INTERNATIONAL TRADE POLICIES AND AGRICULTURE

By

Daniel G. Sisler

August 31, 1970 No. 25

INTERNATIONAL TRADE POLICIES AND AGRICULTURE*

Daniel G. Sisler**

In most industrial nations, a complex web of forces, often both domestic and international, have contributed to the formation of well-developed farm programs. The vagaries of nature with their attendant income uncertainty, the pivotal political power of farmers, the loss of overseas markets, general economic depressions, and a desire to be self-sufficient in the production of food have all influenced the timing and format of agricultural policies. It is an interesting paradox that if countries are arrayed from those where national income and employment are most dependent upon farming to those where agriculture is relatively less important, we have a continuum of nations with progressively higher levels of living and increasingly well defined agricultural programs. The range is from countries having no viable farm programs or measures which are exploitive of agriculture, to countries which provide massive assistance to their farmers.

Historically, farm programs have been initiated only when countries were at a relatively advanced stage of economic development. It is much easier to seek equality of farm and non-farm income when farmers constitute a small proportion of the labor force. It appears that conditions are changing. Nations are introducing price and income support programs at earlier stages of economic development. Several countries with per capita income levels below $200 and with more than 60.0 percent of their population dependent upon agriculture, have established price supports not only on food grains but for other commodities as well.

The policy measures now being introduced by developing nations are in response to two powerful sets of forces: first, the impact of programs operated by developed countries on international trade in agricultural commodities; and second, the "green revolution" and the hope it provides for countries which have for generations stood on the threshold of hunger. Most industrial countries have attempted to support farm income by holding the prices of farm products above equilibrium levels. The sequence of events is known to us all -- the

---

*/ Paper prepared for the XIV International Conference of Agricultural Economists, Minsk, U.S.S.R., August 24 through September 2, 1970.

**/ The author wishes to acknowledge research assistance by Mrs. Nancy Girard and Jaroslav Smiesny.

imposition of tariffs and quotas to insulate the domestic market, the accumulation of costly surplus stocks, subsidized exports, and finally, attempts to control farm inputs. These measures have provided developing nations with food in times of crisis. They have also disrupted international trade and usurped markets formerly held by the less developed countries (LDCs). 1/

With an increasing awareness that their farmers are price-responsive, the leaders of developing nations are augmenting the dramatic technological advancements in agriculture with economic incentives. They are placing increased reliance on the agricultural sector not only to earn vital foreign exchange, but also to conserve it through import substitution. There are fundamental differences in the farm programs of developed and developing nations. In industrial nations the basic objective of farm programs is to bolster the income of farm families; in the case of developing nations, the objective is to increase output.

Developed countries can afford the luxury of inefficient measures to enhance farm income. In low-income countries, a poorly conceived farm program may seriously hinder developmental efforts. In many developing countries, while farmers may not be politically powerful, their cause certainly is. The level of price supports and other forms of aid to farmers can be a politically potent tool.

As new farm programs unfold in developing countries and as those of industrial nations are modified, it is imperative that policy makers be aware of the linkage between the cost and success of domestic programs and the international market for major farm products.

Projected Trade Gap of Developing Nations

Recently UNCTAD published a careful and comprehensive study which projected the level of savings, investment, exports, and imports for developing countries through 1975. 2/ The projections were made assuming high and low target rates of growth for both developing and developed countries.

Table 1 summarizes the 1975 projections. These estimates are an average of the high and low target rates of growth. The export-import

---

1/ LDCs or developing countries, include Latin America, Africa (excluding the Union of South Africa), Asia (excluding Japan and Communist China), the Middle East (excluding Israel), and Oceania (excluding Australia and New Zealand). Eastern European countries are not included.

2/ United Nations Conference on Trade Development, Trade Prospects and Capital Needs of Developing Countries, United Nations, New York, 1968.

gap indicates the divergence between import requirements and export earnings. The estimated export-import gap for 1975 is $6.7 billion, of which $5.6 billion is the result of commodity trade while the balance is attributable to invisibles such as tourism, insurance and freight. In addition to the export-import gap, there is a net capital outflow from the developing countries as the result of interest, profits and dividends due on past and expected loans, and investments. These are referred to as net factor income payments. The trade gap is the sum of the export-import gap and net factor income payments. The projected trade gap of $19.8 billion represents a significant deterrent to the developing countries as they strive to reach the target growth rates.

Table 1

Projected Trade Gap of Developing Countries, 1975*

	Billions of U.S. $
Exports of goods and services	$70.5
Commodities	59.3
Invisibles	11.2
Imports of goods and services	77.2
Commodities	64.9
Invisibles	12.3
Export-import gap	6.7
Net factor income payments	13.1
Trade Gap	19.8

* Sources: Ibid., Table 22, p. 43.

These projections are based on data from the 1950-65 period. I would like to examine the estimated trade gap and explore possibilities for bridging it, in the light of more current information. A trade gap of nearly $20.0 billion in 1975 quantifies the policy adjustments which would be necessary if developing countries as a whole were to achieve an annual growth in per capita income of approximately 3.2 percent. A wide range of policy measures is available to fill the trade gap, but let us concentrate on three: a) prospects for increased LDC exports; b) prospects for import substitution, particularly through the agricultural sector; and c) prospects for an increased flow of public aid and private capital from the developed countries.

Expanded Export Earnings

Rapidly expanding exports of wood and wood products may be attributable to the strong demand for paper created by those who write about the prospects of primary product exports from developing countries. My contribution to this demand shift will be approximately one-quarter kilogram of sawdust.

Based on the thesis of a stagnant world demand for primary products and protectionist practices by industrial countries, most have taken a gloomy view concerning the export potential of developing nations. This bleak outlook appeared justified. As most know, export earnings of developing countries grew by less than 3.0 percent per annum during the 1950's. If the major petroleum-exporting countries are excluded, export earnings rose by only 1.3 percent yearly. Few seem to realize that during the 1960's, export earnings of developing countries grew by a compound rate of more than 6.4 percent annually. This rate of growth does not appear to be slowing. In 1968, the most recent year for which data are available, exports of developing countries, excluding major petroleum producers, grew by 9.1 percent.

Table 2

Exports of Developing Countries and the World, 1951-52 to 1967-68*

	Annual Average, Billions of U.S. $			Annual % Change	
	1951-52	1959-60	1967-68	1950s	1960s
LDCs	20.9	25.3	41.5	2.8	6.4
Oil producing 1/	3.8	6.6	11.6	7.1	7.3
Other	17.1	18.7	29.9	1.3	6.0
World	73.6	106.3	201.7	5.4	8.3

1/ Brunei, Iran, Iraq, Kuwait, Libya, Netherlands Antilles, Saudi Arabia, Trinidad, and Venezuela.

* Source: International Financial Statistics, 1951-69.

If the exports of developing countries continue to grow at the rate of 6.4 percent yearly, total exports will be $64.0 billion in 1975. This would be $4.7 billion above the projections of the UNCTAD study and could contribute a corresponding amount to erasing the estimated trade gap.

In an attempt to gain insights into what products and markets contributed most to the rapid acceleration of LDC export earnings,

trade statistics of the European Economic Community, Japan, the Soviet Union, the United Kingdom, and the United States were examined. In recent years imports by these industrial nations have accounted for from 70.0 to 75.0 percent of total LDC export earnings. For brevity of expression, trends in the imports of these industrial nations will be assumed to be representative of all industrial countries. Appendix Tables A-E were prepared to provide trends in the imports of thirty three commodities over the 1959-60 to 1967-68 period. Where trends in imports are being considered the fact that some nations report imports cif and others fob does not lead to any distortion; however, for the purposes of aggregation it is desirable to put all data on a common basis. I converted the cif data for the EEC, Japan and the U.K. to an fob equivalent by assuming that the ratio of imports fob to imports cif for each commodity was equal to the ratio for all imports in 1967. Table 3 summarizes imports of the five industrial nations by commodity groupings on an fob basis. 3/

Between 1959-60 and 1967-68, LDC sales of agricultural products to the industrial countries rose from $8,960 million to $10,290 million (Table 3). This modest increase amounts to 1.7 percent per year, only about one-quarter of the growth rate of total LDC exports to all destinations. At the beginning of the decade, agricultural products accounted for 45.2 percent of total imports from LDCs. By the close of the decade this percentage had fallen to 34.0. The Soviet Union increased its agricultural imports from LDCs by 6.6 percent per year, and in 1967-68 they were $371 million higher than in 1959-60. Agricultural imports by the U.K. from developing countries fell by $279 million in the same period. U.S. imports of agricultural commodities from LDCs rose by $281 million. Despite increased levels of protection by the EEC and higher internal production, the Community increased its agricultural imports from LDCs by more than $641 million. Japan has emerged as a major market for the agricultural exports of developing nations. At the close of the 1960's, Japan was importing more than $1.0 billion of agricultural products annually from LDCs, a $341 million increase from 1959-60.

While the overall performance of LDC agricultural exports was not encouraging there were gratifying increases in the export earnings from particular commodities. Perhaps the best performance was registered by sales of fruits and vegetables. LDC sales of fruits and vegetables to industrial countries rose by $773 million during the decade. LDC exports of meat and live animals to the EEC more than doubled during the 1960's. In addition, their exports of corn and feeding stuff to the community rose sharply. Consumption of meat in the EEC should continue to rise; however, the recently initiated subsidies to encourage the feeding of wheat have already dampened EEC imports of feed grain from both developed and developing countries.

Traditional trading ties and lower transportation costs make the Japanese market more accessible than Europe or North America to the

---

3/ For the EEC imports from the world exclude intra-EEC trade.

Table 3

Imports, fob, by EEC, Japan, UK, US, and USSR
1959-60 and 1967-68

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, million $					
Mineral fuels	6,007.8	4,796.6	12,432.3	9,579.6	9.5	9.0
Other Primary						
Agricultural						
Alcoholic and non-alcoholic beverages	682.9	255.3	1,082.4	125.3	5.9	-8.5
Cocoa	527.1	479.6	588.9	529.0	1.4	1.2
Coffee	1,619.1	1,584.5	1,870.5	1,821.9	1.8	1.8
Corn	470.7	184.4	1,082.1	314.5	11.0	6.9
Cotton	1,397.2	801.3	1,312.3	854.2	- .8	.8
Crude animal and vegetable materials	395.6	163.8	627.5	238.9	5.9	4.8
Dairy products	752.7	42.5	768.3	9.4	.3	-9.5
Feeding stuff	428.9	269.8	1,018.2	456.7	11.4	6.8
Fruits and vegetables	1,523.5	793.2	3,210.7	1,566.2	9.8	8.9
Hides	460.3	192.6	532.6	190.2	1.8	- .2
Livestock	362.4	54.6	530.6	75.1	4.9	4.2
Meat	1,552.4	345.4	2,326.2	444.6	5.2	3.2
Oilseeds	971.1	514.2	1,306.3	475.3	3.8	-1.0
Rice	152.4	57.2	181.7	99.7	2.2	7.2
Rubber	1,239.7	1,056.8	830.5	643.9	-4.9	-6.0
Sugar	1,047.5	922.9	1,502.3	1,271.9	4.6	4.1
Tea	421.5	390.1	403.5	378.4	- .5	- .4
Tobacco	640.8	186.9	832.8	159.3	2.6	-2.0
Vegetable oils	489.6	316.8	560.4	373.4	1.4	1.4
Wheat	714.4	65.5	949.2	49.0	3.6	-3.6
Wool	1,436.0	283.2	1,276.9	213.2	-1.5	-3.5
Total agricultural	17,285.8	8,960.0	22,793.9	10,290.1	3.5	1.7

Table 3 (continued)

Imports, fob, by EEC, Japan, UK, US, and USSR
1959-60 and 1967-68

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, million $					
Non-agricultural						
Copper	1,227.0	693.4	2,804.8	1,769.9	10.9	12.4
Fish	613.2	112.6	1,209.4	348.7	8.9	16.1
Iron ore	1,069.2	596.6	1,974.3	1,022.8	8.0	7.0
Tin	789.4	105.5	364.4	319.7	-9.2	14.9
Wood	1,637.6	361.2	3,008.5	853.4	7.9	11.4
Total non-agricultural	5,336.4	1,869.3	9,361.4	4,314.5	7.3	11.0
Total other primary	22,622.2	10,829.3	32,155.3	14,604.6	4.5	3.8
Manufactures						
Clothing	694.9	142.4	1,884.2	562.2	13.3	18.7
Cotton fabrics	330.2	82.8	431.3	169.2	3.4	9.3
Footwear	307.8	24.0	747.6	76.6	11.7	15.6
Jute fabrics and jute	235.2	218.3	361.1	347.3	5.5	6.0
Pearls and precious stones	388.0	56.2	1,622.2	406.2	19.6	28.0
Veneer	298.4	37.0	525.4	157.1	7.3	19.8
Total manufactures	2,254.5	560.7	5,571.8	1,718.6	12.0	15.0
Total above	30,884.5	16,186.6	50,159.4	25,902.8	6.6	6.1
Other Commodities	22,999.5	3,617.3	49,548.6	4,393.2	10.1	2.5
Total Imports	53,884.0	19,803.9	99,708.0	30,296.0	8.0	5.5

Sources: Appendix Tables A-E.

developing nations of Asia. Japanese imports of meat, tropical beverages, corn, fruits and vegetables from LDCs all grew by more than 10.0 percent annually during the decade. On the negative side of the ledger, Japan imported rice valued at more than $30 million in 1959-60. Appendix Table B indicates that rice imports have increased slightly; however, in 1969 Japan had significant surpluses of rice, and imports had fallen to a negligible amount.

Industrial country imports from LDCs of eight agricultural products: dairy products, wheat, tea, rubber, oilseeds, hides, tobacco and wool, actually declined in value during the 1960's (Table 3). A variety of factors have been suggested as contributing to the stagnant nature of LDC export earnings from agricultural products. Two are most frequently cited: competition from synthetics, and the protectionist practices adopted by industrial countries. Five of the agricultural commodities: rubber, cotton, jute, wool and hides, confront important competition from synthetics. Total imports of these commodities by the industrial countries from LDCs fell by an annual rate of 1.6 percent during the decade of the 1960's. Wool imports from developing countries declined, although, surprisingly, LDC exports of cotton, jute and jute fabrics rose. Imports of rubber declined in all of the industrial countries and annual LDC sales of rubber fell by more than $413 million during the decade.

To developing countries the most onerous deterrent to increased demand for their agricultural exports are the policies adopted by the industrial countries and the resultant barriers to international trade.

It is extremely difficult to quantify the impact of protectionist practices of the industrial countries on the export earnings of developing nations. One must have the intestinal fortitude to calculate the level of equilibrium prices of a large number of commodities, if barriers were eliminated, and in turn, the production and consumption response to the new prices in a number of important trading nations. Sugar is the commodity most frequently cited when reference is made to the way in which trade barriers distort the operation of comparative advantage. Recently, Raquibuzzaman 4/ estimated that if there were completely free trade in sugar, the export earnings of developing countries would increase by $947 million annually.

It may be argued that, with the exception of sugar, the products enjoying the highest levels of protection are not major exports of developing countries. This is not entirely true; several developing countries export tobacco, cereal grains, meat, wool, copra and palm

---

4/ Raquibuzzaman, M., An Economic Appraisal of the Sugar Policies of Developed Countries and the Implications of these Policies to Developing Nations, unpublished Ph.D. dissertation, Cornell University, 1970.

oil, all of which meet significant trade barriers. In several cases products are allowed to enter at relatively low rates; however, the imposition of excise taxes curtails demand. Also, tariff restrictions often are high on processed or semi-processed agricultural commodities, thereby denying developing countries the opportunity to earn the value added by initial processing.

Within the framework of a myriad of heroic assumptions, which I will not present here in the interest of brevity and professional self-preservation, I have made some rough calculations concerning the cost to developing countries of current trade barriers imposed by industrial countries. 5/ Consideration was given only to protectionist policies of the United States, the United Kingdom, the EEC, and other Western European countries whose 1967-68 agricultural imports exceeded $500 million. I calculate that export earnings of LDCs would rise $1.6 billion above the 1967-68 average if all trade restrictions were eliminated. This may be translated into an approximate protection level of 15.5 percent on an ad valorem basis. I would have no quarrel with anyone who contends that this estimate is 20.0 percent in error on either side.

The discussion to this point indicates that the slow growth of LDC export earnings is in large measure due to sluggish demand on the part of industrial countries. Some have voiced the opinion that the inability of the developing nations to produce an exportable surplus is also responsible. It might be hypothesized that if developing nations were experiencing supply difficulties their share of industrial country imports of agricultural products would have fallen during the decade. The validity of this proposition was tested by computing the LDC share of industrial country imports for each of the 21 agricultural commodities at the beginning and end of the decade. I projected hypothetical 1967-68 imports from LDCs for each commodity in the five markets on the assumption that the LDCs maintained their 1959-60 share of 1967-68 imports in each market. These projected imports are compared with actual imports from LDCs for each commodity in Table 4. A positive value 6/ indicates that the LDCs market

---

5/ In the case of non-competing products such as coffee, tea and cocoa, gains were estimated from actual quantities imported and the level of existing tariffs. For major competing commodities, estimates were made as to prices and production adjustments within important producing countries. No consideration was given to the possible impact of lowered prices on consumption. For estimates of the current level of tariffs and quotas, the author is indebted to Mr. Joseph Barse, Economic Research Service, U.S.D.A., and the Office of the Special Representative for Trade Negotiations, Executive Office of the President, Washington, D.C.

6/ Positive in that the projected value of exports exceeded the actual value of 1967-68 exports.

share declined during the decade. During the 1960's, industrial countries increased their imports of agricultural commodities from the world far more rapidly than they increased imports of the same products from LDCs. For example the U.K. increased its imports of fruits and vegetables from LDCs by 5.0 percent annually; however, imports from the world rose by 10.7 percent. This translates into a loss of more than $106 million. These losses in annual sales represent the usurpation of a part of the LDC market share by imports from industrial countries. The largest losses were estimated in the EEC, U.K., and Japanese markets: $542 million, $298 million, and $250 million, respectively. In the case of the EEC, significant losses resulted from failure to retain market shares of oilseeds, feeding stuff, and corn. The erosion of the LDC market shares in Japan are largely attributable to corn, sugar, and oilseeds imported from the United States and Australia. If the LDCs had retained their 1959-60 share of U.S. agricultural imports, their 1967-68 export earnings would have been $58 million higher. In contrast developing countries improved their position in the Soviet Union with the result that 1967-68 agricultural exports to the Soviet Union were $131 million above what they would have been if the LDCs had merely maintained their market share. It may be concluded that if LDCs had been able to maintain their 1959-60 share of agricultural imports by the industrial nations, 1967-68 export earnings would have been about $1 billion above the actual level. This amounts to approximately 9.7 percent of the value of agricultural exports to industrial countries. Four commodity groups: corn, feeding stuffs, oilseeds, fruits and vegetables, accounted for the bulk of LDC losses resulting from failure to maintain market shares during the decade.

In the case of coffee, tea, cocoa, jute and rubber, there is little room for increased market penetration, but it seems clear that in some commodities, for example fruit, vegetables, meat, and livestock, developing countries have not kept pace with the import demand of industrial nations. The constraint is a combination of production capabilities and in some instances the ability to organize an efficient marketing system and maintain competitive quality. Policies pursued by developing countries have also stymied the flow of their export earnings. Over-valued exchange rates, heavy export taxes, duties on vital agricultural inputs, and a pre-occupation with industrialization have been harmful to the agricultural sector and its ability to export.

In striking contrast to farm products, a variety of non-agricultural LDC exports to industrial countries has grown rapidly during the decade. Very noticeable increases were registered by wood, veneer, fish, metal ores, pearls and precious stones. Considering the recent proposal for temporary reductions in tariffs on manufactured goods from LDCs, it is of interest to look at imports of clothing and footwear. In the absence of tariff preferences, export earnings from clothing and footwear quadrupled during the decade. By 1967-68 they were over $638 million and exceeded the value of such traditional LDC exports as rubber, cocoa, tea, wool and tin.

Table 4

Projected Imports, fob, Minus Actual Imports
by Developed Countries from LDCs, 1967-68

	EEC	Japan	UK	US	USSR	Total
	annual average, million $					
Mineral fuels	-567.2	- 95.4	275.0	459.4	- 1.3	70.5
Other Primary						
Agricultural						
Alcoholic and non-alcoholic beverages	62.9	.4	- 6.7	.2	- 15.6	41.2
Cocoa	4.5	- 1.1	1.5	1.2	.3	6.4
Coffee	- 13.3	3.7	4.5	6.9	- 2.4	- .6
Corn	97.4	84.9	9.1	.6	0	192.0
Cotton	- 78.3	1.5	- 1.3	- 2.7	- 24.8	-105.6
Crude animal and vegetable materials	14.0	9.9	8.4	5.2	- 2.5	35.0
Dairy products	11.5	0	10.6	1.2	1.9	25.2
Feeding stuffs	128.2	6.3	48.4	- 20.4	n.a.	162.5
Fruits and vegetables	36.3	- 4.9	106.4	- 26.0	- 14.8	97.0
Hides	15.6	12.4	2.2	- 1.6	6.6	35.2
Livestock	- 1.1	- 1.2	0	- 6.6	- 3.4	- 12.3
Meat	8.2	4.3	77.6	- 5.3	.9	85.7
Oilseeds	128.0	42.8	22.0	3.1	- 9.1	186.8
Rice	12.9	23.0	2.5	0	- 46.9	- 8.5
Rubber	24.7	7.2	16.1	21.4	- 10.4	59.0
Sugar	15.7	57.1	- 30.3	42.1	0	84.6
Tea	3.3	1.3	1.1	3.4	- 14.0	- 4.9
Tobacco	23.1	- 5.9	37.0	17.9	- 3.5	68.6
Vegetable oils	8.0	- 1.1	16.7	- 13.7	- 13.4	- 3.5
Wheat	7.9	0	12.7	0	17.2	37.8
Wool	7.7	9.1	- 30.7	30.8	2.6	19.5
Total agricultural	517.2	249.7	307.8	57.7	-131.3	1,001.1

Table 4 (continued)

Projected Imports, fob, Minus Actual Imports
by Developed Countries from LDCs, 1967-68

	EEC	Japan	UK	US	USSR	Total
	annual average, million $					
Non-agricultural						
Copper	- 16.5	-112.0	44.5	-273.3	n.a.	-357.3
Fish	13.1	- 6.4	- 6.4	- 55.1	- 2.2	- 57.0
Iron ore	- 66.9	153.5	17.0	129.9	n.a.	233.5
Tin	- 57.9	- 4.2	- 14.0	- 54.7	- 4.2	-135.0
Wood	- 60.9	296.2	- 3.1	6.0	- 4.1	234.1
Total non-agricultural	-189.1	327.1	38.0	-247.2	- 10.5	- 81.7
Total other primary	328.1	576.8	345.8	-189.5	-141.8	919.4
Manufactures						
Clothing	- 24.4	- 6.9	90.4	-107.3	- 13.5	- 61.7
Cotton fabrics	- 8.9	- 2.6	- 5.3	- 33.1	- 11.9	- 61.8
Footwear	- 4.3	0	- 3.0	- 9.7	- 5.3	- 22.3
Jute fabrics and jute	- .6	0	3.0	- 17.9	0	- 15.5
Pearls and precious stones	- 31.0	- 20.7	n.a.	- 52.7	n.a.	-104.4
Veneer	- 8.5	- 3.2	- 6.6	- 76.5	.4	- 94.4
Total manufactures	- 77.7	- 33.4	78.5	-297.2	- 30.3	-360.1
Total above	-316.8	448.0	699.3	- 27.3	-173.4	629.8

Sources: Appendix Tables A-E.

Some have argued that exports of manufactured products are restricted to a small number of countries, and hence cannot offset the lagging demand for primary products which most developing countries rely on for foreign exchange. Concentration ratios indicate that exports of manufactured products are more broadly distributed than cocoa, tea, coffee, rubber, wheat, cotton, or meat. 7/

Import Substitution

The UNCTAD study projected imports of goods and services by LDCs to rise at an annual rate in excess of 6.0 percent, increasing from $44.8 billion in 1968 to approximately $65.0 billion in 1975. The expected growth rate of imports exceeds that projected for gross domestic product.

There is increasing evidence that in a large number of developing nations a significant part of foreign exchange earnings is being used to purchase agricultural products, thus limiting the funds available for basic development goods. 8/ Trade statistics of thirty-three developing countries in Asia, Africa and Latin America were examined to determine the importance and growth rate of agricultural imports. Table 5 presents data for five of the most populous, non-centrally planned countries, and estimates for the developing countries as a whole. In all but eight of the countries studied, imports of agricultural products accounted for more than 20.0 percent of total imports in the 1964-66 period. Among the countries studied, the rate of growth in imports of agricultural products ranged from 1.6 percent per year in Indonesia to over 10.0 percent in the U.A.R., Taiwan, Thailand, and Iran. For the countries as a whole, the growth rate approximated 6.1 percent per year. It is of interest to note that average 1964-66 agricultural imports for the thirty-three countries were $5.1 billion or 64.2 percent of the value of agricultural exports in the same time period.

It would appear that there is considerable latitude for substantial gains from import substitution in the agricultural sector. Before we can be definitive on this point, it is well to examine the composition of agricultural imports by developing countries. Food grains were the most important category of agricultural imports in

---

7/ The five most important LDC exporters of manufactured goods (Hong Kong, India, Taiwan, Pakistan, and Mexico) accounted for 52.5% of total LDC exports of manufactured products. Similar concentration ratios for other commodities are: cocoa, 82.9%; tea, 77.9%; coffee, 60.4%; rubber, 83.6%; wheat, 96.8%; cotton, 54.8% and meat, 90.2%.

8/ See, for example, Ojala, E. M., "The Pattern and Potential of Asian Agricultural Trade," Monthly Bulletin of Agricultural Economics and Statistics, September, 1969.

Table 5

Imports of Agricultural Commodities
by Selected Developing Countries, 1964-66 average*

Country	Agricultural Imports	Total Imports	Agricultural Imports as % of Total	Annual % Increase in Agricultural Imports, 1957-59 to 1964-66	Foodgrain as % of Agricultural Imports
	million of U.S. $				
India[1/]	945	2,864	33	9.9	62
Pakistan[1/]	212	964	22	8.7	56
Indonesia[1/]	145	690	21	1.6	57
Brazil	313	1,380	23	6.1	67
United Arab Republic	332	1,012	32	12.1	52
Total LDC	8,868[2/]	38,500	23[2/]	6.1[2/]	31[2/]

1/ Data from Ojala, op. cit., Table 6.

2/ Estimated from the imports of 33 developing countries whose imports constitute 53 percent of total LDC imports.

* Source: United Nations Yearbook of International Trade Statistics.

most of the countries studied. Imports of wheat and wheat flour, rice and rye accounted for 33.0 percent of all agricultural imports of the Asian countries, 24.0 percent in the African countries and over 20.0 percent in Latin America. Food grain imports accounted for more than 50.0 percent of total agricultural imports in each of the five most populous countries. Between 1964 and 1968 the value of food imported by LDCs from industrial countries averaged $3.7 billion. A large proportion of this total was grain imported at concessional prices under the provisions of the United States P.L. 480 program and the food aid programs of other developed nations. This ameliorated greatly the cost of food imports and the resultant drain on foreign exchange earnings. In the future this option of obtaining U.S. food aid for local currency will not be available. By 1970 sales will be made for dollars on a long-term credit basis, and food purchases will represent a greater loss of foreign exchange.

It is clear that the seed-fertilizer revolution and favorable weather have greatly increased food grain production in many developing countries. If the 1970 crop meets expectations, many of the major LDC importers of wheat and rice will be approaching self-sufficiency in these grains. Some nations which had significant deficits in food grain production only a few years ago are currently planning to earn foreign exchange by exporting wheat and rice. Becoming self-sufficient in food grains is quite different from gearing to enter the world market. For example, the grading standards for rice moving in international trade are far more exacting than those within most domestic markets. A traditional rice-exporting nation such as Thailand has the capacity to meet world grade specifications. The situation in Pakistan and the Philippines is distinctly different. In these nations there would need to be substantial investments in milling equipment, graders, and storage facilities prior to exporting graded rice. If these investments are not made, and a large volume of low-grade rice enters the world market, the price of lower grades of rice could drop precipitously, seriously disrupting traditional price relationships between grades. There will undoubtedly be a net saving in foreign exchange as a result of reduced LDC imports of food grains, but the future of the world food grain market is too uncertain to quantify the savings.

Vegetable oils and plant fibers are large import items in several of the developing countries, and, in some cases, sugar and coarse grains. The rate of increase in imports of livestock, meat, dairy products, fruits and vegetables is surprising, particularly among the higher income developing countries. If the 3.2 percent annual growth rate in per capita income on which the projections are based is realized, the demand for these "luxury foods" will climb dramatically. Developing countries which are now preoccupied with the basic food grains should be carefully considering the food/feed-grain price relationships and other steps to meet this potential demand if they are to be successful in curbing expenditures for imported food. If an efficient increase in domestic production could lower the rate of increase in agricultural imports from the 6.1 percent of recent years to 5.0 percent, the savings in foreign exchange would amount to approximately $1.4 billion annually by 1975.

Increased Aid from Developed Countries

As a working hypothesis, the UNCTAD study assumed that $13.0 billion of the 1975 trade gap would be filled by multilateral and bilateral grants and loans from developed countries. The Pearson Commission Report established an aid target of $16.2 billion for 1975. 9/ This level of aid could be reached if developed countries

---

9/ Pearson Commission, Partners in Development, Praeger Publishers, New York, 1968, p. 150.

implemented the .7 percent 10/ assistance guideline; however, in light of historic evidence and the present level of aid, the target seems unrealistic. Total aid from Development Association Committee countries rose modestly from $4.7 billion in 1960 to approximately $6.4 billion in 1968. 11/ The U.S. goal for 1975 was set at $8.2 billion even though actual U.S. aid fell from $3.6 billion in 1963 to $3.3 billion in 1968. Changes in provisions of P.L. 480 coupled with increased self-sufficiency on the part of recipient nations could reduce U.S. aid. The United States has cut other forms of assistance and the tone of Congress does not seem conducive to increased aid appropriations. France has recently announced an absolute reduction in aid while the U.K. and several other major donor nations are vacillating as to aid commitments. Among the largest donors, only Germany and Japan have declared that they will increase aid over the next few years.

Delivery of equipment, material, and technical assistance by the Soviet Union to developing countries rose from less than $10.0 million per year in 1955-56 to over $400.0 million per year in 1965-67. 12/ Soviet data are not exactly comparable. Published statistics apparently exclude material presented as gifts. In my judgment, aid from the developed countries is unlikely to contribute more than $8.0 or $9.0 billion to the elimination of the anticipated 1975 trade gap. The level of private transfers to developing countries is extremely difficult to predict. Underdeveloped countries are selling bonds in the European and North American markets, and private firms are investing in many developing nations. UNCTAD estimates that private transfers may rise to $5.0 billion by 1975. This estimate is as valid as any which can be made.

The original projections for the 1975 trade gap were $19.8 billion. If we assume that $8.0 billion of this gap will be filled by public transfers, and $5.0 billion by private transfers, we have a residual deficit of $6.8 billion. If LDC exports expand at the rate of the 1960's, they will contribute about $4.7 billion to alleviation of the trade gap. In my judgment it is feasible to expect that import substitution through the agricultural sector, and a somewhat higher rate of internal saving which may accompany improved agricultural productivity, can bridge the remaining gap of $2.1 billion.

10/ The frequently cited 1.0 percent target is composed of .7 percent from public sources and .3 percent from private funds.

11/ Pearson Commission, op. cit., p. 380.

12/ Vneshniaia Torgovlia SSR (The Foreign Trade of the U.S.S.R., Ministry of Foreign Trade of the U.S.S.R., p. 205.)

This statement is optimistic, and I feel compelled to temper it with two sobering observations. First merely closing the trade gap does not assure a growth rate of 3.2 percent in the per capita income of developing nations. It is a necessary but not sufficient condition for reaching the target growth rate. Secondly eliminating the trade gap of the LDCs in aggregate does not assure that individual poor countries will not have a persistant balance of payments problem and the resulting impediments to economic growth.

Concluding Remarks

This paper has consciously concentrated on the international trade of developing nations. The farm programs and resultant barriers to trade in agricultural commodities initiated by industrial countries have had serious repercussions on trade between developed nations, but it is felt that these wealthy countries can afford to live with the monsters they have created.

The following observations are meant to be provocative rather than definitive. At the beginning of the 1960's, agricultural exports accounted for 45.2 percent of total LDC export earnings. By the close of the decade, this proportion had fallen to 34.0 percent. During the past ten years the agricultural exports of developing countries grew by less than 1.7 percent annually, and there are no indications that this performance will improve.

There is little likelihood that export earnings of developing countries will increase as the result of industrial nations' reducing the level of protection afforded farm products. Developed countries are committed to farm programs which are directly dependent upon control of international trade. Meaningful reductions in trade barriers are possible only if nations are willing to alter their farm programs from an emphasis on price supports to income transfer measures which are not tied to agricultural production. Estimates of the cost of protectionist practices such as the one made in this paper and negotiations to lower tariffs and quotas are both exercises in futility if the developed countries are unwilling to overhaul their farm programs completely.

A fundamental question to be answered in this decade will be: who has the comparative advantage in the production of wheat and rice? While this puzzle unravels, the world food grain market is likely to be chaotic. Developing countries will have to keep farm programs flexible and in harmony with world supply and demand conditions. Failure to do so may leave some in the backwash of rapid technical change with costly price support programs and inefficient production the residue of grandiose plans to expand export earnings.

It is clear that in many developing nations the farm sector is not keeping pace with domestic demand, and valuable foreign exchange is being spent on imported farm products. As per capita income rises in developing countries, demand for meat, eggs, dairy products,

fruits and vegetables will increase. It is possible that tariff protection might be justified as domestic capacity to produce and distribute these "luxury" foods is developed.

Developing countries increased their exports of manufactured goods by more than 13.0 percent annually during the 1960's. At present, LDC sales of manufactured goods total approximately $6.9 billion per year, nearly two-thirds the value of agricultural exports. 13/ Continued expansion in the exports of manufactured goods by developing nations requires that they maintain low food prices and wage rates. Hopefully the development process is self-generating. As employment in the non-farm sector rises, the demand for food and other consumer goods expands. Meeting this demand further broadens the employment base and improves income distribution. For the first time, agricultural technology makes it possible for export earnings to be broadly distributed rather than locked in a small enclave.

It is entirely possible that price supports for important commodities will be necessary to aid in the transition from subsistence to commercial agriculture. A very delicate touch will be required to determine a support price which at the same time provides farmers with the incentive to produce a marketable surplus and also insures low-cost food to consumers. It is more realistic to establish target prices than an absolute level of support. The target prices must take into account inflation, the rate of technical change in agriculture, and funds available for farm programs. If price supports are initiated and then discontinued as the result of inadequate funding, the farm program will only aggravate price uncertainty.

The traditional role of agricultural exports as the primary source of development capital has altered dramatically. Previously, the contribution of farmers to foreign exchange earnings was limited to exports of traditional crops. Now their role in the development process is two-fold: the direct earning of foreign exchange, and catalyzing the rapidly growing potential to export manufactured goods.

13/ International Trade 1968 (Geneva: Gatt, 1969), pp. 233-35.

Table A

Imports by EEC, cif

	1959-60		1967-68		Annual Percentage Change	
	World[1]	LDC's	World[1]	LDC's	World	LDC's
	annual average $ million					
Mineral Fuels	2,580.3	1,900.3	5,767.4	4,844.0	10.6	12.4
Other Primary						
Agricultural						
Alcoholic and non-alcoholic beverages	298.0	261.5	184.5	95.9	- 5.8	-13.4
Cocoa	214.5	211.3	257.0	248.4	1.4	2.0
Coffee	510.1	494.1	685.8	678.3	3.8	4.0
Corn	239.7	129.1	584.7	212.9	11.7	6.5
Cotton	637.3	326.7	596.8	388.4	- .8	2.2
Crude animal and vegetable materials	143.2	62.3	255.2	96.3	7.5	5.6
Dairy products	224.8	24.9	138.6	3.4	- 5.8	-22.1
Feeding stuffs	221.2	146.0	672.2	309.2	14.9	9.8
Fruits and vegetables	755.6	429.1	1,384.1	747.4	7.9	7.2
Hides	230.4	93.1	262.7	89.8	1.7	- .5
Livestock	179.4	0	275.7	1.2	5.5	--
Meat	261.3	75.7	567.0	155.5	10.2	9.4
Oilseeds	525.5	313.0	749.4	311.8	4.5	- .1
Rice	37.9	22.6	51.6	17.3	4.0	- 3.3
Rubber	382.1	286.5	266.6	174.1	- 4.4	- 6.0
Sugar	116.3	106.5	114.5	88.4	- .2	- 2.3
Tea	25.6	24.3	42.7	37.0	6.6	5.4
Tobacco	200.9	61.7	310.9	71.2	5.6	1.8
Vegetable oils	289.0	190.7	310.7	196.6	.9	.4
Wheat	250.0	42.9	283.0	40.3	1.6	- .8
Wool	549.5	74.7	459.5	54.6	- 2.2	- 3.8
Total agricultural	6,292.3	3,377.3	8,453.2	4,018.0	3.8	2.2

Table A (continued)

Imports by EEC, cif

	1959-60		1967-68		Annual Percentage Change	
	World[1]	LDC's	World[1]	LDC's	World	LDC's
	annual average $ million					
Non-agricultural						
Copper	606.3	399.7	1,253.3	843.0	9.5	9.8
Fish	152.5	30.2	316.5	48.9	9.6	6.2
Iron ore	377.2	165.8	605.1	335.9	6.1	9.2
Tin	642.0	25.8	79.5	63.8	-23.1	12.0
Wood	654.5	164.5	967.3	307.0	5.0	8.1
Total non-agricultural	2,432.5	786.0	3,221.7	1,598.6	3.6	9.3
Total other primary	8,724.8	4,163.3	11,674.9	5,616.6	3.7	3.8
Manufactures						
Clothing	70.9	15.2	291.1	88.1	19.3	24.6
Cotton fabrics	56.7	2.8	87.0	13.7	5.5	22.0
Footwear	15.8	2.1	49.2	11.0	15.2	23.0
Jute fabrics and jute	66.6	64.5	84.1	82.0	3.0	3.0
Pearls and precious stones	192.8	30.0	449.4	102.6	11.2	16.6
Veneer	37.0	3.6	57.9	14.5	5.8	19.0
Total manufactures	439.8	118.2	1,018.7	311.9	11.1	12.9
Total above	11,744.9	6,181.8	18,461.0	10,772.5	5.8	7.2
Other commodities	7,097.0	1,942.8	13,700.5	1,257.6	8.6	- 5.3
Total imports	18,841.9	8,124.6	32,161.5	12,030.1	6.9	5.0

1/ Excluding intra-EEC trade.

Sources: Various issues of statistics of Foreign Trade, Series C (OECD).

Table B

Imports by Japan, cif

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, $ million					
Mineral fuels	649.5	455.4	2,457.2	1,821.2	18.1	18.9
Other Primary						
Agricultural						
Alcoholic and non-alcoholic beverages	2.1	.1	9.0	0	19.1	--
Cocoa	9.7	6.8	40.5	29.5	19.6	20.0
Coffee	8.3	8.0	32.5	27.4	18.6	16.6
Corn	67.2	40.4	289.4	86.5	20.5	10.0
Cotton	393.4	233.9	476.8	281.9	2.5	2.4
Crude animal and vegetable materials	19.8	12.5	63.8	30.3	15.8	11.7
Dairy products	12.5	0	59.2	0	21.4	0
Feeding stuff	13.2	5.4	82.0	27.3	25.4	19.7
Fruits and vegetables	28.5	19.4	212.8	150.1	28.5	29.0
Hides	40.8	11.5	74.4	8.2	- 7.8	- 4.1
Livestock	4.7	0	10.9	1.2	11.1	--
Meat	9.3	2.4	97.3	20.3	34.0	31.0
Oilseeds	175.1	48.4	417.2	71.4	11.5	5.0
Rice	28.6	27.1	56.2	29.6	11.1	1.1
Rubber	159.4	127.9	131.8	98.4	- 2.4	- 3.3
Sugar	117.2	106.5	194.2	117.8	6.2	1.3
Tea	2.1	2.1	7.7	6.3	17.6	14.7
Tobacco	13.9	0	53.8	6.1	18.4	--
Vegetable oils	6.9	3.5	9.6	6.0	4.2	7.0
Wheat	168.7	0	298.5	0	7.4	0
Wool	236.0	14.9	362.1	13.6	- 5.5	- 1.1
Total agricultural	1,517.5	671.0	2,979.7	1,011.9	8.8	5.2

Table B (continued)

Imports by Japan, cif

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, $ million					
Non-agricultural						
Copper	28.8	9.9	328.5	227.6	36.0	48.0
Fish	3.1	1.9	138.1	88.4	62.0	63.0
Iron ore	180.0	151.5	775.9	495.2	20.0	16.0
Tin	24.1	21.8	66.4	64.2	13.5	14.4
Wood	155.1	111.6	1,052.2	452.2	27.1	19.1
Total non-agricultural	391.1	296.7	2,361.1	1,327.6	25.0	21.0
Total other primary	1,908.6	967.7	5,340.8	2,339.5	13.7	11.7
Manufactures						
Clothing	1.3	0	19.9	7.1	41.0	--
Cotton fabrics	.6	0	8.8	2.7	40.0	--
Footwear	.1	0	2.6	0	50.0	--
Jute fabrics and jute	10.4	10.4	22.8	22.8	10.3	10.3
Pearls and precious stones	4.6	.8	77.3	35.2	42.0	63.0
Veneer	.2	0	43.7	3.3	96.0	--
Total manufactures	17.2	11.2	175.1	71.1	34.0	26.0
Total above	2,575.3	1,434.3	7,973.1	4,231.8	15.1	14.5
Other commodities	1,470.3	245.6	4,352.1	681.4	14.5	13.6
Total Imports	4,045.6	1,679.9	12,325.2	4,913.2	15.0	14.4

Sources: 1959-60 Japan: Annual Returns of Foreign Trade (Ministry of Finance).

1967-68 Various issues of Statistics of Foreign Trade, Series C (OECD).

Table C

Imports by Soviet Union, fob

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, $ million					
Mineral fuels	20.7	0	48.1	1.3	11.1	--
Other Primary						
Agricultural						
Alcoholic and non-alcoholic beverages	19.4	0	145.0	15.6	28.5	--
Cocoa	33.5	32.8	51.8	50.4	5.6	5.5
Coffee	13.1	11.7	22.5	22.5	7.1	8.5
Corn	0	0	17.0	9.6	--	--
Cotton	171.9	127.7	115.8	110.8	- 4.9	- 1.8
Crude animal and vegetable materials	21.3	4.0	14.6	5.2	- 4.6	3.4
Dairy products[1/]	2.9	2.9	1.9	0	-14.7	--
Feeding stuff	0	0	0	0	0	0
Fruits and vegetables	84.3	21.6	219.5	71.0	12.7	16.0
Hides	58.9	36.3	91.4	49.7	5.7	4.0
Livestock	25.5	20.3	22.4	21.2	- 1.6	.6
Meat	42.9	1.0	38.0	0	- 1.5	- 2.2
Oilseeds	64.4	3.0	10.0	9.6	-20.6	15.5
Rice	75.5	6.6	56.8	51.9	- 3.5	29.5
Rubber	162.5	147.9	117.9	117.9	- 3.9	- 2.8
Sugar	55.6	55.6	286.3	286.3	19.5	19.5
Tea	35.0	18.7	29.9	29.9	- 2.0	6.1
Tobacco	70.2	3.2	81.8	7.2	1.9	10.7
Vegetable oils	30.4	4.2	20.3	16.2	5.2	18.0
Wheat	11.4	1.9	112.5	1.6	33.0	- 1.6
Wool	104.9	58.4	98.9	52.5	- 1.3	- 1.3
Total agricultural	1,083.6	557.8	1,554.3	929.1	4.6	6.6

1/ Butter only.

Table C (continued)

Imports by Soviet Union, fob

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, $ million					
Non-agricultural						
Copper	73.0	34.7	0	0	--	--
Fish	20.1	1.2	14.3	3.1	- 4.1	12.6
Iron ore	0	0	n.a.	3.8	--	--
Tin	38.3	.1	20.0	4.7	- 7.8	63.0
Wood	39.4	0	25.8	4.1	- 5.1	--
Total non-agricultural	170.8	36.0	60.1	15.7	-12.3	- 9.8
Total other primary	1,254.4	593.8	1,614.4	944.8	3.2	6.0
Manufactures						
Clothing	310.2	8.8	603.0	30.6	8.7	16.9
Cotton fabrics	60.2	0	44.1	11.9	- 3.8	--
Footwear	133.5	3.3	298.6	11.7	10.6	17.0
Jute fabrics and jute	4.7	4.7	9.4	9.4	8.9	8.9
Pearls and precious stones	0	0	0	0	0	0
Veneer	6.0	.2	1.2	0	9.1	--
Total manufactures	514.6	17.0	956.3	63.6	8.0	17.9
Total above	1,789.7	610.8	2,618.8	1,009.7	4.9	6.5
Other commodities	3,561.8	82.3	6,355.3	288.7	7.5	17.0
Total Imports	5,351.5	693.1	8,974.1	1,298.4	6.7	8.2

Sources: Vneshniaia Torgovlia SSR (The Foreign Trade of the USSR. Ministry of Foreign Trade.)

Table D

Imports by United Kingdom, cif

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, $ million					
Mineral fuels	1,331.5	1,160.8	2,089.5	1,532.4	5.8	3.5
Other Primary						
Agricultural						
Alcoholic and non-alcoholic beverages	110.8	3.2	179.6	12.1	6.2	18.1
Cocoa	100.6	79.6	81.7	63.1	- 2.5	- 3.3
Coffee	41.7	37.2	68.8	56.4	6.5	5.3
Corn	178.3	21.3	223.3	17.0	2.9	- 2.8
Cotton	198.6	110.9	129.1	73.5	- 5.2	- 5.0
Crude animal and vegetable materials	105.9	36.3	128.0	35.1	2.4	- .4
Dairy products	509.3	14.9	524.8	4.1	.4	-14.7
Feeding stuff	175.6	116.9	187.3	73.7	.8	- 5.6
Fruits and vegetables	386.2	143.6	870.1	211.2	10.7	5.0
Hides	60.7	17.2	44.8	10.3	- 3.8	- 6.3
Livestock	88.6	0	137.8	0	5.7	0
Meat	929.2	204.5	992.4	136.7	.8	- 4.9
Oilseeds	159.0	101.9	100.3	41.2	- 5.6	-10.7
Rice	11.1	2.7	21.4	2.6	8.5	- .5
Rubber	199.0	164.9	119.6	82.1	- 6.2	- 8.3
Sugar	231.3	133.0	264.3	184.0	1.9	4.7
Tea	320.9	312.7	278.7	270.2	- 1.8	- 1.8
Tobacco	259.5	97.8	252.2	56.0	- .3	- 6.7
Vegetable oils	97.4	80.3	109.8	72.9	1.5	- 1.2
Wheat	298.5	23.9	285.7	9.5	- .6	-10.9
Wool	394.5	58.1	256.7	70.1	- 5.2	2.4
Total agricultural	4,856.7	1,760.9	5,256.4	1,481.8	1.0	- 2.2

Table D (continued)

Imports by United Kingdom, cif

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, $ million					
Non-agricultural						
Copper	338.5	233.1	532.5	319.9	5.8	4.0
Fish	140.9	1.3	185.5	8.4	3.5	26.0
Iron ore	220.6	97.5	196.7	68.9	- 1.4	- 4.2
Tin	4.0	1.6	28.9	26.2	28.0	41.8
Wood	460.7	62.9	541.4	76.9	2.0	2.5
Total non agricultural	1,164.7	396.4	1,485.0	500.3	3.1	3.4
Total other primary	6,021.4	2,157.3	6,741.4	1,982.1	1.4	- 1.1
Manufactures						
Clothing	43.3	37.0	240.9	110.8	23.9	14.7
Cotton fabrics	139.9	63.6	157.9	77.4	1.5	2.5
Footwear	43.1	10.6	76.3	22.0	7.4	9.6
Jute fabrics and jute	56.9	55.9	56.5	52.3	- .1	- .8
Pearls and precious stones	n.a.	n.a.	656.2	162.7	--	--
Veneer	121.4	10.6	182.2	22.8	1.8	10.0
Total manufactures	404.6	177.7	1,370.0	448.0	16.5	12.3
Total above	7,757.5	3,495.8	10,200.9	3,962.5	3.5	1.6
Other commodities	4,207.7	483.8	8,136.1	633.4	8.6	3.4
Total Imports	11,965.2	3,979.6	18,337.0	4,595.9	5.5	1.8

Sources: Various issues of Statistics of Foreign Trade, Series C (OECD).

Table E

Imports by United States, fob

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, $ million					
Mineral fuels	1,570.5	1,437.8	2,389.4	1,729.3	5.4	2.3
Other Primary						
Agricultural						
Alcoholic and non-alcoholic beverages	264.4	2.7	577.4	6.7	10.3	12.0
Cocoa	178.6	163.0	168.9	153.0	- .7	- .8
Coffee	1,058.9	1,058.3	1,080.0	1,072.0	.2	.2
Corn	1.8	1.7	2.2	1.4	2.5	- 2.4
Cotton	34.4	28.9	31.2	28.8	- 5.8	- .1
Crude animal and vegetable materials	114.4	53.7	180.1	79.0	5.8	4.9
Dairy products	33.4	1.6	74.7	2.3	10.6	4.6
Feeding stuffs	32.6	14.1	103.2	65.1	15.5	21.0
Fruits and vegetables	304.8	206.9	604.2	435.6	8.9	9.7
Hides	78.9	40.0	69.9	37.0	- 1.5	- 1.0
Livestock	72.5	33.7	96.8	51.6	3.7	4.9
Meat	361.1	75.6	695.8	146.5	8.5	8.6
Oilseeds	72.7	68.7	66.3	59.6	- 1.2	- 1.8
Rice	1.7	0	0	0	--	0
Rubber	360.7	354.5	211.2	186.2	- 6.5	- 7.7
Sugar	545.4	535.7	666.0	611.9	2.5	1.7
Tea	54.2	49.1	59.4	50.4	1.2	.3
Tobacco	113.7	31.9	155.1	25.1	4.0	- 2.9
Vegetable oils	77.1	51.0	122.3	94.5	5.3	8.0
Wheat	12.2	0	1.0	0	--	--
Wool	191.1	83.8	136.0	28.8	- 4.1	-12.5
Total agricultural	3,964.5	2,854.9	5,101.7	3,135.5	3.2	1.2

Table E (continued)

Imports by United States, fob

	1959-60		1967-68		Annual Percentage Change	
	World	LDC's	World	LDC's	World	LDC's
	annual average, $ million					
Non-agricultural						
Copper	210.8	46.4	755.7	440.3	17.3	32.0
Fish	306.8	79.6	576.1	204.9	8.2	12.5
Iron ore	317.1	198.4	449.2	151.3	4.4	- 3.4
Tin	95.6	61.1	175.3	166.7	7.9	13.3
Wood	370.2	35.9	509.6	43.3	4.1	2.1
Total non-agricultural	1,300.5	421.4	2,465.9	1,006.5	8.3	11.5
Total other primary	5,265.0	3,276.3	7,567.6	4,142.0	4.6	3.0
Manufactures						
Clothing	272.9	83.9	748.0	335.4	13.5	18.9
Cotton fabrics	80.9	19.7	143.3	68.1	7.4	16.8
Footwear	117.7	8.6	325.7	33.5	13.6	18.5
Jute fabrics and jute	101.1	88.9	193.6	187.9	8.5	9.9
Pearls and precious stones	194.8	26.8	483.9	119.5	12.0	21.0
Veneer	140.5	23.3	252.2	118.4	7.6	23.0
Total manufactures	907.9	251.2	2,146.7	862.8	11.3	16.7
Total above	7,743.4	4,965.3	12,103.7	6,734.1	5.8	3.9
Other commodities	7,076.2	979.5	17,861.1	1,640.2	12.3	6.6
Total Imports	14,819.6	5,944.8	29,964.8	8,374.3	9.2	4.3

Source: Various issues of Statistics of Foreign Trade, Series C (OECD.

Table F

SITC Numbers of 33 Commodities
Used in the Analysis

Commodity	SITC Number	
	1959-60	1967-68
Mineral fuels	31	32-35
Alcoholic and non-alcoholic beverages	11	11
Cocoa	072	072
Coffee	071	071
Corn	044	044
Cotton	263	263
Crude animal and vegetable materials	29	29
Dairy products	02	02
Feeding stuffs	08	08
Fruits and vegetables	05	05
Hides	211	211
Livestock	00	00
Meat	01	01
Oilseeds	221	221
Rice	042	042
Rubber	23	23
Sugar	061	061
Tea	074	074
Tobacco	121	121
Vegetable oils	412	421 and 422
Wheat	041	041
Wool	262.1 and 262.2	262.1 and 262.2
Copper	682	682
Fish	03	03
Iron ore	281	281
Tin	687.1	687.1
Wood	24	24
Clothing	841	841
Cotton fabrics	652	652
Footwear	85	85
Jute fabrics and jute	264 and 263.04	264 and 653.04
Pearls and precious stones	672	667
Veneer	631	631