-0.5
Real Incomes				
Landless and small farmers	-2.0	-0.9	-2.5	-3.0
Medium farmers	-1.5	-1.6	0.1	-0.5
Large farmers	-0.4	-0.5	5.2	4.3
Urban poor	-0.7	-2.0	-2.6	-3.1
Urban rich	-0.7	-1.7	-2.0	-2.6
Consumption				
Food consumption	-2.3	-3.2	-3.7	-4.3
Consumer Price of food	3.0	7.3	9.0	8.8

Source: Sadoulet & Janvry (1992)

ports outweighs the reduction in volume of imports, affecting a real exchange devaluation (0.7%). Devaluation raises the domestic price of agroexports (0.7%) and depresses the relative price of other agricultural goods (-1.6%). This reallocates resources from other agricultural goods (output falls by 0.4%) to agroexports (output rises by 0.6%). Finally, the balance of pay-

ment is restored by increasing agroexports and falling cereal and industrial good imports. The short-run GNP falls by only a small percentage (-0.3%).

The social cost, assessed by changes in real income, is distributed over all social classes. However, small farmers lose since they predominantly produce animal products for which prices fall. Larger farmers engaged in agroexports for which prices rise gain. Due to the small increase in domestic food price, the urban poor are not significantly hurt.

b. Africa II & Asia: Substitutable Imports

Africa II and Asia I respond very differently from Africa I to the increase in world food prices. *Ceteris paribus*, while Africa I *increases* agricultural trade through a higher cereals import bill and *increasing* agroexports, Africa II *reduces* trade through cereal import substitution and *declining* agroexports. Import substitution involves substituting cereal imports for domestically produced food crops.

Owing to substitutability for imports in these regions, the increase in world cereal prices transmits itself to the entire food crop sector, increasing domestic producer prices significantlyprices rise by 5% in Africa II and 8.8% in Asia. The resulting *improvement* in terms of trade for agriculture, in sharp contrast to a worsening in Africa I, induces an increase in domestic food crop production. Consumers shift consumption from cereals to food crops. Cereal imports fall significantly-by 24.9% in Africa and by 76.7% in Asia. The decline in volume of cereal imports, in exceeding the 20% rise in world prices, facilitates a foreign exchange saving and an appreciation of real exchange rates. Resource allocation towards food crops for import substitution and away from agroexports reduces the domestic price and, hence, production of the latter. Contrary to the scenario in Africa I, where resources were directed towards cash rather than food crops, this resource allocation implies a shrinking of international trade.

Short-run social cost implications for Asia indicate that large farmers' real incomes increase sharply (5.2%) as food crop prices increase by much greater prices than agroexports. Small farmers and the landless, by contrast, lose (-2.5%) since they are net buyers of food at a higher price. In Africa II, the large share of agroexport crops in total agricultural production, for which prices fall, and the relatively low increase in food prices induce a fall in the real incomes of all farmers. Medium farmers, however, are worst hit (-1.6%) since they are both net buyers and significant producers of agroexports.

In sum, these simulation results support the argument that the increase in world food prices resulting from the elimination of CAP will affect NFIDCs with substitutable imports differently from those with non-substitutable imports. In particular, NFIDCs with substitutable imports potentially could benefit through such liberalization, as follows from the case of Asia and Africa II, where higher post-liberalization prices boost domestic agricultural production and self-sufficiency through import substitution despite a corresponding decline in the share of agroexports. In countries where imports are non-substitutable (Africa I), the increase in world prices would affect rising import bills. The increase in import expenditure, however, could be counteracted by foreign exchange earned through a corresponding promotion of agroexports. In effect, neither of the two categories of net-food importing countries would be harmed by the rise in world prices.

The one repercussion of an increase in world cereal prices that is common to *all* regions (Asia, Africa I, and Africa II) is the fall in real income of the landless and of small and medium-size farmers. GNP changes, however, are insignificant in all three regions.

In the following section, I discuss how agricultural trade liberalization in the north would impact developing country trade shares, through effects *other than* an increase in world agricultural prices.

B. Decrease in Price Instability and Revenue Variability

Protectionist policies in the North transfer price instability onto world food markets. Most industrialized countries hold their domestic prices constant despite changes in world prices. A shortfall in world food output should increase food prices in all countries worldwide. Many industrialized countries, however, do not allow domestic prices to rise so domestic demand does not fall. A rationing of declining world output, therefore, would require an even greater increase in world prices. Other countries, in effect, would have to reduce their consumption disproportionately.³⁴ These repercussions affect developing countries to an even greater extent due to their strong dependence on agricultural products and narrow range of exports. Under CAP for instance, "increased production within a protected home market requires exports to off load surplus stocks onto the world market," thereby increasing price instability. "As EEC exports have increased, price stability in Europe has been bought at the expense of greater instability on world markets."³⁵ Such instability enhances production risks for developing country exporters, discouraging investment and, in effect, future productivity.

Agricultural trade liberalization could reduce the variance of world commodity prices considerably by allowing shortages and gluts to be smoothed over by a larger number of agents. Furthermore, liberalization by industrialized countries would reduce the price variability of all the major temperate-zone commodities. Variance of wheat prices would fall by 33%, while the variance of sugar prices would fall by 15%.³⁶

Trade liberalization in agriculture could significantly boost world output and reduce world prices by reducing price variability, since the current levels of variability discourage agricultural production significantly. The decline in world prices would benefit net-food importing developing countries. In fact, the *combined* effect of higher food prices and lower variability following liberalization would stimulate agricultural production in developing countries enough to reverse the trend of the fall in their GDP induced by such liberalization in the first place.

C. Decrease in Dead Weight Loss

The annual domestic cost of agricultural supports is extremely high for most industrialized countries. Bale and Lutz showed the heavy penalties for France, Germany, and Japan.³⁷ In Japan's case, almost 0.8% of its GNP may have been wasted by agricultural intervention—some 1.4% of GNP being sacrificed by consumers to grant producer welfare increases of about 0.5%. Thus, for every US\$1 gained by producers, consumers lose

^{34.} See World Bank, Agricultural Policies in Developing Countries, World Development Report (1986).

^{35.} See Roarty, supra note 20.

^{36.} See World Development Report, supra note 34.

^{37.} Malcolm D. Bale & Ernest Lutz, Price Distortions in Agriculture and their Effects: An International Comparison, 63 AM. J. OF AGRIC. ECON. 8, 22 (1981).

nearly US\$3. With a decrease in dead weight loss following liberalization, the costs avoided in terms of GNP could be directed towards the purchase of exports from net-food importing countries.

Tyers and Anderson estimate gains from avoided dead weight loss for the OECD to be US\$50,000,000,000. They recommend that at least part of this gain should be short-run food aid to compensate low-income groups in developing countries that lose from agricultural trade liberalization in the North. They estimate that the food aid cost would represent only 1.5% of this gain, which is unambiguously an affordable figure for industrialized countries.

IV. WTO DISCIPLINES ON EXPORT SUBSIDIES AND THEIR IMPLEMENTATION

The proliferation of export subsidies in agriculture before the Uruguay Round went unchecked. GATT 1947 allowed countries to use export subsidies on agricultural primary products, although it prohibited export subsidies on industrial products. Article XVI of GATT provided that agricultural export subsidies should not be used to capture more than an "equitable share" of world exports of the product concerned. This, however, was not effective. The Uruguay Round negotiations resulted in betterdefined rules on export subsidies, as provided in Article 9 of the Agreement on Agriculture³⁸ ("Agreement").

Despite Uruguay Round initiatives, agriculture continues to

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^{38.} See Agreement on Agriculture, Apr. 15, 1994, WTO Agreement, Annex 1A, art. 9, at http://www.wto.org/english/docs_e/legal_e/final_e.htm [hereinafter Agreement on Agriculture]. The right to use export subsidies is now limited to four situations: (i) export subsidies subject to product-specific reduction commitments within the limits specified in the schedule of the WTO Member concerned; (ii) any excess of budgetary outlays for export subsidies or subsidized export volume over the limits specified in the schedule which is covered by the "downstream flexibility" provision of Article 9.2(b) of the Agreement on Agriculture; (iii) export subsidies consistent with the special and differential treatment provision for developing country Members (Article 9.4 of the Agreement); and (iv) export subsidies other than those subject to reduction commitments provided that they are in conformity with the anti-circumvention disciplines of Article 10 of the Agreement on Agriculture. In all other cases, the use of export subsidies for agricultural products is prohibited. See Agreement on Agriculture art. 3.3, 8, 10. Developed country Members are required to reduce, in equal annual steps over a period of six years, the base-period volume of subsidized exports by 21% and the corresponding budgetary outlays for export subsidies by 36%. In the case of developing country Members, the required cuts are 14% over 10 years with respect to volumes, and 24% over the same period with respect to budgetary outlays.

remain by far the most distorted sector in international trade. An assessment of the implementation of the Agreement within the on-going negotiations of the WTO's Committee on Agriculture illustrates that the largest distortions of trade in agricultural products still arise out of industrialized country subsidization practices.³⁹ The committed reduction in subsidies by industrialized countries, as discussed above, was supposed to affect an increase in world prices of agricultural commodities. OECD data. however, shows that the current levels of support to farmers in industrialized countries are no different than the high levels existing before the end of the Uruguay Round.⁴⁰ It is not surprising, therefore, that the prices of most agricultural commodities have been declining. In 1998, prices of most non-fuel commodities fell sharply by 15%.⁴¹ A recent paper by the WTO secretariat illustrates that the level of world price for wheat in 2000, for instance, is no higher than that in the late 1980s.⁴² Given insignificant reduction in subsidies by industrialized countries, there has not been much change in the pattern of world cereal production and exports. The expected shift in cereal production from highly subsidized regions to low-subsidized or non-subsidized regions, therefore, remains a theoretical exercise.

CONCLUSIONS AND POLICY IMPLICATIONS

It is evident that the current WTO obligations of industrialized countries to reduce domestic support and export subsidies are not stringent enough to lead to the expected rise in prices and shift in patterns of agricultural production. Such changes will occur only through a complete elimination, rather than a limited reduction, of such subsidies. In the short-run, this could lead to a fall in the real income of net-buyers of food in NFIDCs. Any ensuing short-term harmful effects for NFIDCs and LDCs are envisioned as being dealt with under the Marrakesh "Deci-

^{39.} Rod Tyers & Kym Anderson, *The Price, Trade and Welfare Effects of Agricultural Protection in the Uruguay Round, in* Kym Anderson & Yujiro Hayami, The Political Economy of Agricultural Protection: East Asia in International Perspective 50-62 (1986).

^{40.} WTO Negoitations on Agriculture Carins Group Negotiating Proposal, Special Session, Committee on Agriculture, G/AG/NG/W/35 (Sept. 22, 2000).

^{41.} See Statement by India, Second Special Session, Committee on Agriculture, G/AG/NG/w/33 (July 13, 2000).

^{42.} Agricultural Trade Performance by Developing Countries-1990-1998, Special Session, Committee on Agriculture, G/AG/NG/S/6 (May 23, 2000)

sion on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries" ("Decision"). The Decision, arrived at in 1993, sets out objectives with regard to the provision of food aid, the provision of basic foodstuffs in full grant form and aid for agricultural development to NFIDCs and LDCs. It also refers to the possibility of assistance from the International Monetary Fund and the World Bank with respect to the shortterm financing of commercial food imports.

The perception that NFIDCs could only lose from a removal of industrialized-country subsidies is wrong. On the basis of the given graphical analysis and simulation results,43 it is concluded that net-food importing developing countries could benefit from a subsidy-removal induced rise in agricultural prices if they eliminate their agriculture-taxing domestic policies and, where possible, allow domestic production to substitute for imports. The results illustrate how higher world agricultural prices would encourage the production of food crops for import substitution in NFIDCs where imports compete with domestic produce. Furthermore, the increase in domestic production of import-competitive food crops, in fact, could provide such countries the possibility to begin exporting what they were initially importing. The most important policy implication for countries with the capability of import substitution, therefore, is to increase their elasticity of ce-real supply as rapidly as possible.⁴⁴ Developing countries whose imports are non-competitive with domestic production, by contrast, should promote agricultural exports, that is, they should specialize further in what they do best and continue importing for the rest.

Developing countries on the whole, regardless of whether they are net-food importers or net-food exporters would benefit from a removal of subsidies in industrialized countries. Full benefits, however, would result only from a complete elimination of such subsidies—a tall order given what WTO rules currently require. It remains, nevertheless, an order that developing countries are vigorously fighting for in the on-going agriculture negotiations, and one that they will continue to strive for in pursuit of "fair" trade.

^{43.} See Sadoulet & de Janvry, supra note 2.