

MAATALOUDEN TALOUDELLISEN TUTKIMUSLAITOKSEN JULKAISUJA N:o 33
*PUBLICATIONS OF THE AGRICULTURAL ECONOMICS RESEARCH
INSTITUTE, FINLAND, No. 33*

AGRICULTURAL IMPORTS: IMPACT
OF TRADE PREFERENCES BETWEEN
DEVELOPING COUNTRIES
AND FINLAND

JUHANI ROUHIAINEN LAURI KETTUNEN

SELOSTUS:
KEHITYSMÄIDEN JA SUOMEN VÄLINEN MAATALOUSKAUPPA JA PREFERENSSIT

HELSINKI 1975

Maatalouden taloudellisen tutkimuslaitoksen julkaisuja N:o 33
Publications of the Agricultural Economics Research Institute,
Finland, No. 33

AGRICULTURAL IMPORTS: IMPACT OF TRADE PREFERENCES BETWEEN
DEVELOPING COUNTRIES AND FINLAND

JUHANI ROUHIAINEN LAURI KETTUNEN

Selostus:

Kehitysmaiden ja Suomen välinen maatalouskauppa ja
preferenssit

Helsinki 1975

ISBN 951-9199-19-5

Preface

The present paper deals with agricultural trade between the developing countries and Finland. The paper must not be regarded as an academic analysis in depth but rather as a preliminary study of the area in question.

The authors wish to express their sincere appreciation to Dr. Antti Nikkola for his valuable comments. Mr. Tihomir Ačanski (Yugoslavia) and Mr. Peter Bod (Hungary) have been of great help in collecting and processing of the vast amount of data. The English translation was performed by Mr. Jarmo Jaakola and the typing by Mrs. Liisa Lindsten. For all these contributions we express our deepest gratitude.

Finally, the authors wish to thank the Board of the Agricultural Economics Research Institute for including the study in the Institute's publication series.

Helsinki, September 1975

The authors

CONTENTS

	Page
1. Introduction	1
2. General Background	4
2.1. Foreign Trade Theories	4
2.2. Barriers to Finnish Agricultural Imports	5
2.3. Concept of a Developing Country	6
3. Role of Developing Countries in International Agricultural Trade	8
4. Finnish Agricultural Imports from Developing Countries 1964-1973	13
4.1. Finland's Trade with Developing Countries	13
4.2. Finnish Agricultural Imports from Developing Countries	14
4.3. Development of Imports of Six Main Products	15
4.4. Supplier Countries	18
4.5. Development of Prices	19
5. Future Outlook for Trade with Developing Countries	21
5.1. Development of Consumption of the Products	22
5.2. Impact of Preferences on Imports from Developing Countries	26
5.3. Growth Prospects for Trade with Developing Countries	31
6. Summary and Final Conclusions	33
6.1. Development and Structure of Trade	33
6.2. Prospects for Trade Growth	34
References	37
Selostus	38
Appendices	42

Thus, elimination of tariffs would be of benefit to developing countries only inasmuch as it would increase trade. Certain products such as fruits and oil seeds are imported from developing as well as industrial countries. Therefore, following the extension of preferences, trade could be expected to shift on an increasing scale to developing countries. Thus preferential trade arrangements help to back up the economic growth of developing countries in a way that can be regarded as much more fruitful than direct aid.

Just as other industrial countries in general, Finland has pursued a protectionist agricultural policy. With respect to major foodstuffs, we are at least self-sufficient and animal products have been exported fairly regularly. There are, however, a number of farm products which cannot be produced in our country and which have to be always imported. In so doing, we have of course reason to favor the developing countries as much as possible.

While there is no clear picture of agricultural imports from developing countries, this study tries to establish the countries from which farm products are imported, the proportion of such imports and the development of those imports. This study examines trends over the past ten years, i.e. between 1964-1973. On the basis of this presentation, it may be possible, to some extent at least, to assess the growth of imports from developing countries. The outlining of specific forecasts would require a thorough analysis of our foreign trade that, possibly for the lack of statistical material, it could not be undertaken on a sufficiently large scale. In this study, however, an attempt has been made to find out to what extent imports react to changes in price relationships in order to see whether preferences offered to developing countries help to divert trade. For that purpose, simple methods have been used to estimate correlations between portions of imports and price relationships. Although full information concerning trade with developing countries may not be obtained in this manner, it is hoped that this analysis as well as the study as a whole will be useful both in the planning of Finland's development aid policy and as a basic report for follow-up research.

One of the starting points for this study has also been a lack of papers dealing with Finland's trade with developing countries. No studies covering a long time period have been made previously. The only paper discussing the subject is a 1964 publication by Westphalen (WESTPHALEN 1964).

In connection with this study, the latest efforts to liberalize trade with developing countries have not been examined at all, i.e. the Intensive Intergovernmental Consultations on Commodities under FAO/UNCTAD, the Integrated Program for Commodities conducted by UNCTAD, and the Multilateral Trade Negotiations under GATT.

2. General Background

2.1. Foreign Trade Theories

Agriculture is among the last sectors where trade protectionism remains firmly entrenched almost throughout the world. Most countries seek self-sufficiency or try to maintain a level of agricultural production that exceeds the requirements of self-sufficiency, by means of tariffs, import levies and other trade barriers. As a justification for this they cite a need to stand ready to face emergencies or internal problems connected with industrialization whereby the reallocation of resources from agriculture to other sectors of the economy has proved difficult. In these circumstances, all the factors that speak for free trade have been accorded less attention.

Suffering from the barriers raised to agricultural trade have been, above all, the world's developing countries since it is quite obvious that they could benefit from world trade in agricultural products. This means that industrial countries could shift more and more of their resources from agriculture to other sectors of the economy and import the necessary food supplies from developing countries. The latter have an abundance of labor but they do not as yet have significant possibilities for industrial production.

The developing countries have to import, among other things, investment goods for which they need foreign exchange. In most cases, the only way in which they can pay for their imports is by exporting commodities, particularly agricultural products since they have not yet built up their industries, or their industrial production serves the needs of domestic investment or consumption. It is considered that agricultural production can be expanded more easily than other production - taking, however, into account the difficulties generally associated with transforming traditional agriculture into commercial farming. Expansion of production of course requires that the products/^{produced} have access to world markets.

Demand for farm produce grows as the size of the population increases and the level of incomes rises. Accordingly, the role played by agricultural products in world trade grows as well. Developing countries certainly enjoy part of the growth but through active efforts, it will be possible to direct a greater share of agricultural trade to the benefit of developing countries. Through

preferential trade arrangements, price relationships can be revised to the favor of developing nations as a result of which trade can be expected to shift toward those countries. In connection with the theory of integration, scholars often make reference to trade creation and trade diversion. The same phenomenon is, in fact, involved in the granting of trade concessions to developing countries. Removal of trade barriers creates new trade and at the same time, trade is diverted toward the developing countries to their benefit.¹⁾

This study does not purport to proceed exactly on the basis of the aforementioned theories because they are not necessarily always acceptable or applicable. The fact is that trade expansion by developing countries can also be justified on the grounds of history and justice. A quantitative verification of theories is difficult but if they can be used to support arguments derived in other ways, trade expansion by developing countries may be defended more easily.

2.2. Barriers to Finnish Agricultural Imports

What follows is a brief review of trade barriers that Finland applies to agricultural imports. This is a rough outline confined to the major agricultural products imported from developing countries.

Coffee is the most important of the items referred to above. No quantitative import restrictions are applied whereas a substantial revenue duty is levied: 0.80-1.85 mk/kg or 20-40 per cent of the average import price of raw coffee. No GSP treatment applies to coffee, either.

Sugar imports require an import license. No tariff is collected but an import charge²⁾ is levied ranging between 0.52-0.60 mk/kg, depending on the quality. The relative significance of import charges has naturally diminished over the past few years with the sharp rise in world market prices. The import charge levied on sugar can be seen as a sort of revenue duty on the one hand and as a form of protection for domestic production on the other.

1) For the impact of integration on trade diversion, see e.g. BALASSA (1973, pp. 25-35) and for the effects of tariffs, see SÖDERSTEN (1969, pp. 339-351)

2) From the exporter's point of view there is no difference between a tariff and an import charge. This differentiation in Finnish foreign trade is made only on technical grounds.

No tariff levied on fruit imports. Import charges are, in principle, levied in such a way as to protect domestic fruit production. In practice, the arrangements are such that the rate of the import charge is higher in the latter part of the year than in the early part of the year. To cite one example, the import levy on oranges is 15 per cent early in the year and 40 per cent late in the year.

In the foregoing, we have discussed a few examples of the tariff treatment of agricultural products in Finland. Generally, it can be said that an import duty or an import charge is levied on those products that are considered to compete with domestic production. In addition, for certain products the duty is differentiated according to the season of the year. These products generally do not receive GSP treatment. Duties levied on products that offer no real competition to domestic production are in the main fairly low with the exception of certain revenue duties. GSP treatment is also given to certain products of this kind (e.g. raw tobacco). A more detailed description of Finland's treatment of imports falling under Brussels Tariffs Nomenclature (BTN) headings 01-24 is presented in Appendix 1.

2.3. Concept of A Developing Country

The question of which countries are to be included among developing countries in this study proved a problematical one. Traditionally, per-capita national income has been regarded as a measure of a country's development. This criterion involves, however, several weaknesses stemming from the measurement of national income and other factors, as HAGEN (1968, pp. 8-13), among others has shown. For several reasons, the stage of development of the least developed countries is generally underestimated with per-capita national income used as a criterion. Per-capita energy consumption has been offered as another yardstick for measuring development. Whatever criterion is used, there are always countries that undisputably rank among developing countries and those that no doubt ^{belong} to the group of developed countries. In practice, the question of where the line should be drawn concerns a fairly small number of countries.

In this connection, countries are not divided into groups on the basis of any rigid criteria but proceeding on the basis of those countries which receive Finnish GSP treatment. However, Bulgaria and Rumania - which receive Finnish GSP treatment - are not classified as developing countries. Israel and China are also included in the group of developed countries. Neither country enjoys GSP treatment, either. In terms of its national income, China would undeniably rank among the developing countries. On the other hand, it also wants to show itself as an aid-giving nation. In brief, the following are classified as developing countries:

Europe: none
Asia: others except China, Japan and Israel
Africa: all except the republic of South Africa
North America: none
South America: all
Oceania: all except Australia and New Zealand

This classification is followed in that part of the study which deals with Finland's trade with developing countries. Elsewhere, the FAO classification is used.

In this connection, agricultural products denote products falling under Brussels Tariffs Nomenclature (BTN) headings 01-24.

3. Role of Developing Countries in International Agricultural Trade

The purpose of the following presentation is to provide some background information on the role of developing countries in agricultural trade. This presentation seeks to form a background to the measures that have already been taken to liberalize trade with developing countries. Additionally, it tries to give a brief general picture of the problems involved in trade with developing countries. In this connection, however, it is to be emphasized that the following chapter by no means purports to be a complete presentation of the problems facing developing countries. Figures for the past couple of years have been omitted because they have not been universally available. On the other hand, there have been exceptional developments on the world's commodity markets recently.

During the last decade, agricultural exports by industrial countries grew much faster than corresponding exports by developing countries. According to FAO statistics, exports of industrial countries in the 1960-1970 period rose at an annual rate of 5.9 per cent and of developing countries by only 3.2 per cent. The following Table shows the development of agricultural exports in value terms.

Table 3.1. Indices of exports of total agricultural products
in value terms

	1963	- 64	-65	- 66	- 67	- 68	- 69	- 70	- 71	- 72
World	100	109	110	115	114	114	120	134	142	163
Developing countries	101	106	107	108	103	107	113	124	122	133
Developed countries	99	113	113	119	118	116	122	143	159	192

Source: FAO 1973, p.5

The rise in the value of trade in 1972 is essentially attributable to higher prices which have gone up substantially particularly in the case of foodstuffs.

For an assessment of the quantitative development of exports, the following Table shows international price movements in the years 1963-1972.

Table 3.2. Changes in international prices of agricultural commodities

	1963	- 64	- 65	- 66	- 67	- 68	- 69	- 70	- 71	- 72
Food										
Developed c.	100	105	105	108	107	102	105	108	120	134
Developing c.	100	107	101	102	101	102	108	116	112	127
Nonfood:										
Developed c.	100	103	103	106	98	96	100	100	108	124
Developing c.	100	101	102	100	94	94	101	98	98	112
Total agricultural commodities										
	100	103	103	105	101	99	104	106	112	126

Source: FAO 1972, p.7 and FAO 1973, p.5

Price developments have been rather unfavorable up until the beginning of the 1970s. No major differences are discernible between industrial and developing countries in terms of export prices even though the prices received by the former have at times risen at a somewhat faster rate.

Because agricultural exports by developing countries have only grown at an annual rate of 3.2 per cent compared with 5.9 per cent recorded for industrial countries, the share taken by developing countries of the world's total agricultural exports has diminished. In 1960, their share was about 40 per cent but ten years later, only less than 35 per cent.

The structure of exports of several developing countries is highly one-sided. To cite just one example, there are certain South American countries whose exports are almost exclusively based on one or two agricultural commodities. On the whole, however, developing countries have been able in some degree to diversify their exports in the 1960s, as the following Table shows.

Table 3.3. Value of agricultural and total merchandise trade,
1960-1962 and 1968-1970

	Annual percentage rates of growth 1960-62 to 1968-70				Percentage share of agri- culture in total			
	Exports		Imports		Exports		Imports	
	Agr.	Total	Agr.	Total	1960-62	1968-70	1960-62	1968-70
World	4.7	9.3	5.2	9.2	25.4	18.0	25.1	18.6
Developing countries	3.2	7.4	5.6	6.4	47.5	34.5	18.8	17.7

Today, more than one-third of the export earnings of developing countries comes from the sale of agricultural products. It should be kept in mind, however, that for some countries, the corresponding figure may rise to nearly 100 per cent.

More important than a quantitative growth of exports is, however, the extent to which developing countries can, with the products that they produce, buy investment goods from industrial countries. With a view to the economic growth of developing countries, the ratio between the import prices that they pay and the export prices that they receive (terms of trade) is of essential significance. The following Table will show that in the course of the 1960s, the terms of trade have clearly become more disadvantageous from the developing countries' point of view. Increases in the world market prices of certain foodstuffs introduced in 1972 and 1973 have, however, turned the price relationship in what is to the developing countries a more favorable direction.

Table 3.4. Indices of prices of main exports and imports
of developing countries

	Main exports (1)	Main imports (2)	Terms of trade (1)/(2)
1961	101	99	102
1962	97	99	98
1963	100	100	100
1964	106	101	105
1965	105	103	102
1966	106	106	100
1967	99	107	93
1968	99	106	93
1969	105	110	95
1970	108	117	92
1971	108	124	87

1) Tropical beverages and nonfood agricultural commodities

2) Manufactured products

Source: FAO 1972, p.8.

The conclusion to be drawn from the foregoing is that agricultural exports still play an important role in safeguarding the economic growth of developing countries. The growth of exports, in turn, depends on the growth of consumption of these products in industrial countries and on the import treatment given to these products.

It may be mentioned in this connection that the aim of the Second Development Decade of the U.N. - the 1970s - is an annual 6 per cent increase in the Gross National Product of developing countries. Its achievement requires a roughly 7 per cent annual increase in their export earnings.

The reasons that have caused the aforementioned adverse trends in exports by developing countries, can be summarized as follows:

1. Tariffs and import charges levied on commodities. In addition, these are generally staggered in such a way that the size of tariff or charge increases as the conversion grade grows. Moreover, several industrial countries support competitive production through direct subsidies.
2. Products produced by developing countries are agricultural commodities with low income elasticity. Accordingly, demand is growing more slowly than consumer income.

3. Large variations in commodity prices. For example, the world market price for raw sugar on the London commodity market was 96.68 £/tn. in January 1973 and 557.41 £/tn. in November 1974.
4. The terms of trade have become more disadvantageous to developing countries.
5. Competition from synthetic and substitutes.
6. Non-tariff barriers (NTB). Sanitary regulations applying to food imports are a very typical example.

On many occasions, the developing countries have put forward proposals for trade liberalization. The latest concrete proposal to that effect is the so-called Lima Declaration of November 1971 which represented the views of developing countries at UNCTAD III (see Appendix 2).

Among the measures proposed to remedy the situation, the following may be mentioned: 1) linking commodity prices to the prices of industrial products, 2) setting up buffer stocks to counteract price variations, 3) restricting the production of synthetic products and 4) diversification of production. These factors are not, however, examined in closer detail in this connection.

4. Finnish Agricultural Imports from Developing Countries 1964-1973

4.1. Finland's Trade with Developing Countries

Before a study of agricultural trade, we will briefly examine Finland's trade with developing countries as a whole. This is designed to give a picture of the role played by developing countries in Finnish foreign trade. Finnish imports from and exports to developing countries and corresponding figures for Finland's total foreign trade in 1964-1973 are given in Table 4.1.

Table 4.1. Finland's Total Foreign Trade and Trade with Developing Countries in 1964-1973

	Imports			Exports		
	Total mill.mk	LDCs mill.mk	LDCs %	Total mill.mk	LDCs mill.mk	LDCs %
1964	4 816.5	359.0	7.5	4 131.9	238.5	5.8
-65	5 266.1	327.8	6.2	4 566.0	256.0	5.6
-66	5 524.4	361.6	6.5	4 817.0	284.7	5.9
-67	5 794.4	411.6	7.1	5 231.2	300.3	5.7
-68	6 710.9	452.8	6.7	6 874.2	362.3	5.3
-69	8 504.8	654.6	7.7	8 344.7	461.1	5.5
-70	11 071.4	867.2	7.8	9 686.7	581.2	6.0
-71	11 734.4	590.6	5.0	9 897.2	593.2	6.0
-72	13 106.7	849.1	6.5	12 082.0	626.8	5.2
-73	16 601.4	1 135.1	6.8	14 605.2	956.9	6.6
change %/yr.	15.1	16.5		15.4	17.6	

Our imports from developing countries were valued at a total of 1,135.1 million marks in 1973, representing 6.8 per cent of Finland's overall imports. As regards exports, the figures were 956.9 million marks and 6.6 per cent respectively. With the exception of 1971, our trade with developing countries has been in deficit throughout the period under review.

In the years 1964-1973, imports from developing countries grew in value by an average of 16.5 per cent annually which is slightly more than the growth of overall imports. The share taken by imports from developing countries of all imports ranged between 5-8 per cent.

Exports to developing countries have increased somewhat faster than imports, or by 17.6 per cent annually. Their share of all exports has ranged between 5-7 per cent.

According to Customs Board figures, imports receiving GSP treatment in Finland were valued at 11.5 million marks in 1972 and 37.2 million marks in 1973. Corresponding shares of overall imports from developing countries were only 1.4 and 3.3 per cent, so the impact of GSP treatment on overall imports cannot be seen. On the other hand, 1970 and 1971 are not fully comparable because in the autumn of 1970, coffee was tariff-exempted which resulted in a sharp increase in coffee imports. This in turn led to a decline in imports below the normal level in 1971.

It may be noted in this connection that in 1973, Government Budget appropriations for "international development cooperation" amounted to 118.7 million marks, representing 10.5 per cent of the value of Finnish imports from developing countries.

4.2. Finnish Agricultural Imports from Developing Countries

Agricultural imports into Finland are examined as a whole in Table 4.2. It is to be remembered that in this connection, agricultural products refer to commodities listed under chapters 01-24 of the Brussels Tariffs Nomenclature.

Table 4.2. Finnish Agricultural Imports 1964-1973, million marks

	Total mill.mk	LDCs mill.mk	Share of LDCs, %	Share of total imports of LDCs, %
1964	649.5	260.9	40	73
-65	605.0	213.9	35	65
-66	684.5	229.4	34	63
-67	715.3	254.7	36	62
-68	804.4	291.3	36	64
-69	931.3	361.7	39	55
-70	1 186.4	515.0	43	59
-71	943.9	241.4	26	41
-72	1 250.5	435.7	35	51
-73	1 643.5	569.2	35	50
Change %/yr.	12.2	15.5		

In 1973, more than one-third of agricultural imports came from developing countries in value terms. The share taken by developing countries of Finland's agricultural imports has practically remained the same throughout the period 1964-1973. On the other hand, the proportion of agricultural products of overall

imports from developing countries has clearly fallen, standing at some 50 per cent in the past few years. On the basis of these figures, it is difficult to judge just to what extent imports have been diversified because no figures on price ratios of agricultural products and other products are available. Such a reduction in the share of agricultural products would, however, suggest that some diversification has taken place (cf. p. 13).

Agricultural imports as a whole have grown more slowly (12.2 per cent annually) than corresponding imports from developing countries (15.5 per cent annually) which in turn have grown more slowly than overall imports from developing countries (16.5 per cent annually).

4.3. Development of Imports of Six Main Products

In closer examination of the breakdown of agricultural imports, six BTN groups of products stand out as being more important than the rest. In 1972-1973, they represented 93 per cent of all agricultural imports from developing countries. The following Table shows the average import value of these products in 1972-1973 and their share of overall agricultural imports from developing countries and agricultural imports from all countries.

Table 4.3. Average Imports of Six Main Groups of Products from Developing Countries in 1972-1973

	BTN	1,000 marks	Share of agr. imports from developing countries %	Share of agr. imports from all countries %
1. Coffee, tea	09	299,505	60	21
2. Sugar	17	72,500	14	5
3. Fruits	08	55,205	11	4
4. Tobacco	24	13,061	3	1
5. Oil seeds	12	12,921	3	1
6. Cocoa	18	11,932	2	1
Total		465,124	93	

Imports have been heavily concentrated on three products: coffee, sugar and fruits. Their combined share is about 85 per cent. In the following, we will examine each of the aforementioned BTN groups as a whole despite the fact that they contain both raw materials and refined goods such as cocoa us. chocolate. Because in

earlier years, too, the six main groups have represented 90-95 per cent of imports in value terms, we will examine the imports of these products only even in the subsequent sections of this study. As regards other products, we refer to Appendix 1.

Table 4.4. illustrates imports of the six main products. Sugar has experienced the sharpest increase (36.2 per cent per annum) but sugar imports from developing countries have shown the biggest variations, too. One reason for this is our bilateral trade particularly with the Soviet Union. Coffee imports from developing countries have grown favorably, too. This is noteworthy since the combined share of coffee and sugar of all imports from developing countries has averaged 75 per cent in the past few years.

Practically all of our coffee comes from developing countries. As regards oil seeds, imports from developing countries represent the smallest share. For sugar, the variations are most significant. As we mentioned earlier, each BTN chapter contains both raw materials and refined goods, something which to a large extent explains some of the low shares of imports from developing countries.

Table 4.4. Imports of Six Main Groups of Products into Finland in 1964-1973, million marks

	Fruits 08..			Coffee & Tea 09..			Oil seeds 12..		
	Total	LDCs	%	Total	LDCs	%	Total	LDCs	%
1964	92.2	21.2	23	154.1	149.5	97	47.4	6.3	13
-65	98.7	21.4	22	143.5	139.5	97	44.2	7.4	17
-66	118.2	23.6	20	160.4	155.3	97	56.8	10.3	18
-67	115.4	22.0	19	174.7	168.7	97	62.2	10.0	16
-68	135.3	23.6	17	201.0	194.5	97	59.9	10.0	17
-69	157.7	41.7	26	227.5	220.5	97	67.8	6.7	9
-70	153.8	40.7	26	414.7	408.0	98	86.7	9.5	11
-71	164.6	47.6	29	113.2	111.8	94	84.9	7.0	8
-72	186.4	53.0	28	273.5	264.2	97	81.6	7.4	9
-73	227.8	57.5	25	347.9	334.9	96	126.4	18.4	15
Change %/yr.	10.9	13.6		23.2	24.1		13.0	22.1	
	Sugar 17..			Cocoa 18..			Tobacco 24..		
	Total	LDCs	%	Total	LDCs	%	Total	LDCs	%
1964	123.4	63.1	51	8.5	2.5	29	27.3	4.5	17
-65	36.7	15.6	43	10.8	2.6	24	29.2	4.0	14
-66	42.4	16.4	39	12.0	3.2	26	26.0	3.5	13
-67	55.5	28.6	52	17.2	4.4	25	34.5	6.0	17
-68	63.9	25.1	39	21.1	6.1	29	36.7	7.2	20
-69	88.7	41.4	47	27.9	11.1	40	46.5	9.3	20
-70	100.2	0.1	0	26.6	12.5	47	43.6	7.9	18
-71	116.6	16.7	14	26.3	9.7	37	41.1	9.2	22
-72	170.0	59.0	35	29.3	11.9	41	62.0	12.0	19
-73	165.1	86.0	52	37.5	11.9	32	65.8	14.2	22
Change %/yr.	11.4	36.2		18.9	22.0		11.9	18.3	

Table 4.5. Imports of Main Individual Products into Finland in
1964-1973, million kilos¹⁾

	Citrus Fruits 0802			Coffee 0901			Oil seeds 1201		
	Total	LDCs	%	Total	LDCs	%	Total	LDCs	%
1964	40.4	6.3	16	47.5	47.0	99	83.0	10.1	12
-65	43.1	6.6	15	40.1	39.9	99	69.5	11.3	16
-66	46.6	6.5	14	45.9	45.7	99	100.7	15.4	15
-67	48.3	4.7	10	50.2	49.9	99	108.1	14.5	13
-68	46.9	8.2	18	49.0	48.8	100	83.6	10.0	12
-69	55.3	10.9	20	55.1	54.9	100	97.6	7.0	7
-70	61.0	13.1	21	79.8	79.6	100	118.3	9.6	8
-71	65.0	16.7	26	22.0	21.9	99	111.4	7.6	7
-72	71.1	15.8	22	53.9	53.8	100	106.0	10.1	10
-73	78.1	17.6	23	59.4	59.0	99	96.3	16.4	17
Change %/yr.	7.7	15.2		16.2	17.4		3.5	10.1	

	Raw sugar 1701			Raw cocoa 1801-1805			Raw tobacco 2401		
	Total	LDCs	%	Total	LDCs	%	Total	LDCs	%
1964	175.3	93.4	53	3.1	1.3	41	6.1	1.3	21
-65	122.6	66.7	54	3.9	1.5	39	5.8	1.0	18
-66	162.4	76.2	47	4.5	1.9	43	5.6	1.2	20
-67	201.3	125.8	62	4.9	2.0	42	7.9	2.2	28
-68	215.2	108.5	50	4.5	2.0	45	6.2	2.0	33
-69	217.0	113.6	52	4.3	2.3	53	8.0	2.6	32
-70	213.3	-	-	4.4	2.8	65	6.0	1.4	24
-71	210.0	36.2	17	4.9	2.9	60	5.8	1.7	30
-72	213.5	89.5	42	5.3	3.6	68	8.3	2.1	25
-73	202.5	109.1	54	5.1	2.8	56	8.4	2.6	31
Change %/yr.	3.1	12.3		6.2	10.0		6.3	13.7	

1) The share taken by each product of overall imports falling under the corresponding BTN chapter in 1972-1973 averaged as follows:

citrus fruits	32 %
coffee	95
oil seeds	81
raw sugar	91
raw cocoa	67
raw tobacco	90

Since in the foregoing, we have only presented estimated figures on the development of imports, they do not show the quantitative growth of imports from developing countries. Because a large number of different products are included in the main groups of products, a typical product was chosen from each group, also explaining its quantitative import growth. This is illustrated in Table 4.5. (p. 17).

For each individual product, imports from developing countries have invariably grown faster than imports from all countries. This has in turn led to a widening of the market share of developing countries, particularly in the case of fruits and raw tobacco. It is noteworthy too that the quantitative growth of imports has been considerably smoother than the growth of imports in value terms.

4.4. Supplier Countries

As we examine the major suppliers of each product in 1972-1973, we will also see the geographical breakdown and competitive position of imports from developing countries in the following Tabulation:

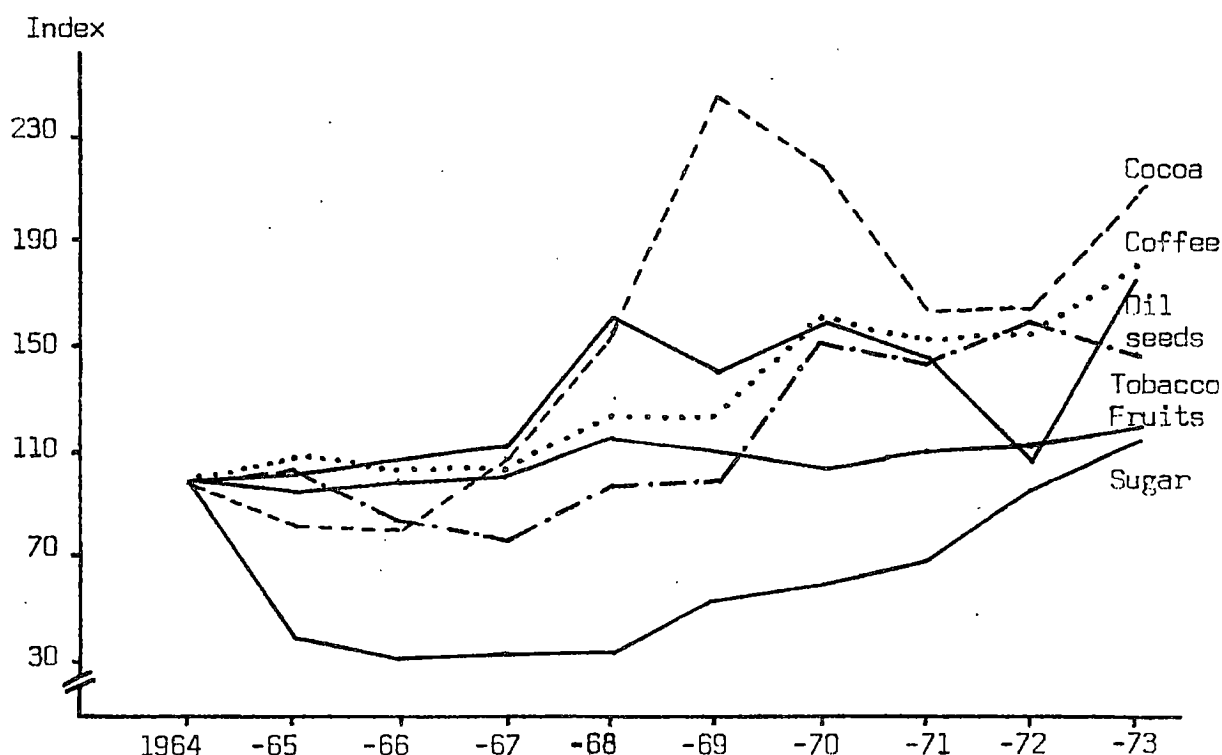
	<u>LDCs</u>	<u>Competing Countries</u>
Fruits:	Argentina Colombia Panama Ecuador Costa Rica	Israel USA Spain Italy The Rep. of South Africa
Coffee:	Brazil Colombia Guatemala Costa Rica Kenya	- - - - -
Oil seeds:	The Philippines West Samoa Brazil	USA China
Sugar:	Cuba Brazil Dominican Republic British Oceania	The Rep. of South Africa Australia The Soviet Union
Cocoa:	Ghana Nigeria	(Sweden) ¹⁾ (The Netherlands) ¹⁾ (Britain) ¹⁾
Tobacco:	Brazil Indonesia The Philippines	USA Canada

1) Country where raw materials were refined

4.5. Development of Prices

Import prices of products supplied by developing countries were examined with the help of the import prices of the main products. These were computed by dividing the value of imports (cif) by the corresponding unit volume. In this connection, it is to be remembered that the prices so computed also include freight and insurance costs. Thus price increases also include increases in such costs. Fig. 4.1. shows that with the exception of sugar, prices have remained almost unchanged from 1964 to 1967. Price increases which occurred in 1968 were attributable to the 1967 devaluation of the Finnmark. Another period of slow price rises was between 1971-1972. Price increases introduced in 1973 already reflect universal rises in raw material prices.

Fig. 4.1. Development of Prices of Main Products



Earlier we pointed out that from the standpoint of the growth of export earnings of developing countries, the ratio between export and import prices (terms of trade) is of essential importance. Based on the prices of the main products, we initially computed an import price index for agricultural products supplied by developing countries. Average value shares of imports of the main products in 1964-1973 were used as index weights. On the whole, these products represent 82 per cent of all agricultural products exported by developing countries, so the index coverage can be regarded as good. The total price index of exported goods has been used as Finland's export price index. On this basis, the terms of trade ratio is as follows:

	Import price index of agr. products	Finland's export price index	Terms of trade
1964	100	100	100
-65	99	105	94
-66	95	103	92
-67	96	108	89
-68	114	128	89
-69	119	134	89
-70	141	145	97
-71	141	152	93
-72	145	159	91
-73	170	213	80

It is clear that the Tabulation shown above contains shortcomings and several potential errors. Thus, the results are to be interpreted quite broadly. In this connection, we may also refer to the diverse versions of the concept of terms of trade. The concept discussed above refers to the so-called net barter terms of trade which is the most practical one. In the more sophisticated versions, productivity of export industries is taken into account. In view of the aforesaid, we can conclude beyond any doubt that the exchange rate of agricultural products supplied by developing countries dropped by about 20 per cent in relation Finnish export prices in 1964-1973.

5. Future Outlook for Trade with Developing Countries

Foreign trade growth has been regarded as a matter of prime importance in the economic advancement of developing countries. Today, measures aimed at promoting foreign trade are considered on many international forums. Despite the meager results achieved thus far, such quantitative or institutional solutions may be found in the future as can essentially alter the position of developing countries in world trade. Steps taken by developing countries themselves may also be of particular significance. In the meantime, trade preferences have obviously been the only measures with a more general impact on trade. Such preferences have not, however, been implemented to the full extent. Nevertheless, it is possible to assess their future significance. In addition, one must take into account trade growth in general and the share taken by developing countries of it. In the following, we will examine in more detail these two factors.

In principle, the growth of foreign trade is based on an increase in domestic demand and the breakdown of domestic demand for domestic and imported products. If a given product is not produced at all domestically, the growth of demand for that particular product directly indicates an increase in imports. This is the case with coffee, for instance. On the other hand, for those products that are also produced at home, the growth of imports depends on price ratios and the trade policy pursued by the country in question. Therefore it is fairly difficult to make any forecasts.

In assessing trade growth, one must, in principle, take into consideration the development of prices as well as incomes. In the composition of long-term forecasts, however, price developments usually have to be omitted, so the prognoses are totally based on the growth of income levels. As we will explain later, we have, in making import forecasts for this study, used income elasticities obtained from earlier papers and predictions of production growth as an indicator of income levels.

Trade diversion refers to a shifting of trade from one country or region to another caused by a variety of factors. This phenomenon has been particularly studied in connection with integration whereby tariffs are removed in internal trade within an integrated area, thus changing price ratios with respect to

third countries. Trade preferences have exactly the same effect. Duties on products imported from developing countries are lifted; thus price ratios are changed to the favor of developing countries. Accordingly, imports should on an increasing scale be shifted to developing countries. Such trade diversion is of particular interest in this study.

5.1. Development of Consumption of the Products

According to general theory, consumption of a given product depends on population growth and the rise of consumer income. The price of the product itself and the prices of substitutes and complementary products may be mentioned as additional factors affecting consumption. Because it is, however, difficult to predict price developments, the subsequent analysis is only based on population and income growth.

According to a 1973 population forecast (Tilastokeskus 1973, p.15) our population would increase at an annual rate of 0.2 per cent by 1985 under the highest alternative (so-called self-sufficiency estimate, only contains impact of birth and mortality rates on population growth). Under the second so-called emigration alternative, our population would decline at an annual rate of 0.1 per cent.

A population forecast made in 1975 (Tilastokeskus 1975, p.14) includes two different alternatives distinguished from each other by their different birth and mortality rate assumptions. According to them, changes in our population would vary between 0.5 - 0.6 per cent per year by 1985.

Because annual changes in the population rate are extremely small as shown by the forecasts presented above, population growth is assumed to be zero in the compilation of consumption forecasts for this study. This can be justified also on the grounds that several other major uncertain factors are involved in forecasting.

The development of consumer income can be regarded as a major factor affecting the growth of consumption. In this study, it is estimated to grow in line with trend developments. In the years 1964-1972, per-capita national product in real

terms rose by an average of 4.6 per cent annually (Tilastokeskus 1973, p. 101). A similar estimate (4.4 per cent) is arrived at if the real earnings of wage earners are regarded as an income indicator. In the following analysis, we will assume that incomes continue to increase at an average per-capita rate of 4.0 per cent annually.

In addition to the development of incomes, an estimate of the correlation between incomes and consumption is also needed in the making of consumption forecasts. This correlation is usually expressed by means of income elasticities. The choice of income elasticity values for an analysis is quite essential as far as its results are concerned. The following Table shows some of the latest estimates of income elasticities for the main products.

Table 5.1. Some Estimates of Income Elasticities for the Main Products

	Gross-section	Time series 1948-1969	Time series 1948-1965	Chosen elasticities
Coffee	0.65 ¹⁾	1.45 ¹⁾	0.7...1.0 ²⁾	0.6
Sugar	0.76	0.72	0.6...0.7	0.6
Fruits	0.86	0.87	0.5...0.8	0.8
Tobacco	0.68	0.74	0.7...0.8	0.6
Fats	0.56	0.25	0.4	0.4
Cocoa	0.65	1.45	0.7...1.0	1.0

1) HÄMÄLÄINEN 1973, p. 66

2) MARJOMAA 1969, p. 227-228

In the choice of elasticity values, cross-section elasticities from 1966 have been used as a starting point because theoretically, they provide a better indication of the long-term net impact on consumption than time series elasticities. One shortcoming that the elasticities have is that they date back to a period 12 years ago. In some cases, elasticity figures have been reduced on the grounds that consumption is assumed to reach a saturation level gradually. With the application of these elasticity values, the following results are achieved showing annual consumption growth rates for the different groups of products:

	BTN chapter	%/yr.	all countries mill. of marks/yr.	LDCs mill. of marks/yr.
coffee	09	2.7	8.4	8.1
sugar	17	2.7	4.5	2.0
fruits	08	3.6	7.5	2.0
tobacco	24	2.7	1.7	0.4
fats	12	1.8	1.7	0.2
cocoa	18	4.5	1.5	0.5
Total			25.5	13.2

Increases in the volume of consumption have been computed on the basis of average import levels in 1972-1973. By weighting increases in the imports of different products by corresponding import values for 1972-1973, we get the annual increase in overall imports: 2.8 per cent. Of this sum, about one-half or 13 million marks would go to the benefit of developing countries.

If we compare the growth prognoses presented on page 24 with the actual annual growth of imports in 1964-1973 (Table 4.5.), we will see that imports have invariably grown faster than what consumption forecasts would suggest. One reason is that the products in question are not only imported but also exported from our country. It is obvious that the picture we have thus got of the development of imports will change if we also take into account domestic production (where possible) and exports. In the following, we will examine the prospects for imports from developing countries product by product, taking into consideration these two factors.

Coffee is from Finland's point of view one of the absolute import items, in other words, it is not at all produced in our own country. Coffee has been exported from Finland on a very small scale. In 1973, for instance, exports represented only 0.4 per cent of the value of imports. In view of these circumstances, we can conclude that coffee imports are practice solely based on the development of domestic consumption, so the aforementioned annual increase (2.7 per cent) can at least in this case be regarded as a realistic estimate. On the other hand, per-capita coffee consumption in our country is already among the highest in the world, so a very large increase in consumption cannot apparently be expected.

As regards sugar, the volume of domestic production has in the past few years varied between 20-35 per cent of total consumption. In the years 1972-1973, exports of sugar and sugar products (BTN chapter 17) have represented about 40 per cent of the value of imports. Imports have, in other words, been partly based on sugar processing and exports. Because processing has resulted in value increases, exports would have accounted for less than 40 per cent of the value of imports if calculated in raw sugar terms. What makes it particularly difficult to estimate the growth of sugar imports is the uncertainty that exists about the future sugar production policy to be pursued in our country. Due to the present world market situation and especially the increased prices, our country's degree of self-sufficiency will be raised to 40 per cent. The growth of imports would thus be less than the predicted increase in consumption (2.7 per cent per year).

The value of Fruit (BTN chapter 08 as a whole) exports has been 6 per cent of the value of imports in 1972-1973. As regards domestic production replacing imports, apples are the most important item. Apple crops have ranged between 10-45 million kilos in the 1960s. Because domestic production is unlikely to be expanded, on a major scale at least, and because there is very little in the way of imports based on exports (the actual percentage is apparently less than the 6 per cent mentioned above), it seems that the 3.6 per cent annual increase in consumption is also a realistic figure on import growth.

Tobacco is also one of the absolute import products as far as Finland is concerned. Exports of tobacco and tobacco products show substantial variations from year to year. In 1972, for instance, exports represented only 1 per cent of imports in value terms but in 1973, the corresponding figure was 26 per cent. This plus the fact that in the past few years, a powerful campaign has been launched against smoking, render any estimates of import growth uncertain.

The value of fat (only vegetable fats are considered here) exports has accounted for only about 1 per cent of the value of imports. Domestic production has met 20-25 per cent of consumption. For the time being, a major expansion of domestic vegetable oil production is unlikely to be considered. Given these circumstances, the increase in consumption (1.8 per cent yearly) also seems a realistic increase in imports.

Cocoa is naturally enough not produced at all our country. The value of exports (BTN chapter 18 as a whole) has been high, i.e. 80-90 per cent of the value of imports in 1972-1973. Because the products that are exported are highly processed, such as candy and chocolate products, the export percentage computed in raw cocoa terms is naturally much lower. Future prospects for the cocoa processing industry thus make it difficult to estimate the development of imports.

5.2. Impact of Preferences on Imports from Developing Countries

Trade preferences are designed to reduce, in the importing country, the price of commodities imported from developing countries. Thus import demand should also shift to favor products supplied by developing countries. Because preferential trade arrangements have been in force only since 1972, there is not enough material for analyzing their impact by statistical methods. However, because in practice the granting of preferences involves a reduction of prices, the significance of trade preferences can obviously be examined by studying how changes in price ratios have earlier affected imports from different areas. In this connection, there is, however, reason to point out that there are certainly other factors influencing imports than just prices. The extension of preferences alone may be a psychological factor bearing on trade which attracts the attention of importers and may thus have a greater effect than normal price reductions of equal size. However, it is difficult, if not impossible, to take such factors into account in a quantitative analysis.

In the following, we have only analyzed variations in the share of products or groups of products imported from developing countries. The share is calculated on the basis of either the value (a) or volume (b) of imports in relation to overall imports of a given product or group of products. This share is analyzed by means of price ratios for products or groups of products imported from developing and industrial countries.

$$(1) \quad Y_1 = f(P)$$

$$(2) \quad Y_2 = f(P)$$

Y_1 = volume share of imports from developing countries of volume of all imports

Y_2 = value share of imports from developing countries of value of all imports

P = price ratio of imports from developing and industrial countries

A negative correlation can be assumed at least for the (1) function; as the prices of products supplied by developing countries rise, i.e. as the price ratio widens, the share of imports from developing countries diminishes. As regards the (2) function, it is difficult to determine the sign of the relationship in advance because it depends on the magnitude of the price elasticity of import demand. If its absolute value is less than 1, a price increase causes an increase in the value of imports whereby the correlation is positive. If the elasticity is = -1, the value of imports remains unchanged regardless of a change in price ratios, whereby import shares remain the same. The third possibility, i.e. the absolute value of elasticity is greater than 1, seems the most probable one for international trade. Thereby the correlation (2) is negative.

Although what is said above suggests that it is easier to use the (1) function than the (2) function, computation of the import share - a dependent variable - causes difficulties particularly as regards groups of products since it is hard to translate imports from different countries into commensurate terms. The fact is that imports may contain dissimilar and different products (cf. e.g. fruits). To try to avoid the problem, we have singled out individual products for analysis.

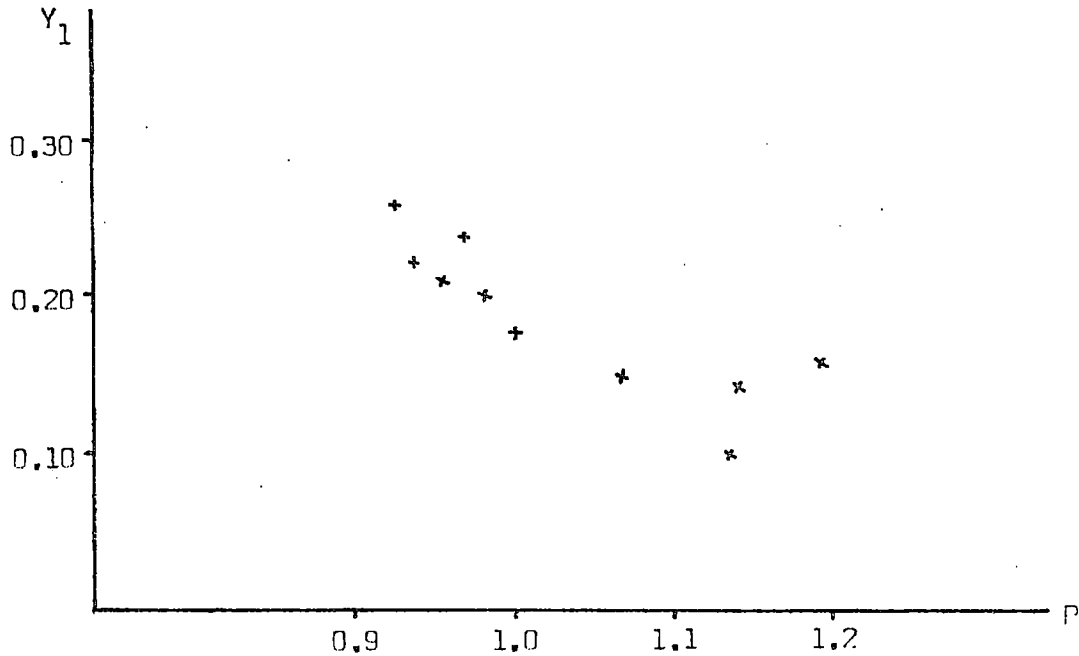
Time series for import volume and value can be obtained directly from statistical records. Price series, in turn, have been computed on the basis of import value and volume whereby prices may also be affected by changes in the composition of imports.

In the following, some results are shown derived from time series for the years 1964-1972.

Citrus fruits

Citrus fruits are items that easily lend themselves to analysis in our study because they are imported from both industrial and developing countries and because changes have occurred in their import shares and price ratios. A graphical analysis (Fig.5.1.) already shows a clear a priori correlation, as expected, and the following functions were derived using the least squares method:

Fig. 5.1. Correlation between volume share and price ratio of citrus fruits imported from developing countries



$$Y_1 = 0.873 - 0.628 P \quad r^2 = 0.75 \\ (0.298)$$

$$Y_2 = 0.699 - 0.458 P \quad r^2 = 0.60 \\ (0.201)$$

where

Y_1 = volume share of imports from developing countries of volume of all imports

Y_2 = value share of imports from developing countries of value of all imports

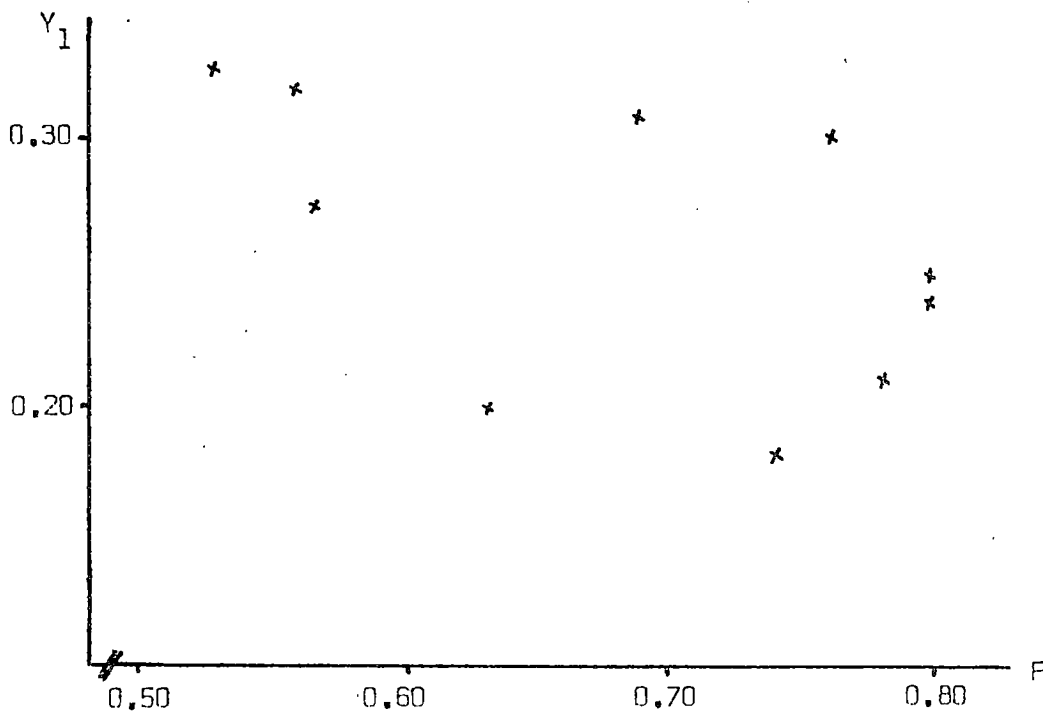
P = price ratio of citrus fruits imported from developing and industrial countries

As the price ratio changes more to the favor of developing countries, the import share grows in fairly linear terms. What this model means in practice is that if the price of fruits imported from developing countries falls by 10 per cent in relation to fruits imported from other countries, the import share grows by 6.3 per cent. In this case, preferential trade arrangements would therefore seem to be fairly significant.

Raw tobacco

During the period under review, the share taken by raw tobacco imports from developing countries of overall imports has ranged between 18-33 per cent. Therefore raw tobacco was considered highly suited for our analysis. The price ratio has also shown considerable variations, i.e. between 0.53-0.80. With an eye to statistical analysis, the material seems good. As suggested by the hypothesis, a negative correlation is found between the import share and the price ratio, although not as good as in the case of citrus fruits:

Fig. 5.2. Correlation between volume share and price ratio of raw tobacco imported from developing countries



$$(1) \quad Y_1 = 0.445 - 0.267 P \quad r^2 = 0.274$$

where

Y_1 = volume percentage represented by imports from developing countries of volume of all imports

P = price ratio

In this case, no correlation was found between the value share of imports and the price ratio ($r^2 = 0.003$).

The result is fairly poor as regards its r^2 -value. However, changes recorded for successive years have generally opposite signs but the share of imports coming from developing countries in the past few years has moved to a higher level, which explains the poor r^2 -value of the model. As imports shift from one country to another, qualitative changes also occur. Price series are not homogeneous which may also cause error in the analysis presented above.

In view of the aforesaid, it may be concluded that as far as raw tobacco is concerned, trade preferences already granted will increase imports from developing countries.

Cocoa

Cocoa is another product imported in nearly equal amounts from both developing and industrial countries with its import share ranging between 39-68 per cent. A breakdown of imports indicated by customs statistics is not, however, practicable in this regard since all cocoa is produced in developing countries but different cocoa products are imported into our country via industrial countries, so products coming from different regions are not homogeneous. In addition, because it can be shown graphically that a positive correlation exists between the import share and the price ratio, the analysis was continued no further.

Other products

Coffee is imported mainly from developing countries, so for coffee there is no need to study the possibilities for trade diversion.

Both sugar and, to some extent, oil seeds have at times been included in long-term trade agreements concluded with socialist countries. For this reason, it is not practicable to analyze - with the help of price ratios - the change which has occurred in the structure of trade. Because the question is of fairly homogeneous products, there is probably no reason to doubt that trade preferences could benefit developing countries.

5.3. Growth Prospects for Trade with Developing Countries

Although the quantitative analysis presented above has many weaknesses, it can at least be used for a rough assessment of the future prospects for expansion of agricultural trade with developing countries. Admittedly, some important products must be omitted from an examination of trade diversion because sugar and fat imports, for instance, have to a large extent been based on bilateral agreements, so the principles of free trade do not apply.

Trade expansion created by economic growth has already been examined in detail in Chapter 5.1. It showed a 2.8 per cent annual increase in trade volume for the main products. Due to the low income elasticity of demand for agricultural products, the growth rate is therefore fairly low. The prognosis is made on the assumption that economic growth proceeds at an annual rate of 4 per cent which may be slightly too high an estimate at least for the near future. In addition, this method includes the implicit assumption that price ratios remain unchanged.

In the foregoing, we have come to the conclusion - at least as far as fruits are concerned - that changes in price ratios and thus trade preferences too, would seem to have a fairly clear impact on trade diversion toward different regions. Tariffs and import charges levied on fruits vary by products and by seasons, so it is difficult to judge what the average impact of full trade preferences would be. One could use 15 per cent as one estimate since the lemon duty has been about 10 per cent and the lowest duty on oranges 15 per cent. In the case of citrus fruits, it was noted that a 1 per cent change in the price ratio will cause a 0.46 per cent change in the value share of imports. Thus a 15 per cent preference would increase the developing countries' share in fruit trade by about 7 per cent. Applied to all fruits, this would mean an increase of about 6 million marks in the level of trade ($0.07 \cdot 90$ million marks). This would be nearly twice as much as the annual increase (3.6 per cent) in imports resulting from the growth of consumption. At the same time, trade expansion based on income growth would be faster than previously in terms of marks because trade growth would be based on a larger import volume than before.

In the foregoing, we have examined, as an example, the effect of trade preferences on fruit imports. For other products, it is almost impossible to draw any quantitative conclusions. As regards raw tobacco, the analysis gave no such

results as would make it possible to assess the effect of trade preferences. Otherwise, there are only minor trade barriers affecting raw tobacco. Trade in sugar and fats is, as such, extensive, so if they were included in the sphere of free trade and trade preferences, their trade diversion toward developing countries would obviously be of considerable importance. However, only liberalization of domestically produced agricultural products would bring about a substantial change to the flow of trade but trade liberalization is unlikely to go that far in spite of demands to that effect voiced by developing countries.

6. Summary and Final Conclusions

Foreign trade growth is considered important to the economic prosperity of developing countries. Increased agricultural exports in particular play a major role since other economic activity in many developing countries remains on a small scale, and improvements in agriculture in general are essential toward ensuring the food supplies of developing countries. Agricultural exports, however, often face considerable barriers. In recent years, efforts have been made to abolish such barriers through international agreements. Preferential trade arrangements are one example of this. Finland too is strongly protecting its agriculture and there are only a fairly small number of agricultural products imported into our country from developing countries. This trade, its development, structure and growth prospects have been examined in detail in this study.

6.1. Development and Structure of Trade

In 1973, the value of imports from developing countries stood at 1,135.1 million marks or 6.8 per cent of Finland's overall imports. Finnish exports to developing countries were valued at 956.9 million marks and 6.6 per cent respectively. The value of imports from developing countries has grown at an average annual rate of 16.5 per cent between 1964-1973, or at a slightly faster rate than Finland's overall imports although the share taken by imports from developing countries of overall imports has remained virtually unchanged throughout the period, i.e. at 6-7 per cent. By way of comparison, it may be noted that the Finnish Government's development assistance in 1973 accounted for 10.5 per cent of the value of imports from developing countries.

Finland's agricultural imports from developing countries have grown at an annual rate of 15.5 per cent in the years 1964-1973. The corresponding figure for imports from all countries is 12.2 per cent. According to FAO statistics, agricultural exports by developing countries grew by only 3.2 per cent annually in value between 1960-1970. Although these figures refer to different periods, it may be noted that Finland's imports from developing countries have increased more vigorously than from other countries on the average.

The share taken by developing countries of Finland's agricultural imports has been larger than in the whole world on the average. In 1970, 43 per cent of Finland's agricultural imports came from developing countries while the corresponding figure for the whole world was 35 per cent. In 1973, however, the figure for Finland also dropped to 35 per cent.

The ratio between the prices of Finland's agricultural imports from developing countries and the prices of Finland's overall exports, i.e. terms of trade, was computed by using the import prices of six main products. Although the index so derived to describe the ratio of import and export prices is rough, it does show that the development of Finland's terms of trade by and large matches the development characterizing the whole world (see the following Tabulation).

Terms of Trade Indices

Year	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Altogether	100	97	95	89	89	90	88	83
Finland	100	94	92	89	89	89	97	93	91	80

As we examine the breakdown of agricultural imports in more detail, we will see that six groups of products clearly stand out: coffee (Brussels Tariffs Nomenclature chapter 09), sugar (17), fruits (08), tobacco (24), oil seeds (12) and cocoa (18). As Table 4.3. shows, imports are heavily concentrated on three products: coffee, sugar and fruits. Their combined share is about 85 per cent.

As regards each product mentioned above, imports from developing countries have invariably grown more vigorously than overall imports. This has, in turn, widened the market share of developing countries. This is particularly true of fruits and raw tobacco. It is noteworthy too that the quantitative growth of imports has been much smoother than the development of the value of imports. Relevant figures are shown in Tables 4.4. and 4.5.

6.2. Prospects for Trade Growth

The growth of agricultural imports from developing countries depends on two factors: growth of consumption and trade diversion toward developing countries. The latter objective is sought particularly with the help of preferential trade arrangements.

The increase in imports resulting from growing consumption in Finland was estimated on the basis of the development of incomes, totally omitting the price impact from the examination owing to the many difficulties involved. An annual 4 per cent growth of real incomes was assumed and for simplicity, the rate of population growth was put at zero. Relying on several different sources, the most probable income elasticities were chosen to compute the following annual increases in the rate of consumption: coffee 2.7 per cent, sugar 2.7 per cent, fruits 3.6 per cent, tobacco 2.7 per cent, fats 1.8 per cent and cocoa 4.5 per cent.

By weighting increases in the imports of different products by the value of their imports, the growth of overall imports becomes 2.8 per cent per annum. Computed on the basis of average imports in 1972-1973, this would mean an annual increase of some 13 million marks in imports from developing countries. Because some products are produced domestically and end products based on imports are being exported, the aforementioned estimate must be viewed with reservation. This is particularly true of sugar, tobacco and cocoa.

Another course of action that could help to increase imports from developing countries is to widen the market share of developing countries in Finland. This goal has been sought through the use of GSP arrangements which came into effect at the beginning of 1972. Preferences were then extended to nearly all industrial products but only a few agricultural commodities. The significance of trade preferences in controlling the flow of trade was studied by analyzing the effect of changes in price ratios on imports from different areas in past years. The purpose was to try to assess the impact of preferences possibly to be extended in the future to Finnish imports from developing countries.

The method used in the study was a simple regression analysis. Variations in the share of imports coming from developing countries were analyzed by the price ratios of products imported from developing and industrial countries. By applying the analysis to citrus fruits, it was found out that possible trade preferences would clearly seem to be of significance in enlarging the share of developing countries. The results showed that if the prices of fruit imported from developing countries fall by 10 per cent in relation to those supplied by other countries, their import share grows by 6.3 per cent.

In the case of raw tobacco too, the analysis suggested that trade preferences already granted will increase imports from developing countries.

The analysis was also applied to certain other products but the results were not as clear-cut as above. It may also be mentioned that nearly all coffee - the main agricultural import - comes from developing countries, so in that case, there is no need to study the prospects for trade diversion.

The prospects for trade growth seem most certain as regards increased consumption resulting from rising income levels. Preferences as such could be of considerable significance but at the moment, there are a number of factors inhibiting trade diversion and hampering a quantitative analysis of diversion. The major factors are: 1) traditional trade ties and trading partners, 2) transport costs, 3) quality factors and 4) bilateral trade. Thus, in addition to the granting of preferences, other steps should also be taken to encourage imports from developing countries.

REFERENCES

- BALASSA, B. 1973. The Theory of Economic Integration. London. 304 p.
- FAO, 1972. FAO Commodity Review and Outlook 1971-72. Rome. 225 p.
- FAO, 1973. FAO Commodity Review and Outlook 1972-73. Rome. 261 p.
- FAO, 1973. Trade Yearbook 1972. Rome. 530 p.
- HAGEN, E.E. 1968. The Economics of Development. Illinois, Ontario. 536 p.
- HÄMÄLÄINEN, H. 1973. Yksityisten kulutusmenojen rakenne ja kehitys Suomessa vuosina 1965-1975. ETLA 85. Helsinki. 159 p.
- MARJOMAA, P. 1969. Yksityisten kulutusmenojen rakenne ja kehitys Suomessa vuosina 1948-1965. Taloudellinen tutkimuskeskus A VII. Helsinki. 248 p.
- Suomen virallinen tilasto: Ulkomaankaupan vuosijulkaisut 1964-73. Helsinki.
- Tilastokeskus: Kansantalouden tilinpito 1964-1973/I-II. Tilastotiedotus KT 1973:4 Helsinki.
- Tilastokeskus: Laskelmia tulevasta väestökehityksestä 1972-2000. Tilastotiedotus VÄ 1973:6. Helsinki.
- Tilastokeskus: Kunnittainen väestöennuste 1975-2010. Tilastotiedotus VÄ 1975:12. Helsinki
- WESTPHALEN, A. 1964. Suomen kauppa kehitysmaiden kanssa. Unitas 1964/4: 202-208.

Selostus

KEHITYSMAIDEN JA SUOMEN VÄLINEN MAATALOUSKAUPPA JA PREFERENSSIT

Juhani Rouhiainen

Lauri Kettunen

Ulkomaankaupan kasvua pidetään tärkeänä kehitysmaiden taloudelliselle vaurastumiselle. Varsinkin maataloustuotteiden viennin lisäämisellä on keskeinen sija, sillä kehitysmaiden muu taloudellinen toiminta on vielä vähäistä, ja maatalouden kehittäminen on muutoinkin välttämätöntä monien kehitysmaiden elintarvikehuollon turvaamiseksi. Maataloustuotteiden vienti kohtaa kuitenkin usein melkoisia esteitä, joita on viime aikoina pyritty poistamaan kansainvälisin sopimuksin. Preferenssijärjestelyt on yksi esimerkki tästä. Suomikin suojaa maatalouttaan voimakkaasti ja on olemassa vain suhteellisen pieni joukko maataloustuotteita, joita tuodaan maahamme kehitysmaista. Tätä kauppaa, sen kehitystä, rakennetta ja lisäämismahdollisuuksia on lähemmin tarkasteltu tässä tutkimuksessa.

Kehityismaatuonnin arvo oli vuonna 1973 1135.1 milj.mk eli 6.8 % Suomen kokonaistuonnista. Suomen vienti kehitysmaihin oli vastaavasti 956.9 milj.mk eli 6.6 %. Kehitysmaista tulleen tuonnin arvo on kasvanut vuosina 1964-73 keskimäärin 16.5 % vuodessa, eli hieman nopeammin kuin kokonaistuonti, joskin kehityismaatuonnin osuus kokonaistuonnista on pysynyt lähes muuttumattomana koko ajan eli 6-7 %:na. Vertailun vuoksi voidaan todeta, että Suomen hallituksen kehitysapu oli vuonna 1973 10.5 % kehityismaatuonnin arvosta.

Kehitysmaiden maataloustuonti Suomeen on kasvanut vuosina 1964-73 15.5 % vuodessa. Kaikista maista vastaava tuonnin kasvu oli 12.2 %. FAO:n tilastojen mukaan vastaava kehitysmaiden maatalousviennin arvon kasvu oli vuosina 1960-70 vain 3.2 % vuodessa. Vaikka nämä luvut koskevat eri ajankoh-
tia voitaneekin todeta, että tuonti kehitysmaista Suomeen on kasvanut voimakkaammin kuin keskimäärin muista maista.

Kehitysmaiden osuus maataloustuonnista Suomeen on ollut suurempi kuin keskimäärin koko maailmassa. Vuonna 1970 tuotiin nimittäin 43 % Suomen tuomista maataloustuotteista kehitysmaista kun vastaava luku koko maailmassa oli 35 %. Vuonna 1973 on tämä luku laskenut myös Suomen kohdalta 35 %:iin.

Suomen tuomien kehitysmaiden maataloustuotteiden ja Suomen koko viennin hintojen suhde eli terms of trade laskettiin käyttäen kuuden päätuotteen tuontihintoja. Vaikka tällä tavoin saatu tuonti- ja vientihintojen suhdetta kuvaava indeksi on karkea, osoittaa se kuitenkin, että Suomen terms of trade kehitys vastaa suurin piirtein koko maailmaa kuvaavaa kehitystä (katso seuraava asetelma).

Terms of trade-indeksit

Vuosi	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Yleensä	100	97	95	89	89	90	88	83
Suomi	100	94	92	89	89	89	97	93	91	80

Tarkasteltaessa lähemmin maataloustuonnin jakautumista eri tuotteiden osalle erottuvat seuraavat kuusi tuoteryhmää selvästi muita tärkeimmiksi: kahvi (BTN 09), sokeri (17), hedelmät (08), tupakka (24), öljynsiemenet (12), ja kaakao (18). Niin kuin taulukosta 4.3. ilmenee tuonti on voimakkaasti keskittynyt kolmeen tuotteeseen: kahviin, sokeriin ja hedelmiin, joiden yhteenlaskettu osuus on noin 85 %.

Jokaisen edellä mainitun tuotteen kehityksistä tapahtunut tuonnin kasvu on ollut poikkeuksetta voimakkaampaa kuin koko tuonnin kehitys. Tämä on puolestaan johtanut kehitysmaiden markkinaosuuden suurenemiseen. Erikoisen selvästi näin on tapahtunut hedelmien ja raakatupakan kohdalla. Merkillepantavaa on myös se, että tuonnin määrällinen kasvu on ollut huomattavasti tasaisempaa kuin tuonnin arvon kehitys. Tähän liittyvä numeroaineisto on esitetty taulukoissa 4.4. ja 4.5.

Maataloustuotteiden tuonnin kasvu riippuu kahdesta tekijästä: kulutuksen kasvusta ja kaupan siirtymisestä kehitysmaihin. Jälkimmäiseen pyritään juuri preferenssijärjestelyin.

Kulutuksen kasvun kautta tuleva tuonnin lisäys arvioitiin tulokehitykseen perustuen jättämällä hintavaikutus kokonaan tarkastelun ulkopuolelle siihen liittyvien monien vaikeuksien takia. Reaalinen tulokehitys oletettiin 4 %:ksi vuodessa ja yksinkertaisuuden vuoksi väestön kasvu nolllaksi. Useiden eri lähteiden perusteella valittiin todennäköisimmät tulojoustopot, joita käyttäen saatiin seuraavat vuosittaiset kulutuksen lisäykset: kahvi 2.7 %, sokeri 2.7 %, hedelmät 3.6 %, tupakka 2.7 %, rasvat 1.8 % ja kaakao 4.5 %.

Painottamalla eri tuotteiden tuonnin lisäykset niiden tuonnin arvoilla saadaan kokonaistuonnin lisäykseksi 2.8 %/v. Vuosien 1972-73 keskimääräisen tuonnin perusteella laskettuna tämä merkitsisi noin 13 milj.mk:n vuotuista tuonnin lisäystä kehitysmaista. Koska eräitä tuotteita tuotetaan maassamme sekä viedään tuontiin perustuvia lopputuotteita, on edellä esitettyyn arvioon suhtauduttava varauksellisesti. Tämä koskee ennenkaikkea sokeria, tupakkaa ja kaakaota.

Toinen tie, jonka kautta kehitysmaista tuleva tuonti voi kasvaa on kehitysmaiden markkinaosuuden suurentuminen Suomen tuontimarkkinoilla. Tähän päämäärään on pyritty niinsanotun GSP-järjestelyn avulla, joka tuli voimaan vuoden 1972 alusta. Preferenssit koskivat tällöin lähes kaikkia teollisuustuotteita, mutta vain harvoja maataloustuotteita. Preferenssien merkitystä kauppavirtojen ohjaajina tutkittiin selvittämällä, miten hintasuhteiden muutokset ovat aikaisemmin vaikuttaneet eri alueilta tapahtuvaan tuontiin. Tarkoituksena oli pyrkiä arvioimaan tulevaisuudessa mahdollisesti myönnettävien preferenssien vaikutusta kehitysmaiden vientiin Suomeen.

Tutkimusmenetelmänä käytettiin yksinkertaista regressioanalyysiä. Kehitysmaista tapahtuneen tuonnin osuuden vaihteluista pyrittiin selvittämään kehitys- ja teollisuusmaista tuotujen tuotteiden hintasuhteilla. Soveltamalla analyysiä sitrushedelmiin voitiin todeta, että mahdollisilla preferenssi-järjestelyillä näyttäisi olevan selvästi merkitystä kehitysmaiden osuuden suurentajina. Tulokset nimittäin osoittivat, että jos kehitysmaista tuotavien hedelmien hinnat alenevat 10 % suhteessa muualta tuotaviin, tuontiosuus kasvaa 6.3 prosenttiyksikköä.

Myös raakatupakan osalta voitiin analyysin perusteella päätellä, että kehitysmaapreferenssit, jotka on jo myönnetty tulevat lisäämään kehitysmaista tapahtuvaa tuontia.

Analyysiä sovellettiin myös eräisiin muihin tuotteisiin, mutta niiden osalta tulokset eivät olleet niin selviä kuin edellä. Mainittakoon vielä, että maataloustuotteista päätuotteen eli kahvin tuonti tulee lähes 100-prosenttisesti kehitysmaista, joten siltä osin ei tarvitse tutkia kaupan siirtymismahdollisuuksia.

Kaupan kasvumahdollisuudet näyttävät varmimmilta tulotason nousuun perustuvan kulutuksen lisäyksen osalta. Preferensseillä voisi sinänsä olla huomattavakin merkitys, mutta toistaiseksi on olemassa joukko tekijöitä, jotka estävät kaupan siirtymistä ja jotka ovat myös haitanneet siirtymistä koskevaa kvantitatiivista analyysiä. Näistä mainittakoon tärkeimpinä seuraavat: 1) totutut kauppatiet ja -tuttavat, 2) kuljetuskustannukset, 3) laatutekijät ja 4) bilateraali-kauppa. Näin ollen preferenssien myöntämisen ohella tulisi kehityksmaista tapahtuvaa tuontia tukea myös muilla toimenpiteillä.

Appendix 1. Survey of imports and import treatment of different products, 1972-1973, value in 1,000 mk

Product	Live animals	Meat	Fish, crustaceans and molluses	Dairy products, eggs and honey	Unclassified products of animal origin
BTN	01	02	03	04	05
Imports 1972-1973					
Total	3,300	43,115	36,221	1,259	47,915
LDCs	6	3	139	109	3,625
LDCs %	0	0	0	9	8
Annual consumption growth, percent					
Tariff	Exempt	Exempt	Generally 0.07-1.50 mk/kg	Exempt	Exempt
Import Charge	0.39-1.30 mk/kg or 1.60 mk/pc or 195 mk/pc Depending on species	0.60-5.21 mk/kg	Exempt	Butter 10.34 mk/kg Cheese 5.06 mk/kg Eggs 1.84 mk/kg Honey 1.45 mk/kg	Exempt
GSP treatment	Not extended	Not extended	Extended to certain few products	Not extended	Not extended
Import License	Needed	Needed	Needed for certain products	Needed	Exempt
Obstacles to LDC imports	Product (breeding animals) not produced in LDCs	Finland's agricultural policy	Tariff imposed to protect domestic production	Finland's agricultural policy	in principle, no obstacles

Appendix 1. (Cont'd) Survey of imports and import treatment of different products, value in 1,000 mk

Product	Live plants and flowers	Vegetables and edible roots	Fruits	Coffee, tea spices	Grain
BTN	06	07	08	09	10
Imports 1972-1973					
Total	45,250	42,097	207,123	310,732	33,717
LDCs	253	2,803	55,205	299,505	4,912
LDCs %	1	7	27	96	15
Annual consumption growth, percent			3.6	2.7	
Tariff	Exempt	Exempt	Exempt	Coffee 0.80-1.85 mk/kg tea and spices exempt with the exception of caraway	Exempt
Import charge	Generally 0.19-0.39 mk/kg, import charge on certain flowers varies seasonally	0.09-1.40 mk/kg varies seasonally	0.07-1.45 mk/kg import charge on most fruits seasonally	Exempt	Barley 0.25 mk/kg Oats 0.12 mk/kg Corn 0.15 mk/kg Rice 0.21-0.45 mk/kg
GSP treatment	Not extended	Extended to three items	Extended to nuts and certain other products	Extended only to caraway	Not extended
Import license	Not needed in general	Needed for most products	Needed for certain products	Not needed	Needed for grains, rice exempt
Obstacles to LDC imports	Products scarcely produced in LDCs	Import charges levied to protect domestic production	Import charge levied to protect domestic fruit production	Finland's revenue duty	Finland's agricultural policy

Appendix 1. (Cont'd) Survey of imports and import treatment of different products, value in 1,000 mk

Product	Milling products, malt, starch	Oil seed and fruit	Dyeing agents gum, resin	Unclassified vegetable products	Animal and vegetable fats and oils
ETN	11	12	13	14	15
Imports 1972-1973					
Total	2,747	104,024	10,271	2,409	25,394
LDCs	333	12,921	4,841	1,291	2,760
LDCs %	12	12	47	54	11
Annual consumption growth, percent		1.8			
Tariff	exempt	exempt	exempt	exempt	16 % for those fit as such for human food 10 % for those unfit as such for human food
Import charge	0.08-0.80 mk/kg	Oil seed 0.32-0.45 mk/kg	exempt	exempt	Generally 1.64 mk/kg for those fit as such for human food, those unfit as such for human food generally exempt
CSP treatment	Not extended	Extended to certain products	Not extended	Not extended	Not extended
Import license	Needed	Needed for oil seed and certain other products	Not required	Exempt	Generally needed
Obstacles to LDC imports	Import charge levied to protect domestic production	Import charge levied to protect domestic production	In principle no obstacles	In principle no obstacles	Tariffs and import charges levied to protect domestic production

Appendix 1. (Cont'd) Survey of imports and import treatment of different products, value in 1,000 mk

Product	Meat and fish products	Sugar and sugar products	Cocoa and cocoa products	Grain products bakery products	Products made of vegetables, roots and fruits
RIN	16	17	18	19	20
Imports 1972-1973					
Total	33,862	167,562	33,394	8,932	34,472
LDCs	2,539	72,500	11,932	1	6,571
LDCs %	7	43	36	0	19
Annual consumption growth, percent		2.7	4.5		
Tariff	Meat products exempt, for fish products generally 7.5-15 %	Exempt	0-18 % for cocoa, 0.74 mk/kg for cocoa products	Generally exempt	Exempt
Import charge	Meat products 4.25-6.54 mk/kg, fish products exempt	0.52-0.60 mk/kg depending on quality	Exempt	0.19-3.50 mk/kg	Averaging 15 % or 0.40-0.50 mk/kg
GSP treatment	Extended to fish products	Not extended	Extended to cocoa	Extended to one-item	Extended to olive and caprice
Import license	Needed for meat products	Needed	Exempt	Exempt	Generally needed
Obstacles to LDC imports	Tariffs and import charges imposed to protect domestic production	Import charge levied to protect domestic consumption	Scarcely any obstacle to cocoa, tariff imposed on cocoa products	No production in LDCs	Import charge levied to protect domestic production

Appendix 1. (Cont'd) Survey of imports and import treatment of different products, value in 1,000 mk

Product	Certain foodstuffs 21	Beverages and alcohol 22	Food industry waste products 23	Tobacco 24
Imports 1972-73				
Total	62,544	58,992	67,710	63,929
LDCs	293	3,626	3,231	13,061
LDCs %	0	6	5	20
Annual consumption growth, percent				2.7
Tariff	Averaging 0.50 mk/kg	0.30-5.00 mk/l.	Exempt	0.11-0.28 mk/kg for non-manufactured tobacco
Import charge	For certain products 0.74-2.50 mk/kg	Exempt	0.01-0.20 mk/kg	Exempt
GSP treatment	Extended to some products	Extended to few products	Extended only to wine precipitate	Extended to non-manufactured tobacco
Import license	Exempt	Exempt	Required	Exempt
Obstacles to LDC imports	Tariffs and import charges to protect domestic production	Tariff to protect domestic production	Import charge to protect domestic production	Tariff imposed to protect domestic production

Appendix 2. Demands made by developing countries
(The Lima Declaration of November 1971)

(a) Standstill: In accordance with the provision of paragraph 25 of the International Development Strategy, developed countries should strictly observe the principle of Standstill. No new tariff or non-tariff barriers should be introduced by developed countries nor existing barriers increased and where tariff and non-tariff barriers have been introduced or increased since UNCTAD II, these should be eliminated. Appropriate arrangements should be made within UNCTAD for keeping under constant review the observance of this principle.

(b) Liberalization of trade

Tariff and non-tariff barriers:

- (i) all tariffs applied by developed countries to primary commodities, including processed and semi-processed primary commodities originating exclusively in developing countries, should be removed taking account of paragraph 6 of Part II of recommendation A.II.1 of UNCTAD I.
- (ii) in the case of other primary products, including processed and semi-processed primary commodities of interest to developing countries, imported from developing countries, substantial reductions in and wherever possible, elimination of all tariffs, should be implemented.
- (iii) developed countries should reduce and ultimately eliminate internal taxes, fiscal charges and levies on all primary products, including semi-processed and processed primary products imported from developing countries. Pending such action, developed countries should institute a programme for the full refund of such taxes, fiscal charges and levies to developing countries.
- (iv) Developed countries should include all products including all processed and semi-processed agricultural and primary products in BTN chapters 1-24 in their schemes of generalized preferences. All products in BTN chapters 25-99 excluded from the present arrangements should be similarly included in their schemes.

(v) Developed countries should agree:

- (1) to take advance unilateral or joint action (in the case of groups of developed countries) for the reduction or elimination of tariffs and non-tariff barriers on a preferential, non-discriminatory and non-reciprocal basis in favour of developing countries prior to any multilateral negotiation;
- (2) to eliminate differential treatment between primary products in their natural, processed and semi-processed forms;
- (3) that negotiations for the phasing out and eventual elimination of existing quantitative restrictions and other non-tariff barriers should take place within UNCTAD;
- (4) to eliminate the incentives for uneconomic domestic production of primary products in which developing countries are competitive, and to that end they should reduce their domestic price-support and change policy measures for subsidizing their production and exports;
- (5) to present at UNTAD III their proposals for the implementation of the provisions of para. 26 of the International Development Strategy;

(vi) Developed countries should abolish any measure taken to limit the access to their markets of a primary product originating in a specific developing country or processed products utilizing this primary product by reasons of the countries' economic and social system.

(c) Market sharing

- (i) where products of developing countries compete with the domestic production of developed countries, each developed country should allocate a defined percentage of its consumption of such products to exports from developing countries. This allocation should be arrived at on a commodity-by-commodity basis through multilateral negotiations. In any case, developed countries should

allocate a substantial share of any increase in their domestic demand for primary commodities for the exports of developing countries;

- (ii) socialist countries of Eastern Europe should announce specific targets for imports from developing countries as their contribution to these efforts;

(d) Pricing policy:

The main objective of pricing policy for commodities produced by developing countries should be to secure remunerative, equitable and stable price levels in order to contribute to the achievement of the overall targets of economic development of developing countries as set by General Assembly of the United Nations and by UNCTAD. For these purposes the following requirements should be met:

- (i) the prices of commodities should not be allowed to deteriorate further and should, where possible, be improved;
- (ii) excessive fluctuations in prices should be eliminated;
- (iii) the prices of commodities should lead to a satisfactory margin of remuneration for the producer so as to enable him to increase his productivity and to maintain fair labour standards while achieving higher standards of consumption and savings;
- (iv) the prices of commodities should provide to the Governments of the producing countries the financial resources that will enable them to implement an economic policy including a commodity policy that contributes to the promotion of overall development;
- (v) the prices of commodities should contribute to the attainment of export earnings that maintain and increase the purchasing power of the products exported by developing countries in relation to their essential imports from developed countries.

MAATALOUDEN TALOUDELLISEN TUTKIMUSLAITOKSEN JULKAISUJA
PUBLICATIONS OF AGRICULTURAL ECONOMICS RESEARCH
INSTITUTE

RUKKILA, 00001 HELSINKI 100, FINLAND

1. SUOMELA, S.: Tuottavuuden kehityksestä Suomen maataloudessa.
(Summary: Development of Productivity in Finnish Agriculture). 1958, 128 p.
2. KAARLEHTO, P.: Sianlihan markkinoinnista Suomessa.
(Summary: A Study of the Pork Market in Finland). 1959, 72 p.
3. SUOMELA, S., KAARLEHTO, P., KETTUNEN, L.: Lineaarisen ohjelmoinnin käytöstä maataloudessa.
(Summary: On the Use of Linear Programming in Agriculture). 1961, 92 p.
4. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1960/61.
(Summary: Investigations on the Profitability of Agriculture in Finland Business Year 1960/61). 1962, 69 p.
5. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1961/62. 1964, 67 p. (Summary).
6. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1962/63. 1965, 66 p. (Summary).
7. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1963/64. 1966, 66 p. (Summary).
8. TORVELA, M.: Tuotantopanosten käytöstä ja käytön edullisuudesta maataloudessa Etelä-Suomen alueen kirjanpitoviljelmillä.
(Summary: On the Use of Agricultural Inputs on Book-Keeping Farms in South Finland). 1966, 141 p.
9. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuodet 1964/65 ja 1965. 1967, 92 p. (Summary).
10. IHAMUOTILA, R.: Viljelijöiden työtulojen taso kirjanpitotiloilla 1956-1965.
(Summary: Labour Income Level of Farmers on Finnish Book-Keeping Farms in 1956-1965). 1968, 172 p.
11. KETTUNEN, L.: Demand and Supply of Pork and Beef in Finland. 1968, 93 p.
12. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1966. 1968, 77 p. (Summary).
13. NIKKOLA, A.: Zur Wertbestimmung des Feldinventars. 1968, 111 p.
14. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1967. 1969, 77 p. (Summary).
15. TORVELA, M., KALLIO, J.: Ravintoaineiden kulutuksesta Suomessa vuosina 1959-68 ravintotaselaskelmien mukaan.
(Summary: On Food Consumption in Finland during 1959-68 as Shown by Food Balance Sheets). 1969, 66 p.
16. SUOMELA, S., TORVELA, M.: Maatalouden talousrakennusten kustannuksista ja niiden osuudesta tuotantokustannuksissa.
(Summary: On the Costs of Farm Buildings and their Impact of Production Costs). 1969, 66 p.
17. SILTANEN, L.: Todellisten ja verotuksessa määrättyjen tulojen suhteesta maataloudessa pinta-alaverotusta sovellettaessa.
(Summary: On the Relationship of Earned Income to Taxed Income in Agriculture in the Application of Taxation based on Farm Size). 1969, 89 p.

18. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1968. 1970, 70 p. (Summary).
19. KETTUNEN, L., TORVELA, M.: The Intensity and Interdependence of Gross Return and Factors of Production in Agriculture. 1970, 92 p.
20. IHAMUOTILA, R., STANTON, B. F.: A Balance Sheet of Agriculture for Finland 1948-1967. 1970, 122 p.
21. IHAMUOTILA, R.: The Effect of Increasing Nitrogen Fertilization on the Economic Result in Corn Production.
(Selostus: Lisääntyvän typpilannoituksen vaikutuksesta maissintuotannon taloudelliseen tulokseen New Yorkin valtiossa). 1970, 28 p.
- 22.1 IHAMUOTILA, R.: Maataloustulon ja viljelijäperheen työtulon vaihteluista ja riippuvuudesta tuotantoteijöiden suhteen.
(Summary: On the Variations of Farm Family Earnings and Labour Income of Farm Family and their Dependency on Factors of Production). 1970, 31 p.
- 22.2 TORVELA, M., TENHIALÄ, H.: Viljelijöiden mielipiteitä taloussuunnittelusta.
(Summary: Farmers' Opinions about Economic Planning in Finland). 1970, 24 p.
23. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1969. 1971, 70 p. (Summary).
24. PÖLKKI, L.: Naudan ja sianlihan hintojen ja marginaalien lyhytaikaiset vaihtelut Suomessa 1963-1970.
(Summary: The Short-run Changes in Prices and Marketing Margins for Beef and Pork in Finland 1963-1970). 1971, 144 p.
25. IHAMUOTILA, R.: Productivity and Aggregate Production Functions in the Finnish Agricultural Sector 1950-1969.
(Selostus: Tuottavuudesta ja tuotantofunktioista Suomen maataloudessa vuosina 1950-1969, Makrotaloudellinen tutkimus). 1971, 104 p.
26. IHAMUOTILA, R.: Leipäviljan tarjonnasta ja tarjontaan vaikuttavista tekijöistä Suomessa vuosina 1951-1970.
(Summary: On Bread Grain Supply Functions in Finland in 1951-1970). 1972, 60 p.
27. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1970. 1972, 70 p. (Summary).
- 28.1 ROUHIAINEN, J.: Aggregate Crop Production Functions in Finnish Agriculture in 1956/57-1968/69.
(Selostus: Kasvinviljelyn tuotantofunktiot Suomen maataloudessa satovuosina 1956/57-1968/69). 1972, 71 p.
- 28.2 KETTUNEN, L., ROUHIAINEN, J.: Aggregate Livestock and Total Production Functions in Finnish Agriculture in 1956/57-1969/70.
(Selostus: Kotieläin- ja kokonaistuotantofunktiot Suomen maataloudessa satovuosina 1956/57-1969/70). 1972, 54 p.
29. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1971. 1973, 70 p. (Summary).
30. TORVELA, M., MÄKI, S.: Perheviljelmän koko rationaalisessa maataloustuotannossa.
(Summary: The Size of Holding that Farm Family can operate Using different Types of Technology). 1974, 79 p.
31. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1972. 1974, 70 p. (Summary).
32. Tutkimuksia Suomen maatalouden kannattavuudesta, tilivuosi 1973. 1975, 80 p. (Summary).
33. ROUHIAINEN, J., KETTUNEN, L.: Agricultural Imports: Impact of Trade Preferences Between Developing Countries and Finland.
(Selostus: Kehitysmaiden ja Suomen välisen maatalouskauppa ja preferenssit). 1975, 49 p.

