Organization of World Markets for Agricultural Commodities

A joint action programme for developed and developing countries

Agricultural series

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Organization of World Markets for Agricultural Commodities

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## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ABBREVIATIONS</strong></td>
<td>5</td>
</tr>
<tr>
<td><strong>FOREWORD</strong></td>
<td>7</td>
</tr>
<tr>
<td><strong>INTRODUCTION</strong></td>
<td>9</td>
</tr>
<tr>
<td><strong>A. CURRENT RELATIONSHIPS AMONG NATIONAL AGRICULTURAL MARKETS</strong></td>
<td>11</td>
</tr>
<tr>
<td>I. Analysis by Groups of Countries</td>
<td>11</td>
</tr>
<tr>
<td>1. Five groups of countries</td>
<td>11</td>
</tr>
<tr>
<td>2. Distinguishing features of the five groups of countries</td>
<td>11</td>
</tr>
<tr>
<td>3. Conclusion: There exists a structural imbalance</td>
<td>15</td>
</tr>
<tr>
<td>II. Analysis by Commodities</td>
<td>16</td>
</tr>
<tr>
<td>1. The choice of food products for investigation</td>
<td>16</td>
</tr>
<tr>
<td>2. Review of separate products</td>
<td>17</td>
</tr>
<tr>
<td>3. Conclusion: Equilibrium is not in sight</td>
<td>20</td>
</tr>
<tr>
<td>III. The Imbalance on the World Market for Agricultural Commodities</td>
<td>20</td>
</tr>
<tr>
<td>1. Surpluses and price distortions</td>
<td>20</td>
</tr>
<tr>
<td>2. Food deficit and deficient demand for food</td>
<td>21</td>
</tr>
<tr>
<td>3. Conclusion: The imbalance is world-wide</td>
<td>24</td>
</tr>
<tr>
<td><strong>B. ORGANIZATION OF WORLD AGRICULTURAL MARKETS</strong></td>
<td>25</td>
</tr>
<tr>
<td>I. The Reasons for Organization and its Purposes</td>
<td>25</td>
</tr>
<tr>
<td>1. The reasons for international action</td>
<td>25</td>
</tr>
<tr>
<td>2. The purposes of organization</td>
<td>26</td>
</tr>
<tr>
<td>II. The Kind of Organization Required</td>
<td>26</td>
</tr>
<tr>
<td>1. Inapplicable solutions</td>
<td>26</td>
</tr>
<tr>
<td>2. Market-oriented solutions</td>
<td>27</td>
</tr>
<tr>
<td>III. The Impact of Organization on the Problems of Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>1. Estimates of the developing countries' capital deficit and foreign trade</td>
<td>28</td>
</tr>
<tr>
<td>2. The long-term nature of the problem of developing countries</td>
<td>30</td>
</tr>
<tr>
<td>IV. The Methods of Organization</td>
<td>31</td>
</tr>
<tr>
<td>1. Stages and systems of economic integration</td>
<td>31</td>
</tr>
<tr>
<td>2. Trade-policy systems</td>
<td>32</td>
</tr>
<tr>
<td>3. A common market with third countries?</td>
<td>33</td>
</tr>
<tr>
<td>4. Sectoral integration is no solution either</td>
<td>35</td>
</tr>
<tr>
<td>5. Co-ordination of national agricultural markets</td>
<td>36</td>
</tr>
<tr>
<td>V. The Ten Principles of Organization</td>
<td>36</td>
</tr>
<tr>
<td><strong>C. THE INSTRUMENTS OF WORLD AGRICULTURAL MARKET ORGANIZATION</strong></td>
<td>38</td>
</tr>
<tr>
<td>I. Consumption Policy</td>
<td>38</td>
</tr>
<tr>
<td>1. Expansion of consumption in less developed countries</td>
<td>38</td>
</tr>
<tr>
<td>2. Expansion of consumption in developed countries</td>
<td>39</td>
</tr>
</tbody>
</table>
II. Production Policy
   1. Adjustment of supply to world demand
   2. Stocks

III. Foreign Trade Policy
   1. Minimum export prices
   2. Export policy
   3. Import policy

IV. Demand Transfer
   1. The transfer of withheld import demand
   2. The extent and distribution of financial burdens
   3. The application of the economic principle

CONCLUSION

ANNEX
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM</td>
<td>Deutsche Mark</td>
</tr>
<tr>
<td>ECAFE</td>
<td>Economic Commission for Asia and the Far East</td>
</tr>
<tr>
<td>ECE</td>
<td>Economic Commission for Europe</td>
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<tr>
<td>EEC</td>
<td>European Economic Community</td>
</tr>
<tr>
<td>EFTA</td>
<td>European Free Trade Association</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
</tr>
<tr>
<td>GATT</td>
<td>General Agreement on Tariffs and Trade</td>
</tr>
<tr>
<td>GNP</td>
<td>Gross National Product</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
</tr>
<tr>
<td>SITC</td>
<td>Standard International Trade Classification</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>US</td>
<td>United States of America</td>
</tr>
<tr>
<td>USSR</td>
<td>Union of Soviet Socialist Republics</td>
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</table>
In recent years there has been a growing tendency to place the economies of separate countries in a much broader setting. This tendency is reflected in the creation of international organizations, in economic integration and association, and in international agreements of a general or specific kind. Relations among countries, and especially their trade relations, have thereby acquired a much more distinctly multilateral character than they used to have.

In this new situation, the impact of any single country's agricultural policy measures on the world market and their distorting effects on international trade are more marked than ever, in spite of all the rules which have been devised to govern international trade. New attempts are, therefore, now being made in many fields to arrive at the formulation of rules designed for wider purposes, and in particular to work out a new order for the world markets of agricultural commodities.

A world-wide solution of this kind raises some extraordinarily complex problems. Anxious to make its contribution to the examination of these problems, the EEC Commission requested Dr Albrecht Kruse-Rodenacker of the Technische Universität, Berlin, to write a study, in which a critical analysis of past and current measures to protect agriculture would lead up to the formulation of principles which might govern trade regulations on an international plane. The EEC Commission expresses its sincere gratitude to Dr A. Kruse-Rodenacker for the fundamental contribution he has made with the study which follows.

However, this study is not to be taken as representing the Commission's views on the matter, nor does it in any way prejudice the Commission's future attitude in international discussions.
INTRODUCTION

During the last twenty or thirty years agriculture has more and more come to play a peripheral part in the economic expansion of many countries. Economic theory, economic policy and the work of international organizations alike show up an increasingly sharp cleavage between agriculture and industry. In many developed countries the two sectors today no longer have a common language. Communication among experts and co-operation among the government authorities responsible for economic policy are going from bad to worse. Domestically, conflicts of interests are becoming keener, and internationally the problems of world agricultural trade in its interconnections with trade in manufactures are causing growing disturbances. It is impossible to exaggerate the consequences of the isolation of agriculture, both in national and in international terms.

In many a country we witness the emergence of a sort of Monroe doctrine for agriculture, as an expression of the belief that the countries concerned can afford to, and indeed should, keep their agriculture insulated and protected. But imbalances and contradictions in world agricultural trade have reached a point where it becomes imperative to reorganize the market for agricultural commodities. How is this to be done, when the agricultural sector is being withdrawn more and more from the reach of the classical rules of competition and the classical mechanism of world trade? This is the subject of the study which follows.

The free competitive adjustment of supply and demand has been ruled out for decades in the agricultural sector by all kinds of interventions. For many reasons, which will be discussed presently, the introduction of a competitive market system is not feasible today in practice. Nevertheless, the discussion which follows adheres to the principle that government intervention in the agricultural sector ought to be minimized. The term "organization" of world agricultural markets is meant in the sense of establishing a new order, and not in any institutional or administrative sense.

The first part of the study analyses existing imbalances in the world's markets for agricultural commodities. This is followed by a discussion of possible ways to reorganize world agricultural markets. The purpose is not to propose devices simply for dealing with the symptoms of imbalance, but to suggest how the very causes of imbalance and contradictions can be removed.

The study is primarily concerned with those food products which are now in the limelight of international discussion, but the results of the investigation are equally relevant to other agricultural commodities.

The author wishes to avail himself of this opportunity to express his gratitude to the Directorate-General for Agriculture, for their fruitful collaboration,
A. CURRENT RELATIONSHIPS AMONG NATIONAL AGRICULTURAL MARKETS

I. ANALYSIS BY GROUPS OF COUNTRIES

1. FIVE GROUPS OF COUNTRIES

In analysing current relationships among national agricultural markets we make a distinction between industrialized and non-industrialized countries. Since, however, both these broad groups comprise countries of entirely different patterns of production and foreign trade, the results are meaningful only to a rather limited extent.

Several fundamental studies of the tendencies and problems of the world economy have the crippling defect that countries at comparable stages of economic development are lumped together in one and the same group, even though they may occupy very different positions in world trade. For this reason we introduce a rather more refined distinction into the classification by development stages.

Since the beginning of the nineteenth century, when economists first began to think in terms of economic stages, until our modern analysis of stages of economic growth, several classification schemes have been worked out to group countries at different stages of development. We want to go further still, and to group countries according to their position in world agricultural trade, with particular reference, in the context of this study, to the different parts they may be playing in creating or maintaining market imbalances.

From this point of view we establish five groups of countries with reference to the world market in agricultural commodities:

FIVE GROUPS OF COUNTRIES

1) Developing countries with a static economy | low stage of development
2) Developing countries with a dynamic economy
3) Centrally planned communist economies | intermediate stage of development
4) Developed agricultural export countries
5) Developed industrial countries | high stage of development

The countries under 1) and 2) are the developing (underdeveloped, that is, non-industrialized) countries in the true sense of the word. Group 3) comprises the countries of the Eastern Bloc, most of which are already at a fairly high stage of development and in some cases are really to be regarded as developed, that is, industrialized. Groups 4) and 5) are the developed and highly developed countries.

The main features of these five groups are sketched below, and certain countries are cited to illustrate particular points. It would be neither useful nor advisable to allocate each country to one of the five groups and so to "grade" them. What matters for this study is not to allocate gradings but to show clearly how greatly the positions of these groups differ when looked at from the angle of world trade.

2. DISTINGUISHING FEATURES OF THE FIVE GROUPS OF COUNTRIES

1) Developing countries with a static economy

Examples of countries belonging to this group are Nepal, Tanganyika and Bolivia. Countries in this group are still in the pre-development stage, which precedes economic development everywhere. We call their economy static in the sense that no radical change has as yet taken place in their productive structure, or at least none is as yet visible. It is, of course, perfectly possible that these countries are already development-conscious, that there is a certain amount of local initiative and that production begins to expand. Society in these countries is traditional in the sense that its structure is on the whole still characterized by inherited forms rather than by those which are a necessary condition for sustained economic development.

Agriculture, as a rule, is at a very low level of development in countries of this type; it is subsistence agriculture, with households largely "closed" in respect of production and consumption. The bulk — some 70 per cent — of the labour force is engaged in agriculture, and there is a considerable degree of open and disguised unemployment. Industry is still absent. In so
far as there is anything more than a negligible tradition of manufacture, it is mostly of the artisan type. Local trade occupies a fairly important place, but there is no developed domestic market. The rate of investment is very low—say, 5 per cent or less. The economy still lacks the distinctive features which would characterize it as "national": political factions, regional autocracy in administration, and the absence of anything like a developed system of money, capital or communications prevent the emergence of an efficient domestic market. It is not precluded that some branch of production, or some region, may achieve a notable expansion of output, but the net domestic product as a whole, and with it per caput income, never exceed certain limits in this initial stage.

The structure of society has undergone no radical change and is closely connected with the structure of agriculture. The individual has very little chances of improving his station. The majority of the population can hardly hope to better their own or their children's social status or standard of life. For this reason people display no initiative. Any change in the social and economic structure is taboo to the ruling class, and for the subjects lies outside any of the categories of their thought and action.

As a consequence of these structural characteristics, countries of this type participate only to a very limited extent in world trade and are in no position either to aggravate or to mitigate existing imbalances in the world market for agricultural commodities.

2) Developing countries with a dynamic economy

The group of developing countries with a dynamic economy includes roughly half the world's nations. India, Egypt and Colombia may serve as typical examples. Some of them are on the eve of their transition into the higher development stage of group 4).

Ever since industrialization began under England's lead more and more countries have been emerging from the static initial stage. It may be assumed that eventually the process of structural social and economic change will spread to practically all countries. This process is often set in motion or intensified by contact with the outside world. More especially it is stimulated by the growing internationalization of political and economic interests, including the creation of large blocs, Structural economic change, which is the essential characteristic of a dynamic economy, is evident in all existing branches of production and new ones begin to appear. Production becomes more diversified. Agriculture still has more relative weight than industry and trade, accounting, as it does, for 50 to 70 per cent of employment and for a sizeable share in the gross national product (about 40 per cent) and in exports. The higher rate of investment (about 10 per cent), is an important feature. Investment may be located in the most diverse sectors, according to existing raw material resources, national priorities or the pattern of foreign trade, but in general industry is assuming growing importance. Separate economic regions within the country begin to merge in a more or less unified market. Economic growth transcends the limits circumscribing the static economy and becomes a deliberate purpose of economic policy.

We know of no single country in which the process of structural economic change came, or is coming, to pass without radical changes in the social structure. There are, it is true, quite a few countries where social change is promoted or accepted only hal­fheartedly and does not go far enough, so that economic growth is slow or indeed the country relapses into stagnation for prolonged periods. Nevertheless, once structural change has begun, it acquires a certain momentum of its own and receives continuous support from outside. Yet there is nothing to justify the expectation of continuous development. It may well happen that the social structure hardens after initial successes and so leads to economic stagnation at a higher level, either paralysing the process of structural economic change for an indefinite period or arresting it altogether.

Some of the countries in this group enter the world market for foodstuffs as suppliers and, given their need to earn foreign exchange, must continue to do so. Many more of the countries in this group fail to exercise as much demand on the world food market as would correspond to their needs. This is so for two reasons, to be discussed in more detail later: first, shortage of foreign exchange, and secondly, absence of sufficient infrastructures, especially as regards storage, processing and distribution facilities. The same, incidentally, applies also to countries of group 1).

3) Centrally planned communist economies

Some of the countries in this group are to be regarded as developed industrial countries.

All of them have this in common, that they attribute to industrialization the decisive part in maximizing the aggregate rate of economic growth. Following the theses of Marx and Lenin, industrialization is given absolute priority over all other sectors of the economy. This applies
even to countries whose natural raw material resources place certain limits upon industrialization.

It is not a distinguishing feature of countries in this group that heavy industry plays the dominant part in economic growth, for the same thing was, and is, true of western industrial nations. Nor is the distribution of investment among the capital and consumer goods industries a distinguishing feature, in so far as in the USSR, the leading country in group 3), the relevant proportions have in recent years come rather close to those of the western world.

Finally, it is not peculiar to the development of these countries that important sections of the infrastructure have been neglected, so as to be able to concentrate on investment with high capital returns. This was typical also of countries in groups 4) and 5) at comparable stages of their development.

But in other respects the pattern of development in centrally planned economies differs very much from that in countries of groups 4) and 5). This applies in particular to agriculture. In the leading communist countries the productivity of agriculture is relatively low, both on their own showing and in terms of international comparisons. Agriculture ties down a large part of the labour force — more than half of it in the USSR only a few years ago.

Agriculture is drawn upon to an extraordinarily large extent for capital formation in industrial sectors. At the same time, the pattern of agriculture is subject to sudden alterations. All in all, the value of agricultural output rises only very slowly, and prolonged periods of stagnation or even retrogression in output per head of the population are by no means excluded.

The countries of this group participate in world trade only to the limited extent of 11 per cent of its total. Apart from intra-trade among themselves, they make only an increasingly irregular appearance as suppliers of foodstuffs on the world market for agricultural commodities. Measured in terms of their per caput income and domestic production, there must be a considerable potential demand for food in the countries of this group at an intermediate stage of development. This demand is likely to increase in the future, but it remains to be seen whether it will be met by imports in the absence of sufficient domestic production. The FAO projections explicitly allow for the possibility of such imports. There are several reasons why the countries of group 3) have so far restricted their net imports of food from other groups of countries. Apart from the priority of import requirements for industrial products, the chief reasons are to be sought in the institutional rigidity of foreign economic relations — e.g. bilateral settlement of foreign payments, the principle of balance-of-payments equilibrium over given periods, barter transactions, the pursuit of autarky, etc.

It is true that in recent years the countries of group 3) have been buying major food products abroad, but even their large food imports have not come anywhere near exhausting their reserves of unsatisfied demand. Even though some of these countries have been exporting certain commodities for decades, the prospect for the future remains that the problem of oversaturated agricultural markets is a long way off in these countries.

4) Developed agricultural export countries

This group comprises primarily the countries of the southern temperate zone, such as Argentina, Uruguay, the Republic of South Africa, Australia and New Zealand.

From the point of view of their relatively high per caput income and the pattern of their production, these countries must be regarded as developed. In some of them, indeed, sectors other than agriculture contribute a considerable share to the national product, but the country's predominantly agricultural type is still reflected in the composition of exports.

Agricultural production generally rests on favourable soil and climatic conditions. Furthermore, farm units are of favourable size and the application of modern techniques, buttressed by often large-scale investment in rural infrastructures, leads to extraordinarily high agricultural productivity.

Far from contracting under the impact of the outflow of agricultural labour toward other economic sectors, agricultural output keeps rising.

The countries of this group consistently offer growing supplies of food on the world market. Since they cannot maintain or improve their standard of living without exporting food, these countries will no doubt continue to press as hard as they can for further outlets. This applies also to those of the countries in this group which place increasing emphasis on the diversification of their production. Growing imports of manufactures, and more especially of capital goods, swell their demand for foreign exchange, which they wish to earn by exporting agricultural commodities.

These countries do not exercise much demand on world markets for food products, because
each of them produces many foods in sufficient quantity and adequate quality and range for its own needs.

5) Developed industrial countries

This group is made up of the countries of North America(1), the European Economic Community and the European Free Trade Association, and Japan.

The industry of these countries is the work of three generations of their peoples. In spite of differences in the concepts and means of economic policy, industrial growth followed a remarkably uniform pattern in all these countries. Each of them, it is true, specialized on particular branches, such as machine tools and machinery, the chemical or electrical industry, etc., but by and large the structural characteristics of industrial growth were the same. The mere size of their national income, net investment, foreign trade and international liquidities now put the industrial countries in a position where they can exercise a decisive influence on the future course of the world economy. It is in this sense that we speak of them as highly developed.

Productivity having grown more rapidly in industry than in agriculture, these countries nowadays are led more and more to transfer part of the non-agricultural sectors' income to agriculture. Agricultural production is, therefore, stimulated not only by technological progress, but also by income transfers, and for some years has tended to grow faster than domestic consumption. No reversal of this tendency is to be expected and the saturation of markets will increase.

In the light of these developments the situation of exporters of agricultural commodities, especially in this group of countries, threatens to become more and more difficult. They will make every effort not only to maintain, but to improve their position on the world market. Yet these efforts are doomed to failure at least to the extent that the import margin narrows in the importing countries of the same group, which so far were among the major and most secure outlets for food products on the international market.

6) The position of agriculture in the economies of the five groups

It is typical of countries with a static economy (group 1) that manufacturing industry contributes little, and much less than in any other group, to gross national product.

In group 2), which is numerically very large, the share of agriculture in GNP typically decreases and the share of industry increases. The proportion of agricultural employment in total employment is still high.

In the centrally planned communist economies (group 3) industry makes a considerable contribution to GNP, while other sectors, like commerce and services in general, contribute much less. In nearly every case, more than half the working population is still engaged in agriculture.

In group 4), developed agricultural export countries, agriculture's share in GNP is quite considerably smaller than in the centrally planned economies. In the course of economic development, agriculture gradually receded in relation to industry. In Argentina, where some 25 per cent of the labour force are still occupied in agriculture, agriculture and manufacturing industry contribute equal shares of 22 per cent to GNP.

Lastly, in the developed industrial countries (group 5) agriculture is clearly eclipsed both as regards its share in GNP and its proportion of employment. The process of contraction is likely to continue in many of these countries, without necessarily reducing agricultural output as such — a proviso which applies also to group 4).

From the point of view of both the origin of the national product and the composition of the working population, the relative importance of agriculture sharply decreases throughout groups 2) to 5) from each step to the next in ascending order. Any given increase or decrease in the value of agricultural output is bound, therefore, to have a much stronger impact on the national income of developing and centrally planned countries than on that of developed countries.

The developing countries of groups 1) and 2) generally sell only small quantities and a small range of products other than those of their monocultural farming, and the proportion of their agricultural exports to total exports is relatively high.

For the centrally planned economies (group 3) we lack comparable figures. The value of

(1) Here and elsewhere the term North America always includes the United States of America and Canada.
### The Position of Agriculture in the Economy of Selected Countries in the Five Groups (1959-1960)

<table>
<thead>
<tr>
<th>Group and country</th>
<th>Contribution to gross national product by</th>
<th>Ratio of agricultural to total employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agriculture</td>
<td>Manufacturing industry</td>
</tr>
<tr>
<td>1. Tanganyika</td>
<td>59</td>
<td>7</td>
</tr>
<tr>
<td>2. Thailand</td>
<td>36</td>
<td>14</td>
</tr>
<tr>
<td>Colombia</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td>India</td>
<td>48</td>
<td>17 (1)</td>
</tr>
<tr>
<td>3. Yugoslavia</td>
<td>26</td>
<td>44 (3)</td>
</tr>
<tr>
<td>Hungary</td>
<td>23</td>
<td>57 (4)</td>
</tr>
<tr>
<td>Soviet Union</td>
<td>21</td>
<td>53 (4)</td>
</tr>
<tr>
<td>4. Argentina</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>New Zealand</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>5. France</td>
<td>10</td>
<td>37</td>
</tr>
<tr>
<td>Canada</td>
<td>7</td>
<td>26 (4)</td>
</tr>
<tr>
<td>Germany (F.R.)</td>
<td>7</td>
<td>39 (4)</td>
</tr>
<tr>
<td>United States</td>
<td>4</td>
<td>30 (4)</td>
</tr>
</tbody>
</table>

(1) Including mining, building and power.
(2) 1956.
(3) Including mining.
(4) Estimated from national statistics 1946-1954.


Yugoslavia's agricultural exports was US $210 million and accounted for 47 per cent of total exports.

The characteristic feature of developed agricultural exporters (group 4) is that their exports consist almost exclusively, or at any rate overwhelmingly, of agricultural products.

As regards developed industrial countries (group 5) finally, agricultural products account for a smaller share of total exports than in any other group. It is worth noting, however, that the export share of agriculture varies greatly from one country to another; for North America the figure is 26 per cent (without forestry) and represents enormous quantities in absolute terms.

3. CONCLUSION: THERE EXISTS A STRUCTURAL IMBALANCE

Developing countries with a static economy (group 1) hardly participate in world trade of most products. Developing countries with a dynamic economy (group 2), while in some cases exporting considerable amounts of agricultural commodities (raw materials), possess neither the foreign exchange nor the infrastructures which might enable them to meet their food requirements by imports. The centrally planned communist countries (group 3) possess both, but prefer for reasons of economic policy to cover only part of their food import requirements. Developed agricultural export countries (group 4) have no net import demand for most products. Developed industrial countries (group 5) do possess enough foreign exchange and suitable infrastructures to maintain or expand imports, but prefer for a variety of reasons to let their own agriculture cover a growing portion of their demand for food.

Those countries in group 2) which export food, have to do so even to the detriment of domestic supply, because in the interests of their economic development, they cannot afford to do without the corresponding foreign exchange earnings. The same applies to those countries in group 3) which export food. In their turn, the countries of group 4) have to promote their food exports in order to forward an improvement in their standard of living as well as industrialization. In spite of the relatively small importance of agriculture for the domestic economy of the countries in group 5) - the importance of agriculture decreases with advancing development - the developed industrial countries are likely to try and expand their food exports.
THE EXPORT SHARE OF AGRICULTURE IN SELECTED COUNTRIES OF THE FIVE GROUPS (1960)

<table>
<thead>
<tr>
<th>Group and Country</th>
<th>Food exports (million dollars)</th>
<th>Other agricultural exports (million dollars)</th>
<th>Total agricultural exports (million dollars)</th>
<th>Ratio of agricultural exports to total exports (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tanganyika</td>
<td>51</td>
<td>78</td>
<td>129</td>
<td>84</td>
</tr>
<tr>
<td>2. Thailand</td>
<td>192</td>
<td>150</td>
<td>342</td>
<td>85</td>
</tr>
<tr>
<td>Colombia</td>
<td>346</td>
<td>15</td>
<td>361</td>
<td>78</td>
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<tr>
<td>India</td>
<td>433</td>
<td>151</td>
<td>584</td>
<td>44</td>
</tr>
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<td>3. -</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Argentina</td>
<td>736</td>
<td>285</td>
<td>1021</td>
<td>95</td>
</tr>
<tr>
<td>New Zealand</td>
<td>461</td>
<td>335</td>
<td>796</td>
<td>96</td>
</tr>
<tr>
<td>5. Canada</td>
<td>1022</td>
<td>155</td>
<td>1177</td>
<td>36</td>
</tr>
<tr>
<td>France</td>
<td>910</td>
<td>228</td>
<td>1138</td>
<td>19</td>
</tr>
<tr>
<td>Germany (F.R.)</td>
<td>239</td>
<td>110</td>
<td>349</td>
<td>4</td>
</tr>
<tr>
<td>United States</td>
<td>3319</td>
<td>1627</td>
<td>4946</td>
<td>26</td>
</tr>
</tbody>
</table>


Taking all the five groups of countries, therefore, there is an imbalance between supply and demand, and this imbalance is largely conditioned by structural differences in the countries' stage of development and their production plans and foreign trade. Viewed as a whole, the resulting market tendencies are such that the imbalance must be expected to grow in the future rather than to diminish.

In terms of value, the commodities under consideration together account for the biggest single item in world agricultural trade, as shown in the table below.

**VALUE OF WORLD AGRICULTURAL TRADE, ANNUAL AVERAGE 1957-1959**

(US $ '000 million)

<table>
<thead>
<tr>
<th>Commodities under consideration</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus and other fruit</td>
<td>1</td>
</tr>
<tr>
<td>Tropical beverages, wine, tobacco</td>
<td>5</td>
</tr>
<tr>
<td>Agricultural raw materials</td>
<td>5</td>
</tr>
<tr>
<td>Forest products</td>
<td>5</td>
</tr>
<tr>
<td>Total agricultural products</td>
<td>27</td>
</tr>
</tbody>
</table>


Generally speaking, world trade in agricultural products accounts for only a relatively low proportion of world output of them. The commodities under consideration - especially grains, dairy produce, and beef and veal - are not highly "trade-intensive"; much larger proportions of...
Different commodities play a different part in the trade between particular groups of countries. In some cases, like grains, beef and veal, and dairy produce, trade flows are largely between developed countries (groups 4 and 5); an example to the contrary is rice, which is traded overwhelmingly among developing countries (group 2). Edible fats and oils of animal and vegetable origin are supplied by practically all groups of countries, but the main buyers are industrial countries (group 5). It is only in the case of sugar that the bulk of the trade flows goes from developing countries (group 2) to industrial countries (group 5).

2. REVIEW OF SEPARATE PRODUCTS

The following brief review of the world markets for grains, beef and veal, dairy produce, sugar and edible fats and oils is not meant as a full-scale analysis. Past trends, the current situation and prospects of trade in agricultural commodities are today amply documented; special reference is made to FAO’s analysis in Agricultural Commodities — Projections for 1970 (Rome 1962, E/CN.13/48, CCP 62/5). In the present context we shall merely draw on the existing documentation to outline the situation on particular commodity markets, with special reference to differential tendencies with respect to market imbalance.

Grains — Volume of world trade 1961: 80 million tons

Exporting countries of group 5) account for 65 per cent of world trade. Their output has been expanding quite extraordinarily for many years past, thanks to technological improvements, to production incentives during and after the war, and to the production-raising effects of agricultural subsidies. In the other groups of countries output has also been rising steadily. This applies especially to many countries of group 2), where natural conditions are propitious and great efforts are being made toward a rapid increase in production, though in absolute terms the level of output is often still very low.

Demand has been stationary in developed countries, in spite of the growth of their population. In the future, much will depend upon the consumption of feed grains for the production of animal products. In developing countries demand has been expanding continuously, but very unevenly and from a very low level of consumption.

Looking at the world market for grains as a whole, it may be said that for some years past output has been in excess of demand and has been expanding much more than the latter. The result was an enormous accumulation of stocks, which has long exceeded any reasonable limit. Under the pressure of growing stocks, artificial devices have been introduced to promote the non-commercial utilization of grains.

In future years, several equilibrating factors may come into play. Foremost among them are certain restrictions on production in developed countries of group 5), growing demand for feed grains in developed countries of groups 4) and 5), and expanding consumption in developing countries of group 2). Centrally planned economies of group 3) have not been taking an important part in world trade in grains. The Peoples’ Republic of China has been importing sizeable quantities, but in view of the shift of emphasis to domestic agricultural production these imports can hardly be expected to continue in the future. Long-term projections for other countries in this group, and especially for the USSR, suggest that their demand for grains will expand, and they may therefore be expected — though not with certainty — to expand also their grain imports.

Given the existing imbalance between supply and demand, the effectiveness of these equilibrating factors must, however, be regarded as limited. Non-commercial grain deliveries amounted to 22 million tons in 1961 and so accounted for about one third of world trade; this has created an entirely new situation as regards the composition of exports on commercial and non-commercial terms. Any reduction in the non-commercial disposal of grains would accentuate world market imbalance.
Among commercial buyers major importers or groups of importers took up the following absolute and relative quantities in 1961:

<table>
<thead>
<tr>
<th>Country</th>
<th>Absolute Quantity</th>
<th>Relative Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC</td>
<td>14.9 m. tons</td>
<td>20%</td>
</tr>
<tr>
<td>UK</td>
<td>9.3 m. tons</td>
<td>13%</td>
</tr>
<tr>
<td>Japan</td>
<td>4.4 m. tons</td>
<td>6%</td>
</tr>
</tbody>
</table>

The United Kingdom and Japan have only limited possibilities of replacing imports by domestic production. The United Kingdom entertains special political and commercial relations with its principal suppliers. The EEC's grain imports are subject to wide fluctuations, given the relatively high degree of self-sufficiency and the looser political and commercial ties with certain other exporting countries. It is not precluded that in the future a contraction of net wheat imports due to growing self-sufficiency might be made good by expanding imports of feed grains.

Non-commercial exports during the same year amounted to 22 million tons, distributed as follows among major importers (the percentage figures refer to the total of non-commercial exports):

- Group of countries 3) 2.1 million tons = 9.5% (e.g. Poland, Yugoslavia)
- Mediterranean countries 4.5 million tons = 20.5% (excl. Yugoslavia)
- Asia 7.7 million tons = 35%
- Latin America 3.8 million tons = 17.3%
- Africa south of the Sahara 0.7 million tons = 3.2%

**Beef and veal — Volume of world trade 1961: 3.5 million cattle and 1 million tons of beef and veal**

Developed countries produce and consume two thirds of all meat; the remaining third is attributable to developing countries, which have roughly two thirds of the world's population. Neither they nor the centrally planned economies play more than a negligible part in world trade. Only 7 per cent of world output enters world trade, which is carried on mainly among developed countries. In the case of beef and veal, developed countries of group 5) account for 66 per cent of world trade.

The principal suppliers are Argentina and Uruguay. Since the war Oceania has been supplying growing quantities of meat, and so have certain European countries like Denmark, Ireland, the Netherlands, Yugoslavia and — more recently — France. The principal importers are Western European countries, among which the United Kingdom alone accounts for nearly half of total world imports. Unlike their gross imports, net imports of the United States are very small.

At present, the world market for beef and veal displays no structural oversupply. Should a vigorous expansion of production lead to excess supply in the future, equilibrium between supply and demand could no doubt be re-established by price changes, given the high price elasticity of demand for beef and veal. World trade will continue to be largely between developed countries of groups 4) and 5). There is some prospect that centrally planned economies (group 3) may import more, but developing countries of groups 1) and 2) will continue for some years to take little part in world trade.

All this adds up to a relatively stable market, from which the developing countries are, to all intents and purposes, absent. Radical changes are, however, not to be excluded on the supply side, if Oceania should exploit its rich production potential and France and the Netherlands raise their supply within the EEC. In the United States, too, the situation may change in the direction of growing domestic production, especially if prices rise. On the demand side the determinant factor is the attitude of the United Kingdom. Any change in its traditional sources of imports, such as was discussed during the negotiations on Britain's entry into the EEC, would alter the market situation.

**Dairy produce — Volume of world trade 1961: 2.2 million tons (dairy produce)**

Exporters of group 5) alone account for 67 per cent of world trade in dairy produce. Generally speaking, supply is characterized by steadily expanding output. The production-raising effects of agricultural subsidies are especially marked in the case of dairy produce, and many countries also apply export subsidies on a large scale.

On the demand side, the main feature is a relatively high per capita consumption in developed countries, where no major expansion of consumption can be expected. Price reductions might stimulate butter consumption in countries with large margarine consumption.

For the rest, the price elasticity of demand for dairy produce is rather low. Milk consumption, which accounts for 30-40 per cent of total consumption of dairy produce, can hardly be expected to grow to any considerable extent. Developing countries remain largely excluded from world trade, and since in many of them domestic production has been rising more slowly than population, consumption per head has been falling further.
All in all the world market for dairy produce is marked by strong oversupply. Developed countries are surrounded by protectionist tariff walls and their consumers pay artificially high prices. World market prices, by contrast, have fallen and often fail to cover the costs of the cheapest sellers. A strong increase in oversupply on this market is expected for the future. Large amounts of dairy produce are included in non-commercial surplus utilization.

There is no expectation that demand on the part of centrally planned economies can do anything much to mitigate the growing imbalance on the world market for dairy produce in the future. These countries will remain marginal importers for years to come. Some of them may expand their butter imports, but others, like Poland, will maintain their exports.

**Sugar — Volume of world trade 1961: 18 million tons (raw sugar)**

During the last ten years sugar output more than doubled, even though the traditional export countries, especially Cuba, have not as yet exploited their potential for higher production. The outlook for the future is that developed countries cannot step up their output much more, while considerable increases are to be expected in developing countries, especially in Latin America.

Total demand has been rising sharply in recent years. Industrial countries (group 5) have clearly reached saturation point, while developing countries of group 2) expanded their consumption along with their domestic production. Until 1960 centrally planned economies played an insignificant part in world trade; on balance, they had negligible net exports. In 1961, however, these countries purchased 4.7 million tons from Cuba, thus absorbing 77 per cent of its exports. Even though the Eastern countries eventually re-exported part of these imports, the example is instructive, in that it shows what a difference these countries can make to the market situation, if they allow their potential demand and international purchasing power to enter the world market.

The sizeable oversupply which was the determining feature of the world market situation for some time, gave way in the last two years to a general shortage of supply. The main reason of this reversal of fortunes is the political situation of Cuba. Not only has Cuba's output fallen considerably, but bilateral agreements with the USSR and other Eastern countries will prevent, or at least sharply diminish, Cuban supplies to the world market — the more so since these countries would actually appear to have become deficit areas themselves.

In the immediate future the market must be expected to remain tight, until rising production elsewhere evens out the situation.

**Edible fats and oils — Volume of world trade 1961: 8.7 million tons (fat content)**

Edible fats and oils, too, have for some years now been registering steady production increases, especially in the United States and also in many developing countries. Expansion of output was especially vigorous during the war and the Korea crisis, and affected in particular animal fats and oils, the by-products tallow, fish oil, soya bean oil and cottonseed oil, and peanut oil. Consumption has been rising at almost the same pace, and this is all the more remarkable as a large part of fat consumption, which used to go to the soap industry, has now been replaced by synthetics. In many countries — including especially India, Indonesia and Argentina — growing domestic consumption made inroads into their exports. India, a traditional exporter, has now become a net importer.

The proportion of by-products traded internationally has been growing appreciably since about 1953, and the share of the developing countries in international trade has fallen considerably. These developments were accompanied by remarkable price stability, except for some passing periods of sharp fluctuation and a marked trend of a fall in prices for edible oils (soya bean oil, peanut oil) and by-products.

Among the communist planned economies the Peoples' Republic of China, which had at first exported large quantities despite the very low per caput consumption at home, was notable for the considerable reduction in the scale of its sales abroad. The group as a whole was a net importer, though the quantities involved were small.

In comparison with other agricultural commodities, the fats and oils market is, therefore, rather well balanced, even though the outlook is none too good for certain areas and products. In industrial countries, consumption per head is stationary, while output will increase vigorously, especially in the United States. On the other hand, demand is expected to expand so much elsewhere (except in group 3), that in the aggregate no oversupply need be feared. The major uncertainty is whether, and to what extent, the growing demand of groups 2) and 3) will be directed to the world market.
or covered by domestic production, to expand which these countries are willing to pay rising costs. In this connection it should be noted that there are large surplus stocks in the US and that considerable quantities (especially of soy beans) have been exported on non-commercial terms since 1955.

3. CONCLUSION: EQUILIBRIUM IS NOT IN SIGHT

To sum up, it may be said that, although certain equilibrating elements tend to reduce the imbalance between supply and demand on the world markets for the commodities here under consideration, the effects are far too weak to establish equilibrium on any of these markets, let alone all of them.

Where imbalances do tend to diminish, it can be seen from the existence of supply management in different forms, as well as from non-commercial transactions, that the equilibrating effects by no means originate in market forces alone, but owe much to government intervention. Furthermore, the price elasticity of demand is low in most markets, so that an adjustment of supply and demand through the price mechanism cannot be expected. A further point to note is that in a growing number of countries the elasticity of demand will tend to fall as income grows.

Lastly, it must be stressed that in this brief review no allowance has been made for the interdependence of markets. But interdependence means that any approach to equilibrium on the market for one commodity may be wiped out by disequilibrium or changes on the markets for other commodities. This applies no less to products within the broad groups of grains, meat, dairy produce and edible fats and oils, than to the relationships of these groups of commodities to each other. A case in point is the cheap production of eggs and their world market supply, thanks to non-commercial imports of grains.

Taking all the commodities here considered as a whole, the conclusion cannot be evaded that the market tendencies in evidence hold out no hope of adequate market equilibrium either now or for some years to come. On the contrary, the observer is struck by the abundance and variety of tendencies which cause or accentuate market imbalances.

III. THE IMBALANCE ON THE WORLD MARKET FOR AGRICULTURAL COMMODITIES

The foregoing analysis by groups of countries and by commodities has shown that in the current relationships between agricultural markets there is an imbalance between demand and supply, in the case of all the major food products and all the five groups of countries. Careful examination would reveal similar strong imbalances between demand and supply with respect to other foodstuffs and agricultural raw materials.

The origins of this disequilibrium go back to the first world war and the subsequent agricultural crisis. Ever since, the causes of imbalance have been closely linked to the critical problems of agriculture's part in economic development.

Before discussing how an organization of world agricultural markets might remove the existing imbalance, it will be well to describe the latter's elements.

1. SURPLUSES AND PRICE DISTORTIONS

a) Surpluses

Given normal stocks, we define as surplus those quantities of any country's products which neither domestic nor foreign demand takes up at the domestic supply price. To arrive at an idea of the real extent of surpluses, we must, therefore, add to the unsold carryover from the old crop year also such non-commercial disposal as may have taken place. Given the multiplicity of methods applied to influence the market, it is extremely difficult to determine what the size of surpluses would be in the absence of intervention.

This circumstance has to be kept in mind when we now look at the considerable surplus stocks which have been accumulating for years in some countries, notably in the United States, but also in Canada, Argentina and Australia. Carryover stocks of wheat and coarse grains give some idea of surplus supply of these commodities.

So far, surpluses have emerged mainly in the case of storable foodstuffs, including in particular grains, and of a few agricultural raw materials, like cotton.

Storage and administration costs in the United States are said to exceed one million dollars per day. In 1962, total wheat surplus stocks amounted to almost 18 per cent of world output. According to the classical rules of competition, a drastic price reduction, followed by expansion of demand and contraction of output, should remove the surpluses. But in actual fact the prices of many commodities are falling without correspondingly stimulating demand or discouraging production. The most diverse factors are responsible for this, including, for example,
CARRYOVER STOCKS OF WHEAT AND COARSE GRAINS AT THE BEGINNING OF THE NEW SEASON

(in million tons)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>Wheat</td>
<td>24.7</td>
<td>35.8</td>
<td>38.4</td>
<td>35.5</td>
</tr>
<tr>
<td></td>
<td>Coarse grains</td>
<td>44.4</td>
<td>68.0</td>
<td>77.0</td>
<td>65.4</td>
</tr>
<tr>
<td>Canada</td>
<td>Wheat</td>
<td>19.9</td>
<td>16.3</td>
<td>16.5</td>
<td>10.6</td>
</tr>
<tr>
<td></td>
<td>Coarse grains</td>
<td>6.6</td>
<td>4.6</td>
<td>4.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Argentina</td>
<td>Wheat</td>
<td>1.6</td>
<td>1.2</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td>Australia</td>
<td>Wheat</td>
<td>1.1</td>
<td>1.7</td>
<td>0.7</td>
<td>0.5</td>
</tr>
</tbody>
</table>


low price elasticity of demand or the far-reaching insulation of agricultural production from market developments.

In all cases, the pressure of growing stocks has proved a coercive element in fashioning the behaviour of surplus countries. This applies also to non-commercial surplus utilization. Some surplus countries even adopted agricultural policy measures which stimulated production alongside with growing surplus utilization, so that oversupply increased further.

Finally, surpluses of several agricultural commodities undeniably threaten to develop in Western Europe within the next few years. Agricultural surpluses thus become a problem typical of the market situation of most, or at any rate of the most important, countries of groups 4) and 5).

b) Price distortions

Agricultural protectionism creates domestic capacities which often produce at much higher costs than major and cost-favoured sellers on the world market and which raise domestic supply beyond domestic demand. Export subsidies channel part of the supply to the world market, where it is sold at arbitrary prices. Demand contracts as major importing countries become more self-sufficient and at the same time the pressure of supply increases in many countries under the impact of export subsidies; the result is considerable price distortion on the market. Often enough prices fall below the costs of the cheapest suppliers.

The situation is indeed paradoxical: agricultural commodities are produced with the help of subsidies, and further subsidies are then needed to export part of these same commodities. We are face to face, here, with an essential element of the imbalance from which world agricultural markets suffer; while it affects primarily the developed countries of groups 4) and 5), it is present in all other groups of countries as well. Sales on the world market are no longer determined solely by comparative costs, but also by the ability and willingness of exporting countries to subsidize their exports.

Some idea of the extent of price distortion may be gained from a comparison of domestic prices in major importing or exporting countries and the world market price.

By comparison, world market prices for the most important qualities (cif Antwerp/Rotterdam) were on the average as follows between August 1962 and December 1963 (US $ per ton):

- Wheat 64–70
- Barley 60
- Oats 60
- Maize 58–64

There is a striking difference between world market prices and the domestic prices of industrial importing countries which practice agricultural protection. Nowadays, the prices of most commodities (accounting for 85–90 per cent of world production) are subsidized by government and there is a discrepancy between the guaranteed domestic and the world market price on the majority of produce markets.

2. FOOD DEFICIT AND DEFICIENT DEMAND FOR FOOD

a) The food deficit

In spite of the existence of surpluses, more than half the world's population suffers from malnutrition or undernutrition. Measured against a minimum standard of 2550 to 2650 calories per person per day, the situation before the war, as described by the FAO in World Food Survey (Rome, 1964), was that in areas con-
GUARANTEED DOMESTIC PRODUCER PRICES, 1963

A. Exporting Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Wheat</th>
<th>Feed barley</th>
<th>Maize</th>
<th>Oats</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>67</td>
<td>44</td>
<td>49</td>
<td>45</td>
</tr>
<tr>
<td>Canada</td>
<td>51</td>
<td>42</td>
<td>-</td>
<td>38</td>
</tr>
<tr>
<td>Argentina</td>
<td>55</td>
<td>37</td>
<td>40</td>
<td>33</td>
</tr>
<tr>
<td>Australia</td>
<td>59</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>France</td>
<td>92</td>
<td>74</td>
<td>81</td>
<td>-</td>
</tr>
</tbody>
</table>

B. Importing Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Wheat</th>
<th>Feed barley</th>
<th>Maize</th>
<th>Oats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany (F.R.)</td>
<td>111</td>
<td>95</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Italy</td>
<td>102</td>
<td>71 (†)</td>
<td>68 (‡)</td>
<td>-</td>
</tr>
<tr>
<td>Netherlands</td>
<td>98</td>
<td>81</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>73</td>
<td>74</td>
<td>-</td>
<td>76</td>
</tr>
<tr>
<td>Denmark</td>
<td>71</td>
<td>67</td>
<td>-</td>
<td>63</td>
</tr>
</tbody>
</table>

† National average support price.
‡ Initial payments.
§ Support price.
¶ Guaranteed price.
(†) Derived target prices. Main surplus area. Beginning of the crop year.
(‡) Target price. Beginning of the crop year.
(§) For wheat: minimum price. For barley and oats: base price.

Source: From EEC: Marchés agricoles - Prix, Direction générale de l'agriculture, Brussels.

Taining over half the world's population, food consumption was well below the minimum; in areas containing somewhat less than a third of world's population, food consumption was well in excess of the minimum; in the remaining areas, containing about one sixth of the world's population, food consumption was close to the minimum. After the war, the food situation of the world's peoples was worse still, and only some of them have so far regained the ground they had lost. According to FAO's latest figures (Third World Food Survey, Rome 1963) the situation has not yet radically improved. Developing countries have barely managed to return to their inadequate pre-war consumption levels; some 20 per cent of their populations are undernourished today, and some 60 per cent live on diets which are inadequate in nutritional quality.

Food needs will grow very much in the future. Assuming no more than a constant nutritional standard, that is, no improvement in the existing level of diet, FAO calculates that population increases alone would call for food supplies in developing countries to rise by 41 per cent between 1958 (=100) and 1975. Postulating an annual increase of 2.3 per cent in per caput food supplies, requirements in 1975 would be as shown in the table below.

INDEX NUMBERS OF NEEDS IN TOTAL FOOD SUPPLIES BY 1975

<table>
<thead>
<tr>
<th></th>
<th>Total food</th>
<th>Animal food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-calorie countries</td>
<td>179</td>
<td>221</td>
</tr>
<tr>
<td>World</td>
<td>151</td>
<td>158</td>
</tr>
</tbody>
</table>


The number of calories consumed is no sufficient indication of the world food problem. The diet's content of vegetable and animal proteins is of the essence. Different estimates put the normal daily intake of proteins at 65 to 80 grams per person, of which 7 to 40 grams of animal origin. But most countries suffer from a lack of proteins, and especially animal proteins.
Apart from the products of fishery and hunting, animal products are derived from plant products. A great many primary calories of vegetable origin go to make up one secondary calorie of animal origin. If food consumption in low-calorie and in high-calorie countries is expressed in the common denominator of primary calories consumed directly and used for the production of animal foods, primary calorie consumption in the two groups of countries is seen to differ very greatly.

Apart from the "fuels" measured in terms of calories, the human body needs other essential substances, such as minerals, vitamins, etc. Their shortfall together with the deficit in primary and secondary calories, adds up to the food deficit. It may happen that alternating periods of hunger and of transitory abundance add up to average figures of "sufficient" food supply in the calculation of any area's food balance.

The nutritional standard of a people is made up of a number of components, namely, calorie consumption with due regard to proteins of vegetable and animal origin, the degree to which the diet is balanced from the point of view of the supply of vital substances, regularity of food supply, and finally the adaptation of food supply to special needs and living conditions (infants, tropical areas, etc.). If any one of these components falls short of physiological norms, it may impair the nutritional standard as a whole and imply a food deficit. Because it is difficult to define adequate nutrition in terms of physiological indicators and to quantify the real nutritional level, the food deficit is generally measured solely in terms of lacking calories (and vital substances) even though as a rule it encompasses much more.

To sum up, the conclusion cannot be evaded that the physiological food needs of the populations of developing countries can today be met only in part by domestic production and imports. It may well happen that even less of their needs can be met in the future.

b) Demand for food

Physiological food needs have to be sharply distinguished from effective food needs. The latter are determined by the purchasing power, or the effective demand, which is exercised on the market. In many less developed countries only a fraction of physiological food needs is translated into effective demand.

The reasons for this state of affairs include not only the lack of purchasing power, but also inopportune or backward food habits (including taboos). Furthermore, a considerable part of the food consumption of countries in groups 1) and 2) is covered by the family units' own production. All these factors restrict effective demand on the domestic market. What little demand there is in comparison with physiological needs is kept away from world markets by shortage of foreign exchange and the priority accorded to industrial imports.

As economic development proceeds, households consume less self-produced food. To the extent that incomes per head and the division of labour grow, more demand is directed to the domestic market, but only part of the demand expansion is reflected in import demand. The reasons are increasing domestic agricultural production, even at comparatively high costs, insufficient communications between local markets (infrastructures), priorities for other imports, the pursuit of autarky, etc.

Nevertheless, a comparison of pre- and post-war figures shows that developing countries did expand their imports of grains, for example, and indeed expanded them far more than might have been expected from the relatively small growth of their national income.

| GRAIN IMPORTS OF SOUTH AMERICA, AFRICA AND ASIA |
|-------------|-----------------|-----------------|
| Regions     | 1934-1939       | 1959-1960       |
| South America| 1.3             | 3.5             |
| Africa      | 0.6             | 3.4             |
| Asia        | 2.6             | 13.6            |

Source: From EEC: Marchés agricoles - Prix, Direction générale de l'agriculture, Brussels.

The major importers are Brazil in Latin America, Egypt in Africa, and India, Japan and Pakistan in Asia.

The fact remains that the countries of groups 1) and 2) exercise far less demand for food on the world market than would be desirable in the light of their food deficit. They feel constrained to restrict their import demand, and in this respect behave on the world market much like many of the developed countries, even though, as we have seen in our analysis by groups of countries, the latter contain their imports mostly for other reasons and on the whole no longer suffer from any food deficit.
3. CONCLUSION: THE IMBALANCE IS WORLD-WIDE

All in all we are led to the conclusion that the imbalance on world agricultural markets affects the majority of countries in all five groups. Structural factors having to do with differences in the stage of development of the five groups of countries account for a large part of the reasons for the imbalance. The situation differs considerably as between different commodities, but no general improvement is in sight; some produce markets indeed display a tendency towards growing imbalance.

Because of the problematical situation in which agriculture now finds itself both on domestic and world markets, the classical market mechanism is today largely inoperative in world agricultural trade. Price no longer adequately fulfils its function of adjusting supply and demand.

Surpluses, price distortions, food deficits and deficiency of effective demand are indications of the world-wide extent of the imbalance.

The production-raising effect of agricultural subsidies reduces the net imports of many developed countries and pushes their domestic output beyond their domestic demand, so that surpluses threaten to emerge in a growing number of countries. Shares in world trade are no longer determined by comparative costs alone, but also by the amount of subsidies which governments are willing and able to impose on taxpayers. Subsidies to agricultural production are followed by export subsidies for part of the output. As a result, prices are distorted. In the less developed countries only part, and sometimes a small part, of their food deficit is covered. Their small import demand is due to a variety of reasons, including shortage of foreign exchange and the domestic market's lack of dynamism and communications (infrastructures).

In the course of the years to come, the market imbalance must be expected to increase rather than to diminish. If things are left to themselves, it is likely that growing surpluses will go hand in hand with a growing world food deficit.
B. ORGANIZATION OF WORLD AGRICULTURAL MARKETS

1. THE REASONS FOR ORGANIZATION AND ITS PURPOSES

Imbalance on commodity markets, price distortions, the coexistence of food surpluses and food deficit, and the imminent threat of an increase in the structurally conditioned and world-wide gap between supply and demand have so thoroughly upset world agricultural trade that any isolated measures or any single country's steps remain ineffective. In these circumstances the question arises whether international action has to be taken to establish a new order in the relations among world agricultural markets.

Before attempting an answer, a prior question needs to be discussed. Is it not so that the spontaneous market mechanisms, which normally tend to equate supply and demand, are already invalidated by all sorts of interventions, and would not international action with its further interventions complicate the situation still more? Would it not be better just to re-establish free competition?

The preceding analysis of agricultural market relations, in terms both of groups of countries and of separate commodities, and the analysis of the existing disequilibrium have shown the depth and diverse origin of the contradictions and imbalances which beset world agricultural trade and markets. The immobility of factors of production, the low price elasticity of supply and demand, structural differences between countries and the resulting opposition of interests all go to show that the world-wide imbalance on agricultural markets is closely linked with problems of economic growth and with national agricultural policies, which are largely divorced from market developments. It can but be repeated that it is not possible, in this situation, to establish completely free competition.

It follows that some other way must be found to introduce order into world agricultural markets. When we speak, in this context, of an "organization of world agricultural markets", we do not, as has already been stressed in the Introduction, mean that some institution is to be set up to deal with these problems; we mean that world agricultural markets are to be organized by means of joint action by economically developed and less developed countries, on the basis of appropriate agreements.

1. THE REASONS FOR INTERNATIONAL ACTION

A first and potent reason for international action with a view to reorganizing agricultural market relations is that all groups of countries stand to gain from an expansion of trade flows. This applies quite particularly to the developed industrial countries (group 5). Their mutual trade in manufactures is growing steadily and vigorously; but it has become increasingly clear, especially since the last war, how important a bearing agricultural trade has on the further expansion of industrial trade. The recent history of commercial policy and economic integration is rich in examples which go to show that the further development of the network of industrial trade can be hampered for want of sufficient agricultural exchanges in a measure far exceeding the latter's numerical importance. It would be no exaggeration to say that agricultural trade exercises a cumulative effect on industrial trade.

The same is true of the trade relations between the countries of group 5) and all the other groups, even though the expansionary effects on trade are naturally rather less in the case of agricultural imports originating in developing countries with a smaller capacity to absorb industrial products. To some extent this interdependence of agricultural and industrial trade is evident also in the trade relations with centrally planned economies (group 3); in this case it remains to be seen whether some of them will take advantage of this cumulative trade effect, by allowing their potential demand for food to find expression in larger agricultural imports, which would enable them to withdraw more productive resources from agriculture and to step up their industrial exports. Developing countries in group 2) have a particular interest in an intensification of agricultural trade, in so far as most of them rely on agricultural commodity exports as the main source of foreign exchange.

Taking the commercial interests of countries as a whole, therefore, there is everything to be said for a reorganization of world agricultural trade relations, even though it may be contemplated merely within the limited scope of reducing imbalances only to the extent required for the desired expansion of world trade. It must be admitted, in this connection, that imbalance on world agricultural markets has so far grown continuously without causing world trade to stagnate, let alone to shrink. On the contrary, world trade has kept growing at the same time as imbalance. This observation should serve to dampen, right at the
outset, any sanguine hopes that reasons of commercial policy alone might be enough to remove disequilibrium from the world's agricultural markets.

Development policy, in its turn, has its own reasons for a reorganization of world agricultural markets. These reasons have to do with the removal of the food deficit which holds back the economic development of countries in groups 1) and 2). To mobilize the demand of these countries would certainly be desirable from the point of view not only of their own economic development, but also of the existing imbalances on world agricultural markets; it would not, however, do away with these imbalances, especially since the developing countries themselves export agricultural commodities, including some which are already in strong oversupply. The reasons which speak for a reorganization of world agricultural markets from the point of view of development policy are, furthermore, subject to other limitations, in so far as experience has shown trade exchange between developed countries to be those that not only are the most intensive, but that display the fastest rates of increase. Even within the group of centrally planned economies (group 3) no effort has so far succeeded in intensifying trade between countries at markedly different stages of development.

The really compelling reason for international action to remove disequilibrium on world agricultural markets lies elsewhere than in trade or development policy. It is that the existing imbalance, that the disorder which reigns in world agricultural trade and has such damaging effects on international trade, are incompatible with any attempt to improve economic co-operation on a world scale. Since the second world war, international co-operation has transcended trade policy, and more recently also development policy, and has spread and intensified in the wider framework of the world economy as a whole. International co-operation today rests on political no less than economic motives. Here is the true reason why the world is no longer willing to put up with the spreading canker of agricultural market problems, nor with the paradoxical coexistence of food surpluses and hunger. All countries, whatever their political and social order, and international organizations alike regard the removal of this state of affairs as one of the great tasks of our time. It is a task which necessarily requires international action to establish a new order on world agricultural markets.

2. THE PURPOSES OF ORGANIZATION

What has been said so far already suggests to what purposes the new order – the organization – of world agricultural markets should be directed: it should aim at the disappearance of disequilibrium.

One purpose must be to remove surpluses and to try and make good the food deficit. At the same time price distortions on world markets must be eliminated. Consumption must be expanded not only in the less developed countries of groups 1) and 2), but also in the developed agricultural export and industrial countries (groups 4 and 5). The centrally planned economies (group 3) should be free to take part in the organization of world agricultural trade, if they so desire; the most developed among them have a considerable potential of effective demand. Finally, the supply of agricultural commodities, too, must be encompassed in the new order. Any attempt at solving the problems of world agricultural trade is doomed to failure so long as supply is not adapted to the course of demand, because without that no lasting market equilibrium is possible.

II. THE KIND OF ORGANIZATION REQUIRED

1. INAPPLICABLE SOLUTIONS

What kind of new order (organization) do world agricultural markets need if we are to achieve our objective of removing, or at least radically and lastingly reducing, the existing imbalance between supply and demand? To answer this question, it will be necessary to examine the suitability of different solutions of wider or lesser scope.

The most universal and, in the long run, most effective solution would doubtless be the creation of a political world organization encompassing all the five groups of countries and endowed with adequate executive powers.

This would be possible only on condition of a general relaxation of political tensions, including the conflict between East and West; it would also require world-wide harmonization of political interests along the line of joint solutions to the problems of the world economy. Defence expenditures, which now weigh so heavily upon the budgets not alone of the leading nations, could then be reduced drastically and budgetary resources released. As a result, and as a result also of the multiple opportunities of joint action, the imbalance on world agricultural markets could be removed. In addition, the world would so get rid of some of its other unsolved economic problems, which
derive from the structural differences among the five groups of countries. A world-wide and universal redistribution of national incomes would, for instance, make room for a new pattern of international specialization and, with it, a new pattern of world trade in agricultural commodities and in manufactures alike. Finally, it would be possible to do much more to even out differences in the levels of development of the five groups of countries.

However, a solution of so broad a scope is not feasible at present.

Leaving aside a world political organization, one might think of a world economic policy. This would be a less far-reaching solution, but still a lasting and effective one. It could do less to even out differences in the level of economic development, but certainly would be conducive to harmonization of the participating countries' economic interests over a broad field, and in particular would transcend the narrow limits which today circumscribe the sphere of action and possible success of any international trade policy. World-wide coordination of the means and measures of economic policy would enable the existing imbalances to be removed from world agricultural markets. If joint efforts succeeded in raising the consumption and net imports of developing countries (groups 1 and 2), if the countries of group 3) directed to world markets their demand which so far has been largely kept away from them, and if the developed countries of groups 4) and 5) adjusted their production to the new world market situation, then equilibrium would come about at much higher levels of world consumption and world trade of agricultural and more especially food, products. But this solution, too, would presuppose a far-reaching relaxation of political tensions between the major countries of the five groups. For this reason it is not practicable today, but may become so for future generations.

2. MARKET-ORIENTED SOLUTIONS

The rehabilitation of world agricultural markets requires a solution, the political conditions and scope of which are such that it can be applied at once, and which is market-oriented in the sense that it specifically aims at the establishment of equilibrium on the world's agricultural markets. In comparison with the two, today still impracticable, solutions of an effective political world organization and of a co-ordinated world economic policy, an organization of world agricultural markets certainly is much more limited. On the other hand it is much wider in scope than the isolated measures which have so far been applied or discussed with a view of attacking one or the other of the symptoms of imbalance on the world's agricultural markets.

Market-oriented measures to organize the world agricultural market require international efforts on a world scale and, given the nature of the existing imbalance, they cannot remain limited to the trade aspects of the market alone (prices, interdependence of different commodity markets etc.), but must encompass also its production and consumption aspects. Organization therefore extends both to agricultural trade and to the agricultural policies of participating countries. To be effective, it will require new instruments specifically devised to deal with the peculiarities of world agricultural disequilibrium.

Furthermore, an organization of world agricultural markets can be effective only if it encompasses the greatest possible number of countries. Even if the new market-oriented measures may, in the first instance, apply only to what we have called the developing (groups 1 and 2) and developed (groups 4 and 5) countries, they should be such that the centrally planned economies (group 3), too, may later join in the new arrangements.

Finally, organization must extend to all those agricultural commodities which are substitutable either in consumption (e.g. butter and vegetable fats) or in production (e.g. wheat, maize, sugar, etc.). This is the only way of preventing disequilibrium from shifting from one commodity market to another. The implication is not that the form and content of organization must be the same for all commodities; on the contrary, it should take full account of the peculiarities of every single product market.

Such a new order of world agricultural markets must rest on some kind of foundation. As indicated above, there is no hope, at present, of anything like a world economic policy, let alone an effective political world organization. But the countries of groups 2) to 5) do take part in world trade, and it does appear possible to harmonize their structurally conditioned interests. This is a foundation; its solidity will depend upon the degree to which interests can in effect be harmonized.

III. IMPORTANCE OF ORGANIZATION FOR DEVELOPMENT POLICY

There can be no doubt whatever that a new order of world agricultural market relations and the implied removal of existing imbalances
and contradictions will benefit world economic development generally — if only because agriculture occupies such an important place in the overall economic development of nations and in their economic relations.

Benefits will accrue to developed and developing countries alike, as the discussion above has made clear. For the former, agriculture gives rise to problems the economic implications of which are felt more and more widely, and which are politically explosive not unlike minority problems. In developing countries agriculture in any event still occupies the dominant position in the economy and accounts for a considerable share of their total exports. For the rest, the great depression of the years 1929–32 made it abundantly clear that the relationships among agricultural markets have an important bearing on the world economy, and in today's altered conditions this still remains equally true with respect both to cyclical fluctuations and to structural economic growth.

In this sense the reorganization of world agricultural market relations will help the development of countries, provided it takes sufficient account of their interests. But an explicit warning is in order here: this reorganization is not a panacea for the solution of the problem of developing countries. This is an enormous problem and, as the experience of developed countries shows, its solution requires the best efforts of several generations.

1. ESTIMATES OF THE DEVELOPING COUNTRIES' FUTURE CAPITAL DEFICIT AND FOREIGN TRADE

To illustrate the extent of this development problem, we refer 1) to the developing countries' share in world trade and 2) to their external indebtedness; we shall then attempt to estimate 3) their future capital requirements and deficit and 4) the possible expansion of their exports and imports.

In spite of the care which has been lavished on the numerous calculations of the 1970 figures in the following tables, these figures can still be regarded only as hypothetical indications of possible developments up to 1970, which are subject to many unforeseeable factors. The same applies a fortiori to the 1980 figures, which really do no more than convey some rather vague idea of what might happen.

1) The developing countries' share in world trade

In the 1950's world trade expanded by 95 per cent. For the 1960's we may assume an increase of 79 per cent (details of the calculation are given in Table 1 of the Annex). Assuming the developing countries' exports and imports to take the course outline under 4) below, their share in world trade might be as follows.

<table>
<thead>
<tr>
<th>ESTIMATES OF THE DEVELOPING COUNTRIES' FUTURE SHARE IN WORLD TRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports of developing countries (in %)</td>
</tr>
<tr>
<td>Imports of developing countries (in %)</td>
</tr>
</tbody>
</table>

The fall in the shares of the developing countries is matched by corresponding increases in the share of industrial countries as well as in that of some developed agricultural export countries and centrally planned communist ones.

2) Growing external indebtedness

The excess of the developing countries' imports over their exports amounted to altogether $20,000 million in the fifties. To this must be added some $13,000 million of payments for servicing foreign investments and debts. It will be recalled, however, that in some cases external indebtedness used to be still higher in the past, and was reduced by the war, the dismantlement of colonial systems, and rising world market prices for some commodities and at certain periods. Now external debts threaten to increase again. In this connection it is instructive to compare the developing countries' trade deficit plus their interest and dividend remittances, on the one hand, with their intake of capital (capital inflow) on the other.

The developing countries' capital inflow from abroad is seen to correspond closely to the sum of their trade deficit and payments in respect of interest and dividends. In these circumstances their gross gold and foreign exchange reserves remained more or less constant at just over US $12,000 million.
TRADE BALANCE, INTEREST AND DIVIDEND REMITTANCES, AND CAPITAL INFLOW OF DEVELOPING COUNTRIES (1)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade balance</td>
<td>+ 0.8</td>
<td>- 0.1</td>
<td>- 3.9</td>
<td>- 1.1</td>
<td>- 0.7</td>
<td>- 1.7</td>
<td>- 2.6</td>
<td>- 4.2</td>
<td>- 4.4</td>
</tr>
<tr>
<td>Interest and dividends</td>
<td>- 1.2</td>
<td>- 1.4</td>
<td>- 1.1</td>
<td>- 1.2</td>
<td>- 1.3</td>
<td>- 1.4</td>
<td>- 1.4</td>
<td>- 1.4</td>
<td>- 1.4</td>
</tr>
<tr>
<td>Total</td>
<td>- 0.4</td>
<td>- 1.5</td>
<td>- 5.0</td>
<td>- 2.2</td>
<td>- 1.9</td>
<td>- 3.0</td>
<td>- 4.0</td>
<td>- 5.6</td>
<td>- 5.8</td>
</tr>
<tr>
<td>Capital inflow</td>
<td>+ 0.4</td>
<td>+ 1.0</td>
<td>+ 4.3</td>
<td>+ 1.0</td>
<td>+ 1.9</td>
<td>+ 3.0</td>
<td>+ 4.9</td>
<td>+ 5.5</td>
<td>+ 5.9</td>
</tr>
</tbody>
</table>

(1) Excluding Eastern Europe, the USSR and mainland China, and the main petroleum exporters.


Official grants accounted for roughly one third of the total capital inflow, so that external indebtedness rose strongly in the period under consideration. The net inflow of private investment capital was less than the net outflow of payments earmarked for servicing past investments and loans.

3) Estimate of capital requirements and capital deficit

The calculations of capital requirements (input) rest on an assumed input/output ratio and an assumed increase in gross national product (output) which seem feasible in developing countries. For industrial countries this method is rather useful, because for particular reasons their capital/output ratio is largely constant. Developing countries do not by any means have a constant capital/output ratio, and in their case the calculation is subject to reservations.

Furthermore, developing countries sometimes have a fairly limited capacity to absorb capital. Among the various inputs, skilled labour often constitutes the bottleneck most difficult to overcome. This explains the importance of "human investment" in these countries and the rather long periods they need for social and economic development.

The following tabulation summarizes the results of calculations, the details and methods of which are explained in Table 2 in the Annex.

The following figures of the developing countries' future capital requirements broadly coincide with those (1) calculated by W. Hallstein, P.N. Rosenstein-Rodan and B. Fritzsch. The two figures for the likely capital deficit may be regarded as the upper and lower limits.

ESTIMATES OF THE POSITION OF DEVELOPING COUNTRIES IN 1970 AND 1980
(at 1960 prices; US $ '000 million, except when otherwise indicated)

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th>1970</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (thousand million)</td>
<td>1.2</td>
<td>1.5</td>
<td>1.8</td>
</tr>
<tr>
<td>National Income</td>
<td>145</td>
<td>245</td>
<td>449</td>
</tr>
<tr>
<td>Gross National Product</td>
<td>165</td>
<td>278</td>
<td>510</td>
</tr>
<tr>
<td>Per caput income (US$)</td>
<td>121</td>
<td>168</td>
<td>252</td>
</tr>
<tr>
<td>Net capital requirements</td>
<td>20.8</td>
<td>49.2</td>
<td>99.5</td>
</tr>
<tr>
<td>Net saving</td>
<td>11.6</td>
<td>28.6</td>
<td>72.9</td>
</tr>
<tr>
<td>Capital deficit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>if capital/output ratio = 3.0</td>
<td>9.2</td>
<td>20.6</td>
<td>26.6</td>
</tr>
<tr>
<td>if capital/output ratio (after 1970) = 2.5</td>
<td>9.2</td>
<td>12.4</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Sources are given in Table 2 in the Annex (footnote 5).

It is very hard to say anything definite about the capital/output ratio in developing countries. A capital/output ratio of more than 3 would further lift the upper limit of the capital deficit, and so would lower saving. But many countries' development plans allow for the assumed, or even a higher, rate of saving.
It is interesting to compare the likely capital deficit of developing countries with the gross national product of the western industrial countries, which has an important bearing on the latters' future development aid (see Table 3 in the Annex).

**COMPARATIVE ESTIMATES OF CAPITAL DEFICIT IN DEVELOPING COUNTRIES AND GROSS NATIONAL PRODUCT IN WESTERN INDUSTRIAL COUNTRIES**

(OECD Member States)

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP of industrial countries (US $ '000 million)</th>
<th>Capital deficit of developing countries (US $ '000 million)</th>
<th>Capital deficit of developing countries (in %)</th>
<th>Per cent of GNP in industrial countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>879</td>
<td>9.2</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>1970</td>
<td>1276</td>
<td>20.6</td>
<td>1.6</td>
<td>1.0</td>
</tr>
<tr>
<td>1980</td>
<td>(1855)</td>
<td>(26.8)</td>
<td>(1.4)</td>
<td>(0.5)</td>
</tr>
</tbody>
</table>

It will be seen that, although our calculations suggest that the capital deficit of developing countries should increase fairly sharply, it will still represent much the same proportion of the industrial countries' gross national product as it does today.

4) Estimates of future exports and imports

To arrive at realistic forecasts of the possible expansion of the developing countries' exports and imports, we used a number of different methods of calculation, as indicated in Table 7 in the Annex. The results of the calculations are presented below.

Exports are hardly likely to expand at a faster rate than during the fifties; indeed, according to FAO projections, the rate of increase is likely to flatten out slightly. It will be recalled that 60 per cent of all exports from developing countries (excluding Eastern communist ones) to the rest of the world are agricultural commodities.

Different methods of calculation for import estimates lead to comparable results, and this applies also to the computation of imports as the sum of export proceeds plus capital aid (see Table 6 in the Annex). The figures appear realistic and may well prove broadly correct — at any rate in the absence of major political or economic disturbances.

2. THE LONG-TERM NATURE OF THE PROBLEM OF DEVELOPING COUNTRIES

The foreign economic relations of developing countries reflect their fundamental problems in the shape of growing indebtedness and a growing future capital deficit. We may ask whether higher exports might provide a means for these countries to extricate themselves from their critical position. The answer is: only up to a point. Only part of the import requirements can be financed by increased exports. This is shown in the model below, which illustrates the possible order of magnitudes in the future (details in Table 8 in the Annex).

Possible annual increase in food exports from developing countries, 1960-70 = $2 100 million

Increase in developing countries' food exports required to finance their food imports, 1960-70 = $7 200 million

Possible export gap (food) = $5 100 million

Even if the possible rate of increase in exports were to double, the problems of the developing countries would still remain unsolved. In the case of agricultural raw materials and other products the gap between export possibilities and import requirements is even larger; it is estimated at US $12 000 million in 1970. If current and future efforts to stabilize prices are crowned with success, the situation might ease somewhat.
However desirable such a strong expansion of exports may appear, it is, for various reasons, hardly likely to happen in the next few years. Quite apart from that, there would be some difficulty in the industrial countries' absorbing such a hypothetical increase in exports. The European Economic Community, for example, all in all imported food for $6,500 million in 1960, of which $3,700 millions' worth came from elsewhere than North America and the EFTA countries. In other words, even a drastic change in external protection and imports in the EEC — and, for that matter, in other developed countries — would not solve the problem of the developing countries, though it would improve their balance of payments.

Given the magnitude of the problems of the developing countries, and given the enormous gap which divides their level of development from that of developed countries and which makes the former's problems so big, an organization of world agricultural markets can be but one step toward the long-term solution of these problems.

**IV THE METHODS OF ORGANIZATION**

1. STAGES AND SYSTEMS OF ECONOMIC INTEGRATION

The gradual removal of obstacles to trade after the second world war after some time encountered growing resistance on the part of certain countries, which were unwilling to make any further concessions because of their balance-of-payments and competitive position. In such circumstances, closer links between the markets of a limited number of countries offer an opportunity to go on dismantling trade barriers among themselves. The most important examples of such integration today are the EEC and EFTA, but in Latin America, too, nine countries have joined together in the Latin American Free Trade Association (LAFTA). Five countries are trying to create an Organization of Central American States, and in Africa several countries and groups of countries are working in a similar direction.

We may ask whether economic integration is a suitable way to arrive at a harmonious new arrangement of market relations. We shall examine this question from the point of view of the most diverse forms of integration. The words "economic integration" have two meanings; they can mean a process aiming at the removal of various kinds of obstacles to trade, and they can mean a situation in which various kinds of obstacles to trade have already been removed.

Often political purposes are among the motive powers of integration. This is certainly largely true of Europe since the days following the first world war. But it need not always be so. Economic integration in the Common Market, for instance, which itself owed much to political motives, has now created — or at least not prevented — an economic situation for third countries which makes integration a pressing problem for some of them.

Generally speaking, the purpose of economic integration is to improve specialization within the international division of labour, and with it the exploitation of comparative cost advantages. This gives more play to the economic principle according to which preference is to be accorded to the supplier producing at the lowest costs.

Often, however, the treaties which prepare the way for an economic union or create it lay down no more than the broad outlines of its means and purposes, because ample latitude must be allowed at the outset for the many and varied interests involved and for future developments. The text of the Rome Treaty, for example, nowhere mentions the concept of integration. The paths which lead to the desired integration, on the other hand, are characterized by such concepts as "adaptation", "rapprochement", "alignment", "co-ordination", "harmonization" and "uniformization". Comparison of the authentic text of the Treaty in its four languages shows that no consistent distinction is made between all these concepts. A real difference of meaning is made only between the purposes of "co-ordination" and "common policy". The former indicates a looser form of integration, preparatory to fuller integration in the form of a common policy.

Economic history is rich in examples of integration in many forms. Whatever form it took however, and barring the compulsory unification of different economic regions, integration always rested essentially on the removal of obstacles to trade. In our times, on the contrary, more advanced forms of integration have come to the foreground. To help in the discussion of this problem, we show below a systematic tabulation of the stages of integration and of the types of systems which, in practice, correspond to these stages. But the process of integration need not always pass through these stages in the order in which they are shown.
Stages of integration | Corresponding systems of integration
---|---
International co-operation among individual markets | Trade-policy systems
Free intra-trade | Free trade areas, customs unions
Common economy (internal freedom of movement for goods, services, capital and labour) | Common market
Common policy | Co-ordinated policies, unitary policy

International co-operation among individual markets

International co-operation here takes the form mainly of commercial agreements tending to reduce trade-restricting practices. The removal of obstacles of this kind constitutes the simplest form of integration.

Free intra-trade

Free intra-trade in the shape of a free trade area or a customs union constitutes a higher stage of integration. Within the free trade areas, tariffs, quantitative restrictions and other obstacles to trade are suppressed, but each member retains its own trade barriers against non-members. In a customs union, members no longer pursue a tariff policy of their own vis-à-vis third countries, but apply a common external tariff.

Common economy

In a common economy freedom of movement extends not only to goods but also to services and factors of production. At this stage of integration, therefore, all economic factors are exchangeable.

Common policy

A still higher degree of integration obtains when the members of a common economy harmonize their economic policies. Harmonization is pursued only to the extent necessary for the emergence or functioning of a common economy.

The most far-reaching form of integration, finally, is unitary policy extending even to those areas of national decisions which need not be unified from the sole point of view of the emergence or functioning of a common economy. At this stage of integration, all national authorities influence the course of the economy in the same direction.

2. TRADE-POLICY SYSTEMS

The traditional means of bilateral and multilateral trade policy rest on the principle of reciprocity. Countries mutually grant each other certain trade advantages or facilities with respect to trading conditions, especially as regards tariffs and other import restrictions.

In systems of this kind commercial policy reduces obstacles to trade which, in their turn, reflect differences in the competitive position of countries, but the conditions of competition themselves remain untouched. So long, therefore, as international competition is regulated merely by trade agreements, it is still often vitiated by subsidies of various kinds and by certain practices of fiscal and industrial legislation, anti-dumping provisions, etc. These practices absolve the trading partners from having to even out the structural differences in their production and consumption.

The trade-policy method has the further defect that it can often not be applied at all, or applied only to a very limited extent, in the trade relations among countries belonging to practically all the five groups. Developing countries have little chance at present to play an effective part in any negotiations or concessions of mutual advantages, since these countries' bargaining power is restricted, or indeed reduced to zero, by the lop-sided structure of their demand and supply, by their balance-of-payments disequilibrium and by their liquidity shortage. Conversely, developed countries are compelled to raise their supply of agricultural commodities, regardless of the advantages or disadvantages this may have for their commercial policy. The classical rules of trade simply cannot come into play.

Nowadays the trade-policy method, especially when applied to agricultural trade, often ends up in a blind alley for the mere reason that trade interests are all concentrated on access to the market of importing countries, without
reference to the latters' exports and conditions of production and consumption. This bias is all the more crippling as many markets are permanently saturated.

It follows that the trade-policy method is not sufficient today to achieve a reorganization of world agricultural trade relations. We have to look to higher forms of integration to see whether they offer any solutions which make wider allowance for the domestic elements of each country's market situation.

3. A COMMON MARKET WITH THIRD COUNTRIES?

Before examining the chances of removing imbalances from agricultural markets by a common market embracing as many countries as possible, it will be convenient to set out in a digression some of the facts and factors which characterize the impact which a common market in the shape of a customs union has on relations with third countries. This is a question of principle, and as such justifies the digression.

Digression: Customs union and third countries

In quite general terms, a customs union, as a higher form of integration, involves a number of advantages and disadvantages both for its members and for third countries. These advantages and disadvantages have an important bearing on the question whether this form of integration is suitable for a reorganization of market relations.

The benefits accruing to the members of a customs union stem principally from an intensification of trade with better exploitation of comparative cost advantages. The extent of the benefits is determined by the savings in factors of production.

These benefits are associated with disadvantages if, and so long as, the cheapest suppliers in the customs union have only the relatively lowest costs, that is, if third countries can produce at still lower costs and are therefore still cheaper suppliers. The creation of the union, that is, of a regional preference system, alters the trade relations of members with third countries. Internal trade expansion (intra-trade within the union) is accompanied by trade diversion outside the union (external trade). This trade diversion is counteracted by an expansion of external trade, in so far as cost reductions and growing incomes due to more intra-trade (comparative cost advantages) are reflected in additional imports from third countries. Unless the expansion of external trade offsets trade diversion, third countries suffer disadvantages.

These disadvantages as a whole are determined by the extent of trade diversion which is not offset, and by the cost and price differentials of supply produced at relatively or absolutely lowest costs, by members and non-members of the union, respectively. Disadvantages of this kind naturally persist only so long as the costs of the relatively cheapest suppliers, within the union, fall to adjust to those of the absolutely cheapest suppliers outside the union.

Non-members can also find some compensation in an intensification of their trade with other non-members. This so-called secondary effect of the creation of a union does, however, either not take place at all or only to a rather limited extent, if the non-members' trade losses (disadvantages) concern one and the same group of products and their efforts all concentrate on the export of precisely that group of products to the union.

Non-members have yet another possibility of compensation in the creation of new outlets on the domestic market. This is a method open to third countries mostly when they happen to be large, but apart from mere size a relatively low export dependence is of the essence.

Finally, capital flows from non-members into the union lead, among other things, to higher investment in the union on the part of disadvantaged non-members. It goes without saying that such capital flows into a union with a relatively high cost level implies a deterioration of international division of labour with respect to the product concerned.

A common market offers no solution

A common market is a suitable way to improve balance among agricultural markets provided it includes all those countries which are called upon to play a part in the equilibration. It follows that the common market would have to encompass a large number of countries from groups 2) to 5).

We do not wish to enter, here, into the political problems involved in the creation of a large common market; but over and above these, it would entail also economic difficulties from the point of view of both developed and developing countries. These difficulties may be described as follows.

Earlier attempts at integration, which were largely inspired by power politics, often meant the combination of areas with complementary patterns of production, and the benefit was sought in increased autarky. But true economic
benefit in the sense of greater welfare can come only from a combination of competing economic units.

The reduction of obstacles to trade among competing economic units producing largely similar commodities leads to a shift of production from comparatively high-cost to comparatively low-cost capacities. The benefit is all the larger, the greater the cost differential of competing branches of production before integration.

Conversely, these advantages will not occur when complementary economies are integrated unless steps are taken to allow for the imbalance between these economies and the differences between them, and also for the development of trade relations with non-member countries, in the same way as allowance for these factors was made in the association agreements with Greece, with Turkey and with the associated African States and Madagascar. If nothing is done about these factors, it can easily occur that producers whose costs are high in relation to those of non-member countries increase their capacities (and their production costs) so as to sell their goods where imports had previously been drawn from other Member States.

Suppose that mature economies with a full range of production and comparatively high costs in some economic sector x are integrated with economies possessing only a few developed sectors, including a low-cost sector x; integration would then be advantageous for the members so far as sector x is concerned, in line with our considerations regarding competing economies. But, given the cost advantages of the developed countries' other supply, the less developed countries would have the greatest difficulties in building up the other sectors of their economy. They would find themselves in some sort of dependence.

Furthermore, it must be stressed that differential rates of growth in the course of time lead to considerable differences in the level of development — measured in terms of national income per head — or widen existing differences. There is no law that says that integration makes for similar rates of growth. On the eve of the EEC's new integration stage at the end of 1962, for instance, the rate of growth had slowed down markedly in the Federal Republic of Germany, but showed no sign of deceleration in France and Italy. Even less can integration be expected to lead to anything like "compensatory rates of growth", which would tend to even out existing differences in development levels.

On the contrary, the removal of obstacles to trade between economic regions and national economies at widely different levels of development has often aggravated the disparity. Capital, raw materials and labour migrate from the less developed to the more developed regions, mainly because of the higher productivity of capital, external economies, and the higher level of employment in the more developed regions.

Even in mature economies, economic growth is associated with increasing regional disparities — witness Great Britain (Northern Ireland), France (certain south-western areas), the Federal Republic of Germany (some areas in the south and east) and others — so much so that governments have often had to take compensatory measures. Certainly integration of economies at different levels of development must not be expected to lead to automatic adjustment through the market mechanism.

Another important point is that union in the shape of a regional preference system radically alters the position of every member of the union vis-à-vis third countries. The change concerns not only the new and more favourable alternatives now open to the member country both as a seller and a buyer, but also its bargaining power vis-à-vis outsiders.

Before integration, the buying country B had to fashion its behaviour towards the selling country A according to the alternatives open to the latter. Demands of B for concessions on the part of A, or B's refusal of A's claims, were always limited by the possibility of A turning to other countries C, D or E. Once the countries B, C, D and E are integrated, the seller A has fewer alternatives and his bargaining position weakens. The union gains a natural preponderance, which grows with growing membership. The greater is the preponderance which a union acquires in the redistribution of market and bargaining positions, the more uncertainties and disabilities will hinder the external economic activities of non-member countries. A number of studies suggest, for example, that in Europe uncertainty regarding the member nations' trade policy has done more harm than their restrictive measures. Growing membership also raises the union's intra-trade and thereby introduces yet more change into its trade relations with non-members. These tendencies are further strengthened when rising per caput incomes within the union alter the elasticity of demand for the products of non-member countries. This applies in particular to agricultural commod-

34
In the light of all these difficulties we are led to the conclusion that economic considerations as such — leaving aside political considerations — do not speak for combining in one common market all the third countries, developed and less developed alike, which take part in world agricultural trade. This conclusion is valid whether or not existing customs unions also join. If such a union were limited to competing and developed third countries, many of the problems of integration would not arise at all, but on the other hand the imbalance on world agricultural markets would not be removed; on the contrary, it might be aggravated. If only a few developed and developing third countries were to join together, the equalizing effect would be nil.

4. SECTORAL INTEGRATION IS NO SOLUTION EITHER

Throughout the short history of Europe's economic integration, that is to say, since 1927 when a "European economic and customs union" was first discussed, two alternatives have been kept in view. One of them is sectoral integration, that is to say, integration limited to one or several economic sectors, such as agriculture, or industry, or separate branches of industry. The other extends to all sectors of the economy. In the first case integration can proceed separately by different sectors, in the second it is prepared and put into effect for the whole economy.

Sectoral integration has the advantage that it makes for the more rapid and more certain subsequent integration of the remaining sectors. It also has political advantages, especially in so far as national governments prefer partial integration because its political implications can be appreciated more easily. The Stikker Plan of 1951 deliberately envisaged integration by sectors. Would, then, integration of the agricultural markets of the largest possible number of countries in groups 2), 4) and 5) provide a chance of removing imbalance from world agricultural markets?

High-cost countries could drastically rationalize the production of certain commodities and thereby durably reduce their costs.

The creation of a common agricultural market would offer its members a number of benefits. Countries with comparative cost advantages can widen their outlets, those with comparative cost disadvantages are induced gradually to withdraw factors of production from agriculture and divert them to industry, and their demand for agricultural commodities should be matched by a growing domestic supply of industrial products.

As a matter of fact, structural change of this kind is now taking place in practically all industrial countries (group 5) and in many developed agricultural export countries (group 4). The share of the labour force employed and of the capital invested in agriculture is declining either in absolute terms, or at least in relation to industry. This process would be accelerated by sectoral integration in a common agricultural market.

Such integration presupposes the fulfilment of a good many conditions, among which two deserve special stress.

The first condition is that industry must already be expanding when the process of integration starts. It is a lesson of experience that such processes of structural change are doomed to failure when industrial production has not yet begun to expand, or even if its expansion comes to a temporary halt. The second condition is that the cyclical situation must be propitious. Structural change would be difficult or impossible in a period of economic stagnation, let alone recession, unemployment, disorganized capital markets, uncontrolled price fluctuations, and so on. In the absence of these two conditions sectoral integration — or, for that matter, any process of integration — would become extraordinarily difficult or even impossible.

But even if the countries concerned enjoy economic expansion and cyclical stability, sectoral integration still encounters the same — though sometimes less pronounced — economic and political difficulties that have been shown to exist in connection with a common market with third countries.

The creation of a common agricultural market would, among other things, come up against the difficulty that the countries concerned are pursuing economic and monetary policies which differ widely in respect of their objectives, scope and instruments, and are so contradictory
that they cannot be harmonized, and hence not neutralized, within the framework of sectoral integration.

Another difficulty is that high-cost countries, whose domestic production is being replaced by agricultural imports, would find it hard to balance their external payments. There can be no certainty that the diversion of factors of production and natural resources from agriculture to industry will be reflected at once, and to the desired extent, in an expansion of industrial exports.

Finally, a number of countries feel unable to make sure that the disadvantages their agriculture would suffer from sectoral integration are immediately offset and politically neutralized by corresponding advantages in other sectors. This applies especially to countries in the economy of which agriculture still occupies the dominant place.

We are led to the conclusion that very great difficulties and problems indeed are involved not only in the creation of a common market for third countries, but also in sectoral integration in the form of a common agricultural market. Only a few countries of groups 4) and 5) might find it a suitable solution; countries of group 3) would probably not be interested in integration at this stage, and those of groups 1) and 2) would find the difficulties unsurmountable in practice.

For the majority of countries in all five groups sectoral integration would be out of the question and, for that reason, appears unsuitable for the organization of world agricultural markets. No doubt, many of the difficulties which are unsurmountable at present could be overcome if the process of sectoral integration were spread over a prolonged adaptation period. But even apart from the question whether long transition periods are at all compatible in practice with the creation of a common agricultural market, they are certainly ruled out for an organization of world agricultural markets, which must be cured of their imbalance as quickly as possible.

5. CO-ORDINATION OF NATIONAL AGRICULTURAL MARKETS

The world's agricultural markets cannot, therefore, be organized either with the help of commercial policy, or through a common market for all products or for agricultural commodities alone. We are left with the possibility of organizing world agricultural markets through the co-ordination of national agricultural markets.

Co-ordination to this end signifies more than that agricultural policy in each country should add to its own objectives also the purpose of establishing equilibrium between supply and demand on the world market. The crucial element is that each participating country undertakes the obligation to play its assigned part in the reorganization of agricultural markets.

In its practical application, co-ordination of national agricultural markets would be a distinct step forward in comparison with the present state of affairs, when every country carries on its own policy and organizes its own market without reference, or indeed in opposition, to all others. Whether the method of co-ordination will turn out to be sufficient for all products, depends upon the kind of agreements that countries are willing to make.

V. THE TEN PRINCIPLES OF ORGANIZATION

Before discussing the instruments of organization, we first have to define the principles which must underlie an organization of world agricultural markets. These principles follow from the disequilibrium described, as well as from the motives and purposes of organization with a view to the removal of this disequilibrium.

1. The first principle is that the food deficit of developing countries should be made good as far as possible (1), by means of production and marketing improvements. This applies to that part of the food deficit which is not covered because the countries concerned either do not have the financial resources to pay for imported food or use them for other imports (capital goods etc.). It applies further to that part of the food deficit which cannot be covered because the food cannot be taken to the consumers who need it (infrastructures) or because the latter do not want it (food habits).

2. The second principle is that developed countries should expand their consumption. Strong exertions to raise output have so far not been matched by equally strong exertions to raise consumption.

3. The third principle is that the part to be played by individual countries in satisfying world demand must be defined. World demand is the sum of effective demand, including the demand which becomes effective by virtue of the first two principles. In this connection, organization will be faced with two opposing tendencies. Some countries will wish to make

(1) See footnote 1) p. 42.
sure that their present market shares, possibly slightly amended upwards or downwards, serve as the yardstick for future allocations. Others will wish the decisive element to be not market shares, but each country's qualifications. In this latter respect, there will also be different tendencies. Some countries will press for the application of the principles of the competitive market economy (comparative costs), others will give the primacy to considerations of economic development (level of per capita income, export dependence).

4. The fourth principle is that supply should be adapted to the level of world demand. In cases of groups of products where output, including existing stocks, exceeds world demand, production should be restricted; in the opposite situation, production should be raised. Both measures may go hand in hand when production in developed countries is to be diminished and production in developing ones increased.

5. The fifth principle is that limits must be laid down for stocks exceeding normal storage and reserves. Stocks above that limit should be cleared.

6. The sixth principle is that world agricultural market relations should be reorganized in such a manner that in the long run the market mechanism can again become operative to the greatest possible extent. In the long view, therefore, it would be preferable to regulate prices rather than quantities. In principle, the exchange of goods should be on a commercial basis; non-commercial transactions should be envisaged only for special cases, and not as a permanent solution.

7. The seventh principle is that the distortion of world market prices must be eliminated. The most diverse points of view may be taken into account in this connection, but in any event world market prices should not fall short of the genuine production costs of the lowest bidders (whose costs, or prices plus subsidies, are the lowest).

8. The eighth principle is that the organization of world agricultural markets should, in the first place, encompass the most important foodstuffs and should later be extended to all other foods. Eventually important agricultural raw materials should also be included in the organization of world agricultural markets.

9. The ninth principle is that as many countries as possible should take part in the organization of world agricultural markets, so as to safeguard the effectiveness of the agreements concerning world agricultural trade. This applies particularly also to the centrally planned economies, the importance of which for world agricultural market equilibrium is likely to be far from negligible in the future.

10. Due allowance made for different economic systems and policies, the instruments of organization must be equivalent. Each country would be free to choose what instruments to apply.
C. THE INSTRUMENTS OF WORLD AGRICULTURAL MARKET ORGANIZATION

It remains now to describe the instruments which commend themselves for a reorganization of world agricultural markets. More pieces may be needed out of the tool box, or fewer, according to the requirements of each separate commodity market, but always three categories of measures will be relevant: those belonging to consumption policy, production policy and foreign trade policy. Whatever particular instruments out of the three groups are applied, should be attuned to each other. Some are mutually substitutable, so that a choice can be made between them. A fourth group of measures, transfer of demand, can be applied to food products with market effects similar to those of free competition, and makes many instruments of the other three categories redundant.

To reorganize the world's agricultural markets, countries might undertake the obligation to achieve certain definite results by means of agricultural policy measures. Given the present state of international co-operation these obligations should refer only to the results, leaving countries free to choose their instruments. This principle underlies the following discussion of possible instruments.

I. CONSUMPTION POLICY

1. EXPANSION OF CONSUMPTION IN LESS DEVELOPED COUNTRIES

In the majority of the less developed countries of groups 1) and 2), and also in some countries of group 3), consumption should be expanded in the first instance with a view to reducing their food deficit to the extent possible. As regards that part of the food deficit which remains uncovered for financial reasons, financial contributions by developed countries might enable food-deficit countries to expand their demand for food on the world market.

Large-scale action will, furthermore, be necessary with respect to that part of the food deficit which must persist so long as the food cannot be moved to the consumers or as the latter do not eat it. Specific measures include the improvement of infrastructures, especially as regards means of communications, distribution networks, storage facilities and processing and packing facilities. Consumption habits will have to be improved through educational campaigns, school feeding and mass feeding, and certain dietary taboos must be overcome.

The development of a distribution network is very important, in so far as it releases markets from regional autarky and isolation and facilitates the exchange of goods and merchandise of all kinds, including producer goods. Here is an opening for using consumption policy for the economic development of the developing countries. In most countries suffering a food deficit the improvement of infrastructures is of the essence for any expansion of consumption, because food deliveries do not reach the bulk of the population. What they lack above all is a network of distributors throughout the country. Calculations for the majority of developing countries show that only 9 per cent of the population live in ports, and less than 20 per cent in areas near the coast.

Different countries have very different possibilities of raising the consumption of individual commodities. Grains are important in this context, in so far as they are comparatively easy and cheap to store, process and distribute, but even in this case there are limits, as American experiences with the non-commercial utilization of grains has shown. Legumes are a cheap and convenient source of protein and it is often said that their consumption could be greatly increased. No clear results are yet at hand regarding a number of attempts to raise the consumption of milk powder in food-deficit countries through new methods, such as the reconstitution of dried milk in consumer areas, collective meals, etc.

In the last resort, the extent to which consumption is to be raised in these countries depends upon the available amount of financial resources and technical assistance. However, experience has shown more than once that the intensification of aid programmes is apt to lead to progressively rising costs. Such programmes must certainly not go beyond the point where they begin to disturb the domestic market and domestic production of beneficiary countries. An expansion of consumption requires not only financial resources, but also time—and contrary to what happens in developed countries, capital can substitute for time only within narrow limits.

The non-commercial utilization of surpluses can, for various reasons, not be regarded as a long-term solution, though it may have its usefulness as a temporary measure for circumscribed projects of consumption policy and for emergency relief etc. (see below under Export policies). Suitable projects include the creation of national food reserves in developing countries, improvement of food habits (e.g. school lunches), the elimination of certain taboos and the opening up of new outlets.
Since the earliest days of industrialization in Western Europe and North America most, and the most important, measures of agricultural policy have concentrated on the regulation of supply. The conditions of agricultural production claimed the lion's share of public attention, and little was done to influence demand. No deliberate measures were regarded as necessary with respect to consumption, which, it was generally assumed, would adapt itself to supply.

This attitude, of course, is explicable in terms of the experiences of past centuries, when broad classes of the population of most countries suffered chronic food shortages. In other sectors of the economy, too, the supply side received much more attention from both economic theory and economic policy. It was not until after the world agricultural crisis that the first major signs of a new approach became visible, under which growing attention was paid to the processes of demand as well as to more far-reaching measures to influence consumption. But the second world war stopped this new approach in its tracks and moved agricultural production back into the limelight. This is why we still have done little or nothing to develop instruments to influence consumption. There are, it is true, quite a few specific measures designed to raise consumption, but with few exceptions they concern substitutable products like margarine and butter, etc., and they are applied by the most diverse institutions, such as producer associations, cooperatives, sales organizations, etc., without any sort of effective co-ordination.

Deliberate consumption policy in the developed countries, too, is an important instrument for the organization of world agricultural markets. In these countries, it will be a matter of raising the quality rather than the volume of consumption. So long as the demand schedule remains unchanged, there is little room for quantitative expansion, and it will be more important to change the structure of consumption in qualitative terms, to the benefit of more valuable products. A considerable part of consumption should be shifted to animal products, and even within this latter group there is room for large-scale shifts to better qualities. Over and above that, the spread of refrigeration has made it possible to consume all the year round many foodstuffs which used to be only in seasonal supply.

Consumption policy, can, thus, raise the demand for quality products, which should lead to a considerable expansion of the consumption of secondary calories. Comparative figures of per caput incomes and food consumption in Western Europe and the United States show that with growing incomes Western Europe should still have a considerable margin for improving the quality of its food consumption.

It needs a co-ordinated consumption policy to raise the consumption of high-quality products and the food expenditures of private households. The authorities responsible for agricultural policy will have to collaborate with the food industry and trade to discharge this important task. Just as every effort was made in the past to make sure of a good harvest year, so every effort will now have to be made to guarantee a good consumption year. The war has taught us what astonishing results can be achieved by a broad programme of consumer guidance in the fields of individual choice and even the voluntary reduction of consumption; even more success can be expected when it comes to raising the quality of consumption in an affluent society.

II. PRODUCTION POLICY

1. ADJUSTMENT OF SUPPLY TO WORLD DEMAND

In view of the food deficit and the shortage of foreign exchange from which less developed countries in groups 1) and 2) suffer, many of them desire, or need to, expand their production of agricultural commodities. But often enough theirs is a high-cost production, which is apt to create additional problems for the relationships among the world's agricultural markets, even though in the case of most commodities these countries have little influence on the world market. In any event, the instruments described below should have a dampening effect on the production of many commodities in developing countries. But it should always be borne in mind that the development of agricultural production at low comparative costs in these countries would be of the greatest importance to their general economic development, for a number of reasons having to do with capital formation, employment, etc.

In developed countries of groups 4) and 5) lasting prosperity demands that the production of certain agricultural products be restricted. In the first place, some individual countries might consider discontinuing certain production-raising measures, such as those which encourage an extension of agricultural area. Price supports could be dismantled up to a point, but the resulting slight fall in prices would not necessarily restrict the output of the products concerned; on the contrary, experience has shown that in some cases output even expands temporarily. Still, a price fall would make producers more willing to adapt themselves to the changed situation in the future, and to react more readily to further measures.
But governments cannot increase the pressure on producer prices up to the point where output contracts to the desired extent, unless some arrangements are made to compensate farmers for loss of income. No satisfactory results have so far been achieved in practice with subsidies not tied to particular commodities; they always end up by raising production. There is much to be said for direct income compensation payments, which really can be applied in a neutral way: they should be so designed as to induce young people and adults to change their occupation, and older small farmers without heirs to liquidate the farm. However, the introduction of such income compensation in combination with price reductions comes up against all sorts of resistances.

The experience gained in the last few decades in connection with widely varying markets in a large number of countries shows that as a general rule regulation of prices should have preference over regulation of quantities, as in Principle 6 above.

If prices cannot be reduced sufficiently, countries may in certain pressing situations be compelled to restrict production by direct intervention. In such cases it would be advisable to take joint action to restrict the output of important commodities in all countries. Nor should the group of "important commodities" be defined too narrowly, since producers are apt to take evasive action by shifting to other commodities produced or consumed in similar conditions.

There are a number of ways in which such restrictions could be introduced in practice, but the merit of various formulas remains to be examined in detail. The output of all countries might, for instance, be limited in accordance with the size and the foreseeable trend of world demand. The methods and data of food balance sheets may be valuable in this connection, even though their accuracy is by no means undisputed at present. The restricted total output can then be allocated to countries by means of national quotas according to a number of different criteria, as explained in Principle 3 above.

National quotas should, finally, be allocated among individual farms in such a manner that marginal producers should be the first to cut down production and to be eliminated. To this end the quotas might be made negotiable, so that low-cost farms could buy up quotas and so contribute more to total output.

In distributing the national quota among farms, arrangements should also be made for the official purchase of production waivers. A farmer should be able to sell to the agricultural authorities the difference between the value of his past output and of his now reduced quota; he would sell the waiver (value difference) for a number of years ahead and at a price fixed anew each year, and would, in return, undertake not to buy up other quotas. In the presence of negotiable quotas and saleable production waivers it would be much easier and would occasion much less friction to introduce a system of direct income compensation, than it would be in combination with a price reduction.

2. STOCKS

Growing imbalance on agricultural markets causes stocks to become dependent upon current market conditions. Stocks then simply correspond to the discrepancy between supply and demand. This is how in some countries the accumulation of stocks over the last thirty years has reached dimensions altogether incompatible with the original purposes and tasks of stockpiling policy. As the supply of many important commodities kept expanding in the presence of less rapidly rising, stationary or even contracting demand, there were only two alternatives: either to store the commodities or else to export them commercially by means of subsidies or non-commercially under surplus utilization programmes. The destruction of surpluses is not, today, of any significance worth mentioning.

These stocks constitute a serious threat to world agricultural market relations. Should any country wish to clear its stocks, its imports would shrink or its exports expand, and all the well-known weapons would be employed. A sudden increase of supply on oversaturated markets depresses the exports of other countries and may lead them, in their turn, to increase their stocks. There can be no doubt that growing stocks add to the strain on the markets. Pressure of stocks becomes a coercive element in fashioning the behaviour of surplus countries.

For these reasons the problem of stockpiling assumes great importance in the reorganization of agricultural market relations.

It will be up to production policy to make the stockpiling problem manageable. Countries will no doubt be unwilling to agree at the outset on any absolute limitation of their stocks; but while stocks are allowed to increase for some time, it could at least, from case to case, be agreed that they should be increased only at degressive rates. After this transition period, countries should agree in principle to stop any increase in normal stocks. These, as also the following regulations, must of course apply to all government, government-controlled and private stocks.
Stock clearance down to a reasonable national quota must proceed gradually so as to keep dangerous oversupply away from the markets. In recent years certain commodities were sold at any price just to reduce stocks, and as a result, the price of coarse grains cif North Sea ports, for instance, fell from DM 310 330 to DM 240/260 between 1956 and 1960.

Reduction quotas may be fixed in terms of total stocks or of disposable quantities (domestic output and imports) of products. It seems advisable to retain the traditional principle according to which each country pays its own storage costs. It may be objected, of course, that a country with low comparative costs is today often forced by the behaviour of other countries to keep stocks, and would not have to do so if competition were allowed free play. But it would be rather difficult to make arrangements for other countries to pay part of the storage costs. Nor would such arrangements necessarily imply a quantitative limitation of stocks; on the contrary, one would then expect large accumulations in cost-favoured countries and precisely their supply would be kept away from the market. Similar consequences would follow even if only countries suffering a foreign exchange shortage were given contributions to their storage costs.

III. FOREIGN TRADE POLICY

1. MINIMUM EXPORT PRICES

Often the distortion of world market prices has different characteristics in the case of agricultural commodities than it has in industrial sectors. In industry, prices are frequently kept artificially high by monopolistic practices; in the case of many agricultural commodities, the price is often kept artificially low by means of export subsidies that few exporting countries, or none, can produce and sell at that price without subsidies in the widest meaning of the term. Too low a world market price damages the interests of countries depending on exports, but may work out to the benefit of importing countries, including many developing countries.

Price distortions on world agricultural markets should be removed by means of cost-oriented minimum export prices. The minimum export price for any commodity should be defined as that price which covers the best bidder's production and marketing costs. The best bidder is the supplier who can produce the commodity at lowest costs and sell it on the world market at the lowest price, without direct or indirect subsidies to production or trade. Furthermore, it should be stipulated that the best bidder must have supplied a considerable part of the world market for some given time, because only then can he be regarded as representative. If no single best bidder can be found to combine all these conditions, two, three or more best bidders should be grouped together and a weighted average price be defined as the best price. Production or marketing subsidies of any kind have to be added to the best bidder's costs in determining the minimum export price, and his costs should be determined by standards worked out on the basis of wide-ranging experience in individual countries.

Nobody should then be allowed to sell the product concerned on the world market at a lower price. Supplies at lower prices should be regarded as dumping and, as such, outlawed. For the purposes of these new price arrangements the traditional definition of dumping will not do, in so far as it merely concerns the case when a seller supplies the world market at prices other than his country's domestic prices. Anybody is perfectly free to sell on the world market at any price exceeding costs, or the minimum price. This will indeed happen when the best bidder satisfies only a relatively small portion of total demand.

Should the introduction of a minimum export price raise world market prices, importing countries, including developing countries, may suffer a price disadvantage. But provision to compensate such price disadvantages should be made only for exceptional cases, and then on a temporary basis.

2. EXPORT POLICY (1)

Each country's exports will to some extent already be governed by production policy, but in addition gross or net exports may be subject to certain rules resting on the principle of a limitation of supply on the world market. The restricted total quantity could be allocated to national quotas according to the criteria indicated in the Third Principle. Such rules would indeed be effective in reducing imbalance on world agricultural markets, but, in the absence of other measures, cannot remove the causes of imbalance.

Export quotas are a somewhat rigid instrument. If this is to be discarded, export subsidies will have to be made subject to certain regulations. The principle of these regulations should be that no country's export subsidies may exceed the margin of support (see below under 3).

(1) As stated earlier, some instruments may be used alternately, since they can substitute for each other.
As already mentioned, the non-commercial utilization of surpluses is not, on the whole, to be regarded as a suitable instrument. World agricultural markets must be so organized as to remove the causes, not the symptoms, of imbalance. Surplus utilization is, therefore, to be contemplated only as a temporary measure involving progressively decreasing quantities; it may be directed to two purposes: 1) expansion of consumption in less developed countries (consumption policy), and 2) once-for-all removal of surplus stocks (production policy). Due account should be taken of the fact that surplus utilization in connection with consumption policy occasions considerable costs. In any event, food surpluses can be used effectively in food-deficit countries only if food aid is part of a comprehensive general development aid programme. In so far as surpluses are used for food aid at all, they should always be combined with additional development aid amounting to a multiple of the value of the surpluses so utilized; a ratio of about 1:5 has been recommended (1).

3. IMPORT POLICY

In the field of import policy, the kind of action most in accord with the traditions of international co-operation would be to dismantle external protection. A reorganization of world agricultural markets might, for instance, provide for certain measures to reduce tariffs, equalization levies, quantitative import restrictions and other obstacles to trade. But it must not be overlooked that external protection is only one element of the support agriculture enjoys in most countries. Subsidies of all kinds are another essential element of it. The various means that governments employ to support agriculture vary greatly from one country to another and the effect of any single one is difficult to measure. It would seem easier to assess the overall effect of the whole set of support measures; this shows the level of support that agriculture enjoys and would allow of the calculation the margin of support.

The total margin of support is defined, in principle, by the difference between world market price and the price (plus all subsidies) which is paid to the producer on the domestic market.

Instead of reducing merely external protection, one might, therefore, think also of agreements to lower the whole margin of support. The margin of support could be reduced at the same, or at differentiated, percentage rates for all countries.

Provided the instruments of consumption and production policy are effectively applied in combination with a reduction of external protection import obligations are not necessary (2). If nevertheless guaranteed import quotas should be thought desirable for certain commodities during a transition period, the obligation to import need not necessarily be fulfilled by actual imports, but could be settled through compensation payments (2). Imports obligations should not, therefore, be used to regulate the actual quantity of imports. Compensation payments should accrue to export countries in proportion to their part in covering world demand.

IV. DEMAND TRANSFER

1. THE TRANSFER OF WITHHELD IMPORT DEMAND

Since the last war and more especially since the end of the Korea crisis low-cost producer countries in the developed groups 4) and 5) have been exercising growing pressure on importing countries of the same groups. But developed importing countries cannot admit imports from the lowest bidders to the extent that the principle of free competition would imply, for they have built up or expanded considerable — and high-cost — production capacities of their own. The maintenance or further extension of these production capacities is prejudicial to the best bidders, in so far as it restricts their exports. Nor do the best bidders find satisfactory outlets in the less developed countries of groups 1) and 2), because the latter's food deficit cannot be translated into effective demand on the market.

Given that the developing countries' potential demand for food is likely to rise in the future, it might be agreed for purposes of reorganizing world agricultural markets, that developed countries should transfer the demand they withhold from the best bidders to developing food-deficit countries. Industrial countries could transfer their import demand through compensation payments, which would enable the food deficit of less developed countries to be transformed into effective demand. Each individual developed country would have to transfer as much demand


(2) For import obligations and compensation payments see Section IV below.

42
as it "withholds" from the best bidders by virtue of its support to its own domestic agriculture. Exporting countries are to take part in the satisfaction of demand in accordance with a priority scale resting on their comparative cost advantages(1).

Demand transfer is a frontal attack on the paradoxical contradiction between supply restriction and world food deficit. If high-cost producer countries were obliged to make compensation payments for demand transfer, this would create certain economic and also political pressures domestically against what might be called the agricultural policy of isolation and for a dynamic agricultural policy to adapt agriculture to the new situation.

The compensation payments of industrial countries would enable developing food-deficit countries to buy at the best price from the lowest bidders. The purchases would be financed in part by the developing countries themselves, and in part by the funds furnished by compensation payments.

The system of demand transfer differs fundamentally from non-commercial surplus utilization, in so far as the former is applied in strict conformity with the principle of free competition. The greatest sacrifice falls not upon the country with the largest surplus, but upon the country which "withholds" most import demand. The largest share in the satisfaction of demand accrues not to the country which makes most financial resources available for the utilization of the commodities, but to the country which produces at the lowest comparative costs and offers the cheapest supply. The trade flows called forth are not of a non-commercial, but of a commercial nature.

2. THE EXTENT AND DISTRIBUTION OF FINANCIAL BURDENS

The extent to which demand is to be transferred will have to be determined after the most careful examination of the situation. The decisive factor is the import capacity of food-deficit countries, and this in turn is determined by the demand these countries would exercise on the world market if they had enough foreign exchange. To this must be added that part of the food deficit which is susceptible of being translated into effective demand by means of consumption policy, as described above. The larger is the part of the food deficit so to be transformed into effective demand, the more funds will be needed to finance the instruments of consumption policy.

If, in this manner, a fairly high target is set for demand transfer, sharply increasing world demand would generally lift world market prices beyond the level of any minimum export prices that might be laid down. The best bidder with the lowest comparative costs will be succeeded on the market by the next-best bidder with the next-lowest comparative costs, and so on and so forth.

The total financial burden of demand transfer has to be distributed among the developed countries of groups 4) and 5) (and possibly of group 3). Each country's compensation payments would be determined by a "factor" made up of three components and serving as an indicator of the import withheld by high-cost developed countries.

First, this factor must reflect relative excess costs in each country, which in turn are expressed in the margin of support, that is, the difference between the world market price and the - higher - domestic producer price plus subsidies.

Secondly, the factor must reflect the degree to which the demand of high-cost countries is covered by their domestic supply. High-cost countries which cover only a small part of their own demand damage the interests of the least-cost producers less than do those with a high degree of self-sufficiency. The former withhold less demand than the latter.

Thirdly, the factor must reflect the potential import demand, that is, the size of the market, of the developed country concerned. The amount of demand withheld from the best bidders is not fully determined by relative excess costs and the degree of self-sufficiency. The size of the market can best be calculated on the basis of the number of inhabitants, and duly weighted per caput incomes.

There are, of course, also considerable high-cost production capacities in many food-deficit countries, but these should not be asked for compensation payments, in view of their low per caput incomes and the small contribution their domestic production makes to an acceptable nutritional standard.

3. THE APPLICATION OF THE ECONOMIC PRINCIPLE

Demand transfer is an instrument which works in accordance with the principle of free competition or, for short, the economic principle. This principle demands that existing demand should always be met by the cheapest supply, that is, by the seller producing at the lowest comparative costs. It is in contradiction with the economic principle that demand should be

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(1) This obligation undertaken by importing countries must find its counterpart in exporting countries within the framework of the principles set out under C - II above in connection with production policy.
met by high-cost producers, and that low-cost producers should find no, or only insufficient, outlets.

But this is precisely what happens on world agricultural markets. Demand transfer, therefore, would create such market conditions as would obtain under free competition, and the resulting new order in world agricultural market relations would comply with the economic principle.

However, the distribution of the financial costs of demand transfer may, of course, follow criteria other than the amount of withheld imports. These costs may be allocated, for examples, according to certain import obligations, which the countries concerned could transfer by corresponding compensation payments. Yet other yardsticks might be applied, for instance the export ratio, which is the ratio of the value of exports to net domestic product at factor cost, or else the ratio of industrial exports to agricultural imports together with the degree to which the costs of domestic agricultural production exceed the lowest comparative costs.

The instrument of demand transfer could, finally, be applied also in combination with international agreements for the regulation of world agricultural trade. Importing countries defaulting on their obligations could then make compensation payments. Whereas basically the determining factors are the value of withheld imports, on the one hand, and the cost of an expansion of consumption in less developed food-deficit countries, on the other, the amount of compensation payments can, in this case, be fixed as a multiple of the value of the import obligations which the country concerned is unwilling or unable to honour.

If the principles according to which the costs of demand transfer are allocated to different countries are altered, or if demand transfer is used as a complementary instrument or indeed as a penalty, then the economic principle comes into play only to a much lesser extent. But one should guard against over-simplifying generalizations. The question of the extent to which the economic principle finds application cannot be answered from the point of view of the instrument alone. There are plenty of instruments which are in line with the market economy and yet in the long run invalidate the economic principle, and there are others which are not in line with the market and yet in the long run set the competitive mechanism free and rehabilitate the economic principle.

In comparison with the flexibility of the market mechanism, some of the instruments discussed above may appear rigid or to contradict the principle of the market economy; but their suitability should be assessed in the light of their long-term effects in liberating world agricultural markets from the imbalance which, so long as it persists, disables the economic principle.
CONCLUSION

The organization of world agricultural markets implies a wide range of rights and obligations for countries. These rights and obligations are not determined solely on the basis of the existing advantages or disadvantages of the various countries' agricultural production and of their position on the world market; one of the decisive elements in determining the part to be played in the future by individual countries in the new agricultural market order is the efficiency of their agricultural policy. In turn, the efficiency of agricultural policy is reflected in its ability to fit into the pattern of production and consumption policy and demand transfer, as described above, and also in the adjustment of agriculture to the changed situation. The individual countries' national agricultural policies will thus necessarily come into close mutual relationship.

Once this happens, an international agricultural policy begins to take shape. The first step towards it is the organization of world agricultural markets, in a situation where the consequences of national agricultural policies have long transcended national boundaries and where these policies have undermined themselves by the imbalances and contradictions they created. The principles of the reorganization of world agricultural markets and the outlines of an international agricultural policy will together form the foundation of the rules by which countries might agree to abide in their behaviour on domestic and world markets.

These rules will go to make up a "code of good conduct" which differs fundamentally from any of the specific codes that have been proposed from time to time for world agricultural trade. Unlike these, the "code of good conduct" would concern not only the various countries' market behaviour, but also their underlying agricultural policies. If these two factors are regulated not separately, but jointly, then the conditions will be created for agriculture to find its way out of its national and international isolation.
The Tables which follow show the results of different, and often parallel, calculations and cross-checks. As already emphasized in the text, no amount of care in the calculations can make the figures for 1970 anything more than hypothetical indications of possible developments until the end of the sixties. The future depends upon too many factors to be predicted with accuracy. The same applies a fortiori to the figures for 1980, which can do no more than convey some rather vague notion of what might be expected to happen.

TABLE 1

ESTIMATES OF THE DEVELOPING COUNTRIES' FUTURE EXPORTS AND IMPORTS AS PERCENTAGES OF FUTURE WORLD TRADE

(US $ '000 million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. World trade</td>
<td>62</td>
<td>125 (1)</td>
<td>224 (2)</td>
<td>(401)</td>
</tr>
<tr>
<td>2. Exports of developing countries</td>
<td>21.8</td>
<td>30.9 (*)</td>
<td>45.9 (*)</td>
<td>(67.9)</td>
</tr>
<tr>
<td>3. 2 per cent of 1</td>
<td>35.2</td>
<td>24.7</td>
<td>20.5</td>
<td>(16.9)</td>
</tr>
<tr>
<td>4. Imports of developing countries</td>
<td>18.8</td>
<td>33.0 (*)</td>
<td>55.4 (*)</td>
<td>(93.4)</td>
</tr>
<tr>
<td>5. 4 per cent of 1</td>
<td>30.3</td>
<td>26.4</td>
<td>24.3</td>
<td>(23.3)</td>
</tr>
</tbody>
</table>

(1) Calculations from GATT: International Trade 1960, Geneva 1961 and GATT: International Trade 1959, Geneva 1960 give 61.8 for 1950, and 125.5 for 1960—the increase, therefore, is 95%. Increase according to UN statistics: 56/112,000 million = 98.9%. Increase according to Booz, Allen & Hamilton Inc.: Management Consultants—The Emerging World Enterprise, 1962: 64/112,000 million = 75%.

(2) The assumed increase is less than for 1950-1960 (Korea boom), say 6% per year = 79% (the same for 1970-1980). Increase according to Booz, Allen & Hamilton Inc.: Management Consultants—The Emerging World Enterprise, 1962: 85%.


(*) See Table 4: extrapolation of 1950-1960 trend.
### TABLE 2

**ESTIMATE OF THE DEVELOPING COUNTRIES' POSITION IN 1970 AND 1980**

*(1960 prices; US $ '000 million, except where otherwise indicated)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (thousand million)</td>
<td>1.17 (¹)</td>
<td>1.46 (1.78)</td>
<td></td>
</tr>
<tr>
<td>National income</td>
<td>145 (²)</td>
<td>245 (³)</td>
<td>(449) (³)</td>
</tr>
<tr>
<td>Gross national product</td>
<td>165 (⁴)</td>
<td>278 (510)</td>
<td></td>
</tr>
<tr>
<td>National income per head (US $)</td>
<td>121</td>
<td>168 (⁴)</td>
<td>(252)</td>
</tr>
<tr>
<td>Net capital requirements (⁵)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>if capital/output ratio = 2.5</td>
<td>17.3</td>
<td>41.0</td>
<td>(82.9)</td>
</tr>
<tr>
<td>if capital/output ratio = 3.0</td>
<td>20.8</td>
<td>49.2</td>
<td>(99.5)</td>
</tr>
<tr>
<td>if capital/output ratio = 3.5</td>
<td>24.3</td>
<td>57.4</td>
<td>(116.0)</td>
</tr>
<tr>
<td>if capital/output ratio = 4.0</td>
<td>27.7</td>
<td>65.6</td>
<td>(132.6)</td>
</tr>
<tr>
<td>Saving (⁶)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marginal rate of saving (in %)</td>
<td>15</td>
<td></td>
<td>(19)</td>
</tr>
<tr>
<td>Average rate of saving (in %)</td>
<td>7</td>
<td>10.3</td>
<td>(14.3)</td>
</tr>
<tr>
<td>In absolute figures</td>
<td>11.6</td>
<td>28.6</td>
<td>(27.9)</td>
</tr>
<tr>
<td>Capital deficit (⁷)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>if capital/output ratio = 3.0</td>
<td>9.2 (⁴)</td>
<td>20.6</td>
<td>(26.6)</td>
</tr>
<tr>
<td>if capital/output ratio (after 1970) = 2.5</td>
<td>9.2</td>
<td>12.4</td>
<td>(10.0)</td>
</tr>
</tbody>
</table>


(²) According to UN/ECE (op. cit.) 1958 = 132 000 million; at 3.8% per year; 1960 = 142 600 million. According to M. Usui and E.E. Hagen: World Income 1957, Cambridge, Mass., 1959, GNP = 162 000 million; national income approx. 88% of GNP = 142 600 million.


(⁴) Annual rate of increase = 3.3%.


(⁶) Net saving, calculated from GNP.

(⁷) Without dividends, interest and repayments.

### TABLE 3

**ESTIMATES OF THE DEVELOPING COUNTRIES' CAPITAL DEFICIT AS A PERCENTAGE OF THE GROSS NATIONAL PRODUCT OF INDUSTRIAL COUNTRIES (OECD MEMBERS)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. GNP of industrial countries (US $ '000 million) (1)</td>
<td>879</td>
<td>1,276</td>
<td>(1,855)</td>
</tr>
<tr>
<td>2. Capital deficit of developing countries (US $ '000 million) (2)</td>
<td>9.2</td>
<td>20.6</td>
<td>(26.8)</td>
</tr>
<tr>
<td></td>
<td>9.2</td>
<td>12.4</td>
<td>(10.0)</td>
</tr>
<tr>
<td>3. Capital deficit per cent of GNP</td>
<td>1.1</td>
<td>1.6</td>
<td>(1.4)</td>
</tr>
<tr>
<td></td>
<td>1.1</td>
<td>1.0</td>
<td>(0.5)</td>
</tr>
</tbody>
</table>


(2) Table 2.

### TABLE 4

**ESTIMATES OF THE DEVELOPING COUNTRIES' FUTURE EXPORTS AND IMPORTS: EXTRAPOLATION OF PRESENT TREND**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total exports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual rate of increase 4.0% (1)</td>
<td>30.9 (2)</td>
<td>45.9</td>
<td>(67.9)</td>
</tr>
<tr>
<td><strong>Exports to industrial countries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual rate of increase 3.5% (3)</td>
<td>21.9 (3)</td>
<td>30.9</td>
<td>(43.6)</td>
</tr>
<tr>
<td><strong>Total imports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual rate of increase 5.3% (4)</td>
<td>33.0 (5)</td>
<td>55.4</td>
<td>(93.4)</td>
</tr>
<tr>
<td><strong>Imports from industrial countries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual rate of increase 5.9% (5)</td>
<td>24.0 (5)</td>
<td>42.3</td>
<td>(74.6)</td>
</tr>
</tbody>
</table>

**TABLE 5**

*Estimates of future imports of developing countries according to import elasticities*

(US $ '000 million, except where otherwise indicated)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. National income ((^1))</td>
<td>100.9</td>
<td>145</td>
<td>245</td>
<td>(449)</td>
</tr>
<tr>
<td>2. Imports ((^1))</td>
<td>18.8</td>
<td>33.0</td>
<td>..</td>
<td>(..)</td>
</tr>
<tr>
<td>3. Ten-year increase in national income (in %)</td>
<td>..</td>
<td>43.7</td>
<td>65.1</td>
<td>(83.1)</td>
</tr>
<tr>
<td>4. Annual increase in national income (in %)</td>
<td>..</td>
<td>3.6</td>
<td>5.2</td>
<td>(6.2)</td>
</tr>
<tr>
<td>5. Annual increase in imports (in %)</td>
<td>..</td>
<td>5.8</td>
<td>..</td>
<td>(..)</td>
</tr>
<tr>
<td>6. Import elasticity 1950-1960 = 5 : 4</td>
<td>..</td>
<td>1.611</td>
<td>..</td>
<td>(..)</td>
</tr>
<tr>
<td>7. Annual rate of increase in imports according to import elasticity as 1950-1960 (in %)</td>
<td>..</td>
<td>5.8</td>
<td>8.4</td>
<td>(10.0)</td>
</tr>
<tr>
<td>8. Imports according to import elasticity as 1950-1960</td>
<td>18.8</td>
<td>31.9</td>
<td>73.9</td>
<td>(191.6)</td>
</tr>
<tr>
<td>9. Annual increase in imports according to Chenery's import elasticity (in %) ((^3))</td>
<td>..</td>
<td>..</td>
<td>4.4</td>
<td>(5.3)</td>
</tr>
<tr>
<td>10. Imports according to Chenery's import elasticity</td>
<td>(18.8)</td>
<td>(33.0)</td>
<td>50.8</td>
<td>(84.8)</td>
</tr>
</tbody>
</table>

\(^1\) Calculated from GATT: International Trade 1959, Geneva 1960 for 1950 and 1960; see also Table 1.
\(^2\) Table 1.
\(^3\) According to H. B. Chenery: Patterns of Industrial Growth, American Economic Review, September 1960 and UN/ECE: Economic Survey of Europe in 1960, Geneva 1961 a 1% increase in national income implies a 0.85% increase in imports.

**TABLE 6**

*Estimates of future imports of developing countries according to estimated exports and capital aid*

(US $ '000 million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Exports ((^1))</td>
<td>21.8</td>
<td>30.9</td>
<td>45.9</td>
<td>(67.9)</td>
</tr>
<tr>
<td>2. Capital aid ((^1))</td>
<td>.</td>
<td>9.2</td>
<td>16.5</td>
<td>(18.3)</td>
</tr>
<tr>
<td>3. Capital aid in the form of imports ((^1))</td>
<td>.</td>
<td>(6.4)</td>
<td>11.6</td>
<td>(12.8)</td>
</tr>
<tr>
<td>4. Imports according to 1 + 3</td>
<td>.</td>
<td>(37.3)</td>
<td>57.5</td>
<td>(80.7)</td>
</tr>
</tbody>
</table>

\(^1\) Table 1.
\(^2\) Table 2 - Average of the maximum and minimum capital deficit.
\(^3\) Assumed to amount to 70% of total capital aid.
TABLE 7

SUMMARY OF CALCULATIONS IN TABLES 2, 4, 5 AND 6:
ESTIMATES OF THE DEVELOPING COUNTRIES' FUTURE EXPORTS AND IMPORTS

(US $ '000 million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Exports: Table 4</td>
<td>21.8</td>
<td>30.9</td>
<td>45.9</td>
<td>(67.9)</td>
</tr>
<tr>
<td>2. Exports: Table 4 (modified)</td>
<td>21.8</td>
<td>30.9</td>
<td>38</td>
<td>(51)</td>
</tr>
<tr>
<td>3. Imports: Table 4</td>
<td>18.8</td>
<td>33.0</td>
<td>55.4</td>
<td>(93.4)</td>
</tr>
<tr>
<td>4. Imports: Table 5</td>
<td>18.8</td>
<td>33.0</td>
<td>50.8</td>
<td>(84.8)</td>
</tr>
<tr>
<td>5. Imports: Table 6</td>
<td>18.8</td>
<td>37.3</td>
<td>57.5</td>
<td>(80.7)</td>
</tr>
<tr>
<td>6. Imports: Table 5</td>
<td>18.8</td>
<td>31.9</td>
<td>73.9</td>
<td>(191.6)</td>
</tr>
</tbody>
</table>


TABLE 8

MODEL: INCREASE IN THE DEVELOPING COUNTRIES' EXPORTS NEEDED TO FINANCE THEIR IMPORT REQUIREMENTS

(US $ '000 million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Imports (1)</td>
<td>33</td>
<td>55</td>
<td>(90)</td>
</tr>
<tr>
<td>2. Exports (2)</td>
<td>31</td>
<td>38</td>
<td>(51)</td>
</tr>
<tr>
<td>3. Difference 1-2</td>
<td>17</td>
<td></td>
<td>(39)</td>
</tr>
</tbody>
</table>

(1) See Table 7, average of 3 to 5.
(2) See Table 7.

Composition of Exports

(in %)

<table>
<thead>
<tr>
<th></th>
<th>Food</th>
<th>Other raw materials</th>
<th>Manufactures</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to Table 9 for 1958</td>
<td>35</td>
<td>33</td>
<td>16</td>
</tr>
<tr>
<td>Assumption for 1970</td>
<td>30</td>
<td>35</td>
<td>17</td>
</tr>
</tbody>
</table>

Possible export increase 1960-1970 = US $7 000 million
of which 30% for food = US $2 100 million

Needed export increase 1960-1970:
Possible export increase = US $ 7 000 million
Excess of imports over exports 1970 = US $17 000 million
= US $24 000 million
of which 30% for food = US $ 7 200 million

51
### Table 9

**Commodity Composition of Exports and Imports of Developing Countries in 1958 According to SITC Sections**

<table>
<thead>
<tr>
<th>SITC Section</th>
<th>Food</th>
<th>Other raw materials (1)</th>
<th>Machinery</th>
<th>Other manufactures</th>
<th>Total manufactures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exports</strong></td>
<td></td>
<td></td>
<td></td>
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(1) Excluding fuels.

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