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FOREWORD

This report, *World Economic Survey, 1961*, is the fourteenth in a series of comprehensive reviews of world economic conditions published by the United Nations. It is issued in response to General Assembly Resolution 118 (II), in which the Secretary-General was requested to prepare an annual review and analysis of world economic conditions and trends. The report is intended to meet the requirements of the Economic and Social Council and other organs of the United Nations for an appraisal of world economic conditions which may serve as a basis for recommendations in the economic field; it is also designed to meet the needs of the general public.

The present report is the seventh in the series to contain a study of a particular problem in the field of economic development. Among the subjects examined in successive *Surveys* since 1955 have been a comprehensive review of economic growth in the first post-war decade, balance of payments problems in relation to economic growth, inflation and economic growth, and post-war commodity trade and policies. Continuing the study of problems in the field of economic growth and development, the two *Surveys* which preceded the present report analysed post-war experience and policies relating to investment and saving. As a sequel to these reports, the present *Survey* focuses attention on industrialization and economic development. This study was also undertaken in the light of a request by the Committee for Industrial Development for a review of industrialization in under-developed countries during the past decade, and a preliminary version of chapter 1 was submitted to the Committee at its second session. Chapters 1 and 2 of the present *Survey*, dealing with industrialization in under-developed and developed private enterprise economies respectively, both review the magnitude of recent industrial expansion and discuss its contribution to general economic growth. The patterns of recent industrial growth, and the forces shaping changes in industrial structures, are also explored in both chapters. Chapter 1 closes with an analysis of problems facing under-developed countries in the choice of industries, while chapter 2 reviews specific problems and policies relevant to industrial growth in advanced countries. In chapter 3, rates and patterns of industrial development in the centrally planned economies during the past decade are described; particular attention is paid to the relationship between industrial development and the growth of foreign trade among these countries. The chapter emphasizes the special characteristics of industrial development programmes in the centrally planned economies.

Part II of the *Survey* examines recent trends in the world economy. Chapter 4 provides an analysis of the recent situation in the industrially advanced private enterprise economies, special attention being paid to the recovery in North America and to the slackening of economic growth in western Europe and Japan. Chapter 5 reviews recent events in the primary producing private enterprise economies in the light of the divergent trends in industrial countries. An assessment of the economic outlook at the beginning of 1962 is given for both these groups of countries; this is based largely on replies by Governments to a questionnaire on economic trends, problems and policies circulated by the Secretary-General in November 1961. Chapter 6 provides an account of recent changes in the centrally planned economies.

The Introduction to the *Survey* reviews recent industrial experience and policies in the light of their significance for economic growth and development.

The basic data used in the *Survey* are, in general, as published in governmental or inter-governmental sources, or as officially reported to the United Nations and its specialized agencies. The significance of the figures may vary from country to country, depending on the statistical concepts and methods followed and on the structure and development of the national economy. For this reason, the compilation of international statistical tables requires that attention be given to any important elements of non-comparability or qualifications attaching to the data; these are usually shown in the tables of this report or in the publications of the United Nations and of the specialized agencies that contain the basic data from which many of the tables have been prepared.

EXPLANATORY NOTES

The following symbols have been used in the tables throughout the report:

Three dots (...) indicate that data are not available or are not separately reported

A dash (—) indicates that the amount is nil or negligible

A blank in a table indicates that the item is not applicable

A minus sign (—) indicates a deficit or decrease, except as indicated

A full stop (.) is used to indicate decimals

A comma (,) is used to distinguish thousands and millions

A slash (/) indicates a crop year or financial year, e.g., 1955/56

Use of a hyphen (-) between dates representing years, e.g. 1953-1955, signifies the full period involved, including the beginning and end years.

References to "tons" indicate metric tons, and to "dollars" United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million.

Annual rates of growth or change, unless otherwise stated, refer to annual compound rates.

Details and percentages in tables do not necessarily add to totals, because of rounding.

Certain abbreviations have been used: EEC for European Economic Community; EFTA for European Free Trade Association; EPTA for United Nations Expanded Programme of Technical Assistance; FHA for Federal Housing Administration [United States]; GATT for General Agreement on Tariffs and Trade; IBRD for International Bank for Reconstruction and Development; IDA for International Development Association; IDB for Inter-American Development Bank; IMF for International Monetary Fund; ISIC for International Standard Industrial Classification of all Economic Activities; OECD for Organisation for Economic Co-operation and Development; OEEC for Organisation for European Economic Co-operation; SITC for Standard International Trade Classification. "Rhodesia and Nyasaland" stands for the Federation of Rhodesia and Nyasaland; UAR for the United Arab Republic.

The term "Congo" refers to the Republic of the Congo (capital: Leopoldville).

Where statistical presentation has rendered it necessary, "Malaya" has been used to designate the Federation of Malaya and Singapore; "South Africa", the Republic of South Africa, South West Africa and the High Commission territories of Basutoland, Bechuanaland and Swaziland.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.

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INTRODUCTION

Introduction

THE SIGNIFICANCE OF INDUSTRIALIZATION POLICIES FOR ECONOMIC GROWTH AND DEVELOPMENT

Though production generally advanced in 1961, the year was not notable for the vigour of its upward thrust. As reviewed in part II of the present *Survey*, recovery from the recession in North America got under way towards the end of the first quarter of 1961, but this did not raise output for the year as a whole much above the level of 1960. In western Europe and Japan, the upswing in economic activity, which had begun in 1958, paused temporarily in the course of 1961, and the rate of increase for the year as a whole was considerably below that of a year earlier. In face of the mixed trends in industrial countries, exports of the primary producing countries rose only moderately, while prices of primary commodities entering international trade underwent a further decline. In most of the centrally planned economies, though total output continued to increase at a high rate, the pace of advance slackened; industrial production rose at a somewhat slower rate while agricultural output either fell absolutely or increased only slightly, owing mainly to adverse weather conditions. In mainland China, agricultural production, which had fallen substantially in 1960, failed to recover to any significant degree in 1961; largely because of the agricultural situation, industrial expansion was also brought to a halt.

In the industrial countries, expectations at the beginning of 1962 were moderately optimistic, based primarily on the continuation of recovery in North America. However, though production for the year as a whole is fully expected to reach a considerably higher level than in 1961, the earlier and more confident estimates have subsequently been scaled down. Production in the United States during the first quarter of 1962 advanced only marginally over the preceding quarter, owing to a deceleration in the rate of growth in final demand; fixed investment, however, which fell in the first three months, is officially expected to recover and to contribute heavily towards sustaining demand in the later months of the year. In western Europe and Japan, the weakening in the rate of growth in domestic demand apparent in 1961 is expected to continue during the current year primarily because of a slackening in business expenditure on plant and equipment. In the primary producing countries, 1962 is expected to be another year of limited growth in export earnings; while exports to North America should respond to the continued recovery, their rate of expansion to western Europe and Japan may again decline.

An important element contributing to current economic trends in all countries is the pace of industrial growth. The significance of industrialization for economic growth, however, is best seen in the perspective of a broad span of years. Such a review, which forms the content of part I of the present *Survey*, is of particular relevance in relation to the problem of economic development in the under-developed countries.

Industrial development: experience and policies

Today there is almost universal agreement that industrialization has a major role to play in the economic development of the under-developed countries. It is a familiar fact that the great gap in per capita incomes that divides the developed and under-developed countries at the present time is broadly paralleled by a similar disparity in the structure of their economies; the former are diversified, and largely industrial, economies, while in the latter, production is confined predominantly to agriculture. Few today share the more sanguine view held in earlier decades that national specialization in primary production could, through foreign trade, lift levels of income no less effectively than domestic industrial growth. Based largely on the experience of the nineteenth century, when industrialization and high rates of population increase in western Europe called forth a rapid growth in exports of primary products from the rest of the world, this view—never wholly convincing—has been rendered even less acceptable by the changed economic conditions of the present day. As rising levels of per capita consumption have gradually transformed the composition of demand for goods and services and as technological changes have resulted in the more economical use of new materials or the creation of synthetic substitutes, the growth in import demand of the advanced areas for most primary products has lost the momentum of earlier decades and, currently, it lags behind the growth in their domestic incomes and output. In any event, when cognizance is taken of the magnitude of the problem of under-employment and low productivity confronting most under-developed countries, it is clear that foreign trade, no matter how favourable the trends in external demand, cannot constitute the sole road to economic development.

What the ultimate objective of under-developed countries should be, is clear enough: it is to construct

industrial economies as diversified as those which now exist in the advanced countries. While this may seem a distant aim in most under-developed countries, there is little doubt that it must constitute a final outcome of economic development. In the economic history of the countries which have already emerged as modern industrial economies, few facts are more striking than the tendency of all these countries to develop roughly similar structures of industrial production. Each of these countries, it is true, has certain industrial characteristics peculiar to itself; its industrial structure has been influenced by such factors as its natural resource endowment, the role of foreign trade in its economy, the accidents of history or the particular genius and tastes of its people in the field of manufactures. But much more impressive than the differences among countries is the fact that they all have diversified industrial structures in which each of the main branches of industrial production is invariably represented.

But while there is now almost universal agreement on the importance of industrialization there is still much debate regarding the proper pattern of industrial development. It is often suggested that the pattern of industrialization in under-developed countries should be guided primarily by considerations arising from the relative scarcity of capital and labour in their economies. At first sight, these considerations appear to be highly relevant; since labour is relatively plentiful and capital is relatively scarce, it would seem that the development of consumer goods industries, which are generally identified as labour-intensive, is most consistent with the advantages of international specialization.

It is salutary to insist that the advantages of international specialization should not be neglected. But it is even more important that industrialization should be seen in its proper light as a dynamic process. Because labour is relatively more abundant than capital in under-developed countries, it does not necessarily follow that their industrial and economic development is best served by concentration on industries that are predominantly labour-intensive. It is true that this is a possible solution to the question of what constitutes the optimum allocation of resources in given demand and supply conditions. But such a solution cannot be freely applied to the problem of industrial and economic development, since development amounts exactly to a process of transforming the prevailing demand and supply conditions.

In the real world, the proportions in which labour and capital are available represent only one of the differences between developed and under-developed countries affecting their relative costs of production in alternative industries. In the industrial sectors of these two groups of countries, the qualitative differences in their productive resources are hardly less important. Comparative costs are much affected by such things as the plentiful supply in the developed countries of advanced technical skills, the economies of large-scale production and the pervasiveness of external economies. But these are advantages which are acquired only through industrial and economic development. Thus, if some consumer goods industries which are labour-intensive currently appear to be the most competitive in under-developed countries, this is as much because of the early stage of their industrial growth as of the present proportions in which labour and capital are available. Precisely because industrial growth has not advanced sufficiently in volume and diversity, the innumerable internal and external economies which alter the quality and raise the efficiency of productive resources are not present throughout all branches of industry. In other words, it is through industrial growth itself, and the broad diversification of industrial output which is inseparable from growth, that prevailing demand and supply conditions and, consequently, the whole structure of comparative costs, are subject to a gradual transformation.

There is, it may be noted, nothing inconsistent between the emergence of similar industrial structures in an ever-widening group of countries on the one hand and international specialization on the other. Far from having been inimical to trade, industrial growth in the developed countries has been associated with a continuous expansion in their exchange of manufactured goods. But it is worth observing that the pattern of trade between these countries has been based, not so much on the exchange of one broad class of manufactures for another as on exports of specifically different manufactures within the same broad classes. Specialization, in other words, has not been founded on any broad division of labour by main branches of industrial production but has rather been confined to specific products.

While a balanced and diversified industrial structure should be the general aim of under-developed countries, this does not mean that the order in which industries are developed is without special significance. On the contrary, the current pattern of industrial investment is crucial to the rate at which the volume and diversity of total industrial output can be increased over the years. More generally, the current allocation of resources among industries is of strategic importance to the pace of economic growth.

It is an essential element in policies for economic development that efforts be made to raise the rate of investment as swiftly as possible; and this implies a continuous increase in supplies of investment goods relative to total commodity supplies. In most under-developed countries at the present time, however, by far the greater part of the goods required for capital formation is not produced at home but is purchased from the developed countries. Clearly, if domestic industrial growth were not oriented towards the aim of

continually augmenting the supply of capital goods, the pace at which the volume of available capital goods could be increased would be largely set by the rate of growth in traditional primary commodity exports. And since, for the under-developed countries as a whole, the trend in these exports exhibits only sluggish growth, efforts to raise the level of investment could be seriously impeded.

This, however, does not necessarily mean that under-developed countries should invariably concentrate their resources on the development of domestic capital goods industries. On the one hand, the spread of import-substituting industries producing consumer goods or intermediate goods can release foreign exchange for imports of capital goods. And, on the other hand, the growth in foreign exchange receipts can be strengthened by the promotion of industries producing manufactures for export.

It has to be recognized, however, that there are limitations on the extent to which these alternatives to the development of domestic capital goods industries can be exploited. In countries on the threshold of industrial development the scope for import substitution of consumer goods or intermediate goods is generally considerable; certainly, the spread of such industries has often played a significant role both in initiating industrial growth and in enhancing the supply of capital equipment during the earlier phases of development. But it is obvious that the contribution of such industries must tend to diminish as the reduction in imports of consumer goods progresses in the course of industrialization.

From a long-run point of view, it is an expanding trade in exports of manufactures that must constitute the main alternative, or supplement, to the development of domestic capital goods industries. The difficulties confronting under-developed countries in the initiation or enlargement of an export trade in industrial products, however, are formidable. In most under-developed countries, owing to the pattern of industrialization which has so far unfolded, it is mainly the products of the non-durable consumer goods industries that they are at present best placed to export. But these are not the manufactures for which demand in the developed countries shows the greatest growth. On the contrary, as per capita incomes in these countries continue to rise, demand for such products advances only at a very moderate pace. It is true that exports from under-developed countries might nevertheless gather momentum if they could compete in price with domestic production in the industrial countries; and recent experience in the textile trade leaves no doubt that it is quite within the capability of some of the under-developed countries to sell at highly competitive prices. But the very fact that the growth of demand in the advanced countries is sluggish, and that their domestic industries are therefore comparatively stagnant, has stiffened local opposition to such competition from under-developed countries. Fears of the prospective volume of exports from the under-developed countries, however, tend to be easily exaggerated; and it is very doubtful whether the requisite domestic economic adjustments would be large, particularly by comparison with those implied in the major revisions of commercial policy already undertaken or proposed.

Penetration of the markets of industrial countries would certainly be easier if exports consisted more of final durable goods or intermediate producer goods for which the income elasticity of demand is relatively high in these countries. But this, of course, presupposes a more diversified industrial structure—embracing, in particular, the engineering and chemical industries—than currently exists in most under-developed countries. Further, even as industries producing these types of manufactures increase in number, they may provide a suitable basis for the expansion of exports to the industrial countries only among those classes of products in which quality or design is not of first importance. It is, indeed, important to remember that the difficulties of developing an export trade in manufactures with advanced countries are much more than a question of the availability of exportable supplies or of price. Differences in levels of per capita income and in stages of industrialization between under-developed and advanced countries are often associated with substantial differences in the quality acceptable in domestic markets. This, however, would be less of an obstacle to the growth of trade in manufactures among under-developed countries themselves, though such trade may not increase their capacity to import capital goods from the developed countries.

These considerations do not mean that export promotion can be brushed aside as an alternative to the development of domestic capital goods industries; an expanding volume of imports from the industrial countries is too important for the economic development of under-developed countries to allow of any neglect of opportunities for increasing exports. They do, however, emphasize that specialization in a few industries for export is not a substitute for the growth of a diversified domestic industry. The normal basis for the development of an export trade in manufactures is the emergence of industries primarily oriented around the domestic market.

Export-promoting industries, import-substituting industries or domestic capital goods industries are not, of course, mutually exclusive alternatives. From a realistic point of view, it is not unlikely that more or less concurrent development of all three classes of industry will usually prove to be the most effective strategy of industrialization. The relative role of each will necessarily vary with the particular economic circumstances of individual countries as well as with their current phases of industrialization. However,

so long as the aim of under-developed countries is to raise their levels of investment as swiftly as possible, the guiding principle is clear: it is that those industries should be preferred, which, in relation to the scarce resources employed, will contribute most towards increasing the prospective supply of capital goods.

When it is remembered that the first sustained efforts to found modern industrial communities have been undertaken in most under-developed countries only since the Second World War, the recent rates of increase in industrial output described in chapter 1 appear to be moderately encouraging. In some two-thirds of the thirty under-developed countries for which data on production are available, annual rates of increase in industrial output during the nineteen fifties amounted to 5 per cent or more. In some of these countries, however, special circumstances, such as delayed recovery from war devastation or the cessation of civil war, favoured high rates of growth during the period; and it has also to be remembered that many entered the nineteen fifties with very small industrial bases.

Commonly, it has been governmental action, as much as market forces, which has stimulated and strengthened recent industrial growth in the under-developed countries. Such action has frequently extended beyond measures to induce greater private industrial investment; in numerous countries, for example, governments have engaged more or less directly in the establishment of new factories, particularly among the producer goods industries where the initial capital requirements are heavy. However, in so far as any generalization can be made about so diverse a group of countries, it may be said that the main emphasis of governmental policy has generally been placed on measures designed to stimulate or facilitate private industrial investment. The prevailing tendency has been to confine direct public investment to such basic facilities as power and transport and to offer indirect inducements to private investment in manufacturing industry, partly through monetary and fiscal policy but mainly through the manipulation of external commercial and exchange policy.

Tariffs, multiple exchange rates and import controls have been devices much used by governments to encourage domestic industrial investment. While these measures have frequently served other purposes as well, their effect has been to erect protective barriers behind which home production could become profitable. Thus, the widening of the domestic market through the growth of domestic income and expenditure has often not been as important a condition of new industrial investment in under-developed countries as has the readiness of governments to extend protection to new industries. Since a substantial proportion of domestic demand for manufactures has been customarily met through imports, protective measures have created a widening market for domestic manufactures independently of the pace of expansion in total domestic demand. Therefore, it is not surprising to find that, as noted in chapter 1, the growth in domestic output of manufactures in under-developed countries has advanced more than proportionately with the trend in domestic demand for manufactures.

Given the willingness of governments to apply protective measures and the buoyancy of domestic demand in most countries, there has generally been no lack of incentives for industrial investment in recent years. In most countries, it is the scarcity of resources available for the formation of new productive units in the industrial field, and not the lack of private or public initiative, that currently restricts the rate of industrial growth. Over relatively short periods, industrial output can be expanded through fuller utilization of existing productive capacity, and, paradoxical though it may seem, under-utilized capacity, at times, has reached sizable proportions in many under-developed countries. But, though ways to exploit existing capacity to the fullest possible extent deserve much more attention than they generally receive, this does not alter the fact that, over the longer run, continuous increases in industrial output necessarily mean that more and more new factories have to be established and brought into operation. On occasion, the rate of formation of productive units has been limited by the scarcity of technical skills or raw materials or by the lack of the basic facilities necessary to sustain manufacturing activity. But, much more commonly, it has been the volume of resources available for investment in industry that has been most persistently in short supply.

It is true that, in relation to aggregate levels of investment, investment in industry, particularly when industry is defined to include basic facilities as well as manufacturing production proper, has been generally quite high in the under-developed countries. As noted in chapter 1, even in the early nineteen fifties, industrial investment commonly accounted for one-third or more of total investment, and this proportion usually increased further during the decade. However, if the absolute level of industrial investment, rather than its share in total investment, is considered, the situation is much less reassuring; this is particularly so when it is borne in mind that in most countries, it has been basic facilities rather than the manufacturing industries which have generally absorbed the larger part of the scarce resources available for industrial investment.

The problem of raising the level of industrial investment obviously merges into the larger issue of the level of total investment. The experience and problems of under-developed countries concerning their efforts to raise levels of aggregate investment and saving have been analysed at some length in the two preceding issues of the *World Economic Survey;* it

need only be restated that if adequate levels of investment are to be reached in the years to come, greater efforts will have to be made to set aside a higher proportion of the annual increase in total output for this purpose.

In under-developed countries, however, attempts to raise the rate of domestic saving may not, in themselves, be sufficient to realize a higher rate of capital formation. It cannot be taken for granted that, if measures are applied to restrain the rate of increase in domestic consumption in relation to the growth in total productive capacity, it will be possible to raise the rate of capital formation by the increased margin of capacity over consumption. Only if the increase in investment expenditure over consumption expenditure evokes a corresponding change in the composition of supplies from consumption to investment goods will this be true. But, in most under-developed countries, since domestic capital goods industries are as yet of negligible or, at best, modest proportions, a substantial proportion of the goods necessary for investment must be purchased from abroad; in fact, imported supplies of capital equipment currently account for about 30 to 40 per cent of total domestic investment in most countries. And there can be no assurance that measures to restrain domestic consumption in relation to the growth in total productive capacity will be matched by corresponding increases in the supply of foreign exchange available for financing imports of capital equipment.

For the under-developed countries as a group, the rate at which their total foreign exchange receipts increase is almost entirely outside their own control, since it depends on the trend in world demand for their primary commodity exports. Total foreign exchange receipts of these countries have, of course, been supplemented increasingly during recent years by inflows of foreign capital, but by far the greater part of these receipts continues to be derived from the export earnings of primary commodities. And it is unfortunately the case that the rate of growth in world demand for internationally traded primary commodities has, for reasons analysed in the *World Economic Survey, 1958*, generally been sluggish. During the nineteen fifties, for example, the export trade of under-developed countries as a whole increased at an annual rate of 3.6 per cent, or about one-half of the rate at which exports from industrial countries advanced. Owing, moreover, to the deterioration in the terms of trade of under-developed countries, the purchasing power of their exports rose at an annual rate only slightly above 2 per cent.

It would be expected that, with the progress of industry in under-developed countries, it should become increasingly feasible to expand foreign exchange earnings through the development of an export trade in manufactures. During the past decade, however, the contribution of industry towards the expansion of exports has generally been very small. While exports of manufactures and semi-manufactures from the under-developed countries did increase in volume at an annual rate of about 4 per cent during the nineteen fifties, their absolute value in relation to total export proceeds was small. The impact of industrialization during the past decade on the export composition of most under-developed countries was accordingly negligible; crude and processed food and raw materials still dominate the trends in their total exports. In the longer run, no doubt, industrial development can be expected gradually to transform the export structure of most under-developed countries; it is some indication of this that, even at the present time, exports of fully manufactured articles play a larger part in the total export trade of the more industrialized of the under-developed countries than in that of the less industrialized countries. And while exports of manufactures are still dominated by textile products, there is some evidence in recent years of the initiation of trade in the simpler types of metal products and of miscellaneous consumer goods.

If industrialization has as yet contributed little to the expansion of total foreign exchange earnings, the spread of domestic production in replacement of imported manufactures has generally had appreciable effects in conserving the supply of foreign exchange available for imports of capital goods. Through the growth of import-substituting industries, the constraint on the rate of growth in investment imposed by the sluggishness in the trend of foreign exchange receipts has been somewhat relaxed. It is in partial reflection of this that, while total imports into under-developed countries have commonly expanded at an annual rate not exceeding 3 per cent, imports of capital goods have generally advanced at a rather quicker pace. The growth of industry in under-developed countries has, of course, not been confined to import-substituting activities, and the effect of industrial growth in permitting substitution of imported manufactures has generally been partially offset by increased requirements of imported supplies of industrial raw materials. Nevertheless, industrialization, at least among the industrially less advanced of the under-developed countries, has usually made an appreciable contribution to enlargement of the potential supply of capital goods. It is estimated in chapter 1 that, in a number of these countries, it gave rise during the nineteen fifties to net savings in foreign exchange equivalent to 50 per cent or more of the level of capital goods imported in the early years of the decade. In the industrially more advanced countries, however, the role of import-substituting industries in the growth of total manufacturing output was usually of much less importance. In these countries, the establishment and expansion of industries producing consumer goods or intermediate goods in replacement of current im-

ports had already taken place to a substantial degree before the decade opened. This implies that, in contrast to the industrially less advanced countries, the rate of increase in imports of capital goods could not be much further accelerated by means of import substitution.

Owing to the structural rigidities in the economies of under-developed countries, the extent to which industrial growth has taken the form of import-substituting industries, export-promoting industries or domestic capital goods industries, has clearly been of crucial importance to the pace at which they could raise their levels of domestic investment. This obviously means that it is from economic development policy as a whole that the main contours of industrial development policy should be derived. Since the current pattern of industrial growth affects the prospective level of aggregate investment, national economic aims with regard to the future level of investment and rate of growth provide the framework within which a consistent industrial development policy should be formulated.

Consistency with general economic aims is not, of course, sufficient in itself to ensure that the resources available for industrial investment are employed to best advantage. Though countries may have similar economic objectives, the distribution of resources among industries which is best calculated to achieve these aims will necessarily vary with the particular economic circumstances prevailing in each country. Such factors as the availability of domestic raw materials for industry or of appropriate technical skills, the scope for economies of scale within the plant or for the creation of external economies within the industry, all influence the relative efficiency of resources in alternative projects. This does not mean, however, that the diversification of industrial output, which is inherent in the process of industrial growth has necessarily followed a pattern that is wholly unique to each country. One factor making for uniformity is the evolution in the composition of demand for manufactures which is associated with economic advancement. There is a familiar tendency for the composition of consumer demand for manufactures to change in a broadly similar way in all countries as per capita incomes rise. Also, as countries advance from an economically under-developed state, the share of investment in total output invariably increases, thus generating a relatively rapid expansion in demand for investment goods. However, in the early phases of industrialization through which most under-developed countries have been passing, the broad pattern of diversification in industrial output has been influenced not only by the changing composition of final demand, but also by prevailing supply conditions. These countries have begun to industrialize from a position in which a large proportion of domestic requirements for manufactures has been met through foreign trade. Thus, as pointed out in chapter 1, industrial growth in its initial phases has consisted, in part, of the spread of production to new industries in order to meet existing levels of domestic demand; the sequence in which these industries, or broad types of industry, have developed, has been conditioned as much by circumstances on the side of supply as by the composition of demand.

It may be seen in chapter 1 that, when the non-durable consumer goods industries as a group are compared with the producer and durable consumer goods industries as a group, the latter clearly assume greater relative importance in the industrially more advanced of the under-developed countries. In other words, as countries have advanced industrially, the latter group of industries has tended to expand at a more rapid pace than the former group. But it is not only in the pattern of output that industrialization at earlier and later stages of development differs. The types of industries also tend to differ in the nature and extent of their interdependence with each other. In the earlier phases of industrialization, the types of plants which have been established usually depend little on other plants or industries either for the materials which they use in production or as markets for their products; their materials are derived largely from other sectors of production, such as agriculture or mining, and their products are sold directly to final consumers or to other sectors of production. It is usually when the initial phases of industrialization have been passed that the continued diversification of industrial output has begun to spread into industries where the interrelation among plants is more complex. In other words, associated with the growth and diversification of industrial output has been a gradual change in industrial organization; the character of industrial growth has shifted from the establishment of congeries of relatively unrelated plants or industries to the more organic development of whole complexes of interdependent plants.

While industrialization in a few under-developed countries has begun to assume a less atomistic character, in none of these countries do industrial structures yet approach the complexity typical of developed private enterprise economies. Indeed, as reviewed in chapter 2, industry in the developed private enterprise countries is such an integral part of the whole economy that industrial and general economic growth merge almost inseparably into one another. While industry is a strategic sector in the under-developed countries because of its leading role in the transformation of the whole economic structure, it has largely lost such separate significance in the developed countries.

Manufacturing industry, however, is still the most dynamic sector in the economies of these countries. In almost all of the countries reviewed in chapter 2, the share of manufacturing output in gross domestic product rose during the nineteen fifties; the increase was more noticeable among the countries recording

relatively high rates of increase in output. But the change in the share of manufacturing industry was generally not large, and, indeed, it may well be that, at least among the most advanced countries, the magnitude of future changes will tend progressively to diminish as the service industries rise in relative importance.

While, during the nineteen fifties, the rate of increase in manufacturing output in the developed, private enterprise economies as a group averaged about 5 per cent per annum, the diversity in experience among individual countries was considerable. Whatever the tempo of expansion in total manufacturing output, however, the direction of change in the broad structure of manufacturing production has been similar in practically all countries. Generally, the whole constellation of industries which fall under the general heading of engineering and chemical industries, has been the most dynamic group, while such branches of production as the food, textiles, clothing and leather industries have exhibited the least growth. This no more than reflects the broad similarity among countries in the pattern of change in final demand as well as the fact that they share a common technology and benefit together from the same technological advances. In almost all of these countries, the demand for investment goods has risen in relation to total final demand, and, with rising per capita incomes, private consumption expenditure has generally shifted in favour of durable goods. Further, since the direction of change in final domestic demand has been the same in most countries, the pattern of change in external demand and, hence, in the export composition of each country, has also been similar.

This implies that it is not because of the poor performance of selected industries that rates of industrial growth as a whole have been much lower in some countries than in others; it is because the rates of expansion in all industries have been comparatively low. Thus, in contrast to the under-developed countries, the policies of greatest significance for industrial growth in the developed private enterprise economies have not been measures designed to alter the structure of industrial production or to accelerate growth in specific industries. Rather, they have been those monetary and fiscal policies of a general nature which have affected the rate of growth in aggregate demand. In those countries where the main preoccupation of policy in recent years has been to maintain domestic price stability or to protect external balance, industrial growth has been more frequently subject to restraints. When industry has come to expect that periods of rising economic activity, as they enter their most profitable phases, will be damped down by policy, longer-run expectations and investment plans have been adversely affected. On the other hand, where policy has been more decidedly oriented towards the aim of maintaining high levels of aggregate demand and where the freedom of manœuvre has not been restricted by the precariousness of the external balance, industrial growth has generally been buoyant.

Such policy, it should be noted, has not necessarily been inconsistent with the maintenance of domestic price stability. On the contrary, policies favouring high rates of growth in total output, through encouraging high rates of advance in productivity, have tended to ease the task of maintaining stability in domestic prices and costs. On the other hand, where the domestic demand has been held in check in order to restrain the growth in money incomes, this has not necessarily assured stability in domestic prices and costs; for, the slower rise in money incomes has sometimes been offset by the damping effect of policy on advances in productivity. Experience in fact indicates that, as pointed out in previous issues of the *World Economic Survey*, domestic price stability and rapid economic growth are not mutually exclusive alternatives but can, with the appropriate constellation of policies, be reconciled with one another.

The developed private enterprise economies have not, in fact, generally pursued deliberate policies of industrial development similar to those found in many under-developed countries or in the centrally planned countries. The only policies of a comparable nature which these countries can be said to have followed are those relating to regional development. But even regional development programmes have usually been of a partial nature, consisting mainly in the creation of an adequate supply of basic facilities and social services in the under-developed region. Indeed, it is interesting to note that, even though there are vigorous business communities in these countries, the provision of such facilities has not always been sufficient to generate industrial growth in the locality. More direct incentives, such as outright financial aid or subsidies of one kind or another, have also had to be offered to overcome the locational advantages of established industrial centres.

Of course, while governments of the developed private enterprise economies have generally not pursued comprehensive policies of industrial development, they have introduced numerous *ad hoc* measures designed to deal with the problems arising in specific industries or areas. Measures to assist depressed industries in reorganization or modernization, to relocate industries in depressed areas or to retrain workers thrown out of employment by technological advances are common. In addition to their significance for the social welfare of the community, such devices should be seen as easing the adaptation of the economy to changing economic circumstances and thus strengthening its capacity for economic growth. But it is important to remember that they cannot be effective in achieving their social or economic ends if aggregate

demand is not sustained at adequate levels; it is pertinent to note that depressed industries and technological unemployment have been more pressing problems in countries where over-all rates of economic growth have been relatively low than in countries where general economic conditions have been more consistently buoyant.

Recent economic events in western Europe offer striking testimony to the fact that problems of adjustment to changing circumstances can be overcome with relative ease so long as they are encountered in conditions of sustained economic growth. It is one of the salient features of the experience of member countries of the European Economic Community that the tariff reductions made so far have engendered no major problems of industrial adjustment; the most important reason has undoubtedly been the vigour of domestic economic growth in most of the member countries. In conditions of high and rising levels of domestic demand, domestic producers, faced with greater competition from foreign products, have been confronted not so much with an absolute reduction in the size of their domestic market as with a diminution in their share of an expanding market. The danger of mounting excess capacity in specific industries, in other words, has been largely warded off by the growth in total demand. Indeed, the expectation of widening markets ensuing from the creation of the Community has been an additional incentive to new investment and the further expansion of productive capacity.

Though, in their levels and composition of output, a number of the centrally planned economies now resemble the developed private enterprise economies, the conditions in which post-war industrial growth was initiated were usually more comparable to those currently prevailing in under-developed countries; these comparisons are evident from the study contained in chapter 3. Most notably, the economies of most of the centrally planned countries were still predominantly agricultural, and levels of investment in relation to total output were often comparatively low. Faced with the problem of developing their economies as swiftly as possible, these countries invariably made industrialization the mainspring of their economic plans. It is not merely that policies have been guided by the general and long-range aim of creating diversified industrial economies; more important, the central objective of initial plans has been the expansion of capacity in the capital goods industries. It has been a cardinal tenet of policy that, if resources can be concentrated for a period of years on the enlargement of capacity in these industries, the transformation of the whole economy will be more rapid and higher levels of living can be attained sooner. Though improvements in standards of consumption must be forgone for some time, this brings closer the day when rapid economic growth can eventually be sustained while increasing emphasis is concurrently given to the production of consumer goods.

Clearly, execution of this policy has been considerably aided by the institutional characteristics of planned economies. Comprehensive control over wages and other income, on the one hand, and over the production of manufactured consumer goods on the other, have made it relatively easy to allocate a high proportion of resources to investment. Further, in the context of central planning, no question arises as to whether long-standing restraints on consumption would dampen the incentive to invest; expectations regarding the prospective demand for capital goods play no part in determining the rate at which these industries are expanded. But it should also be remembered that even some of the less developed countries in the group entered the nineteen fifties with considerably more industrial capacity than is possessed by many under-developed countries today, and the fullest possible use was made of existing capacity to establish or enlarge the capital goods industries.

It is a mark of the high priority accorded to industrialization in the centrally planned economies that, during the nineteen fifties, some 40 to 50 per cent of total investment was generally allocated to industry. In these countries, as noted in chapter 3, industry is generally defined to include mining and power as well as manufacturing industry proper, but it is the latter which has absorbed the greater part of total industrial investment. As an outcome of the high levels of investment, when combined with the ample supplies of labour available for industrial employment, industrial output in the centrally planned economies as a group increased during the nineteen fifties at the high annual rate of 13 per cent.

Of necessity, the high level of investment—concentrated as it was on the expansion of capacity in heavy industry—entailed the imposition of rigorous restraints on personal consumption. It was, to a considerable extent, the converse of these facts that, by comparison with the very rapid strides made in industrial development, the performance of agriculture was generally quite poor. The restrictions on incomes deprived the peasants of incentives to increase production and the concentration of investment in heavy industry limited the supplies of equipment, fertilizers and other products available to raise agricultural productivity. It was only in the later years of the nineteen fifties, when policy in most countries began to assign greater weight to the aim of raising levels of personal consumption, that the relatively low rates of growth in agricultural output came to the fore as a major problem. So long as personal consumption was held in check, it was possible to achieve very high rates of industrial growth even though this meant some postponement of agricultural development. In more recent years, in the face of the rising requirements for food and agricultural

raw materials, greater emphasis has had to be given to reducing the gap between levels of industrial and agricultural production.

Of course, neither in industrial output nor in agricultural production were rates of growth the same in all the centrally planned economies. Nor were relatively high rates of increase in industrial output necessarily accompanied by relatively greater advances in total output. Though industry was invariably the main propulsive force behind the high rates of increase in total output, the differences among countries in rates of growth in agricultural output, as well as in the size of the agricultural sector, were sufficient to weaken the association between these rates.

Among most of the centrally planned economies, the pace of advance in industrial output during the nineteen fifties, in fact, varied within the range of 9 to 14 per cent per annum. Some tendency was evident for the less developed countries in the group to record the higher rates of increase. More striking, however, than the differences among countries in their rates of advance in industrial output has been the similarity in the main contours of their industrial growth. All the centrally planned economies have exhibited a strong tendency to move towards a broadly similar pattern of industrial output, in which heavy industry, particularly the machine building and metal working industries, assumes a dominant place. This tendency has been clearly inspired by the adherence to a common strategy for economic development. Since all countries have had the same aim of raising the level of investment as quickly as possible, first priority has been given to the expansion of capacity in the capital goods industries. Thus, the sequence of development of the main branches of industry has been almost directly the opposite of that sometimes regarded as typical in developing countries: instead of industrial diversification radiating out from the consumer goods industries and reaching the capital goods industries only in the later stages, the creation of industrial complexes in the capital goods sector has been in the forefront of industrial growth.

Generally, the output of producer goods industries has increased at considerably higher rates than output of consumer goods industries. But it is more significant that, in the less developed countries where the share of producer goods in total industrial production at the outset of the nineteen fifties was relatively small, the disparity in rates of growth between the two broad groups of industries has been appreciably greater than in the more developed countries. And a still more pronounced disparity has been evident in the case of the machine building and metal using industries. While their rate of growth in all countries exceeded the rate of expansion attained by industry as a whole, the relative rate of increase was considerably higher in the less developed countries. Thus, by the end of the decade, though the industrial structures of the more and the less developed economies were still markedly different, the disparities were considerably less than they had been in the early nineteen fifties.

This tendency for all countries to move towards broadly similar patterns of industrial production does not imply that there has been a trend towards greater economic self-sufficiency, although this aim did exert some influence on policy in the earlier years. Trade among the centrally planned economies, in fact, increased at an annual rate of 12 per cent during the nineteen fifties and, indeed, the economies of these countries were, if anything, more interdependent by the end of the decade than they had been at the beginning. Without the broadening of trade, industrial growth in most countries would undoubtedly have been seriously impeded. Most of the countries are not richly endowed with natural resources, and accordingly, as domestic industry has grown, the demand for imported raw materials has generally risen strongly. Further, particularly among the less developed countries, industrial structures have not been so diversified as to be capable of meeting the whole range of domestic needs for machinery and equipment; imported supplies have, in fact, played a strategic role in initiating the growth of newly established heavy industries.

No less striking than the growth in total trade of the centrally planned economies has been the change in the composition of their exports. In all of these countries, machinery and equipment accounted for a rising share of total exports during the nineteen fifties. And this, it should be stressed, was as evident among most of the less developed countries of the group as among the more developed countries. The trends in export composition have thus generally tended to reinforce the shifts in industrial structures towards heavy industry brought about to meet domestic requirements.

This similarity in experience with regard to exports has its roots in similar demand and supply conditions affecting foreign trade. Since all countries have emphasized the expansion of investment in their plans, each country has been confronted with an export market in which the most dynamic element has been the demand for machinery and equipment; engineering products have thus offered the best prospects for a rapid growth in exports. But also, computed domestic costs in relation to foreign prices have tended to favour production of these goods for export. World prices are utilized in the foreign trade transactions of these countries and, in face of these prices, it has generally proved to be a more efficient use of productive resources to divert a rising proportion from primary production to manufacturing industry, especially the engineering industries.

Particularly noteworthy is the success enjoyed by the less developed countries of the group in enlarging

their trade in manufactures. This could obviously not have been achieved had the structure of industrial production in these countries not been undergoing rapid transformation. But the policy of economic co-operation within the group was also a necessary condition of success. In agreeing to satisfy the preponderant part of their import requirements through trade with each other, these countries, in effect, established an integrated trading area. Difficulties that might otherwise have arisen because of inability to compete in the quality or design of products were removed. Of course, the fact that the economies of these countries are all centrally planned also eased the task of expanding the exchange of products; uncertainties regarding the adequacy of foreign demand or the competitiveness of prices were absent. But the existence of an integrated trading area among a group of countries which had embarked upon broadly similar programmes of industrial development has, in itself, strengthened and accelerated industrial growth. By virtue of these conditions, the less developed countries have come to rely less on foreign aid, being able to finance their rising import requirements mainly through exports.

It would be erroneous to conclude, however, that the foreign trade policies pursued by the centrally planned economies throughout the past decade have been consistently directed towards exploitation of the advantages of international specialization. In the earlier post-war years, when industrial development planning was still new to most of the centrally planned economies, there was a general tendency to determine the deployment of resources among industries almost exclusively on the basis of national needs regarding the composition of supplies. Certainly, in planning industrial development, each country had to take account of its deficiencies in natural resource endowment or in current industrial production and of the consequent need for imports of materials and equipment. But the fact that these deficiencies had to be made good through foreign trade did not necessarily mean that the planning of the industrial structure was deliberately modified to exploit the advantages of international specialization. There was an apparent inclination to cast planning in the autarkic mould, which had been shaped in the Soviet Union during its years of isolation in the inter-war period, and not enough attention was paid to the fact that the circumstances of other countries, as regards their size and the diversity of their natural resources, were quite different. In the course of the decade, however, much closer scrutiny has been given to the advantages that may be gained through international specialization; aided by the accumulation of experience in planning techniques, these advantages have come to be more systematically explored.

It is fully recognized that efforts to reproduce in every detail the structures of industrial production prevailing in the most advanced economies may result in a less efficient use of resources than could be achieved in a setting of international co-operation and co-ordination of plans. But it should be stressed that it is among products within the main branches of industry that international specialization is seen in the centrally planned economies to offer advantages. There is no suggestion that there should be specialization by such broad categories of industry as capital goods and consumer goods or by major sectors of production, such as industry and agriculture. Adaptation in the structure of industrial production to take fuller advantage of international specialization is acceptable only if it furthers national aims regarding the rate of economic growth and the achievement of a balanced industrial economy. Given the low rates of growth in external demand and the unfavourable terms of trade facing the traditional consumer goods and primary products, specialization by these broad categories in foreign trade could not secure the expanding flow of capital goods necessary to fulfil domestic investment plans.

Clearly, the general aims and problems of the centrally planned economies have been similar in many respects to those now prevailing in the under-developed countries. Perhaps the most important lesson to be learned by these countries from the experience of the centrally planned economies is that the pattern of industrial development should be consistent with the objective of the community regarding the prospective rate of investment. Of course, both the institutional and the economic differences between the two groups of countries mean that the experience of the one cannot be applied without qualification to the other. In the private sectors of the under-developed countries, the volume of investment is necessarily linked, through the inducement to invest, to the expected rates of growth in final demand; varying with the size of the private sector, this will modify the investment experience of these countries. The problem of restraining the rate of increase in domestic consumption so as to enlarge the margin of saving available for greater capital formation also represents a more formidable task for the under-developed private enterprise economies. Moreover, the industrial sectors of many under-developed countries are at much earlier stages of development than was true in most centrally planned economies when they began to concentrate resources on the expansion of domestic capital goods industries. And, in countries on the threshold of industrialization, it is less certain that resources would not be better deployed in the establishment of consumer goods industries which would replace imported products. It is at least clear that, because of the present structure of their economies, the foreign trade sector in under-developed countries is of crucial importance for their early progress in industrialization. Because they lack most of the more complex engineering industries, their ability to import machinery and equipment is critical to the pace at which these countries can hope to raise

their domestic investment and diversify their industrial structures. Even if domestic capital goods industries must become the main source of supplies in the future, imports of machinery and equipment are currently a necessary condition of the rapid growth of these industries. By enlarging their capacity to import, foreign loans and grants make a substantial contribution towards relieving the constraint on economic development that arises from the imbalanced industrial structure of under-developed countries. But foreign aid can never be more than a supplement to the foreign exchange which under-developed countries earn from their own exports; if they are to be able to strengthen their foreign exchange earnings through exports of manufactures, this will require not only continuing efforts on their own part but also a greater willingness on the part of developed countries to allow access to their domestic markets.

Part I

INDUSTRIALIZATION AND ECONOMIC DEVELOPMENT

Chapter 1

INDUSTRIALIZATION FOR ECONOMIC DEVELOPMENT IN THE UNDER-DEVELOPED COUNTRIES

The role of industrial development in economic growth

In the two centuries since the industrial revolution first began to change the techniques of manufacturing production, country after country in the northern half of the world has emerged from the status of a predominantly rural society to take its place as a modern industrial economy; and through this transformation, these countries have all won greatly improved standards of living for their peoples. While a few under-developed countries have histories of industrial development stretching back several decades, many have only recently begun to establish industrial nuclei and none have reached the advanced stage typical of many northern countries. In face of the great benefits yielded by a high degree of industrialization, it is small wonder that all of the under-developed countries today are intent upon advancing their economies along the path of industrial growth.

That the countries with the highest per capita incomes are highly industrialized and that the poorest countries have predominantly rural societies are facts of economic life which hardly demand extensive statistical demonstration. In the present day, primary production accounts, on the average, for about 47 per cent of total domestic output in the lowest-income countries, while industry contributes slightly less than 20 per cent (*see* table 1-1). By contrast, in the high-income industrial countries, these proportions are quite the reverse; industrial production amounts, on the average, to about 49 per cent of total output, while agriculture and mining together add only 13 per cent. This great disparity between the two groups of countries is due primarily to the difference in the role which manufacturing production plays in total economic activity. It is true that with the growth of factory production and the related trend towards urbanization, the industries providing basic facilities, such as transport, power and water, also contribute a rising proportion to total domestic output. In the industrial countries, for example, the share of basic facilities in total output is about 11 per cent; whereas in the lowest-income under-developed countries, it is only about 5 per cent. But this doubling in the relative importance of basic facilities is to be compared with a trebling in the share of manufacturing industry; from 11 per cent in the lowest-income countries, it rises to 32 per cent in the industrial countries.

There is no dispute that the great disparities which

Table 1-1. Industrial Distribution of Gross Domestic Product, Averages for Countries Grouped by Levels of Per Capita Income, 1950-1959[a]

(Percentage)

Per capita income group	*Commodities and basic facilities*					*Services*	*Total*
	Industry				*Primary production[d]*		
	Total	*Manufacturing*	*Basic facilities[c]*	*Construction*			
Under-developed countries:[b]							
I. Less than $125	19	11	5	4	47	33	100
II. $125 to $249	25	14	6	5	40	35	100
III. $250 to $374	26	16	6	5	30	45	100
IV. $375 and more	28	17	6	5	27	46	100
High-income industrial countries[e]	49	32	11	6	13	37	100

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Yearbook of National Accounts Statistics* and *Monthly Bulletin of Statistics;* from United Nations, *Economic Bulletin for Latin America*, vol. V, Statistical Supplement, November 1960 (Santiago); and from national sources.

[a] Simple arithmetic mean of ratios for individual countries, generally for 1950-1951 and 1958-1959. For differences in time period, *see* footnote *b* to table 1-2.

[b] For list of countries in each per capita income group, *see* table 1-2.

[c] Transportation, storage and communication, electricity, gas and water.

[d] Agriculture and mining.

[e] Countries with per capita income of more than $800. This group includes Belgium, Canada, Denmark, the Federal Republic of Germany, France, the Netherlands, Norway, the United Kingdom and the United States; Sweden is excluded because of lack of data.

Table 1-2. Industrial Distribution of Gross Domestic Product,[a] by Country, Average for 1950-1951 and 1958-1959[b]

(Percentage)

Per capita income group and country[c]	Commodity production and basic facilities						
	Industry				Primary production	Total	Services
	Total	Manufacturing	Basic facilities	Construction			
Group I							
Ceylon	20	5	6	9	51	71	29
Tanganyika	19	7	7	6	64	84	16
Indonesia	...	9	...	..	59	...	...
Republic of Korea	17	9	4	4	42	59	41
Kenya	22	9	9	4	44	66	33
United Arab Republic	...	10	...	3	38	51	49
Pakistan	...	10	3	...	57	70	30
Burma	16	11	2	3	46	62	38
Congo (Leopoldville)	25	12	8	5	46	72	28
Thailand	19	13	4	2	50	69	31
India	17	17	...	...	50	67	33
Peru	26	16	7	3	36	62	38
China (Taiwan)	30	18	7	5	34	64	36
Group II							
Rhodesia and Nyasaland	26	10	8	8	46	72	28
Honduras	20	10	6	4	56	76	24
Tunisia	25	11	9	5	36	61	39
Algeria	20	12	2	6	31	50	50
Turkey	24	12	7	5	49	73	27
El Salvador	22	13	2	7	40	62	38
Philippines	20	13	4	3	39	60	40
Ecuador	25	16	6	3	40	65	35
Morocco	24	16	1	7	41	65	35
Colombia	26	16	7	3	41	68	33
Brazil	34	24	8	2	26	60	40
Group III							
Panama	20	11	4	4	25	45	55
Costa Rica	18	11	4	3	42	60	39
Jamaica	31	12	8	11	25	56	44
Cyprus	24	13	7	4	37	60	40
Lebanon	21	13	5	3	18	39	61
Greece	32	20	8	4	34	67	33
Mexico	28	21	5	2	25	52	48
South Africa	32	24	8	...	27	59	41
Group IV							
Venezuela	23	10	6	7	38	61	39
Trinidad and Tobago	23	14	6	3	47	70	30
Chile	26	18	6	2	21	47	53
Puerto Rico	34	19	...	6	19	53	47
Argentina	28	22	...	6	20	48	52
Israel	38	22	9	7	12	50	50
Ireland	27	27	...	...	30	57	43

Source: See table 1-1.

[a] Definitions and coverage of items vary somewhat among countries. For Chile, India, Indonesia, Israel, Pakistan, South Africa and the United Arab Republic, data refer to net domestic product; for Lebanon and the Philippines, they refer to net national product.

Manufacturing industry includes electricity, gas and water in Indonesia and Pakistan; mining, construction, electricity, gas and water in India and Ireland; mining in Costa Rica and Israel; construction in South Africa; forestry in Argentina. For Congo (Leopoldville), it excludes the building materials industry, which is included with construction.

Basic facilities, unless otherwise stated, refer to electricity, gas, water, transportation, storage and communication.

Mining includes the production of non-ferrous metals from ores in the Congo (Leopoldville) and petroleum refining in Mexico. For Panama, mining is included with construction.

Services include transportation, storage and communication in the United Arab Republic, India, Algeria and Morocco; electricity, gas and water in Peru, Honduras, Brazil. Panama, Costa Rica, Mexico, South Africa and Chile; sanitary services in Rhodesia and Nyasaland and Trinidad and Tobago.

Estimates are derived from data in current prices, except for Brazil, El Salvador, Honduras, Mexico, Panama, Peru, Tunisia and Venezuela, where the published data are available only in constant prices.

[b] For the following countries, the period differs from that stated: India, Pakistan and Puerto Rico, 1950/51-1951/52 and 1958/59-1959/60; Algeria, Chile, Ecuador, Honduras, Lebanon, Mexico, Panama, Peru and Tunisia, 1950-1951 and 1957-1958; Burma, 1950/51-1951/52 and 1957/58-1958/59; China (Taiwan), Indonesia and Trinidad and Tobago, 1951-1952 and 1958-1959; Ceylon, 1952-1953 and 1958-1959; Morocco, 1951-1952 and 1957-1958; the Republic of Korea, 1953-1954 and 1958-1959; Rhodesia and Nyasaland, 1954-1955 and 1958-1959; Kenya and Tanganyika, 1954-1955 and 1958-1959; the United Arab Republic, 1950-51 and 1955-1956; Israel, 1955-1956 and 1958-1959.

[c] Countries have been grouped according to the annual average of their per capita national incomes in 1957-1959: *group I:* less than $125; *group II:* $125 to $249; *group III:* $250 to $374; *group IV:* $375 or more. Within each group, countries are ranked in ascending order of the share of manufacturing industry in gross domestic product.

exist between the industrial and the under-developed countries in levels of per capita income are related to their wide differences in structures of production. Nevertheless, the relation is a rather loose one. Among the under-developed countries themselves, for example, there are numerous instances of countries which have relatively high per capita incomes but relatively low shares of industry in total output (*see* table 1-2). This only demonstrates that the level of per capita income is not solely determined by the degree of industrialization. It is a familiar fact, for example, that some countries have achieved relatively high per capita incomes by virtue of their fortunate natural resource endowment; through production and export of primary commodities, they have exploited the strong advantage which they enjoy in international trade as a means of raising their levels of income. In recent history, the clearest examples are the petroleum exporting countries. Thus, two of these countries, Trinidad and Venezuela, fall into the highest-income group shown in table 1-2; and in both instances it is petroleum extraction rather than manufacturing industry which is the dominant sector.

It is only for a small minority of countries, however, that specialization in primary production has offered a principal way of substantially improving their material welfare. The primary commodities exported by most under-developed countries have been much less favoured by world demand than has petroleum. During the last decade, for example, the volume of exports from the under-developed countries expanded at a rate of 3.6 per cent per annum, which was less than three-fifths of the rate at which exports from the industrial countries increased (*see* table 1-3). Moreover, since the under-developed countries also experienced a deterioration in their terms of trade, the purchasing power of their exports advanced between 1950-1951 and 1959-1960 at only 2.2 per cent per annum. The forces underlying the relatively slow expansion in world trade of primary commodities have been analysed at length in an earlier *World Economic Survey* and need not be restated here.[1] What is most relevant to note in the present context is that, even apart from any other considerations in favour of industrialization, the trends in world trade in primary commodities are such as to make the expansion of production for the domestic market an imperative for the attainment of higher levels of living. For many countries the rate of increase in population alone has exceeded the rate of expansion in import capacity.

Other considerations besides the trends in world demand for exports are, however, of prime importance in accentuating the need for industrial development in the under-developed countries. Even if countries have natural resources in strong world demand, the case for

[1] *See* United Nations, *World Economic Survey, 1958* (Sales No.: 59.II.C.1).

Table 1-3. Indices of Export Quantum of Developed and Under-developed Areas, and Terms of Trade of Under-developed Areas, 1950-1951 to 1959-1960

Item and area	*Index, 1959-1960 (1950-1951 = 100)*	*Rate of change (percentage per annum)*
Export quantum		
World[a]	163	5.6
Developed areas[b]	171	6.2
Under-developed areas	138	3.6
Terms of trade[c]		
Under-developed areas	88	—1.4

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from the Statistical Office of the United Nations, *Monthly Bulletin of Statistics.*

[a] Excluding eastern Europe, mainland China, North Korea and North Viet-Nam.

[b] North America, western Europe, Australia, New Zealand, South Africa and Japan.

[c] Ratio of unit value of exports to unit value of imports.

Table 1-4. Distribution of Economically Active Population, Averages for Countries Grouped by Levels of Per Capita Income, Recent Census Year[a]

(Percentage)

Per capita income group	*Commodities and basic facilities*							
	Industry				*Primary production*	*Services*	*Unallocated*[b]	*Total*
	Total	*Manufacturing*	*Basic facilities*	*Construction*				
Under-developed countries:[c]								
I. Less than $125	13	9	3	2	69	15	3	100
II. $125 to $249	16	11	3	3	64	17	3	100
III. $250 to $374	21	13	4	4	50	25	4	100
IV. $375 or more	29	18	6	4	31	36	4	100
High-income industrial countries	44	29	7	7	19	35	2	100

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from International Labour Office, *Yearbook of Labour Statistics* (Geneva).

[a] Simple arithmetic mean of ratios for individual countries. For definition of sectors, *see* table 1-1.

[b] Including activities not adequately described in the census and, in some cases, unemployed persons and persons seeking work for the first time.

[c] For list of countries in each per capita income group, *see* table 1-2.

industrialization is seldom lessened. The great majority of the under-developed countries today are faced with widespread under-employment as well as with rapidly expanding populations. Their peoples subsist in great and growing numbers on the land, employing primitive techniques and working within the confines of inefficient forms of agricultural organization. To achieve fuller utilization of the increasing labour force, a rising proportion of the working population has to find employment in non-agricultural pursuits. This, it may be noted, is again a familiar characteristic of economic development. In the process of growth, a continuing redistribution of the labour force among the sectors of production takes place; the proportion of the labour force engaged in primary production decreases while that absorbed by industry increases (*see* table 1-4).

The importance attached to industrial development by no means implies, however, that the other sectors of production can be neglected and that attention can be wholly concentrated on industry. A tendency to single out industrialization as the one road to economic betterment was sometimes evident in the earlier post-war years, but today it is seen in clearer perspective as but one element, though a principal one, in the broader task of economic development. The larger aim is to raise levels of productivity throughout all the commodity sectors of production. The accumulation of capital and the application of more efficient productive techniques are the means through which this is achieved; in the long-run, these should be diffused throughout the economy and not confined to single sectors.

It is in this broader context that the strategic role of industrial development is best appreciated. For, if both economic growth and industrial development are founded on investment, it is also true that the rate and pattern of industrialization is, in turn, strategic to the rate of investment and, hence, to economic growth. In analysing recent rates and patterns of industrial development in the following sections, it is one of the purposes of this chapter to trace these interrelations in more detail.

THE DIMENSIONS OF RECENT INDUSTRIAL EXPANSION

Manufacturing output has been expanding quite rapidly in most under-developed countries in recent years. Indeed, since 1950 the rate of expansion in these countries as a group has exceeded the corresponding rate in the industrially advanced countries. Consequently, as may be seen from the following table, the share of the under-developed countries in total manufacturing output outside the centrally planned economies increased from 15 per cent in 1950 to 17 per cent in 1960.

Though the annual rate of growth between 1950-1951 and 1958-1959 ranged as low as one per cent in

Growth and distribution of manufacturing output, by area

Item and area	*1950*	*1960*
Index of growth:		
Under-developed areas	100	189
Developed areas[a]	100	163
Percentage distribution:		
Under-developed areas	15	17
Developed areas[a]	85	83
TOTAL	100	100

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Statistical Yearbook* and *Monthly Bulletin of Statistics*.

[a] Australia, Austria, Belgium, Canada, Denmark, the Federal Republic of Germany, Finland, France, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, South Africa, Sweden, Switzerland, the United Kingdom and the United States.

Argentina, it is indicative of the emphasis governments have generally placed on the acceleration of industrial growth that in more than two-thirds of the countries for which information is available, the rate amounted to 5 per cent or more; indeed in one-fifth of these countries it equalled or exceeded 10 per cent (*see* table 1-5).

The important part played by government policies in shaping the course of post-war economic development has been pointed out at some length in previous issues of the *World Economic Survey*. There is hardly a country in the less developed parts of the world where governments have not assigned prime importance to the expansion of the industrial sector in their efforts to raise levels of living. Through national plans or programmes of economic development, governments in almost all under-developed countries have sought to increase the rate of industrial growth. Not only has industrial activity been expanded in the public sector of the economy, but an array of measures have also been commonly employed in these countries to stimulate the pace of industrial investment and output in the private sector. These measures have included tariff protection for new industries, liberal commercial policies for the importation of machinery and essential raw materials, tax incentives and long-term loans at comparatively low rates of interest.[2]

It is notable that the rates of industrial growth have not shown any significant association with the relative stages of industrial development already reached by individual countries. Among the under-developed countries, high rates of industrial expansion, for example, have been recorded by some of the industrially more advanced countries as well as by a number of the industrially less advanced countries. It is true that the high

[2] For a more detailed discussion of the role of government policies, *see* United Nations, *World Economic Survey, 1959* (Sales No.: 60.II.C.1), chapter 2, and *World Economic Survey 1960* (Sales No.: 61.II.C.1), chapter 2.

Table 1-5. Relationship between Growth of Manufacturing Production and Growth of Gross Domestic Product, 1950-1951 to 1958-1959[a]

Country	Annual rate of growth (percentage)		Manufacturing production as percentage of gross domestic product	
	Manufacturing production	Gross domestic product	1950-1951	Change from 1950-1951 to 1958-1959
Republic of Korea	19	5	7	6
China (Taiwan)	15	8	17	3
Venezuela	12	8	9	2
Brazil	11	6	20	9
Phillippines	11	6	11	5
Jamaica	10	10	13	—
Pakistan	9	3	7	5
Rhodesia and Nyasaland	8	7	8	3
Congo (Leopoldville)	8	6	12	3
Greece	7	6	19	1
El Salvador	7	5	12	2
Honduras	7	3	9	3
Israel	6	9	24	−3
Algeria	6	8	12	−2
Turkey	6	6	10	—
Colombia	6	5	14	2
Peru	6	4	16	2
Thailand	6	4	12	1
Mexico	5	5	21	—
Ecuador	5	5	14	—
South Africa	5	5	22	−1
Panama	5	5	11	—
Portugal	5	4	34	3
Tunisia	4	3	10	1
Morocco	4	2	15	2
India	3	3	17	—
Chile	3	3	15	—
Cyprus	2	5	15	−3
Indonesia	2	4	9	−1
Ireland	2	1	27	2
Argentina	1	2	23	−1

Source: See table 1-1.

[a] Rates of growth of manufacturing production have been calculated generally from data for value added in manufacturing in constant prices. For China (Taiwan), Ireland, Rhodesia and Nyasaland and South Africa, they have been computed from indices of gross value of manufacturing output; for these countries, the share of manufacturing production in gross domestic product has been calculated from data in current prices. The time period for Thailand begins in 1952-1953. For other differences in time period and definitions, *see* footnotes to table 1-1.

rates in some of the industrially less advanced countries reflect, to some extent, the small size of the industrial base in the initial period. But this has by no means been the sole reason for rapid rates of advance, for the rates have been equally impressive in a number of the industrially more advanced countries where the share of manufacturing production in total output was already comparatively high. For instance, in the nineteen fifties, the rate of industrial growth in Brazil, notwithstanding its relatively large industrial base, was almost as high as in Venezuela where the industrial base is comparatively small. Similarly, in Mexico and in Portugal, the rates of expansion in manufacturing were not different from those in some of the industrially less advanced countries, such as Ecuador and Panama. Again, among the countries where the pace was moderate or slow, there were both industrially more advanced countries, such as India and Argentina, and industrially less advanced countries, such as Tunisia and Indonesia.

It is, of course, true that the high rates of industrial expansion in some of the under-developed countries, both more and less advanced, have been the outcome of special circumstances. For instance, in the Republic of Korea—the country with the highest rate of increase —the years 1950 and 1951 were a period of hostilities when scarcely any industrial activity was possible. It was only after the restoration of peace and through

substantial inflows of foreign funds that the industrial sector made gains. In China (Taiwan), the economy benefited from the large inflows of both funds and skilled workers. The rates of growth in Greece and in the Philippines, too, appear comparatively high because production in the early post-war years was adversely affected not only by the damage sustained during the Second World War, but also by subsequent domestic disturbances.

Irrespective of whether the rate has been high or low, industrial expansion has been one of the principal factors contributing to the over-all economic growth in most under-developed countries in recent years. Despite considerable variations in the relative importance of the manufacturing sector in the individual countries, the inter-country differences in the rate of growth of gross domestic product have, as is evident from table 1-5, broadly tended to reflect those in the expansion of manufacturing output. In fact, the countries in the upper part of the table not only experienced relatively higher rates of growth in total output between 1950-1951 and 1958-1959, but also achieved, in general, substantially larger increases in the share of manufacturing production in total output. In contrast, countries where the rates of growth of total output were relatively moderate or low have generally been those where manufacturing output increased sluggishly. In such instances, the relative share of manufacturing production in total output often remained unchanged or in a few cases even declined.

It is evident from the relative magnitude of the changes in manufacturing output and in total output that the growth in the former has not simply represented a response to increases in domestic income. Actually, in most countries the rate of industrial growth was higher than the rate of increase in domestic income, the difference being quite large in some cases. This disparity was made possible by the fact that domestic output, income and demand are linked with each other not only directly but also through the channel of foreign trade; to a considerable extent, the greater increase in manufacturing output than in domestic income ensued from the expansion of import-substituting activity. Indeed, as is discussed in a later section of this chapter, the process of import substitution has been a principal mechanism through which the growth of industries in the under-developed countries has taken place. Many import-substituting industries have been fostered in these countries as a matter of official policy in order to release foreign exchange for importation of capital equipment and other essential goods.

The disparity between trends in income and manufacturing output in the under-developed countries is of primary importance because it draws attention to the important role played by supply conditions in determining the pace of industrial development. It is a familiar observation that the establishment or expansion of industries is dependent, in part, upon the adequacy of supplies from other producing sectors of

Table 1-6. Change in Gross Fixed Investment and in the Relative Shares of Investment in Manufacturing Industry and Basic Facilities, 1950-1951 to 1958-1959[a]

Country	*Annual rate of growth of gross fixed investment (percentage)*	*Investment in manufacturing industry and basic facilities as percentage of gross fixed investment*		*Investment in manufacturing industry as percentage of gross fixed investment*	
		1950-1951	*Change from 1950-1951 to 1958-1959*	*1950-1951*	*Change from 1950-1951 to 1958-1959*
Ecuador	15	34	5	20	−2
India[b]	13	39	16	13	14
China (Taiwan)	12	42	13	18	7
Greece	10	50	7	20	−9
Republic of Korea	8	35	16	14	5
Venezuela	8	23	2	7	4
Israel[b]	7	36	7	11	9
Portugal[c]	7	49	1	22	−2
Rhodesia and Nyasala nd	5	32	9	9	4
Jamaica[d]	3	12	2	11	—
Philippines	3	30	12	21	5

Source: See table 1-1.

[a] Estimated from data in constant prices. For the following countries, the time period differs from that stated: India, 1951/52-1955/56 to 1956/57-1960/61; China (Taiwan), 1951-1952 to 1958-1959; the Republic of Korea, 1953-1954 to 1958-1959; Rhodesia and Nyasaland, 1954-1955 to 1958-1959; Israel, 1955-1956 to 1958-1959; Ecuador, 1950-1951 to 1954-1955; Jamaica and the Philippines, 1956-1957 to 1958-1959.

Basic facilities refer to electricity, gas, water, transportation, storage and communication.

[b] Mining included with manufacturing indus try.

[c] Construction other than of dwellings inclu ded with manufacturing industry.

[d] Basic facilities exclude transportation, storage and communication.

the materials and services utilized in current output. Of more fundamental importance than the matter of inter-industry relations, however, is the fact that industrial development presupposes the availability of productive resources for investment. Only if there is unutilized capacity in the economy is it possible to expand industrial output without additional investment. But, while unutilized or under-utilized capacity in the industrial sector of the under-developed countries is by no means unknown, the advances which can be achieved through greater exploitation of existing productive resources are clearly limited. In order to accelerate industrial growth, most countries have inevitably found it necessary to increase investment not only to modernize and enlarge existing capacity but also to expand the industrial base of the economy.

The widespread emphasis placed on investment in manufacturing and basic facilities in the under-developed countries during the past decade may be judged from table 1-6. Among the countries for which the data on components of investment are available, it is apparent that the proportion of total fixed investment absorbed in these two sectors was quite high. Generally, the combined level amounted to one-third or more of total investment in the earlier years of the decade, and in most cases there were further substantial increases over the period. In the majority of countries, investment in manufacturing alone took about 15 per cent or more of the total. Even where the relative share of manufacturing investment declined during the nineteen fifties, the increase in such investment in absolute terms was still significant.

INDUSTRIAL INVESTMENT AND FOREIGN TRADE

The role of investment in promoting industrial growth draws attention to the crucial importance of foreign trade. Notwithstanding the increased pace of industrial growth during the past decade, the under-developed countries have still continued to rely heavily upon imports of capital goods to carry out their investment programmes. Experience has shown that, in these countries, the insufficient availability of imported machinery and equipment has often acted as a limiting factor to industrial expansion. It is pertinent, therefore, to analyse the forces that have shaped the supply of these strategic goods.

The extent to which countries have been able to meet their increased requirements of imported capital goods has depended upon the growth of their foreign exchange receipts as well as upon the changes in the level and composition of demand for imported consumer goods and raw materials. While the experience of individual countries has varied, the aggregate foreign exchange receipts of the under-developed countries have been predominantly affected by the trends of demand in world markets rather than by domestic forces. Indeed, in some instances the expansion of domestic production of export goods has, in recent years, aggravated the imbalance between demand and supply in world markets, and has thus contributed to a deterioration in the terms of trade of the primary producing countries. Under these circumstances, governments have endeavoured not only to promote exports but also to change the structure of their imports in order to be able to devote an increasing proportion of available foreign exchange resources to the purchase of imported capital goods so as to enable them to establish their own industry. The degree to which they have been successful has depended upon the scope and effectiveness of import policy as well as upon the trend in domestic consumption and the growth of import-substituting industries.

The heavy dependence of the under-developed countries on imported capital goods for the execution of domestic investment programmes is clearly indicated by the data shown in table 1-7. Imported capital goods have generally amounted to 30 to 40 per cent of total investment, and in a few cases, the proportion has been substantially larger. It is true that the output of domestic capital goods industries in some under-developed countries expanded rapidly during the period under review. However, because of the relatively small size of such industries, domestic output was far from sufficient to meet total requirements. Moreover, in most countries the expansion was concentrated in the output of building materials and of simple types of equipment and accessories. Although steel production has been developed in a growing number of countries, engineering industries capable of manufacturing major items of machinery have emerged only in the largest and industrially most advanced countries of the group, and even in these countries, dependence upon imports of most classes of specialized equipment and machinery has not been appreciably reduced.

Whatever the growth in domestic production of capital goods, the under-developed countries have generally not been able to reduce the import content of their expanding domestic investment. On the contrary, the shift in the pattern of investment in favour of manufacturing and basic facilities has increased the reliance of many countries on imported capital goods. As may be seen from table 1-7, in the majority of countries imports of capital goods increased between 1950-1951 and 1958-1959 more rapidly than, or at least at the same rate as, domestic investment. Relatively large increases in the import content of domestic investment occurred not only in the industrially less advanced countries, such as Ecuador and the Philippines, but also in the industrially more advanced countries, such as Ireland and Greece. Even in India where domestic output of the metal and engineering industries rose considerably, there was a moderate increase in dependence upon imported capital goods; this was the consequence of an acceleration of investment activity associated with a large shift in

Table 1-7. Ratio of Imports of Capital Goods to Gross Domestic Fixed Investment in 1950-1951 and Change in the Ratio from 1950-1951 to 1958-1959[a]

(Percentage)

Country[b]	1950-1951	Change, 1950-1951 to 1958-1959
Ireland	42	13
Greece	31	10
Ecuador	26	8
Philippines	35	5
Thailand	34	5
Peru	33	4
Brazil	26	4
Chile	30	3
Israel	33	3
Cyprus	48	3
India	28	2
Venezuela	31	2
Colombia	33	1
China (Taiwan)	31	—
Honduras	36	—
Panama	38	—1
Rhodesia and Nyasaland	43	—1
Portugal	53	—1
South Africa	32	—3
Argentina	22	—4
Mexico	41	—5
Morocco	38	—6
Jamaica	49	—13
Turkey	40	—15

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Yearbook of International Trade Statistics*, and from national sources.

[a] For the following countries, the period differs from that stated: Argentina, Colombia and Peru, 1951-1952 to 1958-1959; Greece, Ireland, Panama, Philippines and Portugal, 1952-1953 to 1958-1959; Cyprus, 1953-1954 to 1958-1959; China (Taiwan) and Rhodesia and Nyasaland, 1954-1955 to 1958-1959; Israel, 1955-1956 to 1958-1959; Honduras, 1952-1953 to 1957-1958; Morocco, 1951-1952 to 1957-1958; Turkey, 1951-1952 to 1959.

[b] Countries are arranged in descending order of the change in the ratio of imports of capital goods to gross domestic fixed investment.

the pattern of investment towards machinery and equipment under the second five-year plan. Only a few countries recorded significant reduction in the import content of domestic investment. In some industrially more advanced countries, such as Argentina, Mexico and South Africa, the expansion in domestic output of capital goods was apparently sufficient to displace imports on a significant scale. In other cases, notably Jamaica and Turkey, the dependence on imports was reduced as a result of a shift of investment towards construction and a sharp rise in the output of building materials.

However, it is clear that the realization of an increasing volume of investment in the under-developed countries has generally continued to be conditional upon a corresponding expansion in imported supplies of capital goods. In these circumstances, the progress of industrialization has in large part depended on the growth of import capacity, and the trend in receipts from merchandise exports has, in turn, very largely determined that in total import capacity. As noted earlier, the purchasing power of exports of the under-developed countries as a group advanced at an average annual rate of little more than 2 per cent. In fact, in

Table 1-8. Annual Rates of Growth of Import Capacity and Total Real Imports, 1950-1951 to 1958-1959[a]

(Percentage)

Country	Import capacity[b] derived from: Merchandise exports, net services, donations and long-term capital	Import capacity[b] derived from: Merchandise exports	Total real imports
China (Taiwan)	10	24	3
Jamaica	...	10	8
Greece	10	10	12
Venezuela	10	8	10
Panama	9	5	4
Portugal	7	3	5
Peru	6	2	3
Israel	6	17	6
Argentina	5	5	1
Ecuador	4	7	7
Chile	4	2	3
India	3	—	3
Philippines	3	5	3
South Africa	3	5	3
Turkey	2	—	—2
Thailand	1	4	3
Mexico	1	1	3
Rhodesia and Nyasaland	1	—1	2
Colombia	1	—	—
Ireland	1	2	2
Brazil	—1	—2	—1
Honduras	—2	—1	3

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Yearbook of International Trade Statistics;* and from International Monetary Fund, *Balance of Payments Yearbook* and *International Financial Statistics* (Washington, D.C.).

[a] For differences in time period, *see* footnote *a* to table 1-7.

[b] Obtained by using import price index as deflator.

two-fifths of the countries included in table 1-8, the annual increases in the import capacity derived from exports were even smaller. Although more favourable trends were experienced by some countries, such as Argentina, China (Taiwan), Greece and Israel, this was mainly an adjustment to the abnormal conditions which had adversely affected exports in the earlier post-war years. It was only in the petroleum producing countries or in countries with new export products that foreign exchange receipts exhibited a vigorous upward movement. For instance, in Jamaica, exports

benefited from the recently initiated exploitation of bauxite deposits; in Ecuador and Panama, from the increased output of new banana producers, and in South Africa, to some extent from the development of new mineral resources.

In a number of countries, import capacity derived from merchandise exports has been augmented by inflows of foreign long-term funds in the form of either private investment capital or official loans and grants. This has reflected the growing importance of foreign participation in accelerating domestic investment in the under-developed countries during recent years.[3] In India and Turkey, for example, foreign economic aid and investments were virtually the only source of increase in total import capacity; and similarly in Panama and Peru, foreign capital contributed significantly to the growth of foreign exchange receipts. In contrast, relative or absolute reductions in the inflows of foreign capital or donations adversely affected the growth in the total import capacity of China (Taiwan), South Africa and Thailand. On the whole, however, the differences among countries in the trends in their import capacity derived from merchandise exports have not usually been greatly modified by their diverse experience with regard to receipts of foreign long-term funds.

Rates of change in total import capacity have in turn set limits to the changes in the level of total imports of various countries; this relationship between import capacity and imports is indicated by the data in table 1-8. Broadly speaking, countries which recorded relatively large increases in import capacity expanded imports more rapidly than did countries whose import capacity rose more slowly. Notable exceptions were Argentina, China (Taiwan) and Turkey, where reserves had been depleted in the early nineteen fifties by large deficits on current and long-term capital account. The Governments of these countries subsequently took steps to restrain the growth of imports in order to bring their external transactions into better balance. In these countries, as in the under-developed countries more generally, the burden of adjustment of external imbalance has fallen on imports, since there has been limited scope for influencing the course of import capacity itself.

In most countries, total imports increased at an an-

[3] For a more detailed analysis, *see* United Nations, *World Economic Survey, 1960*, chapter 2, and *International Flow of Long-term Capital and Official Donations, 1951-1959* (Sales No.: 62.II.D.1).

Table 1-9. Annual Rates of Increases in Real Imports and Real Private Consumption, 1950-1951 to 1958-1959[a]
(Percentage)

Country	Imports			Private consumption
	Total	Capital goods[b]	Non-capital goods	
Greece	12	20	8	7
Venezuela	10	9	11	8
Jamaica	8	8	8	7
Ecuador	7	11	5	5
Israel	6	9	5	10
Portugal	5	5	5	5
Panama	4	7	2	4
Peru	3	1	5	4
Philippines	3	8	2	5
India	3	6	1	3[c]
Chile	3	4	2	5
China (Taiwan)	3	4	3	6
Thailand	3	5	3	3
Mexico	3	3	3	5
South Africa	3	2	3	4
Honduras	3	−7	5	5
Rhodesia and Nyasaland	2	3	2	5
Ireland	2	3	2	1
Argentina	1	1	2	2
Colombia	—	−2	2	4
Brazil	−1	−3	—	4
Turkey	−2	−4	1	5

Source: See table 1-7.

[a] For differences in time period, *see* footnote *a* to table 1-7.

[b] Capital goods include the following SITC groups and sub-groups: 661, 68, 699, 7 (except 732-01). In some cases, where the data are not available in sufficient detail, the coverage varies slightly.

[c] Private and government consumption.

nual rate of 3 per cent or less, which was generally well below the rate of expansion in demand for imported capital goods. Many countries consequently endeavoured to effect changes in the structure of their total imports in favor of capital goods. As shown in table 1-9, in the majority of countries, imports of capital goods advanced more rapidly during the period under review than imports of other commodities. Governments have usually applied exchange and import controls for this purpose, but the shifts in the composition of imports which can be brought about by the exercise of these controls have been circumscribed by the heavy dependence of the under-developed countries on imported supplies of essential consumer goods and raw materials. Arbitrary changes in the composition of imports to increase the supply of capital goods could adversely affect domestic economic activity and consumption levels. The scope for manipulation has thus been closely related to the actual trends in domestic consumption and in the production of import-substituting consumer goods.

The trends in domestic private consumption are shown in table 1-9. In the majority of countries, imports of non-capital goods rose less rapidly than domestic consumption and the import content of domestic consumption consequently declined. In most of the remaining countries, the import content remained roughly unchanged. Notable exceptions were Jamaica, Peru and Venezuela, where it actually rose. Reductions in the import content of consumption may have taken place because of the substitution of similar domestic products for imports or because of shifts in the pattern of consumption away from the kinds of commodities generally obtained from foreign sources. Lack of data on the components of domestic consumption makes it impossible to assess the relative importance of these factors. However, some rough impression may be obtained from an examination of changes in the relative shares of major items of non-capital goods imports.

In table 1-10, changes in the relative shares of consumer manufactures, raw materials, fuels and food in total imports of non-capital goods from 1950-1951 to 1958-1959 are shown for individual countries grouped according to changes in the import content of domestic consumption. No systematic pattern differentiating the experience of these three groups seems to emerge. However, a common phenomenon was the reduction in the

Table 1-10. Change in Relative Shares of Major Components of Non-capital Goods Imports, 1950-1951 to 1958-1959[a]
(Percentage)

Group and country[b]	*Consumer manufactures*	*Raw materials*[c]	*Fuels*	*Food*
Countries where import content declined				
Israel	7	−5	1	−4
Turkey	−12	−4	19	−3
Brazil	−1	2		−1
China (Taiwan)	−4	−4	4	4
Philippines	−11	11	3	2
Chile	−2	−11	−4	16
Rhodesia and Nyasaland	−12	8	3	1
Mexico	−4	4	1	−2
Panama	−2	1	4	−3
Colombia	−14	12		2
South Africa	11	−1	−1	−9
India	−4	12	−1	−7
Countries where import content remained stable				
Ecuador	−12	9	4	−1
Portugal	−3	4	−1	−1
Honduras	−4	−2	1	5
Thailand	−15	11	5	−1
Argentina	−6	14	−5	−2
Countries where import content rose				
Ireland	−3	6	—	−3
Greece	−11	13	−3	1
Peru	−12	4	1	6
Venezuela	11	−1	−1	−9

Source: See table 1-7.

[a] For differences in time period, *see* footnote *a* to table 1-7.

[b] Countries in each group are arranged in descending order of decline in import content of domestic consumption.

[c] Including chemicals.

share of consumer manufactures in non-capital goods imports, although the magnitude of change varied greatly among countries and there were a few notable exceptions to this trend. The operation of import controls, which generally discriminated against manufactured consumer goods, was no doubt partly responsible for reductions in the share of such goods. However, in many instances the rapid expansion in domestic output of import-substituting consumer goods also contributed to these declines. This seems to be supported by the evidence that the declines have tended generally to be large in the countries at the earlier stages of industrialization. In the industrially more advanced countries, such as Brazil, India, Portugal and Mexico, where imported supplies of consumer manufactures are generally a marginal element in total consumption, the scope for further reductions has been small. Exceptions to the general declines in the share of consumer manufactures have been Israel, South Africa and Venezuela. In Israel and South Africa, where domestic production of consumer manufactures increased substantially, the rise in the share of imports ensued partly from shifts in the pattern of consumption towards high-income goods, such as automobiles and some high-quality textiles.

Reductions in the share of consumer manufactures generally have had their counterpart in increases in the share of raw materials or fuels. The rising share of fuels has reflected the substantial advances in consumption that have taken place in virtually all the under-developed countries. Since, in many cases, no domestic substitutes are available, fuel imports have, in fact, become a growing burden on foreign exchange resources.

The decline in the share of food in non-capital goods imports in most countries appears to have been predominantly the outcome of import substitution. In Asia, there have been widespread efforts by governments to achieve self-sufficiency in food since the end of the Second World War. The agricultural development programmes in some of the industrially more advanced countries have also been designed to reduce their dependence upon food imports by increasing domestic output of the staple foods, such as maize and wheat. This largely explains the decline in the share of food imports in Brazil, Israel, Mexico and South Africa. However, Chile presents a notable exception to this general phenomenon, since the gap between domestic food production and consumption appears to have widened over the years.

The preceding discussion shows that the experience of the individual countries with respect to changes in the import content of consumption does not readily lend itself to generalization. But the significance of these changes in the present context lies in their contribution to the capacity to import capital goods. As has already been shown, one-half of the countries included in table 1-9 were able to increase their total imports at only moderate rates varying between 2 and 4 per cent per annum. Since these countries generally experienced a significant decline in the import content of consumption, the margin available for imported capital goods was expanded. However, in several countries, such as Brazil, Colombia and Turkey, total imports remained stable or even declined while domestic consumption showed an upward trend; in these circumstances the contraction in the import content of consumption, though substantial, did not prove sufficient to prevent a decline in capital goods imports. By contrast, in countries which recorded the largest shift in the composition of imports towards capital goods, the import content of consumption did not necessarily decline. Indeed, in Ecuador, Greece, Jamaica and Venezuela, for example, imports of non-capital goods actually rose more rapidly than domestic consumption. Since these countries, however, were able to expand total imports rapidly, they were in a position to shift the structure of total imports in favour of capital goods while maintaining the expansion in imports of consumer goods in line with the growth in domestic consumption.

In summary, it may be said that, because of the relative absence of capital goods industries, the foreign trade sector has assumed particular significance in the growth of investment in the under-developed countries. The rate of expansion in domestic investment, particularly investment in manufacturing industry and basic facilities, has been limited largely by the ability to import capital goods, which has, in turn, been determined by the rate of growth in total import capacity and total imports. In many cases, however, imports of capital goods rose more than total imports; this was generally made possible by reductions in the import content of domestic consumption. But, on the whole, the quantitative importance of this factor has been less than that of the growth in import capacity.

Patterns of industrial development

While industrial development and general economic growth are interrelated in several ways, one of the most important links between the two is the level of investment; and in shaping the supply of capital goods available for investment, the foreign trade sector, as has just been discussed, plays a major role.

Within this general framework, the pattern of industrial development has been of considerable importance, and it is to this that attention is now directed. The pattern of industrial development, as distinct from its rate, has itself been a determinant of the supply of capital goods; for this supply has depended, in part, on the extent to which the pattern has favoured the development of domestic capital goods industries or, as alternatives,

Table 1-11. Stage of Industrial Development and Composition of Manufacturing Output, Recent Census Year[a]

(Percentage)

Group and country	Census year	Manufacturing output as percentage of gross domestic product	Composition of manufacturing output										
			Total	Non-durable consumer goods					Final and intermediate producer goods and durable consumer goods				
				Total	Food	Beverages and tobacco	Textiles and wearing apparel	Other	Total	Base metals	Metal products	Machinery and transport equipment	Other
Industrially more advanced countries													
Economically larger countries:													
South Africa	1954/55	25[b]	100	49	13	4	14	17	51	8	11	13	20
Argentina	1953	20[c]	100	60	15	9	20	16	40	3	7	12	18
Mexico	1955	20[d]	100	61	15	8	20	18	39	14	5	11	9
Brazil	1949	20[e]	100	69	21	6	26	16	31	5	5	6	15
India	1953	16[f]	100	62	16	2	30	14	38	6	4	8	20
Economically smaller countries:													
Israel	1951/52	22[g]	100	60	20	6	20	14	40	—	14	8	18
Ireland	1953	21	100	78	30	13	19	16	22	—	4	9	9
Chile	1957	21	100	64	18	10	21	15	36	11	4	5	16
Puerto Rico	1954	20	100	83	30	16	21	16	17	—	3	4	10
China (Taiwan)	1954	17	100	69	21	20	16	12	31	2	2	9	18
Industrially less advanced countries													
Economically larger countries:													
Philippines	1956	14	100	78	27	17	11	23	22	1	4	4	13
Turkey	1950	11	100	75	26	14	27	8	25	3	5	5	12
United Arab Republic	1954	11	100	80	16	9	42	13	20	2	2	6	10
Venezuela	1953	10	100	73	20	17	11	25	27	—	2	1	24
Republic of Korea	1958/59	10	100	69	10	10	32	17	31	4	3	7	17
Pakistan	1953	9[h]	100	87	11	6	42	28	13	2	1	3	7

Economically smaller countries:													
Peru	1954	16	100	62	18	7	19	18	38	23	3	1	11
Colombia	1953	15	100	88	18	27	25	18	12	1	2	2	7
Ecuador	1955	15	100	78	30	18	19	11	22	—	1	1	20
Lebanon	1955	13[g]	100	72	24	18	16	14	28	—	5	1	22
Iraq	1953	12[b]	100	77	20	16	26	15	23	1	4	3	15
Honduras	1953	11	100	79	18	32	15	14	21	—	5	1	15
Costa Rica	1950/51	11[g]	100	88	47	19	11	11	12	—	1	2	9
Burma	1953	10	100	84	33	14	24	13	16	—	3	2	11
Rhodesia and Nyasaland	1955	9	100	18	6	5	4	3	82	69	3	2	8
Kenya	1956	9	100	52	17	13	6	16	48	—	5	11	32
Guatemala	1953	5	100	81	17	28	20	16	19	4	2	—	13

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on national censuses. *See also* table 1-1 for sources of data relating to manufacturing output as a percentage of gross domestic product.

[a] The composition of manufacturing output has been measured in terms of value added. United Nations, *International Standard Industrial Classification of all Economic Activities* (151L) (Sales No.: 58.XVII.7) has been used as the basis for classification of manufacturing output. So far as the data permit, output has been classified to correspond to the two broad groups of, first, non-durable consumer goods and, second, final and intermediate producer goods and durable consumer goods. Thus, the headings in the table correspond to the following ISIC major groups and groups: food: major group 20; beverages and tobacco: major groups 21 and 22; textiles and wearing apparel, major groups 23 and 24 (except, for India, jute textiles, which are included with other durable and non-durable goods, mainly producer goods); other non-durable goods, mainly consumer goods: major groups 26, 28, 29, 30 and 39 (furniture and fixtures, printing and publishing, leather and leather products, rubber products and miscellaneous products) and groups 319 and 333 (miscellaneous chemical products and pottery, china and earthenware); base metals: major group 34; metal products: major group 35; machinery and transport equipment: major groups 36, 37 and 38 (machinery except electrical, electrical machinery and transport equipment); other durable and non-durable goods, mainly producer goods: major groups 25, 27, 31 except group 319, 32 and 33 except group 333 (wood and cork products, paper and paper products, chemicals and chemical products, petroleum and coal products and non-metallic mineral products and, for India, the portion of major group 23 relating to jute textiles).

Value added in manufacturing industry on account of repair of motor vehicles (ISIC group 384) has been excluded from the data wherever possible.

Countries were classified into the more and the less industrially advanced groups principally on the basis of the share of manufacturing production in gross domestic product; the line of division was drawn at 17 per cent of gross domestic product, the sole exception being India where account was also taken of the large absolute size of manufacturing output. Classification of countries into the economically large and small groups was made principally on the basis of national income, with an income of about $3 billion being taken as the boundary; account, however, was also taken of population size in some instances.

[b] Private enterprises only; including construction.
[c] Including forestry.
[d] Excluding petroleum refining.
[e] 1950.
[f] Including construction, electricity, gas and water.
[g] Including mining.
[h] Including electricity, gas and water.

import-substituting or export-promoting industries. Thus, the current allocation of resources among industries is a factor influencing the prospective volume of resources for investment.

Interest in the pattern of industrial development is, however, not confined to its general relation with the level of investment and economic growth as a whole. Within the framework of this relation, there is scope for considerable variation among countries in the particular types of industries which have been, or may be, developed. And it is well worth exploring the extent to which the evolution in the types of industries established and expanded at different stages of industrialization has conformed to any pattern. For, an attempt to determine the reasons for the similarities or differences among countries in the structures and trends of their industrial output can suggest some of the considerations most relevant to the choice of industries. To this end, the present section compares the structures of manufacturing production obtaining in different countries during a recent year; this comparison is then supplemented by an analysis of trends in the composition of output over the last decade.

STRUCTURES OF MANUFACTURING PRODUCTION

In examining the actual patterns of manufacturing production prevailing in the under-developed countries, the immediate question that arises is whether there are, in fact, systematic differences among countries at different stages of industrialization. In attempting to answer this question, the under-developed countries for which recent data on the composition of manufacturing output are available have been classified into the two groups of more and less industrially advanced countries (*see* table 1-11). The criterion employed for classification is primarily the share of manufacturing output in gross domestic product.[4]

In addition, since there is also considerable interest in whether the economic size of a country, by virtue of the diversity of its natural resources or the size of its market, may affect its structure of production, countries have been roughly grouped into large and small, on the basis of their national incomes. It need hardly be said that the line of division in both classifications is somewhat arbitrary.

Certain fairly systematic differences do, in fact, emerge when the structures of manufacturing production in the industrially more advanced and the industrially less advanced countries are compared. If the industries producing non-durable consumer goods are taken together, their relative importance in total manufacturing output tends to be smaller in the more industrialized countries than in the less industrialized countries, and, as a corollary, the industries manufacturing final and intermediate producer goods and durable consumer goods tend to be of relatively greater importance in the more industrialized countries.[5] In eight out of the ten countries included in the more industrialized group, the share of the consumer goods industries in total manufacturing output is less than 70 per cent, whereas in the less industrialized group, their share exceeds this amount in thirteen of the seventeen countries. This broad difference between countries at more and less advanced stages of industrialization does not, moreover, appear to be significantly affected by the relative economic size of countries. While the number of countries included in each sub-group is rather small for firm generalization, the relative importance of the two broad groups of industries appears to vary more with the stage of industrialization than with the size of the country.

In contrast to this evidence of some systematic difference among more and less industrialized countries, a much less orderly picture emerges when attention is directed to the specific industries within the two broad groups. Despite the fact that a substantial degree of aggregation is still present in the industrial classes shown in the table, there is no evidence of systematic differences among countries in the relative importance of most of these classes of industry. For example, the share of the food industry in total manufacturing output varies among the industrially more advanced countries from 13 per cent in South Africa to 30 per cent in Ireland and Puerto Rico. And a similar diversity is evident among the less advanced countries; the industry's share amounts to as little as 6 per cent in Rhodesia and Nyasaland and to as much as 33 per cent in Burma. It needs no more than a glance at the table to see that this example could be easily repeated with most other industries, and if the analysis were carried below the present level of aggregation to more specific classes of industry, the diversity in relative importance of most industries might well appear to be even greater.

The sole, and notable, exception to this general absence of any systematic relation among countries between the relative size of individual industrial classes and the stage of industrialization is to be found in the machinery and transport equipment industries. In all

[4] This is not the only criterion which could have been used; others, such as the proportion of the economically active population engaged in manufacture, the per capita value of manufacturing output or the share of manufactures in total commodity production, come to mind as possible alternatives. All are, to some extent, interrelated and there is no final argument in favour of one or the other; but the share of manufacturing output in gross domestic product or in total commodity production comes closer than a distribution of the economically active population to what is generally meant by the degree of industrialization and offers fewer statistical difficulties in inter-country comparisons than does the per capita value of manufacturing output.

[5] For convenience, the industries producing non-durable consumer goods are hereafter referred to as consumer goods industries, and the industries manufacturing mainly final and intermediate producer goods and durable consumer goods are referred to as producer goods industries. It should always be remembered, however, that these are abbreviated and approximate descriptions.

Table 1-12. Composition of Final Demand for Output of Machinery and Transport Equipment Industries
(Percentage)

Country	Year	Total private and public consumption	Fixed investment	Exports	Change in stocks	Total
Argentina	1950	35.7	66.4	0.1	−2.2	100
Israel	1958	57.7[a]	34.4	7.9	[b]	100
Mexico	1950	43.5	50.3	2.1	4.1	100

Source: See table 1-14.
[a] Data refer to "all other uses".
[b] Included in consumption.

but two of the more industrialized countries, the share of these industries accounts for 6 per cent or more of total manufacturing output, whereas in only three of the less industrialized countries is their share as much as, or more than, 6 per cent. Particular significance attaches to these industries since, in combination with the industries producing construction materials, they are the main domestic source of capital goods. It should be noted, however, that output of these industries may include durable consumer goods as well as capital goods. These industries manufacture not only such capital goods as industrial machinery, electrical motors and transformers, railway equipment and commercial road vehicles but also such consumer goods as sewing machines, radios, passenger cars and bicycles. Comprehensive information on the relative importance of consumer and capital goods output is not available, but the data shown in table 1-12 for a few of the more industrialized countries are sufficient to suggest that, in the underdeveloped countries, the growth of these industries may have owed about as much to the development of consumer goods output as to that of capital goods.

Two major facts emerge from this statistical comparison of industrial structures: first, at the very broad level of aggregation in which industries are classified into the two groups of consumer goods and producer goods industries, some systematic difference between more and less industrialized countries is apparent; second, at a more detailed level of analysis in which more specific industrial classes are considered, there is an absence of any systematic relationship between the relative importance of most industries and the stage of industrialization.

As regards the diversity in relative importance of specific industries, it is easy enough to restate a general principle of economic theory which provides a satisfactory explanation, at least in comparison of countries at a point in time. This is the concept of comparative cost which recognizes that, since countries all differ in the quality and quantity of the productive resources which they possess, it is generally to their advantage to engage in international trade, exchanging the goods which they can produce with relatively greater efficiency for those in whose production they are relatively less efficient. The actual operation of comparative advantage in introducing diversity into structures of industrial production is least difficult to trace in those branches of manufacturing activity where natural resource endowment is an important determinant of costs. The extreme instances are to be found among those industries processing raw materials which lose considerable weight or bulk in the early stage of manufacture. Countries endowed with such raw materials usually enjoy a strong comparative advantage in production for export of the processed commodity. Clear examples of such resource-oriented export industries are those which smelt and refine some of the major non-ferrous ores; it is these industries, for instance, which account for the relatively high share of base metals in the total manufacturing output of such countries as Chile, Mexico, Peru and Rhodesia and Nyasaland. While, in numerous other raw materials, the difference in transport costs between the processed and unprocessed commodity is not of significant proportions, much of the diversity in industrial structures nevertheless still finds its origin in natural resources. The particular resource endowment of each country has usually been an important factor influencing the pattern of industrial growth, at least in its initial stages, and it has thereby contributed to the emergence of particular industries with some comparative advantage in international trade. For example, the large share of the food industry in the total manufacturing output of Burma and Ireland reflects the presence of substantial industries processing food for export; or again, the high proportion of output in Kenya and Venezuela accounted for by the industries classified as other producer goods industries is explained by the processing for export of chemical raw materials in the former country and petroleum refining in the latter.

It has to be admitted, however, that the operation of the principle of comparative cost in giving rise to diversity in industrial structures can only be traced with relative ease in those instances where there are more or less striking differences among countries in natural resource endowment. Raw materials are only one element in production costs, and when we move away from industries in which they are a dominant determinant of comparative cost, it becomes vastly more difficult to say why a particular country has acquired a comparative advan-

tage in a particular industry or range of industries. The development, for example, of the cotton textile industry in India as a major export industry is not just to be explained by the country's natural resources. The actual forces causing countries to specialize in particular industries as they move beyond the early stage of industrialization are, in fact, as complex as the process of industrial development itself, and neither natural resources nor any other specific factor of production can be identified as the sole reason for the emergence of new export industries.

Accepting, however, that some diversity among countries in the relative importance of specific industries is bound to be present so long as they engage in international trade, this still leaves unexplained the other major fact that emerged from the statistical comparison of industrial structures of the under-developed countries. This is that, at the level of the twofold classification of industries, some systematic difference between more and less industrialized countries is apparent.

The tendency towards some uniformity among countries in the pattern of industrial development is quite in line with general expectations. It is usually supposed that, despite the innumerable economic, social and institutional differences among countries, there are forces common to all countries which are of sufficient strength to induce some uniformity in the evolution of the pattern of manufacturing output. These forces are seen to lie both on the side of demand and on the side of supply. On the demand side, there is the evidence suggesting that, as per capita income rises, the composition of consumer demand for final goods and services tends to change in a fairly uniform way; in particular, it tends to shift from relatively simply fabricated non-durable goods to more highly fabricated durable and non-durable goods. Associated also with rising incomes, there is often a tendency for the share of investment in total expenditure to increase, and this generates a relatively rapid expansion in demand for durable producer goods. On the supply side, there is the fact that, since the technical relations between manufacturing industries are given by the state of technical knowledge, the growth in demand for the semi-manufactures that serve as inputs into the final goods industries also tends to unfold according to a uniform pattern.

These forces, however, are only partially relevant to an explanation of the systematic differences among the under-developed countries at a point in time; nor, as will be seen later, do they fully explain the change in output within these countries over a relatively short period, such as the last decade. It is true that, as observed earlier, there is a broad relationship between the changes in the structure of manufacturing production and the growth of per capita income and investment expenditure. But, as also noted earlier, the relationship is certainly a very loose one; because of the existence of foreign trade, the pattern of domestic demand and output may deviate quite sharply from one another. In other words, to account more fully for the systematic structural differences among the under-developed countries at a point in time, or for the pattern of relatively short-period changes in output, what has to be recognized is the fact that these countries did not begin to industrialize from a position of balance between domestic demand for manufactures and domestic output of manufactures. A considerable part of their industrial development in its early phases, in fact, consists in the expansion of output to meet existing domestic demand. This is the familiar process of import substitution, and it is largely this process which explains why the broad difference between countries in the relative importance of consumer and producer goods industries is related more to the stage of industrial development than to the level of per capita income.

This point is demonstrated by the estimates shown in table 1-13, where, for several main groups of industries, the relative shares of the gross value of domestic output of manufactures and semi-manufactures in total domestic supplies of the same products are compared. The table reveals that, in the industrially more advanced countries, there is a distinct tendency for the composition of domestic output to be aligned more closely to the pattern of domestic requirements than in the industrially less advanced countries. Within all the countries of both groups, the relative shares of domestic output of the several industries in total domestic supplies of the products of these industries vary considerably; generally, domestic producer goods industries account for a smaller proportion of total domestic supplies of producer goods than do the consumer goods industries in supplies of consumer goods. But, while the share of domestic output in domestic supplies of producer goods is well below the share of domestic output in domestic supplies of all manufactures and semi-manufactures in both groups of countries, the disparity is less in the more industrialized countries. Thus, in the more industrialized countries, the ratio of the proportion of producer goods supplies met from domestic industry to the proportion of all manufactured supplies met from domestic industry is mostly above 70, whereas in the less advanced countries, it usually falls below 60. It is only the corollary of this fact that, in the less advanced countries, domestic output tends to be most heavily concentrated in the consumer goods industries; output of the consumer goods industries, in other words, meets a much higher proportion of domestic requirements for the products of these industries than does output of other industries.

It is of considerable interest that this tendency towards closer balance among the more industrialized countries is evident in the smaller countries included in table 1-13 as well as in the larger countries. Although the smaller countries derive a higher proportion of their available supplies of manufactures and semi-manufactures from foreign sources, there is no noticeable tend-

Table 1-13. Domestic Output in Relation to Domestic Supplies of Manufactured Goods, Recent Census Year[a]

Group and country	Census year	Relative share of domestic output in domestic supplies (ratio of total domestic output to total supplies of manufactures = 100)									Total domestic output as percentage of total domestic supplies
		Non-durable consumer goods				Final and intermediate producer goods and durable consumer goods					
		Total	Food, beverages and tobacco	Textiles, footwear and clothing	Other	Total	Wood and non-metallic mineral products	Base metals	Metal products, machinery and transport equipment	Other	
Industrially more advanced countries											
Economically larger countries:											
South Africa	1954/55	110	138	89	92	92	125	94	84	84	68
Argentina	1953	104	105	103	103	93	98	68	94	97	95
Mexico	1955	112	115	116	104	91	105	110	73	80	85
Brazil	1949	112	114	113	105	78	110	94	61	68	86
India	1953	112	119	115	96	80	112	77	75	95	79
Economically smaller countries:											
Israel	1951/52	112	123	125	77	87	111	—	88	36	65
Ireland	1953	116	132	106	71	68	94	—	68	47	67
Chile	1957	121	123	128	108	65	129	108	35	88	71
China (Taiwan)	1954	112	118	118	88	82	109	60	73	84	82
Industrially less advanced countries											
Economically larger countries:											
Philippines	1956	117	122	98	123	79	139	36	61	55	66
United Arab Republic	1954	125	131	133	86	49	68	34	45	31	68
Venezuela	1953	134	146	110	125	36	147	—	15	129	54
Economically smaller countries:											
Peru	1954	129	140	142	100	59	126	111	21	85	55
Colombia	1953	122	130	123	92	41	117	15	22	53	75
Ecuador	1955	136	160	120	87	23	119	—	5	74	57
Iraq	1953	142	143	130	167	54	206	7	30	5	28
Burma	1953	119	196	68	95	45	95	——24——		74	40
Guatemala	1953	129	170	98	51	52	168	195	10	13	47
Rhodesia and Nyasaland	1955	141	235	65	70	55	177	—	69	82	34
Kenya	1956	139	207	73	78	74	177	—	58	23	40

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from national sources.

[a] The table is based on estimates of production for the domestic market and of available domestic supplies. These estimates were derived from data on the gross value of domestic output and on exports and imports of manufactures and semi-manufactures. Exports were deducted from the gross value of production to arrive at estimates of production for the domestic market; to this, imports were added to arrive at available domestic supplies.

Production for the domestic market as a ratio of available domestic supplies within each of the major groups of manufactures was then calculated. The ratio for each industry group was finally divided by the ratio for all industry groups, and the result was expressed in index number form, with the ratio for all groups equalling 100.

For definition of the major groups of manufactures, *see* footnote *a* to table 1-11.

ency for their dependence on imported supplies to be more heavily concentrated on particular classes of manufactures, at least at the level of the broad groups shown in the table. This suggests that the relatively small economic size of the countries studied here has not been an insuperable obstacle to the growth of a diversified industrial output; output has been expanded in most of the major branches of production so that the imbalance among classes of industrial products in their relative dependence on imported supplies has tended to diminish. What this does not exclude, however, is the possibility that, within the major groups of manufacturing industry, there may be greater specialization in specific industries among the smaller countries.

Industrial development in the under-developed countries, at least in its earlier stages, thus consists in part of a movement away from a position of marked imbalance between demand and output to a position of closer balance. It is not solely a process of expanding output to meet the rising demand created by growing per capita incomes; it is also a process in which existing demand for manufactures is met increasingly from domestic production instead of from foreign sources. In the course of development, industrial activity spreads out from the production of the simple non-durable consumer goods to embrace an ever-widening field of final durable goods industries and intermediate goods industries.

Of particular importance in the diversification of industry associated with development appears to be the expansion in the production of intermediate producer goods. This point is illustrated, though admittedly only for a few countries, by the data shown in table 1-14. A clear tendency is evident for manufacturing industries to sell a rising proportion of their gross output to each other as total manufacturing activity increases. The correspondence between the degree of industrialization and the proportion of total manufacturing output absorbed in intra-industry sales is not exact, no doubt owing partly to deficiencies in the data as well as to inter-country differences in the structure of manufacturing production. But in such more industrialized countries as Argentina, Israel and Spain, intra-industry sales are clearly of substantially greater relative importance than in such less industrialized countries as Colombia, Peru and Tunisia.

It is of interest to note that this tendency for the output of intermediate products to increase relatively to total manufacturing output is even more clearly apparent where sales not only among manufacturing industries but also to other sectors of production are considered. In the three most industrialized countries shown in the table, the output of intermediate goods accounts for 37 to 48 per cent of total manufacturing output, while in the three least industrialized countries, it amounts to about 18 to 27 per cent. In other words, the demands of other sectors for intermediate products are more important in accounting for the growth of output of such products than is the growth of interdependence within manufacturing industry itself. It is, in fact, found in the next section that industries manufacturing such intermediate products as fertilizers, insecticides, cement, other building materials and petroleum products absorbed outside the manufacturing sector have been among the most dynamic in the recent experience of numerous countries.

It would, of course, be of greater interest to identify in more detail the types of industries that have been associated with different stages of industrial development, and some attempt is made to do this below. But first, and partly to throw further light on this point, it is useful to supplement the above comparison of structural differences with some review of recent trends in the composition of output.

RECENT TRENDS IN THE MAJOR SECTORS OF MANUFACTURING PRODUCTION

As has been discussed earlier, there has been considerable diversity among countries in the rates of growth in total manufacturing output. Among the countries shown in table 1-15, annual rates of increase in output have varied from over 20 per cent to as little as one per cent, and, as might be expected, high or low rates of growth in total manufacturing output have generally been reflected in corresponding rates both in the consumer and the producer goods industries.

What is of interest in the present context is the relative rates of growth of these two broad groups of industry within each country. The inter-country comparison of industrial structures at more and at less advanced stages of industrialization revealed that, as countries advance industrially, there is a systematic tendency for the producer goods industries to increase in relative importance; and this would imply that, within a country, the rate of growth of these industries will tend to exceed the rate of expansion in total manufacturing output.

That this tendency has actually been present during the past decade, in most of the countries for which data are available, can be seen clearly from table 1-15. Of twenty-two countries, output of the producer goods industries advanced more rapidly than total manufacturing output in sixteen instances. And in at least some of the six countries where the reverse was true, the explanation lies in special difficulties affecting the export-oriented base metal industries which have such a large share in the total output of producer goods industries. Thus, in Algeria, the Congo (Leopoldville) and Rhodesia and Nyasaland, special problems in exports of base metals have caused the rate of growth in total output of these industries to lag behind that for total output. Of course, it is also true that, in some of the countries where the rates of growth of the producer goods industries were relatively high, these were ap-

Table 1-14. Distribution of Gross Output of Manufacturing Industry by Intermediate and Final Sectors, Recent Year[a]

(Percentage)

Country	Year	Manufacturing output as percentage of gross domestic product	Distribution of gross manufacturing output									
				Sales to intermediate sectors					Sales to final sectors			
			Total	Sub-total	Manufacturing	Agriculture and mining	Construction	Other[b]	Sub-total	Fixed investment	Exports	Other[c]
Argentina	1950	23[d]	100	37	21	2	7	7	63	5	7	51
Israel	1958	22[e]	100	46	24	6	9	8	54	3	10	41
Spain	1957	21	100	48	30	5	6	8	52	6	3	43
Mexico	1950	20[f]	100	31	17	1	5	7	69	3	5	61
China (Taiwan)	1954	17	100	32	15	10	4	2	68	15	9	44
Peru[g]	1956	16	100	22	19	2	2	...	78	4	13	61
Colombia[g]	1953	15	100	18	13	———	5	———	82	4	20	58
Tunisia	1957	12	100	27	18	3	3	4	73	—	30	29

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from United Nations, *The Economic Development of Colombia* (Sales No.: 57.II.G.3), *The Economic Development of Argentina*, vol. 1 (Sales No.: 59.II.G.3, vol. 1) and *The Industrial Development of Peru* (Sales No.: 59.II.G.2); from Organisation for European Economic Co-operation, *Regional Economic Planning, Techniques of Analysis* (Paris, 1961); from *Industry of Free China*, vol. XVI, No. 4, October 1961 (Taipei); from Bank of Israel, *Annual Report, 1960* (Jerusalem, 1961); from Banco de México, *La Estructura Industrial de México en 1950* (Mexico City), and from Moncef Guen, *La Tunisie indépendante face à son économie* (Tunis, 1961).

[a] The inter-country comparability of the data is subject to a number of qualifications. Among the more important of these are: differences in the coverage of the data with regard to the activities included in manufacturing industries and with regard to the definition of other sectors; differences in the methods of valuation of output.

[b] Including transport and communications, electricity, gas and water, commerce, services and other miscellaneous items.

[c] Including private and public consumption, change in stocks, unallocated items and statistical discrepancies.

[d] Including forestry.

[e] Including mining and quarrying.

[f] Excluding petroleum refining.

[g] Information on the classification of output between intermediate and final sectors was incomplete and the results may understate the share of the intermediate sectors.

Table 1-15. Growth of Manufacturing Output,[a] 1950-1951 to 1958-1959[b]

Group and country	Annual rate of growth (percentage)			Increase in percentage share of output of final and intermediate producer goods and durable consumer goods in total manufacturing output
	Total	Non-durable consumer goods	Final and intermediate producer goods and durable consumer goods	
Industrially more advanced countries				
China (Taiwan)	15	14	16	3
Israel	8	7	9	1
Greece	8	6	13	...
Brazil	7	6	8	2
South Africa	5	4	7	5
Mexico	5	5	6	1
India	5	3	8	8
Chile	3	2	5	4
Ireland	2	1	3	1
Portugal	2	4	−1	−6
Argentina	1	−1	3	7
Industrially less advanced countries				
Republic of Korea	22	22	21	−2
Venezuela	15	14	15	3
Philippines	10	9	14	5
Rhodesia and Nyasaland	8	11	5	−3
Congo (Leopoldville)	8	13	6	...
Colombia	8	7	13	6
Peru	6	6	8	3
Algeria	6	7	5	−3
United Arab Republic	6	6	5	−1
Guatemala	5	4	13	4
Morocco	4	4	5	1

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from the Statistical Office of the United Nations and from national sources.

[a] Estimates are derived from the gross value of manufacturing output; they differ in some cases from those obtained from the value added referred to in earlier tables. Manufacturing output pertains to groups 20 to 39 of the *International Standard Industrial Classification of All Economic Activities.* Non-durable consumer goods: 20 to 22, food, beverage and tobacco manufactures; 23, textile manufactures (except jute textiles in India which are included with producer goods), manufacture of footwear, other wearing apparel and made-up textile goods; 28, printing, publishing and allied industries; 29, manufacture of leather and leather and fur products, except footwear and other wearing apparel; 30, rubber manufactures; 31, chemical manufactures, if mainly for consumption (all countries listed except Argentina, China (Taiwan), India, Israel, Ireland, South Africa, the United Arab Republic and Venezuela); 39, miscellaneous manufacturing industries. Final and intermediate producer goods and durable consumer goods; 25 and 26, wood and cork manufactures and furniture and fixtures; 27, manufacture of paper and paper products; 31, chemical manufactures, if mainly for producer goods industries (Argentina, China (Taiwan), India, Ireland, Israel, South Africa, the United Arab Republic and Venezuela); 32, manufactures of petroleum and coal; 33, manufacture of non-metallic mineral products, except products of petroleum and coal; 34, basic metal industries; 35-38, manufacture of metal products, including machinery and transport equipment.

However, owing to limitations of data, there are differences in the coverage for a number of countries. *Algeria:* excluding groups 24-26, 29, 30, 32 and 39; *Argentina:* footwear included in group 29; *Brazil:* excluding groups 31, 32 and 35-39; *Chile:* excluding groups 29 and 35-39; *China (Taiwan):* excluding groups 24 and 28; *Colombia:* excluding group 39; *Congo (Leopoldville):* excluding groups 21, 24-28, 30, 32 and 35-39; *Greece:* excluding groups 24, 28, 32 and 39; *Guatemala:* excluding groups 26-28, 30, 32 and 34-39; *India:* excluding groups 28, 32 and 39; group 24 refers to footwear and groups 25 and 26 to plywood manufactures only; *Ireland:* excluding groups 30, 32, 34 and 39, *Israel:* excluding groups 21 and 22; group 27 included with group 28 as consumer goods, since data are not available separately; *Mexico:* excluding groups 26, 29 and 39; *Morocco:* excluding groups 25, 26, 32 and 39; group 24 refers to footwear only; *Peru:* excluding groups 35 and 39; *Philippines:* excluding groups 32, 34 and 39; *Portugal:* excluding groups 24, 26-28, 32 and 35-39; *Republic of Korea:* excluding groups 24 (except footwear, which is included with group 23), 28, 29, 32 and 39; *Rhodesia and Nyasaland:* excluding group 32; group 33 refers to bricks and cement and group 34 to ferrous metals only, footwear and leather included in group 39; *United Arab Republic:* excluding groups 25, 26, 30 and 39; *Venezuela:* excluding group 34.

[b] For the following countries, the period differs from that stated: Greece and the United Arab Republic, 1951-1952 to 1958-1959; Peru, 1951 to 1958; Philippines, 1952-1953 to 1958-1959; Guatemala, 1952-1953 to 1957-1958; Israel and Rhodesia and Nyasaland, 1955-1956 to 1958-1959.

preciably affected by the trends in output of export-oriented industries. For example, the expansion of copper output in Chile and, to a smaller extent, of a number of base metals in Mexico, affected the rate of advance in the producer goods industries, and in Venezuela the petroleum refining industry dominated the upsurge in producer goods output. But, in general, even when account is taken of the influence of these export-oriented industries, it is clear that the tendency for producer goods industries to expand relatively to total manufacturing output has largely represented an attempt to improve the balance between domestic demand and domestic production.

In some countries, the increase in the share of the producer goods industries in total manufacturing output which took place between 1950-1951 and 1958-1959 was quite substantial. In India, it amounted to as much as 8 per cent; in Colombia, it was 6 per cent and in the Philippines and South Africa, 5 per cent. In Argentina, the share of the producer goods industries rose by 7 per cent, but this was associated with a low rate of increase in output of these industries as well as with an absolute decline in output of consumer goods.

It is not to be supposed that these shifts in favour of producer goods industries can be explained simply by relatively high rates of expansion in output of capital goods. As has been emphasized earlier, this group of industries embraces not only the production of capital goods but also a diverse range of industries manufacturing non-durable intermediate goods as well as durable consumer goods. And although it would obviously be of great interest to measure the rate of growth in output of capital goods alone, the data unfortunately do not permit this. Of course, it is well known that in some of the industrially more advanced countries, such as Argentina, Brazil, India and Mexico, production of capital goods, including electrical motors and generators, railway equipment, commercial road vehicles and tractors, has been initiated or expanded in recent years. Governmental policy has sometimes also been designed to favour the development of these industries. In the second five-year plan of India, for instance, it was emphasized that "if industrialization is to be rapid enough, the country must aim at developing basic industries and industries which make machines to make the machines needed for further development".[6]

[6] India, Planning Commission, *Second Five Year Plan* (New Delhi, 1956), page 25.

Table 1-16. **Annual Rate of Growth of Industries Manufacturing Final and Intermediate Producer Goods and Durable Consumer Goods, 1950-1951 to 1958-1959**[a]

(Percentage)

Group and country	*Total*	*Base metals*	*Metal products, machinery and transport equipment*	*Chemicals*	*Petroleum and coal manufactures*	*Other non-metallic mineral manufactures*	*Wood products*	*Pulp, paper and cardboard*
Industrially more advanced countries								
China (Taiwan)	16	27	23	11	16	13	10	19
Greece	13	7	15		...	14	11	12
Israel	9	——	9 ——	——	7 ——	10	7	...
Brazil	8	8	...	...	...	8	9	7
India	8	4	14	11	...	11	11	11
South Africa	7	9	7	4	17	6	3	6
Mexico	6	5	6		11	7	−5	6
Chile	5	7	...		2	2	2	9
Argentina	3	6	2	3	7	2	−2	6
Ireland	3	...	3	5	...	2	−3	6
Portugal	−1	8	...		...	7	−3	...
Industrially less advanced countries								
Republic of Korea	21	50	24		....	22	4	27
Venezuela	15	...	13	21	13	12	8	3
Philippines	14	...	18		...	9	17	11
Guatemala	13	...	...		...	18	15	...
Colombia	13	53	16		14	7	8	12
Peru	8	14	7		3	8	—	12
Congo (Leopoldville)	6	5	...		...	7	...	...
Rhodesia and Nyasaland	5	5	4		...	7	7	10
Algeria	5	——	4 ——		...	8	...	8
United Arab Republic	5	15	2	6	5	6	...	12
Morocco	5	3	5		...	3	...	9

Source: See table 1-15.

[a] For definitions and differences in time period, *see* footnotes to table 1-15.

Though it is impossible to quantify the relative contribution of the capital goods industries, it is probable that their importance in accounting for the rates of growth in the producer goods industries as a whole has generally been quite limited. Certainly, in some of the industrially more advanced countries, the appreciable rates of increase in output recorded by the base metal, chemical, metal products, machinery and transport equipment industries have marked the emergence of a substantial heavy industry. But in most of the less industrialized countries, the expansion of such heavy industries has been of quite minor importance; and even in the industrially more advanced countries, other industries besides the capital goods industries have contributed substantially to the rates of growth in output of producer goods as a whole. Thus, in most countries, the establishment or expansion of such industries as cement, fertilizers, petroleum refining and paper has been of considerable significance in determining the rates of increase in output of producer goods. It is, in fact, quite striking that, when the industrially more advanced countries are compared with the industrially less advanced countries shown in table 1-16, no distinct difference can be discerned in the pattern of growth of the various producer goods industries.

Within the consumer goods industries, there has similarly been no clear difference between the more and the less industrialized countries in the relative rates of growth of the major branches. Among a number of the less industrialized countries, however, the main consumer goods industries have recorded much higher rates of increase in output than among most of the more industrialized countries. Among the countries shown in table 1-17 annual rates of increase exceeding 9 or 10 per cent have been quite frequent in the various consumer goods industries of the industrially less advanced countries, but less so among the industrially more advanced countries. In part, these relatively high rates reflect the smaller base from which the less advanced countries have expanded their output. But, in part also, they are indicative of the greater scope in these countries for import substitution in consumer goods industries. In the industrially more advanced countries, the continuing expansion of the major consumer goods industries, such as food and textiles, has to a considerable extent reflected the further diversification of output; in addition to the long-established ac-

Table 1-17. Annual Rate of Growth of Industries Manufacturing Non-durable Consumer Goods, 1950-1951 to 1958-1959[a]
(Percentage)

Group and country	Total	Food, beverages and tobacco	Textiles	Other industries						
				Total	Footwear and clothing	Printing and publishing	Leather	Rubber	Chemicals	Miscellaneous
Industrially more advanced countries										
China (Taiwan)	14	12	19	5	...	...	9	10		2
Israel	7	7	9	6	5	...	−19	15	7	13
Greece	6	7	4	9	...	..	8	——10——		...
Brazil	6	7	5	7	5	8	3	10	. .	...
Mexico	5	6	2	6	—	7	..	6	8	...
South Africa	4	3	9	4	...	...	—	5		...
Portugal	4	4	3	5	. .	...	6	7	5	...
India	3	4	2	9	5	...	3	10		...
Chile	2	2	2	2	5	−2	...	5	3	...
Ireland	1	1	4	1	—	3	3	...		...
Argentina	−1	3	−4	−2	−4	1	−5	5		−4
Industrially less advanced countries										
Republic of Korea	22	28	19	25	..	...	...	19	30	...
Venezuela	14	10	16	20	21	17	16	22		30
Congo (Leopoldville)	13	11	...	17	...	...	29	...	15	...
Rhodesia and Nyasaland	11	11	7	12	9	11	...	13	13	16
Philippines	9	9	10	8	−5	3	33	14	10	...
Algeria	7	9	−6	7	...	5	...	...	9	...
Colombia	7	5	8	9	8	9	5	5	9	...
United Arab Republic	6	4	7	5	−2	7	1	...		...
Peru	6	5	5	8	9	3	1	7	11	...
Guatemala	4	3	5	10	15	..	—	...	7	...
Morocco	4	3	5	24	15	2	9	——5——		...

Source: See table 1-15.
[a] For definitions and differences in time period, *see* footnotes to table 1-15.

tivities—for example, wheat milling or rice polishing—new industries producing such commodities as preserved foods or bottled drinks have been emerging.

This review of recent changes in the composition of output, together with the inter-country comparison of industrial structures, permits some tentative conclusions to be drawn about the nature of the industries established or expanded in different phases of industrialization. This is not to say that any uniform sequence in the development of specific industries can be traced. In fact, as has been noted above, there does not appear to be much relation between the relative importance of specific classes of industry and the stage of industrialization. Further, if, as has often been the case, government engages actively in the development of new industries, the particular sequence may be the outcome of policy rather than of economic causation. However, when industries are identified not only by the nature of their products but also by their technical characteristics, there does appear to have been some consistency in the types of industry which have emerged at different stages of industrial development; some generalizations on this score may be hazarded.

In the primary producing countries, processing of raw materials for export, either by domestic or foreign-owned firms, has often emerged as a first major branch of industry. With the development of production for the domestic market, entrepreneurs have initially tended to concentrate their investments in the establishment on non-durable consumer goods industries. Various reasons, such as the limited capital requirements or the size of the market, have been offered to explain this early preference for these industries. But in addition to the presence of a ready market, one of the most persuasive reasons lies simply in the fact that there has been long familiarity with the processes and products of these industries. Food processing, cloth spinning and weaving, shoe making and so forth are manufacturing processes which are present in some form even in the least developed countries, and there are always at least some entrepreneurs and workers who are familiar with these processes and for whom, therefore, the substitution of more advanced methods of production for traditional ones does not represent a plunge into an entirely unknown world of new industrial techniques. Thus, industrialization at its very early stages also becomes in part a process of substitution for traditional cottage industries of factory production as well as a process of import substitution.

In most of the under-developed countries which have been described above, the growth in manufacturing output during recent years has apparently passed beyond this early phase or has been more complex in pattern. As we noted above, there has been a common tendency to develop certain producer goods industries, such as cement, fertilizer, petroleum refining or pulp and paper, as well as other consumer goods industries, such as pharmaceuticals, toilet preparations or rubber goods. It was also observed that a notable characteristic of most of these producer goods industries is that in the main they sell their products not to other branches of manufacturing industry but to other sectors of production, such as agriculture or the construction and transport industries. In other words, they do not presuppose the existence of other manufacturing industries to provide outlets for their products. But both such producer and consumer goods industries are characterized by another fact. It is that the plants established for the manufacture of their products are relatively self-contained in the sense that they are not dependent for their operation on supplies from a wide range of complementary industries. Mineral and agricultural raw materials, rather than other semi-manufactures, form the bulk of their inputs. Thus, neither as regards markets nor as regards supplies are these industries heavily dependent on other manufacturing industries.

The expansion in production of manufactures involving more complex forms of industrial organization has largely been confined in recent years to the industrially more advanced countries. This represents a phase of development in which industrial growth may take place concurrently in several directions. One line of development begins with the establishment of plants assembling and finishing certain engineering products, such as transport vehicles, refrigerators, industrial engines or electrical machinery. Plant output is dependent on a varied supply of component parts from other plants and industries, and though these parts may be mostly imported at first, the creation of a demand for them can lead to the growth of a wide range of ancillary industries. Other lines of growth may emerge from the establishment of the metallurgical and chemical industries producing semi-manufactures for the engineering industries. By-products of the metallurgical industries are the raw materials for some branches of the chemical industry, and by-products arising in some chemical processes provide the basis for other processes. The lines of interdependence between the engineering, metallurgical and chemical industries are, indeed, innumerable. Industrial development in this phase thus begins to take the form of the establishment of whole industrial complexes rather than of individual, and comparatively unrelated, plants.

It is not suggested that this sequence of development in types of industries is the sole possible line of growth or that it cannot be very considerably altered by governmental policy or specific economic circumstances. But actual industrial growth in the under-developed countries to date does at least appear to have moved roughly along these lines.

THE ROLE OF IMPORT SUBSTITUTION

The preceding analysis has stressed the role of import substitution in accounting for the growth and diversification of manufacturing output, at least in the early stages of industrial development. The extent to which the growth in manufacturing activity has been concentrated in the import-substituting industries, however, also has a wider significance.

As has been observed earlier, the pattern of industrial development is interlocked with the broader issues of the level of investment and the rate of economic growth as a whole. In so far as industrial development has centred upon the expansion of domestic capital goods industries, the link is obvious. But in most countries this has not been the principal way in which the current pattern of industrial development has influenced the prospective level of investment. Of more frequent importance has been the extent to which the expansion of domestic manufacturing output has resulted in the replacement of imported goods by domestic products. To the extent that this has occurred, foreign exchange has been released for the possible purchase of additional supplies of capital goods.

By no means all the industries established or expanded in the under-developed countries have given rise to import substitution. Some part of the increase in industrial activity has consisted in the expansion of export-oriented industries, though, as discussed later, this has been of quite minor proportions. Much more important has been the growth in production undertaken to satisfy the rising domestic demand for manufactures. With rising populations and increasing per capita incomes, there has almost everywhere been some increase in domestic demand for manufactures and some part of the expansion in domestic output has therefore gone towards the satisfaction of the enlarged demand and not towards the replacement of imports.

It has generally been an aim of governmental policy in the under-developed countries to favour the establishment and expansion of import-substituting industries. Faced with shortages of foreign exchange, governments have generally applied import controls in order to restrict imports of non-essential consumer goods and thereby increase the supply of foreign exchange available for essential consumer goods, capital goods and industrial raw materials. Encouragement of domestic production of essential consumer and producer goods has been an integral part of this policy, since such production has enlarged the supply of foreign exchange which can be used to purchase capital goods. It has to be recognized, however, that the actual contribution which the expansion of domestic production has made towards lessening the pressure on foreign exchange supplies has often fallen short of expectations. This is not only because some part of the expansion in output has necessarily been absorbed by the growing rather than the existing need for essential consumer goods. In addition, the creation of sheltered markets that has ensued from the application of import controls has sometimes resulted in the growth of industries producing non-essential goods; the expansion in domestic output of these industries has not necessarily saved foreign exchange since licences would not, in any case, have been issued for imports of comparable products. Further, as discussed later, increased domestic production of essential as well as non-essential goods has generally raised requirements for raw materials and semi-manufactures, and, in so far of these have had to be imported, the net saving in foreign exchange arising from greater domestic production has been reduced.

While it is difficult to disentangle these several factors, it is, however, true that the expansion of domestic manufacturing production during the last decade has frequently resulted in some import substitution. For manufactures, as can be seen from table 1-18, the rate of growth in domestic production has exceeded the rate of increase in imports in a majority of countries. This tendency, however, has been more evident among the industrially less advanced countries than among the in-

Table 1-18. Annual Rates of Change in Output and Trade of Manufactured Goods,[a] 1950-1951 to 1958-1959[b]

(Percentage)

Group and country	*Output*	*Imports[c]*	*Exports[c]*
Industrially more advanced countries			
China (Taiwan)	13	3	15
Israel	8	1	19
Brazil	7	—3	10
South Africa	5	3	—1
Mexico	5	5	2
India	5	6	—
Chile	2	2	3
Ireland	2	—2	4
Argentina	2	—2	—5
Portugal	1	1	7
Industrially less advanced countries			
Venezuela	15	9	12
Philippines	10	1	3
Colombia	8	—1	7
Peru	6	2	1
United Arab Republic	6	2	8
Rhodesia and Nyasaland	8	—1	—1
Guatemala	5	7	—2

Source: See table 1-15.

[a] For differences in coverage, *see* footnote *a* to table 1-15.

[b] For the following countries, the period differs from that stated: China (Taiwan), Colombia, Greece, Portugal and the United Arab Republic, 1951-1952 to 1958-1959; Chile, 1950-1951 to 1958; Peru, 1951 to 1958; Philippines, 1952-1953 to 1958-1959; Guatemala, 1952-1953 to 1957-1958, and Israel and Rhodesia and Nyasaland, 1955-1956 to 1958-1959.

[c] Quantum; estimated by using unit values of selected groups of internationally traded goods.

dustrially more advanced ones. Only in six of the ten countries in the latter group did domestic production advance at a faster rate than imports, whereas this occurred in all but one of the seven countries in the former group.

Simple comparison of the rates of increase in domestic production and imports, however, does not provide a measure of the extent to which import substitution has taken place. For one thing, as noted earlier, part of the expansion in domestic output has been devoted to the enlargement of the export trade. As for the products of the engineering industries, which are usually of a more recent origin in the under-developed countries, increases in output have generally been absorbed by the rising domestic demand without curtailing corresponding imports of machinery and other capital equipment. Moreover, in order to measure the degree of import substitution in a given time period, the relative proportion of imports to total domestic supplies at the beginning of the period must also be taken into account, for, obviously, the greater the dependence on imports of manufactured goods, the greater the scope for expansion of domestic output to replace imports. Indeed, the proportion of imports to total domestic supplies at the outset of the period under review varied considerably among countries. A more direct measure, therefore, of the degree of import substitution of manufactured goods other than engineering products[7] has been attempted in table 1-19. This table has been constructed on the assumption that, if the ratio of imports to domestic supplies of these manufactured goods was lower at the end of the period than at the beginning, this decline was due to the growth of import-substituting activities. To the extent that this has occurred, an equivalent part of the increase in manufacturing output for the home market has been ascribed to import substitution and the remainder to the expansion in domestic demand.[8]

Table 1-19. Role of Import Substitution in the Growth of Manufacturing Output for the Domestic Market,[a] 1950-1951 to 1958-1959[b]

Group and country	Imports as percentage of domestic supply[c] 1950-1951	Percentage share of increase in output attributable to	
		Import substitution	Domestic demand
Industrially more advanced countries			
South Africa	32	31	69
Ireland	24	73	27
China (Taiwan)	23	23	77
Israel	21	38	62
Chile	16	—3	103
India	14	—4	104
Mexico	8	4	96
Argentina	7	25	75
Brazil	4	5	95
Industrially less advanced countries			
Rhodesia and Nyasaland	53	60	40
Venezuela	37	28	72
Peru	37	33	67
Guatemala	36	—14	114
Philippines	34	36	64
United Arab Republic	28	25	75
Colombia	15	18	82

Source: See table 1-15.

[a] Manufactured output, excluding metal products, machinery and transport equipment: ISIC groups 20-34 and 39. For differences in coverage, *see* footnote *a* to table 1-15. Data on output are adjusted to exclude exports of manufactured goods.

[b] For differences in time period, *see* footnote *b* to table 1-18.

[c] Domestic supply refers to the sum of output and imports less exports.

This difference between the more and the less advanced countries only indicates that the scope for import substitution has been greater in the latter countries. The share of imports in total domestic supplies of manufactures at the outset of the period was generally much higher in these countries than in the more advanced countries, and the spread of import-substituting activities has therefore played a greater role in their recent industrial development. Indeed, if all the countries shown in table 1-19 are taken together, there is some evidence of a rough relationship between the relative importance of import-substituting activities during the period and the share of imports in total domestic supplies at the beginning of the period. Thus, it is not accidental that even in some of the industrially more advanced countries, where the ratio of imports to domestic supplies at the beginning of the period was high, import substitution has been quite substantial.

These findings support the conclusion reached previously, namely, that the earlier stages of industrial development consist, in large measure, of a spread of

[7] Non-durable consumer goods and intermediate products (ISIC groups 20-34 and 39); for a description of these groups, *see* footnote *a* to table 1-15.

[8] It should be noted that even this method has certain shortcomings. In principle, the total amount of import substitution should be calculated by aggregating the extent of import-substitution of similar manufactured goods, taken individually, but data are not available in sufficient detail to permit this procedure. Furthermore, changes in the share of imports in domestic supplies of manufactured goods may have been affected by, in addition to import substitution, shifts in the pattern of demand. This factor, again because of lack of data, is ignored here.

Table 1-20. Role of Import Substitution in the Growth of Major Components of Manufacturing Output[a] for the Domestic Market, 1950-1951 and 1958-1959[b]

Group and country	Non-durable consumer goods: percentage share of increase in output attributable to		Intermediate producer goods: percentage share of increase in output attributable to	
	Import substitution	Domestic demand	Import substitution	Domestic demand
Industrially more advanced countries				
Argentina	18	82	23	77
Brazil	5	95	20	80
Chile	−26	126	67	33
China (Taiwan)	25	75	22	78
India	7	93	−25	125
Ireland	99	1	46	54
Israel	27	73	23	77
Mexico	—	100	10	90
South Africa	34	66	28	72
Industrially less advanced countries				
Colombia	20	80	44	56
Guatemala	−22	122	20	80
Peru	31	69	34	66
Philippines	39	61	16	84
Rhodesia and Nyasaland	60	40	73	27
United Arab Republic	29	71	30	70
Venezuela	28	72	15	85

Source: See table 1-15.

[a] Manufacturing output, excluding metal products, machinery and transport equipment: ISIC groups 20-34 and 39. For differences in coverage, *see* footnote *a* to table 1-15. Data on output are adjusted to exclude exports of manufactured goods.

[b] For differences in time period, *see* footnote *b* to table 1-18.

import-substituting activities. They also suggest, however, that the role of import substitution tends to diminish quite sharply as countries reach more advanced stages of industrial development. In such countries as Brazil and Mexico, for example, the effect of the growth of domestic production in replacing imports has been relatively moderate in recent years. This, it should be noted, does not mean that such import substitution as has taken place has failed to result in significant foreign exchange saving, but it does suggest that the scope which import substitution offers as a means of rapidly augmenting the supply of foreign exchange available for imports of capital goods contracts markedly as countries reach more advanced stages of industrialization. More advanced countries must therefore seek alternative ways of expanding the supply of capital goods, either by developing domestic capital goods industries or by enlarging their export trade.

Given the present stage of industrialization in most under-developed countries, there is no doubt that the absolute amount of import substitution has been greater in the consumer goods industries. But this by no means implies that the spread of import-substituting activities has been confined to these industries alone. Indeed, in several countries, domestic output of intermediate producer goods has also increased substantially. As between the two broad groups of industries, in fact, there has been no clear tendency for import substitution to be relatively of greater importance in either one (*see* table 1-20).[9] But, as is to be expected in the light of the earlier findings for manufacturing industry as a whole, in the industrially less advanced countries, the degree of import substitution has generally tended to be larger in both groups of industries than is the case in the industrially more advanced countries.

Specific instances of the types of intermediate producer goods industries in which domestic production has substantially replaced imports are given in table 1-21. For example, the under-developed countries have made considerable advances towards attaining self-sufficiency in the products of the paper industry and

[9] It should be noted, however, that it is possible for some import substitution to have taken place within both groups of industries, but for the degree of dependence on imports of manufactures as a whole to have risen. This is because a marked shift in the composition of total domestic supplies towards producer goods may have occurred during the period, and, since the average level of dependence on imports generally tends to be much higher for capital goods than for consumer goods, total imports may have risen relatively to total domestic supplies despite some expansion of import-substituting activity within both the consumer goods and the producer goods industries.

in cement and refined fuel oils. Originating mainly as an activity for meeting consumer demand, the paper industry has gone on to provide an increasing proportion of the requirements for packaging materials, and in several countries the manufacture of newsprint and wood-pulp has expanded sharply. Again, there is now hardly a country in the world which does not produce some cement; most of the more advanced countries, as the data clearly indicate, have become self-sufficient in this product, while the less advanced countries are rapidly moving towards this goal. Despite the fact that the deposits of crude petroleum are much less evenly distributed than the raw materials for cement manufacturing, and even though demand for petroleum products has increased sharply as a result of rapid industrialization and urbanization, there has been a pronounced decline in the share of net imports in the consumption of refined fuel oils in a majority of the under-developed countries. In many countries, this trend has been actively shaped by the policies of governments aimed at saving foreign exchange through domestic refining of petroleum. By contrast, only a few under-developed countries have achieved large-scale reduction in their dependence on imported heavy chemicals and steel. Although a number of countries have advanced towards greater production of steel, for example, none has yet reached complete self-sufficiency.

Similar trends towards greater self-sufficiency are apparent in the case of individual consumer goods (*see* table 1-22). For instance, in refined sugar, an industry whose location is closely linked with such factors as the availability of raw materials and the high costs of transport, under-developed countries have increasingly sought to meet their needs through domestic production. Two-fifths of the countries included in table 1-22, in fact, became net exporters of refined sugar by the latter part of the nineteen fifties. The high transport costs have also favoured increasing self-reliance in the products of the beverage industries, such as aerated drinks and beer.

Equally prominent has been the growing self-sufficiency in supplies of textiles and, though data are not included in the table, of such articles of everyday use as footwear, soap and matches. Cotton spinning and weaving, traditionally the pioneering industries, have made rapid gains in a large majority of the under-developed countries. A number of countries, but most dramatically in the case of Pakistan, changed their position during the nineteen fifties from net importers to net exporters of cotton fabrics.[10]

[10] The rayon industry, too, has made rapid strides in a few under-developed countries, with India, Portugal and the United Arab Republic even emerging as net exporters of rayon cloth. On the other hand, the woollen industry, partly by virtue of climatic reasons, has made little impact on imported supplies.

Import substitution has, thus, been a force of great importance in the under-developed countries. It has not only promoted the growth and diversification of manufacturing output but has also, concurrently, released foreign exchange for the importation of additional capital goods for a variety of investment projects. On the other hand, the growth of industries has frequently hinged upon enlarged imports of raw materials; to the extent that such imports have increased, savings of foreign exchange from import substitution have been diminished.

As a rule, increases in the imports of raw materials have been determined by the rate and pattern of industrial growth and by the resource endowment of individual countries. In the industrially more advanced countries, the establishment of a more diversified group of industries has generally required larger increases in imports of raw materials, with the result that net savings of foreign exchange have tended to be smaller than in the industrially less advanced countries (*see* table 1-23). In the latter group of countries, expansion in manufacturing output has largely consisted of increased production in the food, textile and other industries which are based primarily on domestic raw materials. It is significant, however, that, in the nineteen fifties, despite enlarged imports of raw materials, import substitution resulted in substantial savings of foreign exchange in most of the countries included in table 1-23.

Such savings of foreign exchange have played an important part in financing the expanded imports of capital goods. In all but one of the industrially less advanced countries, net savings amounted to more than 50 per cent of imports of capital goods and other engineering products in 1950-1951; the ratio, in fact, exceeded 100 per cent in the Philippines and Venezuela. This source of foreign exchange alone, in other words, may have financed increases in imports of capital goods ranging from one-half to all of such imports in 1950-1951. In the industrially more advanced countries, however, the potential contribution of import substitution to net savings of foreign exchange has generally been less important. In Brazil, Israel and Mexico, for example, where additional imports of raw materials absorbed a substantial part of foreign exchange saved through import substitution, net savings were small in relation to imports of capital goods. Indeed, in such countries as Chile and Portugal, where the expansion in manufacturing output was not large enough to reduce dependence on corresponding imports, increases in the imports of raw materials constituted an additional burden on foreign exchange resources.

THE ALTERNATIVE OF EXPORT PROMOTION

As a means of expanding the supply of foreign exchange available for capital goods and other essential

Table 1-21. Percentage Share of Net Imports in Domestic Supply of Selected Producer Goods[a]

Group and country	Paper other than newsprint		Newsprint		Wood-pulp		Cement		Refined fuel oils		Nitrogenous fertilizers		Caustic soda		Steel	
	1950-1951	1958-1959	1950-1951	1958-1959	1950	1959	1950-1951	1958-1959	1951-1952	1958-1959	1953/54-1954/55	1957/58-1958/59	1950-1951	1958-1959	1950-1951	1958-1959
Industrially more advanced countries																
Argentina	1	—	97	91	83	73	—	—	35	18	...	...	61	39	89	89
Brazil	2	9	67	73	49	22	27	1	98	36	82	77	...	...	29	34
Chile	5	5	64	−102	60	41	−8	−1	100	49	−1,569	−791	...	...	39	19
China (Taiwan)	18	—	21	−23	...	...	—	—	18	9	80	75	—	—	74	37
Greece	...	15	100	95	...	...	−12	−5	100	60	...	...	...	89	100	100
India	22	4	100	75	100	81	−1	−1	95	21	27	55	77	38	14	40
Ireland	10	10	100	91	100	61	30	−34	100	75	100	100	. .	...	100	100
Israel	...	...	100	47	100	100	20	−34	21	27	100	10	...	...	100	100
Mexico	18	5	100	94	42	17	−1	—	−7	−4	79	91	81	49	52	22
Portugal	16	3	78	28	65	−10	−23	−6	58	26	80	63	...	...	100	100
South Africa	79	34	...	...	8	−7	−6	—	99	64	82	44	...	...	34	13
Spain	−7	2	11	13	69	43	−1	—	60	18	70	76	—	3	4	11
Industrially less advanced countries																
Algeria	...	...	100	100	100	100	24	29	100	100	100	100	...	...	100	100
Burma	100	100	100	100	100	100	61	75	54	7	100	100	100	100	100	100
Ceylon	...	...	100	100	100	100	77	66	100	100	100	100	100	100	100	100
Colombia	...	...	100	100	100	100	−2	−15	−35	−22	...	...	...	...	100	40
Congo (Leopoldville)	100	100	100	100	100	100	34	21	100	100	100	100	100	100	100	100
Cuba	100	100	100	44	100	100	29	12	84	−6	100	100	100	100	100	100
Ecuador	100	100	100	100	100	100	3	1	6	22	100	100	100	100	100	100
El Salvador	100	100	100	100	100	100	100	6	100	100	100	100	100	100	100	100
Indonesia	...	...	100	100	100	100	59	43	−223	−92	100	100	100	100	100	100
Iran	100	100	100	100	100	100	40	9	−262	−210	100	100	100	100	100	100

Iraq	100	100	100	100	100	100	6	12	11	—	...	...	100	100	100	100
Jamaica	100	100	100	100	100	100	100	—	100	100	100	100	100	100	100	100
Morocco	...	...	100	100	...	...	54	1	89	84	100	100	...	...	100	100
Pakistan	...	18	100	81	100	100	...	9	83	85	100	27	...	...	99	97
Peru	26	26	81	100	100	100	7	5	−38	−4	...	...	100	100	100	100
Philippines	...	...	100	100	100	100	12	5	100	50	48	37	88	80	100	100
Rhodesia and Nyasaland	...	...	100	100	...	...	6	−1	100	100	100	100	100	100	78	72
Thailand	...	...	100	100	100	100	5	2	100	100	100	100	100	100	100	100
Trinidad and Tobago	100	100	100	100	100	100	100	4	−163	−282	100	100	100	100	100	100
Turkey	44	47	49	52	24	13	48	—	99	80	88	94	79	94	62	50
United Arab Republic	...	...	100	100	100	100	1	−24	49	26	81	80	...	...	100	100
Venezuela	...	...	100	100	100	100	35	2	−234	−286	100	100	100	100	100	100

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Statistical Yearbook* and *Yearbook of International Trade Statistics;* from Food and Agriculture Organization of the United Nations, *An Annual Review of World Production, Consumption and Trade of Fertilizers* (Rome); from Newsprint Association of Canada, *Newsprint Data: 1960* (Montreal); from United States Pulp Producers Association, Inc., *Wood Pulp Statistics, 1960* (New York), and from national trade publications.

[a] Minus sign indicates net exports. Domestic supply refers to the sum of production (mainly by factories) and imports less exports.

In some cases, the time period differs from that stated. *Paper other than newsprint:* beginning period 1951 for Mexico, 1951-1952 for Peru and 1952-1953 for Turkey; end period 1957-1958 for Brazil, Chile, China (Taiwan), Pakistan, Peru, Portugal and Turkey and 1956-1957 for Greece. *Newsprint:* beginning period 1950 for Chile and Portugal. *Cement:* beginning period 1951-1952 for Burma, Greece, Indonesia, Morocco, Peru and Trinidad and Tobago, 1952-1953 for Turkey and 1954-1955 for Rhodesia and Nyasaland. *Nitrogeneous fertilizers:* beginning period 1954/55 for the Philippines and South Africa; end period 1957-1958 for Chile and Mexico; for Portugal and the United Arab Republic, data pertain to calendar years ending in the first half of the period stated. *Caustic soda:* beginning period 1952-1953 for Turkey and 1953-1954 for the Philippines. *Steel:* end period 1958 for China (Taiwan) and Rhodesia and Nyasaland.

Table 1-22. Percentage Share of Net Imports in Domestic Supply of Consumer Goods[a]

Group and country	Sugar		Beer		Cigarettes		Cotton cloth	
	1951-1952	1958-1959	1950-1951	1958-1959	1950-1951	1958-1959	1951-1952	1958-1959
Industrially more advanced countries								
Argentina	—	3	—	—	—	—	2	—
Brazil	—	—	...	...	−1	−14	...	...
Chile	...	...	—	—	—	—	...	...
China (Taiwan)	−576	−540	13	—	1	—	...	...
Greece	...	...	...	1	...	—	16	11
India	—	−1	...	...	−2	—	−19	−12
Ireland	11	4	−72	−126	...	..	67	55
Israel	100	86	2	...	1	1	...	...
Mexico	—	−9	—	—	—	—	−15	−2
Portugal	76	72	−6	—	1	—	−58	−74
South Africa	−7	−2	−3	1	−2	—	...	...
Spain	5	18	—	—	1	1	−8	−5
Industrially less advanced countries								
Burma	50	45	...	...	54	1	...	...
Ceylon	...	...	...	...	—	2	88	92
Colombia	−18	9	—	—	2	1	...	...
Congo (Leopoldville)	8	15	−4	—	50	3	...	...
Cuba	−11	−9	—	1	3	4	..	.
Ecuador	—	−35	—	—	18	38	.	...
El Salvador	—	−19	—	4	1	5	...	...
Ethiopia	100	—	...	...	...	...	.	.
Guatemala	—	—	−30	2	—	—	.	...
Honduras	58	36	1	—	...	...	...	...
Indonesia	—	−1	...	...	4	—	95	81
Jamaica	−2	1	9	14	2	22	...	...
Nicaragua	−45	−53	10	4	—	2	...	...
Nigeria	...	...	84	63	24	3	...	...
Pakistan	67	15	...	12	...	—	71	−4
Peru	−12	−8	—	—	..	...	...	...
Philippines	—	−2	−1	−2	17	—	...	..
Thailand	39	17	...	...	2	—	...	...
Trinidad and Tobago	...	...	13	14	1	1	...	...
Turkey	−3	−5	—	—	—	—	41	—
United Arab Republic	—	−1	10	—	...	...	4	−8
Venezuela	...	−6	—	—	45	35	76	69

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Statistical Yearbook* and *Yearbook of International Trade Statistics*, from Food and Agriculture Organization of the United Nations, *Trade Yearbook* (Rome); from International Cotton Advisory Committee, *Cotton-World Statistics* (Washington, D.C.), and from national trade publications.

[a]Minus sign indicates net exports. Domestic supply refers to the sum of production and imports less exports.

In some cases, the time period differs from that stated. *Sugar:* beginning period 1952-1953 for China (Taiwan); end period 1958 for Venezuela. *Beer:* beginning period 1951-1952 for Peru and Trinidad and Tobago, 1952 for Guatemala and 1953-1954 for Honduras; end period 1958 for Guatemala, 1957-1958 for Argentina, Chile, Congo (Leopoldville), Cuba, Ecuador, Greece, Honduras, Peru and the United Arab Republic and 1956-1957 for Colombia. *Cigarettes:* beginning period 1951-1952 for Brazil, Indonesia and Trinidad and Tobago, 1952 for Guatemala, 1952-1953 for Turkey and 1953-1954 for Burma; end period 1958 for Guatemala, 1957-1958 for Chile, Congo (Leopoldville), Cuba, Ecuador, Indonesia, Portugal and Thailand and 1956-1957 for Brazil and Colombia. *Cotton cloth:* beginning period 1952-1953 for Ceylon, 1953-1954 for Spain and 1954-1955 for Venezuela; end period 1957-1958 for Indonesia, Spain and the United Arab Republic, 1957 for Greece and 1956-1957 for Mexico.

Table 1-23. Contribution of Import Substitution[a] to Savings of Foreign Exchange, 1950-1951 to 1958-1959

Group and country	Savings from import substitution	Increase in imports of raw materials	Net savings[b]	Ratio of net savings to imports in 1950-1951 of: Manufactures, excluding capital goods	Ratio of net savings to imports in 1950-1951 of: Capital goods
	(millions of dollars; in constant prices)			(percentage)	
Industrially more advanced countries					
Argentina	159	−25	184	26	61
Brazil	191	134	57	25	8
Chile	−4	15	−19	−12	−15
China (Taiwan)	76	29	47	58	235
India	−39	−34	−5	−2	−2
Ireland	63	24	39	19	41
Israel	56	40	17	11	15
Mexico	58	24	34	14	11
Portugal	−7	73	−80	−94	−101
South Africa	275	15	260	39	76
Industrially less advanced countries					
Colombia	144	14	130	65	78
Peru	53	2	51	38	57
Philippines	150	26	124	51	123
Rhodesia and Nyasaland	95	4	91	42	59
United Arab Republic	80	39	41	16	36
Venezuela	330	14	316	94	128

Source: See table 1-15.

[a] Import substitution of manufactured output, exclusive of capital goods. Capital goods in this table refer to ISIC groups 35 to 38 (metal products, machinery and transport equipment); these groups include certain durable consumer goods.

[b] Savings from import substitution less increase in imports of raw materials.

Table 1-24. Annual Rates of Growth of Manufacturing Output and Exports, 1950-1951 to 1958-1959[a]

(Percentage)

Group of countries[c]	Manufacturing output[d]	Volume of exports[b]: Processed or semi-manufactured[e]	Fully manufactured[f]	Sub-total	Crude[g]	Total
Industrially more advanced countries	5	3	3	3	2	2
Industrially more advanced countries, excluding India	5	3	5	3	2	3
Industrially less advanced countries	7	6	8	6	5	5
TOTAL	6	4	3	4	3	3[h]
TOTAL, excluding India	6	4	5	4	3	4

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from national and international sources.

[a] For the following countries, the period differs from that stated: Venezuela, 1950-1951 to 1959; Colombia, Costa Rica, Greece, Portugal and the United Arab Republic, 1951-1952 to 1958-1959; Chile, 1950-1951 to 1958; Guatemala and the Philippines, 1952-1953 to 1958-1959; Turkey, 1951 to 1957-1958; Peru, 1951 to 1958; El Salvador, 1953-1954 to 1958-1959; Israel and Rhodesia and Nyasaland, 1955-1956 to 1958-1959.

[b] Estimated by using selected national and international indices of unit values of exports.

[c] *Industrially more advanced countries:* Argentina, Brazil, Chile, China (Taiwan), Greece, India, Ireland, Israel, Mexico, Portugal and South Africa. *Industrially less advanced countries:* Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Peru, Philippines, Rhodesia and Nyasaland, Turkey, Venezuela and the United Arab Republic.

[d] Group averages are derived by using dollar equivalents of value added in manufacturing in 1959 as weights.

[e] SITC groups and sub-groups 013, 022, 023, 024, 029, 032, 046, 048, 053, 055, 061, 062, 071-03, 073, 091, 099, 111, 112, 122, 251, 313, 314-02, 315, 4, 5, 611, 613, 621, 631, 632, 633, 651, 661, 662, 671, 672 and 68.

[f] SITC groups and sub-groups 612, 629, 632, 641, 642, 652, 653, 654, 655, 657, 663, 664, 665, 666, 673, 69, 7 and 8.

[g] SITC groups and sub-groups 0, 1 (excluding the sub-groups mentioned in footnote *e*), 2 (excluding 251), 311, 312, and 314-01.

[h] Unrounded figure, 3.4. Owing to smaller country coverage, this figure differs slightly from that shown in table 1-3.

imports, the promotion of export-oriented industries offers an alternative to the development of import-substituting industries. The growth of manufacturing output in the under-developed countries, however, has, as a general rule, been so heavily geared to meeting domestic requirements that its quantitative significance in expanding exports of manufactured goods has proved to be small.

It is true that, expressed as annual rates, the increases in exports of manufactured and semi-manufactured goods during the nineteen fifties by no means appear unimpressive. From the under-developed countries included in table 1-24, exports of these goods expanded at 4 per cent per annum. Moreover, if the industrially less advanced countries are considered separately, the rate amounted to as much as 6 per cent or twice as high as in the case of the industrially more advanced countries.

These figures, however, mask the fact that in absolute terms the increases have been small. Thus, in 1958-1959, even after the gains reflected in the percentage rates of increase, the average annual value of processed or semi-manufactured goods exported from the under-developed countries included in table 1-24 totalled only $2.9 billion and that of fully manufactured goods only $0.8 billion. Indeed, without base metals and refined petroleum, the figure for the exports of semi-manufactured goods would be much smaller. Of the exports of fully manufactured articles, India alone provided more than $0.4 billion; about $0.3 billion was contributed by ten other industrially advanced countries, and exports of the eleven industrially less advanced countries, taken together, did not even reach $0.1 billion.

Even in percentage terms, the increase in the exports of both semi-manufactured and fully manufactured goods was notably smaller than the increase in domestic manufacturing output. This difference has largely been the result of heavy concentration, at the earlier stages of industrialization, upon the expansion of output for the domestic market. But, to a significant extent, it is also indicative of the fact that the manufactured goods which the under-developed countries are currently able to export are mostly those for which the world demand has not been increasing rapidly. Indeed, the annual rate of increase of 4 per cent in the exports of manufactured goods from the under-developed countries under review was just about two-thirds of the corresponding rate for world exports of manufactured goods. Thus, far from increasing, the share of these under-developed countries in the world trade of manufactures has been declining.

It is normal to expect that, as industrialization gathers momentum, a rising proportion of domestic output of raw materials would be absorbed by the newly developing industries; likewise, an increasing part of food production would be required to meet the expanding domestic demand. Under the combined influence of these forces, it might be expected that the relative importance of crude foodstuffs and raw materials in exports would progressively decline, while that of manufactured goods would increase. But such shifts were not significant in the nineteen fifties even though exports of manufactured goods from the under-developed countries rose at a higher rate than did exports of crude foodstuffs and raw materials. Given their relatively small share in the total, the increase in the exports of manufactured products was not large enough to bring about a material change in the structure of exports. Thus, in 1958-1959, for the group of countries included in table 1-25, exports of crude foodstuffs and raw materials still provided more than two-thirds of total export earnings, as they had in 1950-1951. These

Table 1-25. Composition of Exports, 1950-1951 to 1958-1959[a]

(Percentage of total in constant prices)

Group of countries	Crude			Processed or semi-manufactured			Fully manufactured		
	1950-1951	1958-1959	Change	1950-1951	1958-1959	Change	1950-1951	1958-1959	Change
Industrially more advanced countries	62	61	−1	25	26	1	13	14	1
Industrially more advanced countries, excluding India	67	66	−2	28	29	1	5	6	1
Industrially less advanced countries	78	76	−2	21	22	2	1	1	—
TOTAL	68	67	−1	23	24	1	9	8	—
TOTAL, excluding India	72	71	−1	25	26	1	3	4	—

Source: See table 1-24.

[a] For definitions and differences in time period, *see* footnotes to table 1-24.

primary commodities, furthermore, have continued to predominate in the exports of both the industrially more advanced and the industrially less advanced countries, although, because of the difference in the stage of industrial development, they have been of significantly less importance in the former group. The intergroup differences appear much more sharply in the case of fully manufactured goods. These goods amounted to only one-hundredth of the total exports of the industrially less advanced countries as against nearly one-eighth for the industrially more advanced countries. Within the latter group, a single country, India, dominates the picture to such an extent that, if it is excluded from the computation, the share of fully manufactured goods in the exports of the industrially more advanced countries appears as no more than 5 to 6 per cent.

The relatively unchanged structure of exports of the under-developed countries as a group must, however, be viewed against the fact that a decade is not always a sufficiently long period for firm generalizations. Furthermore, while the share of manufactured goods in total exports did increase in a number of individual countries, for the group as a whole it was virtually offset by the opposite pattern in other countries, where special forces resulted in increased share of crude foodstuffs and raw materials. In Argentina and China (Taiwan), for example, exports of crude foodstuffs and raw materials, which were unusually low in the early years of the nineteen fifties, rose rapidly during the decade. In South Africa, on the other hand, exports of ores and maize have made new gains in recent years.

It is also to be expected that the impact of industrialization would be reflected not only in changes in the composition of exports of countries but also in the distribution of exports of individual commodities according to the stage of fabrication. Data relating to this point are presented in table 1-26 for seven principal categories of exports from the under-developed countries. It is evident that the most marked shift away from exports of crude products has occurred in the case of petroleum, largely because foreign investors have been particularly active in establishing petroleum refineries in many parts of the less developed world. The only other notable shift, though of a smaller magnitude, has taken place in the case of wood, which is a relatively minor commodity in the aggregate exports of the under-developed countries. The shifts towards more processed or manufactured forms in the case of such important categories as food and vegetable oils have been small, while the share of fibres in total textile exports has remained unchanged. In one conspicuous case, namely vegetable oil-seeds and oils, even the absolute volume of exports has shown little expansion. This has been largely because of the increasing domestic absorption of these products. Broadly speaking, these commodity data confirm the conclusion drawn earlier that, on the whole, industrialization in the last decade has had a rather small impact in reducing the share of crude foodstuffs and raw materials in the exports of the under-developed countries.

Even though fully manufactured goods constitute only a very small part of exports from the under-developed countries under review—no more than 8 per cent in 1958-1959—it is pertinent to explore the pattern of these exports further. For when industrial de-

Table 1-26. Changes in Major Groups of Exports from Under-developed Countries According to Degree of Fabrication, 1950-1951 and 1958-1959[a]

Item	*1950-1951*	*1958-1959*
Food		
Index of volume	100	133
Percentage distribution:		
Crude	88	85
Manufactured	12	15
Vegetable oil-seeds and oils		
Index of volume	100	102
Percentage distribution:		
Oil-seeds	46	44
Oils	54	56
Textiles[b]		
Index of volume	100	125
Percentage distribution:		
Fibres	79	79
Yarn	3	5
Fabrics	18	16
Leather		
Index of volume	100	164
Percentage distribution:		
Hides and skins	96	97
Leather and leather products	4	3
Wood		
Index of volume	100	165
Percentage distribution:		
Wood	89	84
Wood manufactures	11	16
Metals and ores[c]		
Index of volume	100	136
Percentage distribution:		
Ores and concentrates	41	39
Metals	59	61
Petroleum		
Index of volume	100	166
Percentage distribution:		
Crude	83	72
Refined	17	28

Source: See table 1-24.

[a] Estimated from data in constant prices. With the exception of metals and ores, data are for countries listed in footnote *c* to table 1-24. For metals and ores, data are for all under-developed countries.

[b] Excluding jute and jute manufactures.

[c] Data in the first column refer to 1955 and in the second column to 1959.

velopment reaches sufficiently large dimensions, these are the types of goods to which the less developed countries must increasingly look if they are to achieve greater earnings of foreign exchange.

For the under-developed countries as a group, the exports of fully manufactured goods rose at some 3 per cent per annum in the nineteen fifties. But if India, with its limited expansion of cotton and jute textile exports, is excluded, the rate of increase appears to have been considerably larger (*see* table 1-27). Among the industrially more developed countries, some momentum is beginning to be acquired by exports of metal products. They are not, as has been stated more than once earlier, articles of heavy machinery. But they do cover an array of goods, ranging from bicycles, sewing machines and electric fans in the case of India to simpler varieties of electrical goods and metallic household goods in the case of several other industrially advanced countries. For the industrially less advanced countries, in marked contrast, exports of metal products, which were already rather small, recorded a decline, largely as a result of greater domestic absorption and competition from other countries. In these countries, products of the textile industry, which is of a more recent origin than that in the industrially more advanced countries, have shown a comparatively greater expansion.

Table 1-27. Annual Rates of Growth of Export Volume of Fully Manufactured Articles from Under-developed Countries, 1950-1951 to 1958-1959[a]

(Percentage)

Group of countries	*Total*	*Textiles*	*Metal products*	*Other*
Industrially more advanced countries	3	2	5	5
Industrially more advanced countries, excluding India	5	5	5	4
Industrially less advanced countries	8	8	—5	11
TOTAL	3	3	4	6
TOTAL, excluding India	5	6	4	6

Source: See table 1-24.

[a] For definitions and differences in time period, *see* footnotes to table 1-24.

Although quantitatively not particularly large, exports of other manufactured goods rose at a higher rate than did the exports of textiles in both groups of the under-developed countries. They included such items as footwear, books and magazines, jewellery, glass and pottery products, leather goods, pulp and paper and rubber products. These goods are not the products of a highly complex technology and it should be possible for the under-developed countries to expand their sales in foreign markets.

For the present, however, not only is the share of the under-developed countries in the world trade of fully manufactured goods rather minute—it amounted to a mere 3 per cent in 1958-1959—but it is also heavily dominated by textiles. In 1958-1959, roughly two-thirds of the exports of the fully manufactured goods from the under-developed countries consisted of textiles; this can be contrasted with the fact that, in world exports of manufactures, it was metal products—largely machinery and transport equipment—which accounted for about two-thirds of total trade (*see* table 1-28). These striking facts provide one indication of the long distance the under-developed countries have yet to traverse in developing and diversifying their export trade in manufactures.

Table 1-28. Exports of Manufactured Goods from Under-developed Countries in Relation to World Exports of Manufactured Goods, 1958-1959[a]

Item	*Exports from under-developed countries as percentage of world exports*	*Percentage distribution of exports of manufactured goods*	
		Under-developed countries	*World*
Textiles	13	62	12
Metal products	1	15	66
Other	3	23	22
TOTAL	3	100	100

Source: See table 1-24.

[a] Data refer to exports of the under-developed countries listed in footnote *c* to table 1-24. "World exports" in the present context denotes exports from these countries and from the industrial countries of western Europe and North America and from Australia, Japan and New Zealand. "Special category" shipments from the United States are excluded.

There is no doubt, however, that, for many under-developed countries, higher rates of growth in exports of manufactures will have to be achieved in the future if the expansion in their supplies of foreign exchange is to match their growing import requirements. This may be particularly true of some of the industrially more advanced countries where, as noted above, the scope for conservation of foreign exchange through further import substitution has been diminishing. Numerous difficulties, many of which are inherent in the process of industrialization itself, confront these countries in the development of an export trade in manufactures. Not least among the factors affecting their prospects is the commercial policies pursued by the developed countries. It is unfortunately true that the bulk of the manufactures so far exported by the under-developed countries has consisted of commodities which compete with the least dynamic industries in the developed countries. In the latter countries, the burden

of adjustment to a greater flow of imported manufactures has thus fallen on the least viable industries, and this has strengthened opposition to the adoption of more liberal trade policies. There is a growing recognition, however, that a widening of trade opportunities for the under-developed countries is a condition of their economic development and that, in the long run, a greater volume of trade is in the mutual interest of both groups of countries.[11]

[11] For a more detailed discussion of trade policies, *see* United Nations "Ways and means of promoting wider trade co-operation among States: Trade relations between under-developed and industrially advanced economies, Report by the Secretary-General" (mimeographed document E/3520).

Problems in the choice of industries

The foregoing analysis has revealed that there are some systematic similarities among countries at more or less comparable stages of industrialization in their patterns of industrial production. This analysis has been confirmed by the review of recent trends in output, which indicated that there were also similarities among countries at comparable stages of industrialization in the broad types of industries established or expanded.

It can hardly be overlooked, however, that the diversity in relative importance of specific industries in their rates of growth has been considerable. This is scarcely surprising. There are wide differences among countries in the composition of the natural and other productive resources which they possess. Also, the evolution in the composition of demand has not been exactly the same in all countries, not least because of differences in the level of investment expenditure. Further, governmental policies have differed in their influence on the choice of specific industries selected for establishment or expansion, both through the effect of policies on the composition of demand and through the application of more direct measures, such as the licensing of imported capital goods and industrial materials.

The diversity among countries in economic conditions is, in fact, of major practical importance for the formulation of governmental policy with regard to industrial development. While the preceding analysis has indicated that, in practice, certain broad groups or types of industries have been most favoured at different stages of industrial development, this does not in itself provide a basis for policy. Within the framework of national aims with regard to the over-all allocation of resources for investment and consumption, governments still have to decide, on the basis of conditions in their own countries, which specific industries would represent the most efficient use of resources. Much has been written in the economic literature on this subject, and several differing criteria have been proposed. These criteria vary both in the particular considerations relevant to the choice of industries which they emphasize, and in the ease with which they can be translated into operational guides. While it cannot be said that there is as yet a consensus on the most suitable criteria, there is at least widespread agreement that some new tools of analysis have to be forged. While in a developed private enterprise economy, the expected rate of return on capital is usually taken as a guide to the relative efficiency of productive resources in alternative uses, there is general recognition that, in an under-developed economy, this may not be an adequate standard. For one thing, because of the rigidities and lack of integration in markets for factors of production, the pricing system may be very far from reflecting the relative scarcities of productive resources. Again, current costs in a newly established industry may decrease over time as experience in production is gained and the initial difficulties in organization and operation are overcome; this, indeed, is the basis of the infant industry argument which has long been recognized as valid grounds for protection. Or, a further instance is the fact that, by virtue of the scope for external economies, an investment which might prove unprofitable if undertaken in isolation, might represent an efficient use of resources if it formed one of a group of related projects. In more general terms, it can be said that, since an intermediate objective of economic development is to change the quantity and quality of the available productive resources, current cost conditions are themselves subject to change and may therefore not be sufficient guides to resource allocation in a dynamic setting.

It is not the present intention to discuss the various criteria which have been proposed. But, in extension of the general analysis of patterns of industrialization given above, the present section briefly describes the main factors on the side of costs affecting the growth of industries. These are the considerations which, given the expected or planned growth in the composition of demand, are most relevant to the choice of specific industries.

These considerations fall into two groups. One set of factors affecting cost conditions consists of those which arise from the nature of the human or natural resources available for production. The second derives from the techniques and forms of productive organization which can be utilized in the plant or industry; these are usually described as economies of scale or external economies.

NATURAL RESOURCES AND MANPOWER

The influence of natural resource endowment on the choice of industries is particularly evident in countries at the very early stage of industrial development. Attention has already been drawn to its importance in favouring the development of certain industries processing raw materials for export. And the ease with which access can be had to specific natural resources similarly affects the types of industries established at the early stages of development to meet the requirements of the domestic market.

The influence of natural resource endowment on the industries chosen for establishment or expansion becomes less obvious as countries advance beyond the earliest stages of industrialization. No doubt, there are some industries whose establishment would hardly be feasible in a country lacking certain natural resources. Some industrial processes, for example, require large amounts of water as a cooling agent, and these might be particularly costly in countries where water resources are scarce, or, as yet, undeveloped. But, for the great majority of industries, absence of local supplies is not an insuperable obstacle to their establishment, since most materials can be imported from abroad.

However, the use of foreign sources of supply as a means of overcoming the deficiencies in domestic resources entails the expenditure of scarce foreign exchange. And because of this restriction, the natural resource endowment of a country may become an important determinant in the choice of industries. Governmental policy in some under-developed countries has, in fact, attached considerable importance to the question whether new industries are likely to be dependent on domestic or on imported supplies of raw materials, and industries utilizing domestic resources have often been deliberately favoured. This policy may also have had the objective of stimulating the expansion of activity in domestic agriculture or mining, but usually its immediate aim has been to conserve foreign exchange.

Of course, one industry cannot be preferred to another solely on the grounds that it depends more heavily on domestic resources. This could, in itself, be inconsistent with the aim of conserving foreign exchange. For example, a new industry manufacturing products which can be used as substitutes for imported manufactures may often yield substantial foreign exchange savings even though it is dependent on imported materials. In practice, the increase in expenditure on imported materials must be weighed against the saving in imported manufactures before the net

Table 1-29. Changes in Manufacturing Output and Volume of Raw Material Imports, 1950-1951 to 1958-1959[a]

Group and country	*Annual rate of growth (percentage)*		*Change in percentage share of major components in total raw material imports*		
	Manufacturing output[b]	*Raw material imports*	*Textile fibres*	*Crude petroleum*	*Other*
Increase in imports due mainly to textile fibres or crude petroleum					
China (Taiwan)	13	19	1	—	−2
Philippines	10	16	29	33	−62
Rhodesia and Nyasaland	8	5	2	—	−2
Brazil	7	16	−21	64	−43
Peru	6	17	7	—	−7
United Arab Republic	6	10	10	29	−39
Mexico	5	11	1	2	−2
Guatemala	5	8	4	5	−9
South Africa	5	3	10	5	−15
Ireland	2	8	2	6	−8
Portugal	1	9	9	3	−12
Argentina	1	−1	−2	21	−19
Increase in imports due mainly to other raw materials					
Venezuela	12	11	−11	—	11
Colombia	8	7	−12	...	12
India	5	−2	−27	9	18
Chile	2	3	−3	−1	3

Source: See table 1-24.

[a] Raw materials exclude cereals. For differences in time period, *see* footnote *b* to table 1-18.

[b] For differences in coverage, *see* footnote *a* to table 1-15.

saving in foreign exchange can be assessed. It is this concept of the net foreign exchange saving which has increasingly been taken as the guide in governmental policy.

It is obvious that, however vigorously governments encourage the use of domestic raw materials in manufacturing industry, some growth in imports is an inevitable concomitant of industrialization. The growth of manufacturing output in the nineteen fifties did indeed lead to increased imports of raw materials in most of the countries included in table 1-29. The only prominent example of a decline in such imports, despite substantial industrial expansion, is provided by India, but this was because special efforts were made to increase domestic production of raw jute and cotton in order to eliminate dependence on supplies from Pakistan. Indian imports of other raw materials, however, rose sharply. Altogether, in only one-fourth of the countries did the rate of increase fall short of the rate of growth in manufacturing production. But it is very difficult to say to what extent, if any, this was an outcome of governmental encouragement of industries utilizing domestic raw materials. In a majority of countries, imports of textile fibres were a primary reason for high rates of increase in total raw material imports; this was symptomatic of the expansion of the textile industry which has been a common feature of many under-developed countries in the last decade. Even in the United Arab Republic, though it is a major exporter of cotton textile fibres, imports advanced strongly because of the rising demand for woollen fibres. Besides textile fibres, imports of crude petroleum for processing in domestic refineries have expanded at high rates in a number of countries; since these have partially replaced imports of refined products, they must generally have resulted in some saving of foreign exchange. Only in a few countries, such as India, Colombia and Venezuela, have imports of raw materials other than textile fibres or crude petroleum advanced rapidly.

In contrast to supplies of natural resources, most under-developed countries, though certainly not all, suffer from no scarcity of labour. Absorption into productive activity of the large and growing numbers of under-employed or unemployed persons is, indeed, an intermediate objective of programmes for industrialization. Abundant manpower, however, coexists with scarcities of particular skills necessary for industrial activity. It would generally be agreed today that the scarce skills are not those that the average factory worker has to acquire. A labour force with no previous industrial experience may certainly take some time to acquire the skills and adapt to the routine of factory life, and this may mean that costs of operation are high in the initial phases. But, with appropriate training and an appropriate system of incentives, this usually proves to be a difficulty of comparatively short duration. Of greater importance is the shortage of technical personnel and of people with experience in the management and supervision of factory work. These are also problems which are amenable to solution; young people can be sent abroad to study at universities and acquire direct experience in foreign factories. But this may take some years, and, in the meantime, the lack of particular skills, or the high cost of obtaining foreign personnel with these skills, may tend to discourage investment in specific industries.

It has often been suggested that, since labour is the most abundant of all the factors of production in under-developed countries, this should predispose these countries to prefer industries in which relatively large amounts of labour are combined with relatively small amounts of capital. The social costs of utilizing additional labour are deemed to be nil or negligible, since people would otherwise remain unemployed or under-employed, and the choice of labour-intensive industries would therefore raise the efficiency of the very scarce supply of capital.

This view, however, is subject to a number of important qualifications which rob it of much of its simplicity and validity. One major restriction is the fact that the choice of industries should be consistent with national aims regarding the levels of investment and consumption desired for the future.[12] Within this broader framework, there may nevertheless still be scope for selection of alternative industries or techniques. But further qualifications have to be introduced at this level. In particular, it can by no means be assumed that capital is the only scarce productive resource to be conserved. As has just been noted, all types of labour are not in over-plentiful supply and the technical skills necessary for some industries may be very scarce. Nor can the supply of natural resources available for different industries be disregarded as a negligible item in relative costs.

As a practical matter, the question of the best proportions in which to combine capital and labour may assume some importance only when there exists a choice between techniques within a specific industry. Unfortunately, the systematic collection of information on industrial techniques is something which has been begun only in the last few years and, so far, the empirical evidence is very limited. General knowledge alone, however, is sufficient to suggest that there are at least a number of industries in which a range of alternative techniques employing capital and labour in substantially different proportions is not really available, at least within the manufacturing processes themselves; such industries as steel, petroleum refining or synthetic fibres immediately come to mind as obvious

[12] It has, in fact, been suggested that quite a different criterion is relevant if, instead of the conservation of capital, the aim is to maximize the rate of re-investment. In this event, the preferred technique might be one which maximized the surplus of current output over current consumption as measured, say, by the excess of value added over the wage bill.

examples. Of course, it may often be true that there exists a choice between the most recently developed techniques and older techniques, the latter utilizing more labour per unit of output than the former. But this is not necessarily relevant to the issue, for the newer techniques may generally tend to be more economical in the use of capital as well as of labour. In other words, the question is pertinent only when there is a choice between alternative techniques which are equally efficient in the sense that output per unit of labour is greater and output per unit of capital is smaller with one technique as compared with the other. When cast in these terms, it becomes clearer that its practical importance may be quite limited, at least within manufacturing industry.[13]

This is not to say that there is never any scope for the conservation of capital within manufacturing industry. For example, estimates made of the relative productivity of capital and labour for different techniques in the Indian cotton weaving industry indicate that, while output per man was certainly much lower when simpler techniques were employed, output per unit of fixed capital was much higher (*see* table 1-30). Thus

Table 1-30. Estimates of Productivity of Capital and Labour in Indian Cotton Weaving Industry Using Alternative Techniques[a]

(Rupees)

Technique	*Value added per unit of fixed capital*	*Value added per worker*
Fly-shuttle hand loom	9.0	450
Semi-automatic hand loom	7.5	1,500
Cottage power loom	1.5	2,250
Factory non-automatic power loom	1.5	6,000
Automatic power loom	0.6	48,000

Source: Derived from data published in A. K. Sen, *Choice of Techniques: An Aspect of the Theory of Planned Economic Development* (Oxford, 1960), appendix C.

[a] Estimates are based on information about capital costs of the different types of looms, their physical output and the number of workers per loom. Single-shift work was assumed in the case of cottage enterprise techniques and double-shift in factory techniques. The figures shown for value added do not reflect actual costs and prices but only differences in output per unit of capital and per worker under alternative techniques; they were assigned the output data on the arbitrary assumption that value added was the same per unit of physical output for all techniques. In other words, it was assumed for purposes of this table that all money costs, such as wages and salaries, raw material costs and depreciation charges, per unit of output, were the same for each technique. If all actual costs per unit of output were known, the results might be different from those shown in the table. For example, the costs of raw materials, because of the cost of transporting them to a widely scattered cottage industry, might be higher for the simpler techniques. On the other hand, wages and salaries are probably higher in automatic power loom factories than in cottage industries.

the choice of techniques would depend upon the relative values placed upon labour and capital. If the social costs of employing labour were counted as nil or negligible, there would be a strong prima facie case for preferring hand looms to automatic looms or power machinery. While this example is subject to a number of qualifications,[14] it does illustrate the possibility of conserving capital through the use of labour-intensive techniques. But, within manufacturing industry as a whole, this possibility may find its most general application less in the manufacturing processes proper than in related activities within the factory, notably in materials handling; here it may frequently be true that labour-intensive and capital-intensive techniques are equally efficient in the sense defined above and that there is therefore frequently considerable scope for the conservation of capital in such uses in under-developed countries.

[13] The scope for substitution is probably much greater in agricultural and construction activities, which are not considered here.

SIZE OF MARKETS AND ECONOMIES OF SCALE

The second set of factors influencing cost conditions is related to the techniques and forms of productive organization which can be utilized in the plant or industry. At the level of an individual plant, these are usually known as economies of scale and, at the level of an industry, as external economies. While, in practice, the distinction between plant and industry economies sometimes appears rather artificial, it facilitates exposition to discuss them separately.

As is well known, economies of scale within the plant arise primarily because the most efficient techniques can sometimes be embodied only in relatively large amounts of capital; in addition, larger-scale production may occasionally permit more efficient organization of labour on the factory floor and may also reduce the burden of overhead costs. In certain lines of production where these economies are important, costs per unit of output may be significantly lower in large plants than in small ones.

At first sight, it might seem that the relevance of economies of scale for the choice of industries in under-developed countries is a comparatively simple matter to settle. It is tempting to conclude, for example, that if in the under-developed countries the size of the market for specific products is below the minimum optimum scale of output prevailing in industrial countries, then these countries should not establish plants for such products. This might seem a quite acceptable view, particularly if the size of the domestic market is interpreted in a dynamic sense to include its prospective size in the near future and if account is also taken of any possibility for the development of export markets.

The experience of industrial countries with regard to the behaviour of costs at different scales of output is not, however, necessarily a sure guide for the under-developed countries. There are several reasons for this.

[14] *See* footnote *a* to table 1-30.

For one thing, the relative prices of factors of production are by no means the same in all countries; consequently, as has just been discussed in the preceding section, the optimum technique and hence the scale of output may vary among countries.[15] Secondly, proximity to the market may often be a more important determinant of the cost of the product at point of delivery than is the scale of production; this may be particularly true in industries where the costs of transporting the product from factory to consumer are heavy. Thus, in many industries in the industrial countries, there exist plants which, in terms of production costs alone, operate at levels well below the minimum optimum scale but which none the less have a competitive advantage over larger plants by virtue of their proximity to the local market.[16] Further, it has to be remembered that some of the manufactures which are, or may be, produced in under-developed countries, although similar in name to products manufactured in industrial countries, may actually differ in specific characteristics; for example, since consumer incomes are low, foods may not be so highly processed, cloth may be of poorer quality or products generally may be more utilitarian in design and packaging. This may again imply that somewhat different techniques and scales of output are more appropriate in under-developed countries.

Not a great deal of empirical content can, unfortunately, be given to these general statements. Quantitative evidence on economies of scale is fragmentary and, in any case, is founded mainly on experience in highly industrialized countries which may not always be entirely relevant for under-developed countries. No extensive research, however, is required to affirm that there are numerous industries in which economies of scale play no significant part in the determination of costs. These are to be found particularly, though not exclusively, among the industries producing final consumer goods. More obvious examples are bakeries, potteries, brick making, sawmills, furniture making, spinning and weaving, tanning and shoe making. It is more often among certain intermediate and final producer goods industries that scale factors may be found to be of some significance in the choice of industries. Thus, it is not too difficult to think of one or two industries which could not be operated efficiently in countries with very small markets, whatever their relative factor prices or other cost conditions might be. In the steel industry, for example, the available techniques are such that even the smallest feasible plant has a substantial capacity. Accordingly, in a very small country, unless an export market could be developed, the plant might be able to operate only at levels well below capacity. Moreover, the techniques employed in large plants appear to be inherently superior to those suitable for small plants in the sense that both capital and labour costs per unit of output are lower;[17] thus, inter-country differences in relative factor prices cannot alter the relative advantage of larger-scale production.

For many of the intermediate goods industries, however, it is somewhat unrealistic to discuss economies of scale within the plant as a possible deterrent to investment, particularly in the earlier stages of industrial development. Since these plants are geared to the supplying of products to other plants, it is rather the scale of output within the industry that is the relevant consideration. Economies of scale may, in fact, generally be more important at the level of whole industries than at the level of individual plants.

The gains that can be reaped from large-scale production in an industry as a whole are familiar. Greater specialization of men and machinery throughout the industry becomes possible. Batch production methods can be replaced by the organization of work in line with the concept of continuous flow; this permits the introduction of specialized machinery in place of general purpose equipment and the substitution of skilled workers by a semi-skilled labour force. With a large established industry, moreover, it becomes more feasible to standardize component parts and thus facilitate further specialization.

Great stress has been laid by some economists upon the importance of these external economies in industrial development; it has even been suggested that, in view of the interdependence among industries, it becomes

[15] Further, as was noted earlier in the text, market prices of factors of production in under-developed countries do not accurately reflect their relative scarcities; if factors are valued at prices reflecting relative scarcities, the pattern of relative costs among industries may differ even more from that prevailing in an industrially advanced country.

[16] The petroleum refining industry offers one outstanding example. Data suggest that, in the United States, a refinery with a crude oil throughput of about 120,000 barrels a day may be about the optimum scale of plant. However, this is on the assumption that the refinery can transport its products to the market by ship or that it is located in close proximity to a very dense market so that transport by road or rail entails only short hauls. In the inland areas of the country, there are, in fact, numerous refineries with much smaller capacities, frequently with throughputs of 10,000 to 50,000 barrels. *See* Joe S. Bain, *Barriers to New Competition* (Harvard University Press, Cambridge, Massachusetts, 1956), appendix B.

[17] For example, labour and capital costs per ton of finished steel at a particular location in the United States have been estimated to decline as follows: in a plant with an annual capacity of 50,000 tons, wage costs per ton would have been $37.80 and capital charges $17.76 in 1948 prices; in a plant with a capacity of 500,000 tons, wage costs would have been $10.03 and capital charges $13.04; at 1,000,000 tons, wage costs would have been $7.07 and capital charges $12.56. *See* United Nations, *A Study of the Iron and Steel Industry in Latin America*, vol. I (Sales No.: 54.II.G.3, vol. I), page 116.

Even in the steel industry, however, larger-scale production may not always be unequivocally superior. Some types of steel, other than those in the flat-rolled category, can be produced quite efficiently in plants with capacities below 500,000 tons per annum; there are usually semi-integrated plants which use purchased iron ingots or scrap. For example, in 1952, almost one-fifth of the total number of steel mills owned by the eight largest steel firms in the United States had capacities of 400,000 tons per annum or less. *See* Bain, *Barriers to New Competition*, op. cit., appendix B.

ncessary for under-developed countries to undertake the simultaneous establishment of whole ranges of industrial plants.

There is no question that the development of industrial complexes in which costs are generally reduced through the emergence of external economies contributes significantly to the attainment of higher levels of industrial productivity, and this is certainly a relevant consideration for governmental policy in the choice of industries. But, for practical purposes, it is important to appreciate the general nature of the process whereby these economies are brought into being.

It would not be realistic to suppose that the conditions of highly efficient large-scale production which prevail in developed countries—particularly in their engineering industries—can easily be reproduced in under-developed countries by a single act of investment, however large. The economies enjoyed by the industries of developed countries are inseparably linked with the organization of production within these industries and there are several reasons why, on the initial establishment of the industry, it may be impractical for production in an under-developed country to be organized along the lines obtaining in a developed country.[18] The most obvious is simply that the initial size of the market is usually not sufficient to support a wide range of highly specialized concerns; a lower degree of specialization and a greater use of batch production methods are, therefore, unavoidable. And even if the market is adequate, it may not be practicable to concentrate sufficient resources in the industry. Further, the organization of production along the lines of the continuous-flow concept, which is typical of certain industries in developed countries, is conditional upon such things as a high degree of quality control, the standardization of components and the close scheduling of work among plants, but these are things which become characteristic of an industry only after it has become firmly established and experience has been gained in the organization of work.

In practice, among the industrially more advanced of the under-developed countries which have set out to encourage the growth of those industries in which external economies are important, a gradual approach appears to have been general. A clear example is provided by the approach towards development of the motor vehicle industry. The policy has generally been initially to foster the establishment of assembling plants using imported components; thereafter governments have required manufacturers to utilize a rising proportion of domestically manufactured components in output, and in this way, a group of ancillary industries has sprung up around the assembly plants. This appears to have been an approach generally applied to new industries. Following the establishment of the final goods industries, policy has shifted towards encouragement of the establishment of related intermediate goods industries.[19]

In one sense, the importance of the exploitation of external economies for industrial growth complicates the problem of choice among industries. All industries in which these economies are important obviously cannot be simultaneously developed, so that the problem becomes one of choosing between alternative patterns of investment, rather than between specific projects. In other words, in view of the limited supply of resources, some concentration on particular industrial complexes may become necessary if these economies are to be quickly exploited. But, in another sense, the existence of scope for exploitation of these economies may simplify the matter of choice, at least after a certain stage of industrial development has been passed. To the extent that the expansion of previously established industries has created a rising demand for the output of ancillary industries or for an increasing supply of products or by-products utilized as inputs in related industries, the lines along which further development should take place suggest themselves.

Large or small plants

Substantial economies may accrue to large-scale production at the level of the industry or in plants manufacturing certain products. This, however, does not mean that rapid industrial growth consists solely of the creation of large establishments.

It is, of course, quite true that, in the process of industrial development, there is a general tendency for the average size of plant, when measured in terms of output, to increase. There may also be some tendency for the size of plant, even when measured in terms of the number of persons engaged, to be somewhat greater in more developed countries. But it would be wrong to infer from this that what actually happens to the size of industrial establishments in the process of industrial development is simply a gradual substitution for small plants employing comparatively few workers of large establishments employing many.

Analysis of the facts certainly does suggest that large factories tend to become relatively more important at more advanced stages of industrial development. However, this increase in relative importance takes place at the expense not of small factories but rather of the very small manufacturing units which are usually described as cottage industries or artisan workshops. There is no noticeable tendency, in other words, for the small factory to diminish in relative importance.

These conclusions are broadly supported by the data

[18] For a detailed case study, *see* David Granick, "Economic Development and Productivity Analysis: The Case of Soviet Metalworking", *Quarterly Journal of Economics* (Cambridge, Massachusetts), May 1957.

[19] *See*, for example, United Nations Economic Commission for Latin America, "Algunas Características del Desarrollo Industrial en el Período 1950-60" (mimeographed document E/CN.12/602), page 16.

Table 1-31. Distribution of Employment in Manufacturing Industry, by Size of Establishment, Recent Census Year[a]

(Percentage)

Country	Census year	Small establishments			Large establishments			Total
		Total	1-4 persons engaged	5-49 persons engaged	Total	50-250 persons engaged	Over 250 persons engaged	
Brazil	1950	40	13	27	60	23	37	100
China (Taiwan)	1954	68	27	41	32	17	15	100
Greece	1958	73	37	36	27	27	—	100
Iraq	1954	62	39	23	38	15	23	100
Israel	1952	72	28	44	28	17	11	100
United Arab Republic	1950	35	8	27	65	17	48	100
Puerto Rico	1954	25	3	22	75	48	27	100
Denmark	1948	62	30	32	38	...	...	100
Finland	1953	30	9	21	70	...	...	100
Japan	1955	51	10	41	49	22	27	100
Sweden	1951	35	11	24	65	...	...	100
United States	1954	18	2	15	82	25	58	100

Source: See table 1-11.
[a] For certain countries, the size-classes deviate somewhat from those stated in the table.

Table 1-32. Distribution of Employment and Value Added in Manufacturing Industry, by Size of Establishment, Recent Census Year[a]

(Percentage)

Country and item	Size of establishment according to number of persons engaged			
	5-49	50-250	Over 250	Total
Brazil				
Employment	31	26	43	100
Value added[b]	31	29	40	100
Kenya				
Employment	26	——74——		100
Value added[b]	24	——76——		100
Lebanon				
Employment	57	——43——		100
Value added	41	——59——		100
Philippines				
Employment	40	35	25	100
Value added	19	46	35	100
Puerto Rico				
Employment	23	49	28	100
Value added	21	46	33	100
Republic of Korea				
Employment	54	24	22	100
Value added	44	23	33	100
Finland				
Employment	23	——77——		100
Value added[b]	22	——78——		100
Japan				
Employment	45	25	30	100
Value added	26	26	48	100
Sweden				
Employment	27	——73——		100
Value added[b]	24	——76——		100
United States				
Employment	15	26	59	100
Value added	12	23	65	100

Source: See table 1-11.
[a] Because censuses of some countries do not cover very small establishments, only establishments engaging four or more persons have been included in the computations. For certain countries, the size-classes deviate somewhat from those stated in the table.
[b] Gross value of production.

shown in table 1-31. Though the relevant information is available only for comparatively few countries, the table does show that among some of the under-developed countries, very small establishments engaging fewer than five persons account for 20 to 40 per cent of all persons engaged in manufacturing industry, whereas in most of the more developed countries they absorb 11 per cent or less. Small factories engaging more than four but less than fifty persons, however, account for 20 to 40 per cent of the total numbers engaged in manufacturing industry in most of the more developed countries as well as in all of the less developed countries listed in the table.

Along with this similarity, however, there is some evidence of an occasional difference in the role of the small factory between the more developed and the less developed countries which may also be of considerable importance. This is the fact that, in the less developed countries, the small factory has sometimes a substantially lower output per man than the large factory, whereas this is less true of more developed countries. Among the latter countries, as can be seen from table 1-32, the efficiency of small factories does not differ too much from that of large factories, though Japan constitutes an interesting exception. Among the less developed countries, on the other hand, it is substantially lower in three of the six countries listed. Thus, it may well be that, in some under-developed countries, instead of a decline in the relative importance of small factories as they advance industrially, there occurs a relative increase in the contribution of small factories to the value of total manufacturing output.

The forces underlying the changes in average plant size and in the relative efficiency of large and small plants are certainly very complicated. They are bound up with the long-run transformation in the structure of industrial production, with the integration of localized markets into national markets and with the spread of modern techniques to all levels of industry. It is beyond the scope of the present study to analyse these forces, but it is worth stressing here that, whatever the ideal combination of large and small factories appropriate to a particular country and a particular structure of industrial production, there is no general presumption in favour of large factories at the expense of small, or small factories at the expense of large. Industrial growth in fact consists as much in the multiplication of small factories as in the formation of large factories.

Conclusion

Many under-developed countries have experienced appreciable growth in industrial production during the last decade. Among the countries for which information is available, some two-thirds recorded annual rates of increase in manufacturing output amounting to 5 per cent or more, and in about one-fifth of the countries, the rates equalled or exceeded 10 per cent. Since industrialization is a principal element in economic development, the vigour manifested by these trends has been quite encouraging. In most under-developed countries, however, industry still constitutes only a minor segment of the economy. The distances they have yet to traverse before their economies begin to resemble, in structure, those of the high-income countries of the world are certainly very great. Whereas in the high-income industrial countries of North America and western Europe industry accounts, on the average, for almost a half of total production, the share which industry claims in most of the under-developed countries ranges down from a quarter to a fifth. This offers some measure of the transformation yet to be achieved.

In this chapter, some attempt has been made to identify the main forces which have fashioned the rate and pattern of industrial development in the under-developed countries during recent years. As a point of departure, attention has been drawn to the interrelation between industrialization and general economic growth. It is obvious that, while the pace of industrialization contributes directly to the rate of growth in total income and output, the growth of income and output, in turn, influences the pace of expansion in industry. However, the actual spread of industrial activity in the under-developed countries has taken place not only in response to the growth of domestic demand; to a considerable degree it has also represented the establishment—behind the protective barriers created by tariffs or import controls—of industries which produce goods in replacement of imported manufactures. In other words, the rate of advance in industrial production has generally exceeded the pace of expansion in total income and output.

Within the framework of protective policies towards domestic industry, a primary determinant of the rate of growth in output has been the volume of productive resources available for manufacturing activity; among these productive resources, a principal limiting factor has been the supply of investment goods. Rates of growth in output have been quite closely related to the volume of investment allocated to manufacturing industry.

The pervasive role of supply conditions in industrial development has been even more evident in the prevailing pattern of industrialization. While there has been considerable diversity among countries in the relative importance and rates of growth of specific industries, a clear tendency has been apparent for the share of those industries manufacturing durable producer and consumer goods as well as intermediate goods to increase in relative importance as countries advance industrially. Not only do these industries account for a higher

proportion of output in the industrially more advanced countries as compared with the industrially less advanced, but in both groups of countries, they have expanded more rapidly than the consumer goods industries. During the last decade, for example, this was true of sixteen out of the twenty-two countries for which data are available. This systematic change in the structure of production has not been simply related to the changes in the composition of demand engendered by rising per capita incomes. Industrial development, at least in its early stages, has not been a process of balanced growth in the sense that changes in the composition of output have conformed closely to changes in the composition of demand; rather, it has been as much a movement away from a position of extreme imbalance between domestic demand and output to a position of closer balance.

In accounting for the patterns of diversification in manufacturing activity at different stages of industrial development, important reasons have been the technical and organizational characteristics of the various industries. In the industrially less advanced countries, the types of producer goods industries most frequently established or expanded have been those which are not heavily dependent on other manufacturing industries either for supplies of the requisite components or materials or for markets for their output. They have tended to be industries, such as cement, fertilizers or petroleum refining, which use raw materials as their inputs and sell their products to other sectors of production besides manufacturing. It is among countries at more advanced stages of industrial development that the production of manufactures involving more complicated forms of industrial organization has begun to take root; here, industrial complexes rather than individual, or relatively unrelated, plants become a more dominant form of industrial growth.

Of course, underlying these systematic differences among countries at more and at less advanced stages of industrial development, there has been considerable diversity in the particular industries established or expanded. This only indicates that the specific economic circumstances which affect the choice of particular industries vary greatly among countries. The factors affecting relative costs in alternative industries, such as natural resource endowment, the supply of skills, economies of scale and external economies, not only vary among countries at different stages of industrial development but also among the countries at similar stages. This only emphasizes that the pattern of resources allocation likely to represent the most efficient use of scarce resources has to be decided in the light of the economic circumstances prevailing in each country.

The pattern of industrial development, however, also has a broader significance. If it is true that the supply of capital equipment has been a major factor limiting the rate of industrialization, it is also true that the pattern of industrial development has itself been among the determinants of the available supply of capital equipment. For, in part, this supply has depended on the extent to which the pattern of industrialization has been directed towards the development of domestic capital goods industries or, as alternatives, of import-substituting or export-promoting industries which have increased the capacity to import capital goods. Thus, the current allocation of resources among industries has been a factor influencing the prospective volume of resources for investment.

Save in some of the industrially more advanced countries, the development of domestic capital goods industries has played a very minor role in the industrial growth of the under-developed countries. Numerous countries have certainly established or expanded industries producing building materials, such as cement; but the engineering industries which produce the machinery and equipment necessary for most industrial investment have assumed significant proportions only in a few countries. In most countries, imported capital equipment has, in fact, accounted for 30 to 40 per cent of total investment expenditure, the remainder consisting of salaries and wages as well as the purchase of local materials.

Thus, the main contribution of industrial development towards expanding the supply of capital equipment has been made through its effect on the amount of foreign exchange available for purchases from abroad. And the principal channel through which this has taken place has been import substitution rather than export promotion. While exports of manufactures and semi-manufactures from the under-developed countries have increased at an annual rate of 4 per cent during the last decade, their absolute value in relation to total export proceeds remains very small. Total merchandise exports have continued to consist predominantly of crude food and raw materials.

Import substitution in the field of manufactured consumer goods as well as intermediate producer goods, however, has frequently been of some importance in contributing to the expansion of foreign exchange supplies available for the importation of capital goods. But this process has been more evident during the nineteen fifties among the industrially less advanced countries than among the more industrialized countries. In the latter group of countries, the role of import substitution has generally been more moderate, since the scope for the establishment of import-substituting consumer goods industries or intermediate producer goods industries had already been very largely exploited. It appears, in fact, that the possibility for enhancing supplies of imported capital equipment through the development of these import-substituting industries contracts markedly as countries pass beyond the earliest stages of industrialization.

These findings indicate that the pattern of indus-

trial development, as well as its rate, is strategic to the pace of general economic growth. And this has major implications for governmental policy with regard to industrialization. Industrial development policy cannot be considered in isolation from economic development policy as a whole; on the contrary, the appropriate pattern of industrial development has to be determined within the broad frame of reference established by general economic aims. Since the desired rate of economic growth implies what future rates of consumption and investment should be, this suggests the requisite rates of increase in supplies of manufactured capital and consumer goods. Within this framework, it will become evident how much emphasis should be placed on the development of domestic capital goods industries or, alternatively, on import-substituting or export-promoting industries. If, for example, the overriding aim of policy is to raise the level of investment as quickly as possible, at the same time holding back the growth in consumption to the lowest feasible rate, then policy should seek to maximize the flow of resources going into the domestic capital goods industries or into other industries which increase the net supply of foreign exchange available for imports of capital goods.

This, of course, leaves unanswered the question of the extent to which policy should favour the development of domestic capital goods industries as against import-substituting consumer goods industries or export-promoting industries. A final decision in this matter must obviously rest upon the particular economic circumstances prevailing in each country. But it is at least clear that, among most of the industrially m advanced countries, considerable emphasis has to given to the growth of domestic capital goods ind tries. Generally, these countries have already exploit the scope for import substitution of consumer a intermediate producer goods, and the continued grow of domestic industry cannot yield increasing savings foreign exchange through reductions in imports of su goods; on the contrary, it is more likely to raise r quirements of imported industrial materials. Bei faced with this situation on the one hand and with t sluggish growth in world demand for their exports primary commodities on the other, they cannot cou on a rate of expansion in the supply of foreign e change available for imported capital equipment whic is likely to be sufficient to meet their growing requir ments for capital equipment. Indeed, in some of th larger countries, the size of the foreign trade sector i relation to the whole economy is in any case too sma to serve as a substitute for a domestic capital good industry.

These considerations may apply with less force in a number of the less industrialized countries where som scope for import substitution remains. But, so long a the aim is to raise the level of investment and accel erate the rate of economic growth, it is clear that, in countries at both more and less advanced stages of industrialization, a principal criterion guiding policy must be the net effect of new industries on the prospective supply of capital goods.

Chapter 2

INDUSTRIAL GROWTH IN THE DEVELOPED COUNTRIES

The role of industrial development in economic growth

The close connexion between industrial development and economic growth is evident in historical perspective. Wherever per capita incomes have shown a long-run upward trend, there has been a marked increase in the share of industry in the national product. Typically, the share rose from less than one-quarter in the early periods of industrialization to 40 per cent or more in recent times: the average proportion in the period 1950-1960 is shown in table 2-1. This association is not difficult to explain. The basis of economic growth is man's increasing ability to transform natural resources into useful products, and industrialization represents the highest stage of development of this process. On the other hand, the development of agriculture is no less important in the process of growth. Indeed, agrarian revolution has usually paved the way for industrial revolution, and it is the agricultural sector that has had to generate the surplus of rural output over rural consumption needed to sustain those engaged in the building up of urban industry.

Inter-country comparisons also reflect a positive association between the degree of industrialization and the level of income. It has been shown in chapter 1 that, taking all countries together, the share of industry in the national product increases steadily from less than one-fifth to almost one-half as one moves from the low-income to the high-income countries. Although, within the narrower group of industrial countries, factors other than the degree of industrialization play a larger role in explaining differences in incomes, a mildly positive association is observable between the share of manufacturing output in commodity produc-

Table 2-1. Industrial Distribution of Gross Domestic Product,[a] 1950-1960[b]

(Percentage)

Country[c]	Agriculture	Industry					Transportation	Services
		Total	Mining	Manufacturing	Construction	Utilities		
United States	5.7	39.6	1.7	30.7	5.3	1.9	6.5	48.2
Canada	10.6	40.2	4.1	27.4	5.9	2.8	8.8	40.4
New Zealand[d]	22.8	31.2	1.0	21.3	6.9	2.0	9.1	36.9
Sweden[e]	8.0	50.0	2.0	38.0	7.0	3.0	...	42.0[f]
Australia[g]	20.8	29.4[h]	2.0	26.5	...	0.9	...	...
United Kingdom	5.1	48.2	3.3	36.8	5.7	2.4	8.6	38.1
France[i]	12.2	47.5	2.2	38.0	5.9	1.4	5.7	34.6
Belgium	8.1	48.7	4.1	34.9	7.3	2.4	7.6	35.6
Denmark	17.7	37.5	0.3	28.4	7.0	1.8	9.3	35.5
Norway	13.3	38.1	1.1	27.5	7.2	2.3	17.4	31.2
Germany (Federal Republic)[j]	9.7	49.4	5.4[j]	37.9	6.1	..	7.5	33.4
Netherlands[k]	12.5	40.4	2.2	29.8	6.5	1.9	9.3	37.8
Finland	23.2	41.4	——	32.5[l] ——	8.9	...	7.7	27.7
Austria	13.4	53.7	——	43.0 ——	7.1	3.6	4.9	28.0
Italy	22.9	41.5	1.1	32.5	5.3	2.6	6.6	29.0
Japan	21.0	33.6[m]	2.5	26.3	4.8	...	8.7[m]	36.7

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from United Nations, *Yearbook of National Accounts Statistics, 1961* (Sales No.: 62.XVII.3); and national sources.

[a] Except for Japan and the United States, where net domestic product was used; data are at current factor cost except for Australia, Austria and France, where they are at current market prices.

[b] Average of 1950-1951 and 1959-1960.

[c] Countries are arranged in descending order of national income per capita in 1957-1959.

[d] Two-year average of 1952/53 and 1954/55.

[e] 1956.

[f] Including transportation.

[g] Average of 1950/51-1951/52 and 1958/59-1959/60.

[h] Excluding construction.

[i] Average of 1950-1951 and 1958-1959.

[j] Utilities included in mining.

[k] Average of 1950-1951 and 1957-1958.

[l] Utilities included in manufacturing.

[m] Utilities included in transportation.

tion and per capita income, as may be seen in table 2-2.[1] The major exceptions appear to be Australia,

Table 2-2. The Share of Manufacturing Output in Commodity Production,[a] 1950-1960[b]

(Percentage)

Country[c]	Share
United States	80.6
Canada	65.1
New Zealand	47.2
Sweden	79.2
Australia	53.8
United Kingdom	81.4
France	72.5
Belgium	74.1
Denmark	61.2
Norway	65.6
Germany (Federal Republic)	71.5
Netherlands	67.0
Italy	57.5
Japan	52.8

Source: See table 2-1.
[a] Included are agriculture, mining and manufacturing.
[b] Average of 1950-1951 and 1959-1960.
[c] Countries are arranged in descending order of national income per capita in 1957-1959.

Canada and New Zealand where sparsity of population or smallness of size have enabled them to attain a high level of income by relying heavily on the export of primary products; even so, the share of industry in commodity output of these countries is much higher than that of the under-developed countries.

The process of industrial development has involved significant shifts not only in the composition of output as a whole but also in the structure of manufacturing itself. The history of industrialization shows a progression from relatively simple types of manufacturing, largely of non-durable consumer products such as textiles, clothing and processed foods, to more complicated types, particularly producer and consumer durables. The same picture emerges when comparison is made among broad groups of countries at different stages of industrial development, the relative weight of producer and consumer durables being higher in the more developed countries. Table 2-3 shows that most of the industrial countries have attained a relatively high share of producer and durable consumer products in manufacturing output.[2] The same table shows the share of engineering products, which exhibits a fairly good association with the share of manufacturing.[3]

Table 2-3. Composition of Manufacturing Output, by Selected Economic Category, 1950-1960[a]

(Percentage)

Country[b]	Producer and durable consumer products[c]	Engineering products[d]
United Kingdom	75.1[e]	38.9
United States	75.1	32.2
Sweden	75.5	33.4
Belgium	71.2	27.2
France	71.5	34.9
Germany (Federal Republic)	75.6	34.3
Netherlands	61.1	28.9
Norway	62.3	21.0
Canada	72.3	25.9
Italy	65.4	23.7
Australia	71.1	36.9
Japan	77.4	32.4
Finland	70.2	24.8

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data supplied by the Statistical Office of the United Nations.
[a] Average of 1950 and 1960.
[b] Countries are arranged in descending order of share of manufacturing output in commodity production.
[c] Final and intermediate producer products and durable consumer products represent all manufacturing except non-durable consumer products: food, beverages, tobacco, textiles, clothing, leather and rubber products, or ISIC major groups 20, 21, 22, 23, 24, 29 and 30.
[d] Engineering products represent ISIC major groups 35, 36, 37 and 38.
[e] Including rubber products.

THE DIMENSIONS OF RECENT INDUSTRIAL EXPANSION

The growth of manufacturing output

Granted that the development of industry, and especially of manufacturing industry, has been the mainspring of economic growth during the past two centuries, what has been its role in the nineteen fifties? An examination of table 2-4 reveals that a high overall rate of growth during this period was invariably accompanied by a high rate of growth of manufacturing output. Moreover, manufacturing output has grown faster than gross domestic product in practically all the industrial countries, the difference between the two rates of growth generally ranging from 30 to 50 per cent. The extreme case is Japan where manufacturing output has expanded almost twice as fast as gross domestic product. Although the growth of manufacturing has been exceeded in most countries by that

[1] Manufacturing output is related to commodity output rather than to total output in order to eliminate the effect of inter-country differences in the importance of services.
[2] Here again, as was to be expected, within the narrow group of industrial countries alone, the association between the share of manufacturing in commodity output and the share of producer and consumer durables in manufacturing output is less marked than among all countries taken together.
[3] One major difficulty in establishing this association within the group of industrial countries results from considerable differences in the relative pricing of durables and other manufactures in the various countries. Another difficulty stems from the fact that the categories of manufacturing shown are not sufficiently detailed to indicate the degree of fabrication involved. For example, the similar shares of engineering products in manufacturing in Japan and the United States conceal the fact that the former country concentrates on relatively simpler types than the latter; even within a traditional industry, such as textiles, or within a highly complex product group, such as the electronics industry, important differentiation in the degree of fabrication undertaken in various countries is discernible when a detailed examination is made.

Table 2-4. Annual Rates of Growth of Gross Domestic Product and of Output in Major Industrial Divisions, 1950 to 1960

(Percentage)

Country[a]	Gross domestic product	Agriculture[b]	Mining	Manufacturing	Utilities
Japan	9.5	4.7	4.6	18.1	9.9
Germany (Federal Republic)	7.6	2.2	3.8	10.1	9.2
Italy	5.9	3.5	10.1	9.0	7.3
Austria	5.9	3.0	5.6	7.1	10.4
Netherlands	4.7	2.3	2.1	6.1	7.4
Finland	4.6	2.4	8.8	6.0	8.0
France	4.3	2.0	6.6	6.5	10.9
Australia[c]	3.9	3.2	...	5.7	7.4[d]
Canada	3.8	1.8	8.7	3.4	9.8
New Zealand[c]	3.5	2.9	...	4.6	7.7[d]
Norway	3.5	—	6.4	5.1	5.9
Denmark	3.4	1.9	...	3.3	8.4
United States	3.3	2.4	1.9	3.6	8.7
Sweden	3.2	−1.0	4.7	3.3	...
Belgium	2.9	2.1	−1.4	4.1	5.4
United Kingdom	2.7	1.7	−0.6	3.5	5.2

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Yearbook of National Accounts Statistics*, *Statistical Yearbook* and *Monthly Bulletin of Statistics;* Food and Agriculture Organization of the United Nations, *Production Yearbook* (Rome); Organisation for Economic Co-operation and Development, *General Statistical Bulletin*, No. 6, 1961 (Paris), and on data supplied by the Statistical Office of the United Nations and the Food and Agriculture Organization.

[a] Countries are arranged in descending order of annual rate of growth of gross domestic product.

[b] 1950/51 to 1959/60.

[c] 1950/51 to 1960/61.

[d] Electricity only.

Table 2-5. Change in Industrial Distribution of Gross Domestic Product,[a] 1950 to 1960[b]

(Percentage)

Country[c]	Agriculture	Mining	Manufacturing	Utilities
Japan	−8.2	−1.0	...	...
Germany (Federal Republic)	−3.7	...	9.3	...
Italy	−7.8	0.9	8.7	0.5
Austria	−3.9	——	2.5 ——	1.2
Netherlands	−2.2	−0.5	2.8	0.5
Finland	−4.1	——	6.6 ——	...
France	−2.3	0.1	2.4	0.5
Australia	−1.8	...	2.7	0.3
Canada	−2.9	2.1	−1.6	1.3
Norway	−3.5	0.1	0.4	0.8
Denmark	−2.9	—	0.6	0.8
United States	−0.6	−0.2	1.0	1.0
Sweden	−3.1	—	−0.6	...
Belgium	−1.2	−1.7	3.1	0.5
United Kingdom	−0.2	−1.0	3.0	0.6

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from United Nations, *Yearbook of National Accounts Statistics, 1961* (Sales No.: 62.XVII.3); and data supplied by the Statistical Office of the United Nations.

[a] Change in the percentage share of each sector in gross domestic product. Based on estimates of gross domestic product by industrial origin in constant prices except for Australia, Canada, Japan, the Netherlands and the United States. For these countries, estimates are based on information available from table 2-1 and the production indices for major industrial groups.

[b] Exceptions are as follows: 1950 to 1959 for Canada, France, Japan, the Netherlands, Sweden and the United States; 1950/51 to 1958/59 for Australia.

[c] Countries are arranged in descending order of annual rate of growth of gross domestic product.

Table 2-6. Share of Major Industrial Countries in World[a] Manufacturing Output,[b] 1938, 1950 and 1960

(Percentage)

Country[c]	1938	1950	1960
United States	35.7	51.2	43.8
United Kingdom	11.1	8.9	7.5
Germany (Federal Republic)	10.6	5.8	9.1
France	6.2	4.3	4.9
Canada	2.5	3.4	2.9
Italy	2.8	2.0	2.9
Sweden	1.4	1.4	1.1
Japan	4.2	1.3	4.3
Belgium	1.6	1.3	1.1
Australia	1.2	1.2	1.2
Netherlands	1.4	1.2	1.3
Denmark	0.8	0.7	0.6
Austria	0.8	0.7	0.8
Norway	0.5	0.5	0.5
Finland	0.3	0.3	0.3
New Zealand	0.2	0.2	0.2
Sixteen industrial countries combined	81.3	84.4	82.5

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Statistical Yearbook*; United Nations, *Patterns of Industrial Growth, 1938-1958* (Sales No.: 59.XVII.6), and data supplied by the Statistical Office of the United Nations.

[a] Excluding the centrally planned economies.

[b] Estimates based on value added of manufactured goods in terms of 1953 dollars.

[c] Countries are arranged in descending order of the share in 1950.

of utilities and in some by that of mining, it has played a far more important role in over-all growth than either of the latter sectors, simply because its share in total output is much larger. Indeed, as shown in table 2-1, the share of utilities in gross domestic product is less than 4 per cent in all the industrial countries, and of mining less than 6 per cent, whereas the share of manufacturing output exceeds 30 per cent in most of these countries. Even in the case of Canada, where mining and utilities output have each grown more than twice as fast as manufacturing, the former two sectors contributed only 8.5 per cent to the increase in gross domestic product, whereas manufacturing contributed over 23 per cent.

In contrast to manufacturing, the growth of agricultural output has been slower than that of total output in all countries. Annual rates of growth in agriculture have ranged from 1.5 to 3.5 per cent in almost all countries; as will be shown in a later section of this chapter, there have been remarkable advances in agricultural productivity.

Differential rates of growth in the various sectors have been reflected in a shift in the composition of total output. As may be observed in table 2-5, the share of manufacturing in gross domestic product has increased in practically all the industrial countries while the share of agriculture has declined uniformly. The increase in the share of manufacturing has been particularly marked in such fast-growing countries as the Federal Republic of Germany and Italy.

Industrial development has thus continued to play a dynamic role in the economy of the developed countries. The rate of growth of manufacturing output for the sixteen industrial countries as a group averaged 5 per cent per annum during the nineteen fifties—a high rate judged by historical standards even by comparison with the periods of most rapid industrialization during the nineteenth century. Indeed, despite the efforts of the under-developed countries to promote industrialization, the developed countries still accounted for over 80 per cent of the manufacturing output of the private enterprise world in 1960, which was roughly the same as the pre-war share and was not materially lower than in 1950, as may be seen from table 2-6.

Table 2-7. Share of Major Industrial Countries in World[a] Manufacturing Exports,[b] 1938, 1950 and 1960

(Percentage)

Country[c]	1938	1950	1960
United Kingdom	17.7	21.9	14.0
United States[d]	17.1	21.7	18.7
France	5.4	8.3	8.5
Germany (Federal Republic)	19.0[e]	6.1	16.9
Belgium and Luxembourg	5.1	5.5	5.1
Canada	2.7	5.2	4.2
Switzerland	2.8	3.3	2.9
Japan	5.1	3.2	6.1
Italy	3.0	3.2	4.6
Sweden	2.2	2.3	2.7
Netherlands	...	1.9	3.6
Norway	...	1.4	0.9
Austria	3.6[f]	0.9	1.4
Finland	...	0.8	0.8
Australia	...	0.3	0.4
Denmark	...	0.2	0.9
New Zealand	...	—	—
Twelve industrial countries combined[g]	83.7	81.6	85.1
Eighteen industrial countries combined	...	86.2	91.7

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of International Trade Statistics* and *Monthly Bulletin of Statistics* (various issues); United Nations, *Growth and Stagnation in the European Economy*, by Ingvar Svennilson (Sales No.: 54.II.E.3); R. E. Baldwin, "The Commodity Composition of Trade: Selected Industrial Countries, 1900-1954", *Supplement to the Review of Economics and Statistics* (Cambridge, Massachusetts), February 1958.

[a] Excluding centrally planned economies.

[b] Including SITC sections 5, 6, 7 and 8. Excluding processed foods and mineral fuel.

[c] Countries are arranged in descending order of the share in 1950.

[d] Excluding United States special category exports.

[e] Estimate refers to the whole of Germany as it was in 1938, not including Austria.

[f] 1937.

[g] Twelve countries for which data are available in 1938.

The relatively high rate of growth of manufacturing in the industrial countries as a whole has, moreover, been achieved despite the below average performance of two of the most important countries, namely the United Kingdom and the United States, which accounted for three-fifths of world manufacturing output at the beginning of the nineteen fifties, but for only a little more than one-half by the end of the decade.

The predominant position of the developed countries in manufacturing is even more marked in exports than in output. Table 2-7 shows that manufactured exports of the developed countries accounted for about 90 per cent of the total for the private enterprise world in 1960 and was somewhat higher than the share at the beginning of the nineteen fifties or pre-war. At the same time significant shifts in the share of world exports of manufactures have taken place among the industrial countries. This has in part reflected differential rates of growth of manufacturing output and the degree of adaptation to the structure of market demand.

Shifts in shares of world exports of manufactures during the past decade have also been influenced by readjustments following the Second World War. Thus the shares of the United States and the United Kingdom were exceptionally high at the beginning of the nineteen fifties, when recovery and reconversion in these countries were further along than in the others. In contrast, the position of such countries as the Federal Republic of Germany and Japan was adversely affected by war devastation. When comparison is made with pre-war shares, the shifts are less striking.

Table 2-8. Annual Rates of Growth of Output, Employment and Output per Worker in Manufacturing, 1950 to 1960

(Percentage)

Country[a]	Output	Employment	Output per worker
Japan	18.1	5.3	12.2
Germany (Federal Republic)	10.1	4.7	5.1
Italy	9.0	1.2	7.6
France	6.5	0.7	5.8
Netherlands	6.1	1.1	4.9
Finland	6.0	1.9	4.0
Australia	5.7	1.8	3.8
Norway	5.1	0.7	4.4
New Zealand	4.6	2.3	2.2
Belgium	4.1	0.6	3.5
United States	3.6	1.0	2.7
United Kingdom	3.5	1.1	2.3
Canada	3.4	0.9	2.5
Denmark	3.3	1.1	2.1

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Statistical Yearbook* and *Monthly Bulletin of Statistics;* Organisation for Economic Co-operation and Development, *General Statistical Bulletin;* and national sources.

[a] Countries are arranged in descending order of annual rate of growth of manufacturing output.

Trends in manufacturing employment

While manufacturing output has almost invariably grown faster than total output, the growth of manufacturing employment in most countries has not been significantly higher than that of total employment. The trend of employment in manufacturing has been even less favourable in relation to other non-agricultural activities (employment in agriculture having declined or changed little).

The contrast between the growth of output and that of employment in manufacturing reflects a generally low elasticity of employment with respect to output. In most countries, a one per cent increase in manufacturing output has been accompanied by less than a one-third of one per cent increase in manufacturing employment, as may be seen in table 2-8.[4] Moreover, differences in employment elasticities in various countries have in many cases contributed to differences in the growth rates of manufacturing employment. Thus, the exceptionally high rates of increase in manufacturing employment in the Federal Republic of Germany and New Zealand have been strongly affected by high elasticities and, conversely, the low rates in France and Sweden by low elasticities. However, the elasticities of employment in Australia, Finland and Japan, on the one hand, and Denmark, the United Kingdom and the United States, on the other, have been broadly similar. The relatively high rates of increase in manufacturing employment in the former group have largely been due to correspondingly high rates of growth of output. Moreover, in evaluating the total impact on employment of differences in elasticities and output growth, it is essential to look beyond the manufacturing sector. For, despite low rates of increase in manufacturing employment in such countries as France and Italy, where the elasticity of employment has been low, the high rate of growth of manufacturing output has had a favourable indirect effect on employment in the rest of the economy. Furthermore, apart from the fact that output per worker has been closely associated with the growth of output as revealed in table 2-8, a low elasticity of

[4] A rough indication of the elasticity of employment with respect to output may be obtained by dividing the rate of growth of employment by that of output, both shown in table 2-8. Estimates are:

Country[a]	Percentage
Japan	29
Germany (Federal Republic)	47
New Zealand	50
Finland	32
Australia	32
Italy	13
Netherlands	18
United Kingdom	31
Denmark	33
United States	28
Canada	26
Norway	14
France	11
Belgium	15

[a] Countries are arranged in descending order of annual rate of growth of manufacturing employment.

employment also implies, other things being equal, a high rate of growth of output per worker. A low elasticity should not, therefore, be considered a liability to the economy. This is especially so when the rate of growth of the labour force is low, as in the Scandinavian countries and the United Kingdom. Even in countries where labour is abundant, the crucial issue in fact is not so much the responsiveness of employment to a *given* rise in manufacturing, but whether the rate of growth of manufacturing is sufficiently rapid to generate the desired rate of increase in the demand for labour.

Patterns of industrial development

The foregoing analysis has demonstrated the close link between the process of growth and changes in industrial structure: in the process of economic growth, the various industrial sectors have not expanded uniformly, some sectors performing better than the average while others have lagged behind. Despite the advanced stage of industrialization already reached in most of the industrial countries, the manufacturing sector has continued to grow at a faster rate than the economy as a whole, and the agricultural sector has given further ground. It remains to be investigated how far the growth process has involved changes in structure within the manufacturing sector.

RECENT TRENDS IN MAJOR SECTORS OF MANUFACTURING INDUSTRY

Structure and growth of output

Table 2-3 has already pointed to certain systematic differences among countries in the structure of manufacturing output. Countries at a high level of industrialization have tended to concentrate on the more complex types of manufacture such as engineering products. The various branches of manufacturing output may now be examined in some detail in table 2-9. The most striking phenomenon, in addition to the generalization already made, is the sizable variation in the relative importance of some of the individual branches of industry. For instance, the share of paper in manufacturing output ranges from under 2 per cent in Italy to 14 per cent in Finland, and the share of basic metals from less than 3 per cent in Finland and the Netherlands to over 12 per cent in Belgium and Japan. The reasons for particular inter-country disparities are not always clear, but differences in the stage of industrialization do not appear to have been important. In some cases, such as paper and wood products in Canada, Finland and Sweden, the relatively high share obviously reflects particular resource endowments; in others, the explanation may have to be sought in historical development or deliberate choice, as with the high weight of basic metals in Belgium and Japan.

Recent changes in the structure of manufacturing output have resulted from the differential rates of growth from 1950 to 1960 in the major branches of industry shown in table 2-10. Table 2-11 presents the relative performance of each branch as compared with that of manufacturing output as a whole. Several important facts emerge from these tables. In the first place, in practically all countries metal products and chemicals have been the most dynamic industries, while processed food, textiles, clothing and leather products have been among the slow-growing or even stagnating groups. Because of the large shares and high rates of growth of the metal products and chemical industries, the contribution of these two industries to the increase in total manufacturing output was considerable. Table 2-12 indicates that, in most countries, these two industries combined contributed more than 40 per cent to the increase in manufacturing output from 1950 to 1960; in Australia, the Federal Republic of Germany, France, Japan, the Netherlands, the United Kingdom and the United States, the contribution of these two industries was as high as 60 per cent or even higher.

Of greater importance from the point of view of policy implications is the correlative movement of the various industrial branches within each country. Countries with rapid rates of over-all growth have generally achieved high rates of growth for all or most branches of industry; conversely, low rates of over-all growth have usually been reflected in all the various subsectors of manufacturing. Indeed, even the relatively laggard industries in the rapidly growing countries, such as the Federal Republic of Germany, Italy and Japan, have often registered impressive absolute rates of growth, while the relatively dynamic industries in the slow-growing countries have usually failed to achieve particularly high rates of growth.

The above strongly suggests that where manufacturing has grown slowly, this has been due not so much to any inherent loss of dynamism in industry as to a lag in over-all growth. Indeed, owing to the interdependence of the economy even the dynamic industries may be seriously held back by generally slack business conditions.

A further implication is that, despite the link between growth and structural change observed above, the dimensions of industrial growth and structural change were not necessarily correlated closely during the nineteen fifties. In other words, countries experiencing fast rates of industrial growth have not necessarily experienced a greater measure of structural change, still less any major problem of structural ad-

Table 2-9. Composition of Manufacturing Output, 1950-1960[a]

(Percentage)

Country[b]	Food, beverages and tobacco	Textiles	Clothing and footwear	Wood and furniture	Paper	Printing and publishing	Leather products	Rubber products	Chemicals	Non-metallic mineral products	Basic metals	Metal products[c]	Miscellaneous
United Kingdom	10.6	8.9	4.8	2.9	3.0	4.4	0.7	...[d]	8.9	4.0	8.5	38.9	4.3[d]
United States	11.7	4.8	6.2	4.7	4.0	5.4	0.6	1.7	10.9	3.3	8.2	32.2	6.2
Sweden	11.8	4.8	5.7	7.9	9.6	6.0	0.6	1.6	6.4	4.5	6.5	33.4	1.2
Belgium	11.7	12.8	3.3	3.3	3.0	...[e]	0.6	0.5	12.6	6.6	13.2	27.2	5.1[e]
France	9.5	10.1	6.8	3.9	2.6	3.1	0.8	1.4	13.8	3.5	5.8	34.9	3.9
Germany (Federal Republic)	9.8	8.8	3.7	4.0	2.9	2.5	0.8	1.4	12.5	5.3	11.2	34.3	2.9
Netherlands	23.3	7.3	6.3	3.4	2.5	4.2	——	2.0 ——	12.4	3.2	2.9	28.9	3.6
Norway	26.4	4.5	5.2	5.4	8.9	4.7	0.7	0.9	7.9	3.5	9.0	21.0	1.9
Canada	16.5	4.0	4.7	7.0	10.0	4.9	0.4	2.1	10.6	3.3	8.5	25.9	2.2
Denmark	21.7	4.7	8.7	6.9	——	9.1 ——	...[f]	——	7.6 ——	4.9	——	32.8 ——	3.6[f]
Italy	18.9	9.8	3.6	4.5	1.6	...[e]	0.6	1.7	16.0	4.5	9.5	23.7	5.5[e]
Australia	12.8	6.3	7.1	6.2[g]	1.6	4.5	1.0	1.8	10.0	4.0	5.1	36.9	2.8
Japan	7.5	11.5	1.6	3.9	3.9	3.4	0.1	1.9	13.4	5.1	12.0	32.4	3.2
Finland	11.5	9.7	6.1[h]	11.1	14.1	5.5	1.0	1.6	6.1	4.9	2.6	24.8	1.1

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data supplied by the Statistical Office of the United Nations.

[a] Average of 1950 and 1960, except for Australia, average of 1950/51 and 1960/61.

[b] Countries are arranged in descending order of share of manufacturing output in commodity production as a whole.

[c] Same as engineering products, which include machinery and transport equipment.

[d] Rubber products included in miscellaneous.

[e] Printing and publishing included in miscellaneous.

[f] Leather products included in miscellaneous.

[g] Excluding furniture.

[h] Excluding footwear.

Table 2-10. Annual Rates of Growth of Manufacturing Output, by Major Groups, 1950 to 1960[a]

(Percentage)

Country[b]	Manufacturing total	Food, beverages and tobacco	Textiles	Clothing and footwear	Wood and furniture	Paper	Printing and publishing	Leather products	Rubber products	Chemicals	Non-metallic mineral products	Basic metals	Metal products[c]
Japan	18.1	11.2	14.3	12.5	7.1	16.8	15.4	17.3	14.3	18.0	14.6	15.1	26.7
Germany (Federal Republic)	10.1	7.9	5.6	9.0	5.7	7.8	8.2	5.1	10.5	12.0	8.2	8.9	13.1
Italy	9.0	4.5	3.1	6.1	6.4	7.8	...	3.9	7.8	14.7	10.9	12.6	9.6
Austria	7.1	4.8	3.4	3.7	0.9	6.9	0.3	−2.1	——	5.8 ——	6.1	11.6	7.4
France	6.5	2.8	1.6	1.2	5.4	7.7	8.4	0.6	6.9	12.2	6.2	7.0	8.4
Netherlands	6.1	3.6	3.4	4.1	5.9	6.8	4.9	——	4.3 ——	7.6	3.6	10.0	9.3
Finland	6.0	6.4	4.0	5.5[d]	4.2	8.5	5.3	−1.8	2.5	8.9	4.3	10.2	7.1
Australia	5.7	2.5	3.5	2.3	2.0[e]	11.5	4.1	—	5.6	12.1	5.8	8.7	6.8
Norway	5.1	3.2	0.8	5.0	3.8	4.9	1.2	−4.2	2.7	5.5	6.3	9.7	6.5
New Zealand	4.6	2.6	3.4	1.1	2.7[a]	15.0	6.1	−2.1	7.6	5.1[f]	4.1	...	6.3
Belgium	4.1	2.8	0.7	1.4	5.5	4.1	...	−4.2	6.6	5.8	4.7	5.5	4.3
United States	3.6	2.3	1.0	3.4	2.0	3.9	3.4	1.1	3.4	6.5	3.1	0.1	5.1
United Kingdom	3.5	2.7	−0.9	1.8	2.1	4.3	4.3	−2.1	...	6.0	2.4	3.3	4.3
Canada	3.4	4.0	−1.1	1.0	2.3	3.3	3.8	−0.5	2.0	7.2	6.6	4.4	2.7
Denmark	3.3	3.1	−1.2	0.6	2.5	——	2.8 ——	...	——	2.9 ——	1.9	——	5.9 ——
Sweden	3.3	1.9	0.3	0.1	1.8	5.7	1.3	−2.2	5.3	6.2	3.0	7.4	2.7

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data supplied by the Statistical Office of the United Nations.

[a] 1950/51 to 1960/61 for Australia and New Zealand.

[b] Countries are arranged in descending order of annual rate of growth of manufacturing output as a whole.

[c] Same as engineering products, which include machinery and transport equipment.

[d] Excluding footwear.

[e] Excluding furniture.

[f] Excluding coal and petroleum products.

Table 2-11. Relative Growth of Manufacturing Output,[a] by Major Groups, 1950 to 1960[b]

(Percentage)

Country[c]	Manufacturing total	Food, beverages and tobacco	Textiles	Clothing and footwear	Wood and furniture	Paper	Printing and publishing	Leather products	Rubber products	Chemicals	Non-metallic mineral products	Basic metals	Metal products[d]
Japan	100	52.6	69.2	59.1	36.1	86.1	76.5	90.0	69.7	95.4	71.5	74.6	195.0
Germany (Federal Republic)	100	80.5	65.0	88.7	65.4	79.3	83.5	62.0	102.3	116.5	83.5	88.3	128.6
Italy	100	65.7	57.2	76.3	78.8	89.4	...	62.3	89.4	166.9	118.6	138.1	105.5
France	100	70.2	62.2	60.1	89.9	111.2	119.1	56.4	103.7	168.1	96.8	104.3	118.6
Netherlands	100	78.5	77.3	82.9	97.8	106.6	89.5	——	84.0 ——	114.9	79.0	142.5	134.8
Finland	100	101.1	80.9	92.9[e]	82.5	123.5	91.8	45.9	69.9	127.9	83.1	144.8	108.7
Australia	100	73.6	81.0	72.4	70.1[f]	170.1	85.6	57.5	99.4	179.3	100.6	132.8	110.9
Norway	100	84.6	66.7	100.6	89.5	100.0	69.8	40.1	80.2	105.6	113.6	155.6	116.0
New Zealand	100	82.7	89.7	71.8	83.3[f]	259.6	115.4	51.9	133.3	105.1[g]	96.2	...	117.9
Belgium	100	88.6	71.8	77.2	114.8	100.0	...	43.6	127.5	118.1	106.0	114.1	102.0
United States	100	87.5	76.4	97.2	84.7	101.4	96.5	77.1	96.5	129.9	93.7	70.1	113.9
United Kingdom	100	94.2	65.5	85.6	88.5	110.0	110.0	58.3	.	128.8	91.4	99.3	109.4
Canada	100	104.2	63.4	77.5	88.7	97.2	102.1	66.9	85.9	140.8	133.1	108.5	91.5
Denmark	100	97.8	64.0	76.3	92.1	——	95.0 ——	...	——	95.7 ——	87.1	—— 128.1 ——	
Sweden	100	90.3	76.9	75.4	89.6	129.9	85.1	59.7	124.6	135.8	100.0	153.0	97.8

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data supplied by the Statistical Office of the United Nations.

[a] Obtained by dividing production index in 1960 (1950 = 100) for each of the major groups by that for total manufacturing industry.

[b] 1950/51 to 1959/60 for Australia and New Zealand.

[c] Countries are arranged in descending order of rate of growth of manufacturing output.

[d] Same as engineering products, which include machinery and transport equipment.

[e] Excluding footwear.

[f] Excluding furniture.

[g] Excluding coal and petroleum products.

Table 2-12. Percentage Contribution of Increase in Output of Major Groups to Total Increase in Manufacturing Output,[a] 1950 to 1960[b]

Country[c]	Metal products[d]	Chemicals	Basic metals	Other
Japan	47.4	12.9	9.5	30.2
Germany (Federal Republic)	43.8	14.6	9.7	31.9
Italy	25.3	25.9	13.3	35.5
France	44.8	25.2	6.2	23.8
Netherlands	43.9	15.5	4.6	36.0
Finland	28.2	8.6	4.3	58.9
Australia	44.2	20.7	7.8	27.3
Norway	27.9	9.0	17.5	45.6
Belgium	30.3	19.0	18.7	32.0
United States	42.9	18.2	0.2	38.7
United Kingdom	48.6	15.3	8.2	27.9
Canada	19.4	21.2	10.6	48.8
Sweden	30.2	13.0	15.9	40.9

Source: See tables 2-9 and 2-10.

[a] Obtained by dividing increase in output in each major group by increase in total manufacturing output; in terms of 1953 prices.

[b] 1950/51 to 1960/61 for Australia.

[c] Countries are arranged in descending order of annual rate of growth of manufacturing output.

[d] Machinery and transport equipment included.

justment. It is true that a considerable spread developed between rates of growth in various industrial branches in such rapidly growing countries as France, Italy and Japan. On the other hand, little spread was found in the Federal Republic of Germany where the growth rate was high, and a large spread was evident in a relatively slow-growing country, such as Sweden (*see* table 2-10).

IMPACT OF TECHNICAL PROGRESS

The striking similarity in the relative rates of growth of various branches of manufacturing in the developed countries suggests the existence of common influences. One such influence is technical progress: there is direct evidence that the fast-growing industries, such as the chemical and engineering industries, have been particularly affected by technological advances. It is common knowledge that many firms in these industries derive a high proportion of their sales from processes and products that had not existed prior to the nineteen fifties. While technical progress has also occurred in other industries, its effects have been less far-reaching.

The upsurge in technology in the fast-growing industries has generally been accompanied by a high rate of expenditure on research and on new plant and equipment. The chemical and engineering industries have devoted a notably high proportion of their resources to research, especially in fields where technical leadership brings major competitive gains. In the less advanced countries, original research has been far less important since it has been possible to borrow technologies already developed in other countries.

Whether technical progress has consisted of new discoveries or the propagation of known methods, it has almost always involved new investment. The intimate relationship between investment in new productive capacity and the embodiment of new techniques at a time of rapid technological advance has been emphasized elsewhere.[5] There is also some evidence of a positive relationship between the rate of growth of particular industries and their rate of investment.[6]

The effects of new investment and technical progress are to be seen in advances in output per worker. Although this is not a refined measure of productivity and does not take into account differences in the intensity of work, it does provide some indication of the significant developments resulting from technical progress. Table 2-13 shows the rate of growth of output per worker by major industrial groups. Comparison with table 2-10 indicates a significantly positive relationship between rates of growth of output and of output per worker in the various industrial groups. In a majority of cases the rate of growth of output per worker in the chemical industries has been faster than that for most other branches. The picture for the engineering industries is, however, more spotty. The rates of growth of output per worker in these industries in a number of countries, such as Belgium, Canada, Sweden and the United Kingdom, have been comparatively low, the rates of growth of output of these industries being relatively unimpressive as well. Part of the reason is to be found in the backwardness of certain sectors of the engineering industry in some of these countries—such as shipbuilding and the machine tool industry in the United Kingdom.

It should not, of course, be surprising that technological advances do not give a full explanation of the relative rates of growth of industries. The best illustration of this point has already been provided earlier by the impressive growth of output per worker

[5] *See* United Nations, *World Economic Survey, 1959* (Sales No.: 60.II.C.1), pages 32 to 34.

[6] *See* United Nations, *Economic Survey of Europe in 1961* (Sales No.: 62.II.E.1).

Table 2-13. Annual Rates of Growth of Output per Worker in Manufacturing,[a] by Major Groups, 1950 to 1960[b]

(Percentage)

Country[c]	Food, beverages and tobacco	Textiles	Clothing and footwear	Wood and furniture	Paper	Printing and publishing	Leather products	Rubber products	Chemicals	Non-metallic mineral products	Basic metals	Metal products[d]
Germany (Federal Republic)	3.6	2.9	5.2	5.5	2.3	2.5	3.9	3.4	5.8	3.2	4.4	4.7
Italy	2.2	5.2	...	2.7	7.2	...	5.8	8.5	11.7	8.1	11.6	6.8
France	−0.3	4.0	1.3	6.4	6.4	7.4	2.2	10.2		5.5	6.2	6.9
Netherlands	3.3	3.7	5.0	5.1	4.8	2.4	2.8		3.5	3.0	6.2	
Finland	2.2	5.1	1.6	2.2	3.8	1.6	0.7	0.7	5.1	2.8	4.9	3.4
Australia	2.6	1.8	3.6	1.4[e]	4.2		2.9	1.5	7.7		2.9	
Norway	1.9	2.7	6.4	5.4	3.2	−0.4	2.3		3.7	6.0	5.9	5.4[f]
New Zealand	0.9	2.8	1.4	0.2[e]	8.4	3.8	—	5.0	...	3.3	...	3.6
Belgium	2.3	3.4	1.8	5.5	3.6	...	−1.5	5.9	3.4	3.4	3.9	1.8
United States	3.5	4.5	3.2	3.7	3.1	1.7	2.0	3.4	6.2	3.1	3.7	
United Kingdom	2.2	1.1	2.8	2.2	1.8	2.9	−0.4	...	4.2	3.1	1.8	1.9
Canada	2.8	1.6	1.8	2.3	1.1	2.2	2.9	2.1	4.5	3.5	2.3	1.4
Denmark	2.4	3.5	2.5	1.0	0.9		...	1.7		1.6	3.5	
Sweden	2.8	4.6	1.8	2.6	3.9	0.1	0.3	2.9	5.1	4.3	5.4	1.3

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data supplied by the Statistical Office of the United Nations, and International Labour Office, *Yearbook of Labour Statistics* (Geneva).

[a] Estimates are only approximate because output and employment figures do not always match exactly.

[b] 1953 to 1960 for the Federal Republic of Germany; 1953 to 1959 for Finland; 1950/51 to 1959/60 for Australia and New Zealand.

[c] Countries are arranged in descending order of annual rate of growth of manufacturing output.

[d] Same as engineering products, which include machinery and transport equipment.

[e] Excluding furniture.

[f] Including miscellaneous products.

in agriculture. Clearly, the relative rates of growth of agriculture and industries must be governed by the course of demand. An attempt will be made in the following section to examine the role of demand on differential rates of growth in the manufacturing industries.

IMPACT OF CHANGING STRUCTURES OF DEMAND

Growth rates of manufacturing industries have been affected by the course of demand as well as by the rate of investment and technical progress. In practically all countries, exports and gross domestic fixed capital formation have provided the greatest stimulus to manufacturing output. This is so partly because these two components of demand have generally been growing at a higher rate than other components, and partly because they require, directly and indirectly through the demand for intermediate products, a relatively high proportion of manufactured goods.

Table 2-14 shows the rates of growth of major components of final demand. It is noteworthy that in an overwhelming majority of countries the rates of growth of exports and fixed domestic capital formation have been substantially higher than those of private or public consumption. The United States is a major exception where government expenditure has grown at a relatively fast rate. Furthermore, it has been calculated[7] that for all the countries where data are available, the manufactured content of exports and capital formation is invariably higher than that of total demand. For most countries an increase in export demand of $100 at constant prices would tend to increase manufacturing output by $25 to $50; and an increase of the same amount in gross domestic capital formation would raise manufacturing output by $20 to $40. In contrast, the corresponding figure for private consumption would be about $20 while that for government expenditure would be even lower, except in the United States where the manufactured content of government expenditure is relatively high owing to the importance of defence outlays.

The combined effect of the relatively high rates of growth, and of the above-average manufactured content, of exports and capital formation has meant that these components of demand have exerted a profound influence on the course of manufacturing output during the nineteen fifties. These two components of demand alone have contributed, directly and indirectly, over one-half of the total increase in manufacturing output. In a number of countries, such as the Federal Republic of Germany, the Netherlands and Norway, the contribution has amounted to seven-tenths or even more. Here again, the United States is an exception since the corresponding contribution by exports and capital formation there has been substantially lower than that of other countries.

[7] The following generalizations are based on calculations of the impact on manufacturing output of changing structures of demand with the aid of input-output tables of seven western European countries, Japan and the United States. For description of methods of calculations and discussion of problems of interpretation, *see* United Nations, *Economic Survey of Europe in 1957* (Sales No.: 58.II.E.1), chapter III. Similar calculations have been made by the Secretariat of the Organisation for Economic Co-operation and Development.

Table 2-14. Annual Rates of Growth in Final Demand, by Major Components, 1950 to 1960[a]

(Percentage)

Country[b]	Private consumption expenditure	General government consumption expenditure	Gross domestic fixed capital formation	Exports of goods and services	Total final demand
Japan	8.2	6.9	17.2	12.7	9.5
Germany (Federal Republic)	7.3	5.7	9.9	16.5	7.6
Italy	4.5	7.4	9.0	12.6	5.9
Austria	5.1	4.1	7.5	14.1	5.9
France	4.3	3.7	5.0	5.7	4.3
Netherlands	3.5	3.3	5.7	9.8	4.7
Finland	...	...	...	...	4.6
Australia	3.1	4.0	4.6	6.9	3.9
Norway	2.6	5.0	3.0	6.8	3.5
New Zealand	3.4	3.8	5.3	5.8	3.5
Belgium	2.3	3.2	2.6	8.0	2.9
United States	3.2	6.1	2.0	5.3	3.3
United Kingdom	2.4	1.9	5.3	2.3	2.7
Canada	4.4	5.4	3.7	3.7	3.8
Denmark	2.6	4.0	6.4	7.1	3.4
Sweden	2.5	4.5	5.0	5.6	3.2

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Yearbook of National Accounts Statistics.*

[a] 1950/51 to 1960/61 for Australia and New Zealand.

[b] Countries are arranged in descending order of rate of growth of manufacturing output.

Within the manufacturing sector the direct and indirect contribution of exports to the increase in output in chemicals has generally been more important than to the increase in manufacturing output as a whole; similarly, the corresponding contribution of gross capital formation to the increased output of metals and metal products has been uniformly high. It is evident, therefore, that the course of demand has been an important factor in shaping the differential rates of growth of manufacturing output in various industries. In the United States, however, government expenditure has also played a leading role in generating demand.

Changes in the structure of major components of demand

The structure of manufacturing output has been affected not only by the major components of demand but also by shifts within these components. There is some indication that the pattern of exports has changed in favour of the fast-growing industries. This is suggested by a relatively high rate of growth of manufactured exports as compared with exports in general and an even more marked increase in exports of engineering products. In countries such as Belgium, Denmark, France, Italy, Japan, the Netherlands and the United Kingdom, the rate of increase of exports of engineering products was more than one and one-half times as high as that of manufacturing products as a whole.

There is also a remarkable similarity in the pattern of growth of manufactured exports in different countries reminiscent of the similarity in the pattern of output discussed earlier. While the sluggish performance of manufacturing in certain countries has been caused by a general lack of dynamism rather than by the backwardness of individual industries, a similar explanation holds true of the relative performance of manufactured exports in various countries. Although this is not the place to offer a comprehensive explanation of the behaviour of exports, an examination of data indicates that poor export performance has not to any major extent been the result of an initially unfavourable commodity composition of exports. Countries with above-average rates of increase in total exports have typically recorded better than average performance in all the principal commodity groups and not merely in the most dynamic ones; and the converse has applied in countries where exports have expanded more slowly. Where initial commodity composition or geographic distribution of exports has been unfavourable for rapid growth, some countries have shown much greater flexibility than others in shifting to the more dynamic commodities and markets.

The effect of changes in the structure of investment on the growth of industrial output is more difficult to ascertain. There is some evidence, however, that the rise in the share of machinery and equipment in fixed capital formation in the majority of the industrial countries has contributed to expansion in the basic metals and metal product sectors. More important have been the shifts towards the purchase of durable consumer goods that have accompanied the rise in consumer incomes and stimulated the growth of engineering production.[8] Table 2-15 shows that in eleven out of fourteen countries the share of durables in total consumption rose from 1950 to 1960. Table 2-16 indicates the remarkable increases that have taken place in certain consumer durables in recent years. The relative rise in consumer durables corresponds to a decline in non-durables, such as food and clothing. This shift has contributed to the relative changes in the various branches of manufacturing along the lines discussed earlier.

Table 2-15. Share of Consumer Expenditure Allocated to Durables, 1950 and 1960

(Percentage)

Country[a]	*1950*	*1960*
Austria	8.0	14.7[b]
Denmark	10.1	16.0
Netherlands	7.7	11.7
United Kingdom	6.5	9.3
Japan	3.9[c]	6.3[b]
France	4.9	7.1
Norway	7.5	9.6
Belgium	8.6	10.6
Sweden	9.1	10.8
Finland	4.7[d]	6.2[d]
Italy	3.2	4.0
Canada	10.4	10.0
Australia	9.1[d e]	8.5[d f]
United States	12.8	10.7

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Yearbook of National Accounts Statistics;* Organisation for Economic Co-operation and Development, *General Statistical Bulletin*, Nos. 4 and 5, 1961.

[a] Countries are arranged in descending order of change in share of durables in consumer expenditure.
[b] 1959.
[c] 1955.
[d] Furniture, furnishings and household equipment only.
[e] 1950/51.
[f] 1960/61.

It is thus evident that there has been much in common between the industrial countries as regards their experience of technical progress and shifts in the structure of demand during the nineteen fifties, and these factors have had a parallel influence in shaping the pattern of growth of manufacturing industries. These

[8] From 1953 to 1959, the share of major consumer durables (mainly sewing machines, radio and television receivers, washing machines, vacuum cleaners, electric irons, dry shavers, floor polishers, refrigerators, bicycles, motor cycles and motor vehicles) increased from about one-seventh to one-fifth of the total value of engineering production in western European countries. *See* Organisation for European Economic Co-operation, *The Engineering Industries in Europe, 1960* (Paris, 1961).

Table 2-16. Annual Rates of Growth of Deliveries[a] of Selected Consumer Durables, 1954 to 1959

(Percentage)

Country[b]	Passenger cars	Television receiving sets	Electric washing machines	Household refrigerators
Austria	24.4	143.3[c]	44.3	11.0
Denmark	14.3	177.7[d]	...	15.9[e]
Netherlands	11.0	...	8.4	...
United Kingdom	9.1	18.1	7.9	28.5
Japan	40.2	146.7	35.0	100.4
France	19.9	35.1	14.8	24.3
Germany (Federal Republic)	21.8	66.7	15.0	31.4
Belgium	10.7	...	...	...
Sweden	17.3	...	...	...
Italy	21.1	...	44.3	55.3[e]

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Organisation for European Economic Co-operation, *The Engineering Industries in Europe, 1960;* and national sources.

[a] Based on data in terms of units.

[b] Countries are arranged in descending order of change in share of durables in consumer expenditure.

[c] 1956 to 1959.

[d] 1954 to 1958.

[e] 1954 to 1957.

forces have, moreover, acted on each other and tended to generate a cumulative impact. Thus, investment in the development of new technologies has also contributed in changing the pattern of demand. Improvements in methods of production and development of new products have reduced costs and stimulated demand. Expanded demand has given further opportunities for cost reduction through better utilization of capacity. Declines in relative prices have added to the attractiveness of the basic technical properties of chemicals as compared with other raw materials.

The principal differences between countries are, therefore, to be found largely in the extent to which the tremendous opportunities available have been seized upon and exploited, and this, in turn, has depended significantly upon the nature of government policies, particularly those affecting the over-all rate of growth.

Problems and policies

THE STRATEGY OF INDUSTRIAL DEVELOPMENT

Despite the much greater participation of governments of the industrial countries in the economic life of the community during the post-war period, there has been relatively little in the way of deliberate strategy for industrial development. The developed countries do not, in normal times, face the same sort of problem as the under-developed countries in seeking to change the whole structure of the economy, by raising considerably the share of industry in the total national product. The share of agriculture in total product has certainly continued to decline. But this was not the result of any deliberate government policy—nor was it always accompanied by a rise in the share of manufacturing. In fact, in the most advanced countries, the share of manufacturing industry in the total national output may have reached a peak or plateau, and as incomes go still higher there may be a shift to services. It is noteworthy that services represent a higher proportion of total national product in the United States than in the other industrial countries. The share of manufacturing employment in total employment has in fact declined in a number of countries, such as Belgium, Canada and the United Kingdom as well as the United States. It should, however, be noted that these declines have accompanied a levelling off in the over-all rate of growth in the countries concerned—it is not clear that such declines would necessarily have occurred had the rate of growth been maintained. Certainly in countries such as the Federal Republic of Germany, France and Italy the share of manufacturing in both total output and total employment has continued to rise, although in these countries an important factor has been the relative backwardness of the agricultural sector which has been able to release labour and other resources to industry on a substantial scale.

In any event, the developed countries have not been concerned to influence to any major degree the share of manufacturing in the total national product, but rather to maintain a general level of demand and rate of growth of the economy as a whole which would permit full employment and rising standards of living. Governments have therefore concerned themselves much more with specific or *ad hoc* problems arising in particular industrial sectors—such as problems of

the decline of particular industries or of the development of backward regions—than with any deliberate strategy for industrial development. Only in so far as general encouragements to industry through tax or other concessions have formed part of an over-all programme for maintaining economic stability and an adequate rate of growth could governments, in general, be said to have any particular policies with respect to industry as such.

During the early post-war period, of course, governments did act to promote the reconstruction of industry. At a time of over-all excess demand, governments used various devices to direct investment into those areas considered to be most important for economic recovery. Access to the capital market was controlled, permits to build were carefully regulated, and raw materials and intermediate products in short supply were allocated to priority end-uses, especially if they had to be imported. In France, under the first post-war plan for modernization and equipment, special emphasis was placed on the development of certain basic industries such as coal, electricity, road transport, iron and steel, cement and agricultural machinery. Although the industries selected and the methods employed in fostering them varied to some extent from country to country, most of the western European countries devoted special attention to the rehabilitation of the basic industries after the war.

In Japan, likewise, the Government played an important role during this period in allocating scarce resources for reconstruction. A system of priorities was established and a special Reconstruction Finance Bank was created with a view to financing investment in priority industries. In addition, the Government exercised direct control over the allocation of scarce materials essential to the development of priority industries; it is noteworthy that even when the direct controls were subsequently relaxed government influence continued in an indirect way. A number of government development corporations were created and in 1951 the Japan Development Bank was established. The industries ranking high in the government priority list were coal, steel, fertilizers, electricity and shipbuilding. In addition to credit facilities certain tax incentives were provided for specific industries.

Once the period of shortages and excess demand came to an end, however, governments progressively reduced the scope of their direct controls over the economy and no longer sought to influence the trend of industrial development to the same extent. This is not to say, of course, that government policies did not in effect exert considerable influence upon the development of industry. Particularly significant was the effect of defence expenditure, accounting for over 6 per cent of the national product in France and the United Kingdom, for example, and about 10 per cent in the United States. In the United States the industries stimulated most by defence expenditure have been those producing transport equipment—especially aircraft—instruments and related products, electrical machinery, and primary and fabricated metals. In the United Kingdom a similar concentration of defence purchases on transport equipment, instruments and machinery has also been evident.

One noteworthy feature of defence procurement has been the emphasis placed on quality and precision. The industries most affected by defence expenditure have therefore been heavily engaged in research and development in the quest for rapid technical progress in a continuously changing field. These industries have, in fact, absorbed a very high proportion of the entire research and development expenditure of the countries concerned. Rapid technological advance and far-reaching changes in product and design have therefore been particularly characteristic of the aircraft and electronic industries, as well as of other industries catering to the needs of space exploration.

Defence procurement has also involved heavy purchases for stockpiles. These purchases have largely involved raw materials, the impact on industry being limited primarily to metals. In the United States, stockpile demands led to a considerable expansion of metal producing capacity following the outbreak of hostilities in Korea. Long-term contracts were granted to producers for future delivery at guaranteed minimum prices. These arrangements accelerated the rate of growth of the industries concerned, notably the aluminium industry. Subsequent changes in the composition of defence demand for particular materials, or a levelling off in requirements, have led in some cases to the appearance of substantial excess capacity and the accumulation of excess inventories.

Apart from the impact of defence expenditure, governments have influenced the course of industrial development partly through activities in the public sector and partly through action taken in relation to the private sector.

In Italy, the existence of a substantial state interest in industry—an inheritance from the inter-war period—has made it possible for the Government to influence industrial growth to a greater degree than in other developed countries. For example, the substantial growth of the steel industry and of the use of natural gas was mainly the result of state initiative. Public enterprises have also played an important role in France, where government influence has been exerted mainly through the control of their investment plans, which have to be co-ordinated with the national modernization and equipment plan. Furthermore, as a sizable proportion of funds for investment for these enterprises has actually been derived from government sources, the influence of the Government has thereby been strengthened. Although public enterprises have also played a very important role in industry in

Austria and the Federal Republic of Germany, they enjoy a considerable degree of autonomy and have not implemented any specifically governmental policies.

It is through the private sector that most governments of the developed countries have exerted their main influence on the course of industrial expansion. Mention has already been made of the effect on industry of broad policies for growth and stability. In some countries, such as France, growth targets for various industries embodied in the national development plans appear to have had a significant impact upon the planning horizon of the industries themselves. This is not surprising since the setting of targets has not depended exclusively on government decisions but has come about after considerable consultation and discussion with private industry. Similar considerations apply to countries such as Finland, the Netherlands and Norway which, although they have not hitherto had comprehensive long-term development plans, have set targets for particular industries.

Private industry has also been affected by government policy with respect to taxes and subsidies. Most industrial countries have liberalized depreciation allowances, partly in recognition of the inadequacy of such allowances if based simply on the physical life of capital goods rather than on their economic life, and partly as a deliberate means of encouraging investment. These measures are often not applied uniformly to all industries. Thus, accelerated depreciation facilities have been accorded in Belgium and Norway to industries regarded as "productive", in the Federal Republic of Germany to basic industries, and in the United Kingdom to selected types of capital expenditure. In the United States, the recent liberalization of depreciation allowances has applied especially to the textile industry, while the proposed tax credit on investment expenditure is not equally applicable to public utilities.

Although direct subsidies to manufacturing industries have been limited to a few cases such as shipbuilding, various other kinds of financial aid to particular industries have been fairly common. In the Federal Republic of Germany and France, capital transfers for private investment have played an important role in selected industries. And, as will be shown later, various tax exemptions and low-interest loans have been granted to industries in developing regions and to depressed industries.

In Japan, owing to the predominant role of bank credit in financing industrial investment, government regulation of credit has had a far-reaching impact on individual industries, tending to favour those in priority categories, especially at times when monetary policy has been restrictive. Although monetary policy in most other countries has been less obviously selective, it should not be assumed that the impact has been uniform for all industries. Thus, in most countries governments have sought to influence the direction of credit to essential industries when the total volume of credit has been restricted.

Of considerable indirect importance for industry have been the policies adopted by a number of developed countries in recent years with a view to maintaining internal price stability and external balance. Some of these countries have become concerned in recent years about the tendency of money incomes to rise faster than productivity, involving persistent upward pressure on costs and prices. Governments have sought to reduce such pressures, especially in those cases where they have appeared to be the cause of adverse movements in the balance of payments. In so far as the upward trend in costs and prices is more marked in some countries than in others, there is a tendency for the balance of payments to be affected thereby, countries with high rates of increase in costs and prices tending to run deficits, and those with low rates of increase, surpluses.

The policies adopted by governments in dealing with this situation include direct attempts to influence the rate of increase of money incomes and prices, particularly by encouraging non-inflationary wage bargaining and by representing what they consider to be the public interest wherever questions affecting price stability may arise. In addition, however, governments have also sought to influence price developments indirectly by holding down the level of demand. In the pursuit of this objective, direct taxes have been increased only where balance of payments difficulties have been acute. But governments have often increased indirect taxes and curtailed their own expenditure, have imposed restrictions on construction, and have raised discount rates and limited bank advances and other forms of credit, notably hire-purchase.

These various policies have had two types of effect upon industry: a general impact upon industry as a whole, coupled with differential effects upon individual industries, depending upon their sensitivity to the particular government measures introduced.[9]

One effect of the global measures has been to slow down the rate of growth not only of total output but of productivity as well. In some cases, in fact, whatever anti-inflationary results have been gained by way of a slower rise in money incomes have been offset or more than offset by the damping effect on productivity, so that wage costs per unit of output have continued to rise almost as fast as before, and sometimes even faster. Moreover, the introduction of slack into the economy has tended to depress investment, thereby slowing down the rate of innovation and incorporation of new technical advances into the productive process. A decline in demand induced by government measures in a slowly growing economy means that industries already oper-

[9] For a more extensive examination of these questions, see *World Economic Survey, 1957* (Sales No.: 58.II.C.1), Introduction and part I.

ating with surplus capacity even at the highest levels of economic activity are bound to experience a drop in demand along with industries where capacity is insufficient. This may cause difficulties for both types of industry. As regards industries with surplus capacity, these are often the ones that have fallen behind in the technological race, and uncertainties resulting from restrictive governmental measures may deter them from undertaking the necessary research, development and new investment required for regaining their position in world markets. On the other hand, where capacity is inadequate at full employment, it may even be desirable for some increase in prices to take place so as to provide incentives for adding capacity and eliminating bottlenecks. If, however, industry is led, by recurrent government policies of restraint, to believe that wherever shortages arise or prices increase prompt action will be taken to eliminate any bottlenecks through the damping down of demand, inducements to enlarge capacity may be weakened so that the imbalance in capacity at high levels of employment tends to become chronic.

The impact of selective restraints on demand has, of course, been much clearer. Such restraints have been used particularly to discourage housing and the purchase of consumer durables. The industries producing consumer durables have been among the most dynamic groups during the post-war period, and selective action affecting these industries in countries with low growth rates naturally runs the risk of preventing them or deterring them from keeping pace with their competitors in other countries in the constant search for improved design and for new products, because of uncertainty regarding the future of home demand, which must provide the bulk of their market.

In many respects, therefore, the difference between the impact on industry of fiscal and monetary measures on the one hand and of other types of control on the other may be less significant in practice than would appear on the surface. However much the government seeks to avoid interference with the operation of market forces, any recurrent action it takes to curb demand, whether global or selective, is apt to have a considerable impact upon the long-term expectations and hence upon the plans of business concerns. Such action is also likely to discriminate between one industry and another, even when there is no conscious intention to do so. Above all, the creation of a climate of expectations in which industry always expects the most profitable period of a boom

Table 2-17. Indicators of Regional Disparities in Selected Countries

(Percentage)

Country, region and year	Regional share in country's total population	Per capita income (country average = 100)	Share of agricultural employment to total population (country average = 100)
Belgium-Luxembourg (1959)			
Luxembourg	2	72[a]	. .
Limbourg	6	73[a]	. . .
West Flanders	12	79[a]	. .
Finland (1956)			
Keski Pohjanmaa	5	63[b]	.
Pohjois Karjala	5	68[b]	.
Italy (1959)			
Southern	26	58[a]	136
Japan (1958)			
Northern	10	78	144[c]
United Kingdom (1960)			
Northern Ireland	3	. . .	259
Wales	5	. . .	. . .
Scotland	10	. . .	123
United States (1960)[d]			
Group I[e]	7	65	185
Group II[f]	7	71	145
Group III[g]	14	82	121

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from national sources.

[a] Data refer to gross domestic product.

[b] Data refer to personal income.

[c] Data refer to the year 1955.

[d] Income data refer to the year 1959.

[e] Group I comprises the following states: Kentucky, Tennessee, Alabama and Mississippi.

[f] Group II comprises the following states: Arkansas, Louisiana, Oklahoma and Texas.

[g] Group III comprises the following states: West Virginia, North Carolina, South Carolina and Georgia.

—namely the peak—to be damped down and held back even to the point at which full capacity operations are never allowed to develop is likely to prove so discouraging as to prevent industry from undertaking many of those forward-looking moves which are essential if it is to remain up to date and abreast of the most dynamic competition abroad. A one-sided search for price stability and balance of payments equilibrium may lead to neglect of the need for a more conscious evaluation of the requirements of industry and a more clearly articulated strategy for industrial growth.

PROBLEMS OF REGIONAL DEVELOPMENT

In the preceding sections problems of industrial development have been examined at a global level. A closer examination leads to a sectoral analysis. Problems of regional development are of particular interest because of their resemblance to international problems. Indeed the under-developed regions within an industrial society often possess many characteristics typical of under-developed countries. Table 2-17 demonstrates the relatively low level of income and low degree of industrialization in the poorer regions of a number of countries. In Italy, for example, the level of per capita income in the south amounted to less than six-tenths of the national average in a recent year, while the share of employment in agriculture in total employment was over 40 per cent in the south as compared with about 30 per cent for the whole country.

Problems of regional development form an integral part of the broader problem of national development; a comprehensive national development programme may include special provision for the requirements of particular regions. It is more common in practice, however, for national policies to be framed without explicit reference to regions, or alternatively, *ad hoc* plans for various regions may exist without being integrated into a national programme. The main course of industrialization in the developed countries in the past has been little affected by deliberate locational policies. As a result, problems of congestion in the urban centres as well as under-development in the outer regions have become a by-product of industrial development. It is true that, in contrast to the location of industries internationally, the free movement of resources within a country enables industries to be established where locational advantages are greatest, and labour can migrate to regions where employment can be found. The degree of disparity between regions within countries is, therefore, not nearly as great as that between nations, and the problems of imbalance are not as intractable. Yet the agglomeration of industries and the concentration of population in urban areas have tended to have a cumulative effect over the years. Whatever the initial locational advantages—in the proximity to coal mines or navigable rivers, for example—the existence of an industrial complex, the availability of an ample labour reserve and the various institutions found in an urban environment have acted as a powerful magnet to more industries and population. The process has hardly been arrested or reversed despite increasing diseconomies arising from over-crowding. Nor have the opportunities for deconcentration and relocation resulting from such factors as the development of more efficient means of communications and the spread of electric power been fully explored.

While the steady movement of population towards urban centres has eased the pressure on resources in the less developed regions, it has not led to the elimination of income differentials, as indicated in table 2-17. Evidently there are obstacles to the mass movement of population from one region to another on account of differences in customs and mores, lack of information on employment opportunities or high cost of change of residence. It should be borne in mind, of course, that where migration is substantial, it tends to deprive the region of the relatively young and enterprising people and to render future development of the locality more difficult.

These considerations have prompted countries to attempt to overcome problems of regional imbalance through deliberate regional planning. An examination of post-war trends points to a gradual emergence of regional policies in a number of countries. Thus, in Italy, although the under-development of the south has occupied the attention of policy makers for at least a century, no concerted drive for the industrialization of that region occurred prior to the formulation of the national development programme in the post-war years. In France, as national development plans have progressed, attention has been directed to particular regions, and various regional plans have been drawn up and coordinated. In most other countries special efforts have also been made to encourage regional development, although the scope has generally been more modest than in France or Italy.

In the Netherlands, the creation in 1949 of an Industrialization Commission which recommended to the Government the promotion of a better population distribution, laid the foundations of a regional development policy. A programme of regional industrialization in the north-east was promptly enacted so as to reduce structural unemployment there and relieve pressure on the congested areas in the west. Further investigations in other regions led to the selection of eight additional development areas for industrialization and reduction of structural unemployment. The substantial elimination of structural unemployment in more recent years has enabled the Government to pay less attention to depressed areas, although regional industrial development has continued to be a part of national policy.

In Norway, the regional plan drawn up in 1949 had the express purpose of assisting in the rehabilitation of war-devastated areas near the Arctic Circle; this was

broadened by further legislative action providing incentives for industrial investment in the north. In the United Kingdom, regional development policy has concentrated on depressed areas suffering from relatively high rates of unemployment. Various incentive measures have sought to encourage the establishment of new industries in these areas.

In Belgium, regional policy designed to combat the economic and social difficulties of certain areas was given legal effect by a special law, enacted in 1959. Fifteen areas were designated as development areas under the act on the basis of certain criteria such as unemployment, emigration and declining industries, and two out of the fifteen areas were selected as "pilot" regions for development.

In the countries with a federal structure, such as Canada and the United States, the problem of regional development has generally been dealt with at the state or provincial level. Many states have recognized the desirability of attracting industries and have provided special inducements for establishing them within their boundaries. Despite the haphazard nature of these measures and the mutually offsetting effects of competitive inducements, the net impact on industries has probably been favourable.

The specific measures adopted in implementing regional development programmes have been roughly similar to those for the nation as a whole. They range from the provision of infrastructure to the supply of incentives to industrial development.

The building of infrastructure has generally been considered a prerequisite for the establishment of new industries. Adequate transport and communication facilities and power supplies are obviously essential to the operation of any modern industry. The lack of adequate social amenities, such as schools, hospitals and cultural and recreational centres is also a frequent obstacle to industrial development because entrepreneurs and skilled workers and their families tend to avoid backward areas with limited social and cultural opportunities. In this connexion, it is important to remember that industrialization of depressed areas, even those with surplus labour, often requires the movement of certain key personnel into the area from the outside. Government investment in infrastructure also has the advantage of being non-controversial because it is usually regarded as being within the traditional functions of the government and is not usually in competition with existing industries or capable of being replaced by imports from other regions. Consequently, investment decisions of this type can often be implemented quite quickly. It is equally clear, however, that the building of infrastructure *per se* is not the same thing as the establishment of new industry, and that it may not suffice to attract industry.

Special incentives for industries in particular regions have, therefore, been introduced even where primary emphasis has been on infrastructure. More often, however, chief reliance has been placed on incentive measures, since basic facilities are usually available in areas where the main problem is the decline of older industries. In some cases the very success of the incentive measures has, however, created new problems through the over-burdening of basic facilities, and the question may arise as to whether a co-ordinated programme from the beginning might not have been more economical in the long run.

Because of the interrelation of industries, the establishment of industries controlled by the public sector in a particular region may, apart from its direct effect, also be regarded as creating incentives for other industries. This approach has been taken in Italy and to a less extent in the United Kingdom. Some governments regulate the location of new industries; a striking example is the effort to discourage the establishment of new industrial plants in the Paris region which has already suffered from over-congestion. As a result, only 13 per cent of authorized industrial construction in 1961 was located in that region as compared with 35 per cent in 1954. In most other countries, although industrial construction is often regulated, it is largely for the purpose of business cycle control or because of local zoning restrictions.

The measures most commonly employed for encouraging industries in particular regions consist of various kinds of direct subsidy and tax incentive. In Italy, the South Italy Fund has provided finance for industries in the south, which have also benefited from numerous tax exemptions. In Norway, a separate development fund for the modernization and expansion of industry in the north has been set up. Special grants have been extended to industries established in the development areas in the United Kingdom.

In assessing various regional programmes it is important to note that the industrial development of backward regions by no means implies a disregard of locational advantages. It implies rather an exploration and development of the unrealized locational advantages of such regions. Furthermore, it is consistent with a considerable degree of cluster of industries within regions. Indeed, a most important principle in regional development is the establishment of centres or poles of development so that locational advantages are created rather than ignored. Detailed calculations have in fact shown that in given circumstances the establishment of industrial complexes can achieve greater cost advantages than that of single industries, although there is a limit beyond which further enlargement becomes less economical.

It is true that since regional programmes have often been concerned exclusively with the solution of a regional problem, the national interest may sometimes have been overlooked. In any case, decisions on regional programmes have not usually been adopted on the basis

of calculations of all benefits and costs involved. Current thinking is, therefore, moving in the direction of a more positive approach in the selection and preparation of regions for development so as to go beyond a mere amelioration of conditions in depressed areas. This is especially important in countries where labour is scarce and where pockets of unemployed labour need to be carefully channelled for constructive purposes rather than being treated merely as a claim upon relief.

Thus, regional development by no means implies industrialization of every region and locality; nor does regional balance aim at identical conditions in all regions. Nevertheless, a narrowing of regional disparities remains an important objective in regional policies.

In general, although low-income regions recorded important absolute advances during the nineteen fifties, there is no evidence of any marked change in the degree of regional disparity in countries where data are available. In the United States, for example, the dispersion of state per capita incomes appears to have narrowed only slightly during the nineteen fifties. In Italy, per capita income in the south appears if anything to have dropped further below the national average by the end of the nineteen fifties than at the beginning of the period, being 59 per cent of the average in 1951 and 57 per cent in 1959. However, in so far as investment in the south has gathered momentum in recent years, increasing from 13 per cent of the national total in 1951 to about 16 per cent in the mid-nineteen fifties and 20 per cent by 1960, the full impact on income may become more favourable to the south as these investments mature, provided, of course, that the present establishment of infrastructure is followed by substantial industrial development.

More generally, United States experience during the past century appears to suggest that conditions are likely to be most favourable for the narrowing of regional income disparities when the level of demand is high and labour is in short supply: it was in circumstances of this kind that the greatest improvements in regional income distribution in the United States seem to have occurred.

PROBLEMS OF DEPRESSED INDUSTRIES

The foregoing examination of regional development issues has already referred to the problem of depressed industries. The two types of problem are, of course, closely related where depressed industries are concentrated in particular regions.

In a broad sense, agriculture may be viewed as a depressed industry on account of the low incomes and relatively slow rate of growth characteristic of this sector of the economy; the whole agricultural region may in fact be regarded as a problem area. In all the industrial countries listed in table 2-4, the share of agriculture in total output declined considerably from 1950 to 1960 while the absolute decline in agricultural employment amounted to about 20 per cent or more in most of the industrial countries.[10]

It is true that in contrast to its often stagnant condition in under-developed countries, agriculture has benefited from rapid technological development in the industrial countries. The rate of growth of productivity in agriculture was in fact often faster than that in industry during the nineteen fifties.[11] But it is equally true that agricultural incomes are still relatively low and a substantial portion of income is usually derived from direct government payments or indirect protective measures.[12]

Within the non-agricultural sector the problem of depressed industries has been the exception rather than the rule during the nineteen fifties. In any case, resources released by the less dynamic industries have generally been quickly absorbed in other sectors where growth has been rapid. The problem of depressed industries has therefore assumed serious proportions only in those relatively slow-growing economies where alternative employment opportunities were not easy to come by.

Among the relatively depressed industries in the nineteen fifties, coal and textiles stand out. For both of these industries relative decline has been a fairly common phenomenon for a large number of industrial countries, and national and international policies in dealing with the problems have had far-reaching implications.

In the case of coal, demand has been adversely affected by a persistent shift to other sources of energy, notably liquid fuel and natural gas, and by an extraordinary increase in the output of energy per ton of coal. In western Europe an additional factor has been the availability of cheap coal from the United States. Table 2-18 illustrates the declining importance of coal in the total supply of energy. Discriminatory taxation has resulted in coal supplying a much higher proportion of energy needs in western Europe than in the United States; this in turn may mean, however, that the declining trend in coal has a correspondingly greater distance to go in western Europe. Investment targets for the coal industry, especially those of the European Coal and Steel Community and the National Coal Board of the United Kingdom, have proved to be excessively high and have had to be revised downwards. On the other hand, problems of adjustment in the coal regions and by the coal miners have certainly influenced the drawing up of these targets. In the European Coal and Steel Community special provision has been made for the sharing among member countries of the burden of adjustment involved in shutting down the less efficient mines, especially in Belgium; but since alternative employment opportunities

[10] *See* Food and Agriculture Organization of the United Nations, *Towards a Capital Intensive Agriculture, Fourth Report on Output, Expenses and Income of Agriculture in European Countries*, part 1 (Sales No.: 61.II.E/Mim.13), page 38.

[11] *Ibid.*, page 44.

[12] *See* United Nations, *World Economic Survey, 1959*, pages 55 and 56.

Table 2-18. Distribution of Energy Consumption, by Source

(Percentage of total)

Country and year	Solid fuels[a]	Liquid fuels	Natural gas	Hydro-electricity
Industrial countries[b]				
1937	70	16	7	7
1950	53	25	13	9
1960	39	37	21	3
France				
1937	83	8	—	9
1950	72	16	1	11
1960	63	29	3	5
United Kingdom				
1937	94	6	—	—
1950	91	9	—	—
1960	76	24	—	—
United States				
1937	57	25	14	4
1950	40	34	21	5
1960	25	41	33	1

Source: Statistical Office of the United Nations, *World Energy Supplies*, Statistical Papers, Series J.

[a] Coal, lignite and peat.
[b] Sixteen industrial countries listed in table 2-1.

in Belgium were often limited, drastic measures were precluded.

The textile industry is a typical example of the consequences of changing patterns of industrial development. Historically, the industry was a forerunner of industrialization in the developed countries and it has also been a favoured area of development for the latecomers to industrialization. As a result of the latter tendency, the share of the developed countries in world textile production has been declining. Table 2-19 shows that for fifteen industrial countries combined the share of world output fell from 74 per cent in 1950 to 71 per cent in 1960; if Japan is excluded the decline was from 72 per cent to 64 per cent. The trend is less marked from 1938 to 1960. The relatively stable share for the fifteen countries as a whole over this period hides a significant decline in the share for the group excluding Japan and the United States. The share of the latter country was still considerably larger in 1960 than in 1938 despite a substantial decline in the nineteen fifties. This rise in the United States share was partly the result of the relatively severe recession in 1938. The decline in the United Kingdom share is striking, and was accompanied by an even more marked drop in the share of exports: the share of many other industrial countries was actually higher in 1960 than in 1950 or 1938, as may be seen in table 2-20.

The textile case further illustrates the burden imposed by a low over-all rate of growth on the depressed industries on the one hand, and the necessity for adjustment of the industrial pattern in the process of development on the other. The difficulties of the textile industry resulting from excess capacity and obsolescence of equipment in the United Kingdom were dealt with by the Cotton Industry Act of 1959. Under the Act, provision was made for compensation to the industry according to

Table 2-19. Share of Industrial Countries in World Textile Output, 1938, 1950 and 1960[a]

(Percentage)

Country[b]	1938	1950	1960
United States	20.7	33.7	28.6
United Kingdom	14.2	11.7	8.2
Germany (Federal Republic)	9.1	7.6	10.1
France	8.4	6.7	6.0
Italy	3.8	3.1	3.3
Belgium	2.1	2.3	1.9
Japan	7.9	2.3	6.7
Canada	1.3	2.1	1.4
Netherlands	1.2	1.2	1.3
Australia	0.9	1.0	1.1
Sweden	0.8	0.9	0.7
Denmark	0.4	0.5	0.4
Finland	0.3	0.4	0.4
Norway	0.2	0.3	0.3
New Zealand	0.1	0.1	0.1
Fifteen countries combined	71.4	73.9	70.5
Above countries excluding Japan and the United States	42.8	37.9	35.2

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from United Nations, *Statistical Yearbook, 1960* (Sales No.: 61.XVII.1) and Statistical Office of the United Nations, *Monthly Bulletin of Statistics;* and data supplied by the Statistical Office of the United Nations.

[a] In terms of value added at 1953 prices.
[b] Countries are arranged in descending order of the share in 1950.

Table 2-20. Share of Selected Industrial Countries in World Textile Exports, 1938, 1950 and 1960[a]

(Percentage)

Country[b]	1938	1950	1960
United Kingdom	26.6	26.4	12.3
France	6.3	12.8	10.9
United States	3.6	11.5	8.9
Japan	19.7	8.2	17.1
Italy	6.9	7.1	9.0
Belgium	4.1	6.0	6.6
Netherlands	1.9	2.6	5.1
Germany (Federal Republic)	8.3[c]	2.2	6.0

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from United Nations, *Yearbook of International Trade Statistics, 1950* (Sales No.: 51.XVII.2) and *Commodity Trade Statistics, 1960*, Statistical Papers, Series D.

[a] World includes all countries shown in United Nations, *Yearbook of International Trade Statistics, 1950*. Textiles represent SITC divisions 65 and 84.

[b] Countries are arranged in descending order of the share in 1950.

[c] Figure refers to the year 1936 and to the whole of pre-war Germany.

the number of machines eliminated and for modernizing the industry by making grants for re-equipment. As a precondition for giving effect to the Act, certain minima for the elimination of spindles and looms had to be reached. These minima were quickly exceeded so that total registrations for elimination of excess capacity amounted to about 50 per cent of the installed capacity of spindles, 36 per cent of doubling spindles and 40 per cent of looms. Two-thirds of the value of the excess capacity thus eliminated was compensated by payment to the industry by government funds while the rest of the compensation was met by the firms remaining in the industry. The labour displaced as a result of scrapping was compensated by the industry. The Act also provided that one-fourth of the cost of modernizing existing machinery or buying new machinery during the first five years of the operation of the Act should be met from government funds.

Some 36,000 workers were displaced as a result of these measures but a year later (April 1960) the total textile labour force was smaller by 17,500 workers,[13] while only 2,000 were registered as unemployed. This gives further support to the conclusion that, even in a relatively slow-growing country, the problem of adjustment for labour will not assume serious proportions so long as general full employment is maintained.

There is, however, the problem of obsolescence of skills for particular groups of workers even when they are successfully reabsorbed into the production process. Furthermore, the decline of certain industries, especially when exposed to severe foreign competition, cannot always be reversed by modernization programmes alone.

[13] The average annual decline of employment in the textile industry in the nineteen fifties amounted to about 10,000.

International action has also been taken to deal with the problem of adjustment in the textile industry. The first step taken by the chief importers—the United Kingdom and the United States—was to persuade the exporters to limit the quantity of exports of particular products. In the United Kingdom, imports of cotton textiles were equivalent to about 40 per cent of domestic production and those from the Commonwealth alone, which enjoy preferential treatment, amounted to over one-fourth of production. The gravitation of shipments towards the United Kingdom market was intensified by quota restrictions and high tariffs in most other industrial countries and led to the United Kingdom itself requesting the imposition of restrictions by Commonwealth exporters. In the United States, imports of cotton textiles rose rapidly during the nineteen fifties from a negligible proportion of domestic production at the beginning of the period to about 7 per cent in 1960.

The agreements providing for quantitative restrictions on exports of textiles to the United Kingdom and the United States went counter to the general trend towards liberalizing world trade and the burden fell heavily on the under-developed countries, especially on the more efficient producers whose potential capacity for export was inadequately reflected in the past records of exports which served as a base for the determination of quotas.

An international arrangement under the auspices of GATT was reached early in 1962 so as to provide a longer-term solution to the cotton textile industry's problems. The agreement provides for the gradual relaxation, with a view to complete elimination, of any restrictive measures that GATT member countries may have imposed against cotton textile imports from other member countries and for some expansion of the markets for such products subject to certain limits. On the other hand, the agreement also contains an escape clause in the case of a contraction of domestic textile industry resulting from cotton textile imports, particularly from under-developed countries and Japan, and it provides for consultations between an importing and an exporting member country on restrictions of exports in the event of a disruption or threat of disruption in the market of the importing member country.

Thus, the new agreement has recognized in principle the importance of expanding trade in textiles and of increasing export opportunities for the under-developed countries in the markets of the industrial countries. But the approach to the objective is an extremely cautious one and the explicit licensing of restraint of trade on account of market disruption raises a fundamental question of principle. Furthermore, the singling out of under-developed suppliers to bear the major burden of restraint raises serious issues regarding the whole pattern of industrial development in developed and under-developed countries alike, and adds to the uncertainties that already exist regarding the outlook for export earnings of under-developed countries.

PROBLEMS OF TECHNOLOGICAL UNEMPLOYMENT

The displacement of workers by machines has long presented problems for the adaptation of society to the process of industrial development. Before the long-run effects of machines in creating employment had been convincingly demonstrated, angry protests against their use had dotted the pages of history. As technological progress has become generally accepted as the backbone of modern industrial society and indeed as the source of greater well-being, the fear of mechanization has been largely overcome.

Yet the rapidity of technical progress, aided by important breakthroughs in scientific research, and the spread of automation throughout the industrial structure in recent years have created new concern about the problems of technological unemployment. To be sure, there is no question of relapsing into the state of fear characteristic of the early periods of industrialization, nor has it been forgotten that the basis for higher productivity and higher wages must lie in the greater use of machines; but the argument that in the long run more employment will be created is hardly reassuring to those directly affected.

In attempting to measure the extent of the problem, the first difficulty is the lack of quantitative information on technological unemployment. There is, of course, no shortage of information on the power of specific processes through which man may be replaced by machines. It has been estimated, for example, that in the United States the number of workers required for the production of 100,000 tons of steel has been reduced from 540,000 in 1950 to 390,000 in 1960, a labour displacement of about 28 per cent. As early as the mid-nineteen fifties it was estimated that in the oil industry only twelve workers would be required to run an average refinery which used to employ 800 workers in the days before automation. In the automobile industry automation makes it possible for 200 workers to produce 4,000 assembled units per day while the same amount of output would require 1,800 workers using conventional methods. Such examples can easily be extended to many industries and processes.

These calculations do not indicate the degree of actual displacement of workers from particular processes or industries. For account has not been taken of the employment-creating effect of greater productivity and new products, not only on the sectors directly concerned but also on the rest of the economy. Moreover, even where a technical advance in a particular sector results in a net decline in employment in that sector, whether or not the displaced workers are absorbed elsewhere depends on the general level of demand for labour.

An assessment of the problem of technological unemployment must, therefore, take into account the general problem of unemployment. Despite difficulties in identifying various causes of unemployment, one basic fact emerges clearly from the experience of the industrial countries, namely, that periods of rapid increase in productivity have generally been accompanied by low or declining rates of unemployment. This general relation holds true even at the level of individual industries; in other words, those industries with high rates of increase in productivity have on the whole also provided for more opportunities for employment. If increases in productivity are indicative of technical progress, the above strongly suggests that technological advances are likely to create more opportunities for employment than they destroy and that technological unemployment is likely to be serious only in countries with general unemployment.

The apparent tendency for unemployment to rise in the United States in recent years is a case in point. It is true that the rate of civilian unemployment increased in the successive peak years of the business cycle from 2.9 per cent in 1953 to 4.3 in 1957 and 5.3 in 1960. But the main reason must surely rest with the inadequate rate of over-all growth, since productivity advances in successive years tended to slow down rather than accelerate.

Whatever the effects of technical progress on the total level of employment, the problem of special adjustment for particular groups remains. It cannot be denied that certain skills may be rendered obsolete through the introduction of new technologies. Moreover, to the extent that unskilled workers are vulnerable to widespread use of automated processes, the incidence of unemployment may fall especially heavily on those who have in any case experienced a higher rate of unemployment than the average.[14] These problems are by and large similar to those created by depressed areas or industries. Here again, there is a growing tendency to deal with the problem of technological unemployment not simply as a matter of social responsibility but as an aid in stimulating growth. The emphasis has been placed on retraining and the creation of new skills. In the United States, for example, a programme has been instituted that would ultimately involve the retraining of 200,000 workers annually for skilled occupations. Furthermore, steps should be taken to increase mobility from one skill or one occupation to another. Thus, it has been suggested that operatives displaced by a new technology may be absorbed by clerical or other "white collar" employment, and similar upgradings should be possible in other fields with a certain amount of retraining. It must be repeated, however, that no amount of retraining or upgrading can solve the problem of unemployment if there are inadequate general employment opportunities because of a low level of aggregate demand.

[14] In the United States the unemployment rates for various occupational groups in 1960 were estimated as follows: unskilled labourers, 12.5 per cent; craftsmen, 5.3 per cent; service workers, 6.0 per cent; sales personnel, 3.7 per cent; clerical workers, 3.8 per cent.

IMPLICATIONS OF THE COMMON MARKET FOR INDUSTRIAL DEVELOPMENT

While problems of adjustment inevitably emerge in the normal course of industrial development and technological change, those arising from the formation of the European Economic Community stand out as a consequence of a bold experiment. The ultimate elimination of all barriers to trade within the Community represents a departure from traditional approaches to trade policy based on purely national considerations; in so far as this results in the opening up of domestic markets to foreign competition, even though that competition is largely limited to the member countries, important effects on the pattern of industrial development are to be expected. Moreover, the need for adjustment and adaptation is not confined to the member countries alone, since the industries of non-member countries may also be put to a new test in being confronted with the common external tariff of the integrated Community.

It is true that the European Economic Community, which came into force in 1958, is as yet too young to have exerted its full influence. The first 10 per cent reduction in industrial tariffs was made at the beginning of 1959 and was extended to member countries of GATT. Subsequent reductions up to the beginning of 1962 have brought the level of the internal tariff for industrial goods down by a further 30 per cent as compared with 1957, prior to the establishment of the Common Market. The pace at which tariffs have been reduced has thus exceeded that envisaged in the Rome Treaty.[15]

In assessing the possible impact on the manufacturing sector within the Common Market it should be remembered that there is a high degree of interdependence within the Community as indicated by the high proportion of imports to domestic output and the heavy reliance on intra-Community trade. For the manufacturing sector, imports from the Community range from about one-tenth of domestic output in the larger member countries, to two-fifths or more in the smaller countries, while table 2-21 reveals that over one-half of total manufacturing imports of the Community originates from the Community itself. Furthermore, the impact of the Community is likely to broaden since more industrial countries have either applied for full membership, sought association or taken steps for drastic revision of their trade policies in face of the challenge.

While the final impact of the Community must await further development, certain broad contours have already begun to emerge. Especially noteworthy is the apparent lack of any great difficulties in industrial adjustment within the Community. One reason why the problem of adjustment appears to be not nearly as serious as some had feared is that the pattern of specialization of industries unaffected by trade barriers does not necessarily follow a simplified model of comparative advantage in which each country concentrates exclusively on the branch of industry most suited to it. To begin with, there is always considerable uncertainty as to the true locus of comparative advantage, since this is greatly influenced by the interaction of market forces and historical accidents. It is, therefore, neither rigidly determined by endowment of natural resources nor immutably fixed by technological relations. To the extent that differential advantages do exist in a particular area at any given time, they often apply to individual products rather than to broad categories of industry. Thus, there is a place for the engineering industry in all industrial countries, even though a particular type of machinery or transport equipment may be the speciality of certain countries.

It is, therefore, not surprising that the removal or reduction of trade barriers does not in general lead to the wholesale destruction of industries. In fact there

[15] For the Federal Republic of Germany, since its duties on most industrial products were voluntarily reduced by 25 per cent in 1957, in addition to a reduction of about 25 per cent in 1956, its tariffs were not reduced in the first two rounds of EEC reductions.

Table 2-21. Share of Imports from European Economic Community in Total Imports[a] of Manufactures[b] in 1960

(Percentage)

Country	*Total manufactures*	*Chemicals*	*Machinery and transport equipment*	*Other manufactures*
Netherlands	67	57	62	74
Belgium-Luxembourg	59	65	66	52
France	53	43	45	60
Italy	48	45	52	47
Germany (Federal Republic)	43	33	41	45
EEC countries combined	53	47	53	54

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from the Statistical Office of the United Nations, *Monthly Bulletin of Statistics* and *Commodity Trade Statistics*.

[a] Excluding imports from centrally planned economies.

[b] The headings correspond to SITC sections: total manufactures, 5 to 8; chemicals, 5; machinery and transport equipment, 7; other manufactures, 6 and 8.

has as yet been scarcely any industry that has been seriously disrupted by the easing of trade restrictions. Adjustment has, moreover, been facilitated by a number of factors. Most important has been the rapid overall rate of industrial growth. Except in the few cases singled out for discussion earlier, every major branch of industry has shared in the process of expansion; the pertinent issue for particular industries has, therefore, been how fast the pace of expansion should be rather than whether to expand or to contract. The ability of a fast-growing economy to absorb the shock of drastic tariff reductions had in fact already been amply demonstrated by the experience of the Federal Republic of Germany prior to the establishment of the Community. In the years 1956 and 1957 its duties on industrial products were lowered by about one-half. Despite a marked increase in imports, the continued rise in domestic and external demand was sufficient to maintain the rising trend of industrial production.[16] The compensatory effect of exports would, of course, have been even greater if simultaneous reductions in tariffs had been made by the Federal Republic's trade partners as is now taking place within the Community.

Even where particular firms are seriously affected by the reduction of trade barriers, the process of adjustment may be little different from that occasioned by normal shifts in demand such as are taken for granted within each country as the result of fluctuations in business activity or changes in consumer tastes. Moreover, many firms have adopted deliberate policies of product diversification, so that one product can frequently compensate for another. Thus, even when the output of certain items has to be severely curtailed, the adjustment may merely involve a revision of production schedules or the transfer of resources from one department to another without inflicting mortal damage on the firm. To the extent that firms of small size form satellites of large firms for the supply of particular semi-finished products or parts, the problem of adjustment in their particular case may also be eased under the aegis of the larger firms. The need for special measures to facilitate social adjustment has been recognized by the Community. The creation of a Social Fund for the purpose of resettling and retraining workers is especially noteworthy because it goes beyond the responsibilities of the individual members, and shares the burden within the Community. The same principle had been adopted earlier by the European Coal and Steel Community in its programmes for adjustment.

While major shifts in the location of industry have not taken place, and are not expected, as a result of the implementation of the Rome Treaty, important changes are occurring in industrial organization. The progressive development of a larger unified market has prompted an intensive wave of industrial mergers and agreements. Here again, it is too early to evaluate the significance of these developments, especially since the policy of the Community with respect to market domination and cartel agreements has yet to be applied in practice. All that can be said at this stage is that the role of the small family firm in the more backward sectors of western European industry appears to be declining under the pressure of the current strong trend towards industrial concentration.

The degree of preference for trade within the Community will ultimately reach the level of the common external tariff. Prior to the 20 per cent tariff reductions in a large number of items agreed to early in 1962, it was estimated that the average rate of duty—weighted by the value of imports into the Community in 1958—would amount to 7.4 per cent, but that for equipment and other industrial goods the average rate of duty would be 13.6 and 17.2 per cent, respectively.[17] Although these rates, as subsequently reduced, are not unduly high compared with those in other countries, notably the United Kingdom and the United States, the exports of non-member countries to the Community will, of course, be faced with a new competitive disadvantage as compared with exports of members.

The prospect of greater difficulty in exporting to the Community has posed a challenge to the policy of other industrial countries. For some this challenge is much more important than for others.

The ratio of exports to output in manufactures ranges from less than 10 per cent in the United States to over 40 per cent in such countries as Norway; and the share of exports to the Community ranges from 43 per cent of the total export market for Austria to only 2 per cent for Australia. If the application for EEC membership by the United Kingdom and others should be accepted, the effect on non-member countries would be intensified as is evident from table 2-22.

The response to the challenge of the Community has been chiefly along two lines. Those countries in a position to do so have sought full membership or association; on the other hand, attempts have been made to negotiate mutual reductions of tariffs. Both approaches often imply important breaks from traditional policy. Full membership of the United Kingdom in the Community, for example, would affect traditional Commonwealth relationships. At the same time the United States Government considers that worthwhile negotiations aimed at lowering the Community's common external tariff would have to take the form of across-the-board bargaining instead of the item-by-item approach adopted in the past, which has become less and less effective for bringing about further reductions in trade barriers.

[16] J. Wemelsfelder, "The Short-term Effect of the Lowering of Import Duties in Germany", *Economic Journal* (London), vol. LXX, March 1960, pages 94 to 104.

[17] Secretariat of the Commission of the European Economic Community, *Bulletin of the European Economic Community*, No. 4 (Brussels, 1960), pages 33 to 34.

Table 2-22. Share of Exports to the European Economic Community and the United Kingdom in Total Exports[a] of Manufactures[b] in Selected Countries in 1960

(Percentage)

Exporting country	Total manufactures to		Chemicals to		Machinery and transport equipment to		Other manufactures to	
	EEC	United Kingdom	EEC	United Kingdom	EEC	United Kingdom	EEC	United Kingdom
Austria	48	4	30	5	38	3	52	4
Switzerland	40	6	40	5	44	7	38	6
Norway	24	20	8	14	18	6	29	25
Sweden	24	9	29	14	17	5	31	14
Denmark	23	5	20	5	22	5	24	6
United States[c]	15	6	23	7	13	5	16	10
United Kingdom	14	—	18	—	13	—	15	—
New Zealand	9	15	19	27	—	2	—	3
Canada	7	16	4	13	6	4	7	18
Japan	3	1	10	2	1	1	3	1
Australia	2	17	1	5	1	6	2	23

Source: See table 2-21.

[a] Excluding exports to centrally planned economies.

[b] The headings correspond to the following SITC sections: total manufactures, 5 to 8; chemicals, 5; machinery and transport equipment, 7; other manufactures, 6 and 8.

[c] Excluding special category exports.

Conclusion

The nineteen fifties witnessed a generally rapid expansion of industrial output in the developed countries. The annual rate of growth of manufacturing production averaged 5 per cent during the period for the group as a whole. This rate compares favourably with that reached in any previous period of rapid industrialization. Moreover, industrial expansion in recent years has been more widely diffused among the developed countries than in the past.

Expansion has also been more widely spread among industries. It is true that rates of growth of various industries differed, so that the structure of industry continued to change. Yet what was striking was the broad participation of most of the industrial groups. Only a relatively few branches suffered from stagnation or absolute decline. What was even more noteworthy was the uniformity of the pattern of expansion of various industries in countries experiencing very different rates of over-all growth. The list of the relatively fast and slow-growing industries in different countries is surprisingly similar. This means that the countries with high rates of growth benefited from generally fast expansion in all industries rather than from any unusual performance in particular industries; even in the relatively stagnant industries absolute rates of growth were usually higher than those prevailing in the countries with low rates of growth.

This suggests strongly that while the pattern of industrial development generally conformed to the growth of demand, the single most important limitation on industrial growth in the slow-growing countries was the inadequacy of aggregate demand. Among the components of demand, investment and exports stood out as the dynamic elements, and their contribution to the growth of industrial output was far more important than their share in total output. At the same time the shift in patterns of consumption towards durables, especially in the countries where the levels of incomes were still relatively low but were rising at a rapid pace, provided added impetus to the growth of industries. All these should not, however, be regarded as entirely independent factors. They were strongly influenced by policies helping to promote over-all growth and hence investment, as well as by measures contributing to the competitiveness of exports (including exchange rate policies) and to the changes in consumption habits.

Conversely, where governments felt compelled for one reason or another to damp down the rate of growth, they tended to induce a certain softness in the economy. This was manifested in a tendency for the margin between output and productive capacity to rise beyond the point considered desirable by manufacturers. This in turn reacted upon the rate of investment and hence upon the rate of absorption of new technology, both of which had an adverse effect upon the growth and adaptability of industry and upon the capacity to meet competition in export markets.

An important policy conclusion emerges from the above consideration. While the strategy of industrial development for the relatively under-developed countries, including those industrial countries at relatively early stages of development, may very well concentrate on a deliberate shift in the industrial structure, or in-

dustrialization in the narrow sense of the word, the major concern for the developed countries must be for global expansion. The latter goal is in fact a relatively straightforward one and is, of course, made possible by the plasticity of the industrial structure of an advanced industrial economy.

This does not mean that the play of market forces will automatically solve all problems of adjustment for the regions, industries or population groups which have either been neglected in the general stream of progress or injured by it. However, the ease with which adjustments may be made is itself dependent on the rate of growth. Difficulties of adjustment are apt to be relatively minor when the various sectors are moving upward, to a greater or less extent, and are not suffering from marked absolute declines; and even where such declines do occur, the process of adjustment is facilitated by the expansion of other sectors.

The key to the problem of adjustment thus lies in the fundamental dynamism of the economy. Moreover, policies for adjustment may be considered as an integral part of a general programme for fostering development rather than as a palliative. New centres of regional development may be regarded not simply as a relief measure in depressed areas but as a positive contribution to the industrial complex of the nation. Aid to depressed industries may be most effective when it contributes to the process of modernization and rationalization in these industries. Measures on behalf of the unemployed should not stop at compensation for loss of income but should aim to provide new skills through retraining.

The growth of the European Economic Community further illustrates the adaptability of industry in the developed countries to change. Relatively little disturbance has thus far been apparent in the economies of the member countries as a result of the mutual reductions in trade barriers that have taken place. The most important changes have been not so much in the location of industry as in its organization, particularly as reflected in the growing degree of industrial concentration. In this connexion the EEC Commission has pointed out in its *Third General Report on the Activities of the Community* that it would be contrary to the objectives of the Rome Treaty "if control of the market in the main industrial sectors were in the hands of cartels or of a very small number of enterprises. The Commission will implement as soon as possible a common policy on understandings and 'dominant positions', so that the difficulties which will inevitably accompany the integration of the economy shall not provide a pretext for abandoning healthy and effective competition."[18]

The readiness of the industrial countries to undertake the adjustments resulting from a mutual lowering of trade barriers offers hope that the last word has not yet been said on the problem of controls on imports of manufactures from the under-developed countries. Progress towards industrialization in these countries remains slow, and their shares of world industrial output and world trade in manufactures are still exceedingly small. Increases in their exports of manufactures to the industrial countries could scarcely involve major difficulties for the latter, especially since the resulting export earnings would almost certainly be spent on additional imports of machinery or other advanced manufactures from the industrial countries. What is involved, therefore, is not so much a net increase in imports of manufactures by the industrial countries as a willingness to exchange one type of manufacture for another. It is difficult to exaggerate the importance of this issue for the under-developed countries—not merely in terms of the potential expansion of their export earnings but also in terms of access to large markets, providing opportunities for more efficient, lower cost operation. The experience of the nineteen fifties suggests that the problems of adjustment involved in a more liberal attitude in the industrial countries to imports of manufactures from under-developed countries are likely to be small, and easily overcome in a general context of economic growth.

[18] Op. cit., page 23.

Chapter 3

INDUSTRIAL DEVELOPMENT IN THE CENTRALLY PLANNED ECONOMIES

Industrialization and structural changes in national income

During the nineteen fifties all the centrally planned economies, regardless of differences in the stage of their industrial development, in their per capita income level and their resource endowment, sought in their drive to accelerate the rate of economic growth to expand industrial production at rates considerably exceeding that of national product. This objective found its expression not only in high rates of investment but also in the concentration of investment in industry, which absorbed from 40 to 50 per cent of all fixed investment during the decade.[1]

Its results are evident in the profound shift in the composition of output in favour of industry in all the centrally planned economies, shown in table 3-1. These shifts were more pronounced in the less developed than in the more developed countries, thus resulting in a considerable reduction of the diversity of structure within the group.

Between 1950 and 1959 industrial production in the centrally planned economies increased at an average rate of 13 per cent per annum.[2] While an exact comparison of this experience with that of other areas is not possible because of differences in methods of calculation and of statistical coverage, there is little doubt that the rate of industrial development in the centrally planned economies ranked among the highest achieved anywhere.

In general, industrial production in the industrially less advanced countries tended to expand at relatively higher rates than in the more advanced ones. As may be seen from table 3-2, mainland China, Bulgaria and Romania (and through most of the period, Yugoslavia) expanded industrial output at higher rates than such countries as Czechoslovakia and Eastern Germany.

With the exception of the Soviet Union and Yugoslavia all of the countries attained the highest rate of industrial expansion in the initial stage of their industrialization drive, in the years 1950 to 1953. This was followed by a marked deceleration in the period 1953-1957 and a somewhat quicker pace of development in the last three years of the decade. The causes of this sequence of events have been analysed in a previous issue of the *World Economic Survey*.[3] In the context of the present study it will suffice to point out that the high investment ratios in 1950-1953, together with the shift of resources toward armaments, resulted in shortages and imbalances. This made necessary a decrease in the rate of investment in the subsequent period, and a shift in the allocation of investment in favour of agriculture, housing and other non-industrial uses. Beginning with 1958, an intensification of industrialization policies was once again in evidence in most countries. However, except for mainland China and Bulgaria, the rates of increase achieved during 1958-1960 were substantially smaller than in 1950-1953.[4]

Construction grew in most cases at rates similar to that achieved by industry but the relative rates of growth of transportation were much more diversified. The rates of growth of all three sectors commonly exceeded the rate of growth of total output. Construction and transportation differed from industry, however, in that there was little systematic relationship between the rates of expansion and the stage of industrial development that had been reached by different countries.

The rate of expansion of the trade sector tended to be only slightly lower than that of total output. In agriculture, however, the growth rate was considerably below that of aggregate output and it tended to be somewhat lower in the more developed than in the less developed countries, although the relationship with the stage of industrial development was less pronounced than in the case of industry.

The high degree of inter-country variability in the rate of expansion of agricultural output inevitably had

[1] For a study of investment and economic growth in the centrally planned economies, see *World Economic Survey, 1959* (Sales No.: 60.II.C.1), chapter 3; for a study of the sources of financing this investment, see *World Economic Survey, 1960* (Sales No.: 61.II.C.1), chapter 3. A more detailed study of the determinant of economic growth in the centrally planned economies of Europe is to be found in United Nations, *Economic Survey of Europe in 1961* (Sales No.: 62.II.E.1).

[2] Based on the weighted average of net outputs for all centrally planned economies analysed in this chapter. Unlike the data on gross industrial output, the indices of net output used in this section reflect only net value added; they do not therefore involve duplication through the inclusion of intermediate products. None the less, they may have been influenced by the incorporation during 1950 to 1959 of activities not previously classified as industrial. The indices may also have been affected by changes in relative prices, since a number of the series were calculated by linking indices expressed in prices of different years. Furthermore, inter-country differences in the sectoral price ratios in the base year might also affect comparative rates of growth.

[3] See *World Economic Survey, 1959*, chapter 3.

[4] Another exception was Yugoslavia, where, however, the rate of expansion was considerably inhibited in 1950 to 1953 owing to difficulties created by the severance of trade relations with other centrally planned economies.

Table 3-1. Distribution of National Income, by Sector, 1950 and 1959[a]

(Percentage)

Country[b] and year	Industry	Agriculture	Construction	Transport and communication	Trade and other
Czechoslovakia					
1950	55.8	27.7	5.4	1.9	9.3
1959	65.0	14.3	9.7	3.0	8.0
Eastern Germany					
1950	55.7	20.4	5.2	6.4	12.3
1959	67.6	12.3	6.2	5.0	9.0
USSR					
1950	44.3	34.1	8.6	2.9	10.0
1959	51.7	22.1	9.9	4.9	11.4
Hungary					
1950	41.4	37.7	8.6	2.6	9.7
1959	53.7	24.7	10.0	3.9	7.7
Poland					
1950	35.2	42.9	7.5	2.7	11.7
1959	50.1	26.2	9.8	2.8	11.2
Yugoslavia					
1950	33.8	36.7	8.2	6.5	14.8
1959	44.5	27.2	6.2	5.4	16.7
Romania					
1950	29.0	51.2	5.2	3.0	11.7
1959	42.5	35.1	8.2	4.0	10.1
Bulgaria					
1950	28.4	57.4	4.4	1.3	8.5
1959	42.4	33.8	6.3	3.4	14.1
China (mainland)					
1950	14.1	65.7	1.7	3.8	14.7
1959	36.5	43.6	6.2	3.4	10.3

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on national sources.

Note: For Eastern Germany, national income in constant prices for the years 1955 to 1960 has been estimated as follows: gross output data by major sectors, in 1959 prices, have been extrapolated by means of sectoral indices of output in constant prices. The data thus obtained have been converted into estimates in net value by the use of sectoral ratios of net to gross output in current prices which are available for each year. For transportation and trade, the number of freight ton-kilometres and the volume of retail trade respectively have been used as extrapolators since no value indices are available for these sectors. For the years 1950-1955, data on national income in constant prices are reported in *Statistisches Jahrbuch der Deutschen Demokratischen Republik, 1955* (Berlin). These data have been linked with the above estimates. In the case of Bulgaria, for which several indices calculated with different weights are available, the index expressed in 1957 prices has been used. Data for 1950 have been obtained by interpolating between the values of this index for 1948 and 1952 with the help of the index with 1939 weights available for the intermediate years.

[a] The figures refer to three-year averages centred at the given year. Data are expressed in prices of the most recent year: 1952 for mainland China, 1958 for Bulgaria and Poland and 1959 for other countries. These data were extrapolated by sectoral indices of output in constant prices.

[b] In this table and in the following tables in this chapter, countries are arranged in descending order of the share of industry in national income in 1950.

a considerable influence on the differences in the rates of growth of national income experienced in various periods and countries. The impact of this factor was of course heavily dependent on the share of agriculture in national income. Its influence was greatest in mainland China but, except for Eastern Germany or Czechoslovakia where the share of agriculture in national income was below 20 per cent, it was also significant in all the other countries.

Variations in the rates of expansion of agriculture in the centrally planned economies were due both to differences in available arable land and natural conditions on the one hand, and in government policies on the other. Thus, for instance, the expansion of agriculture achieved by the Soviet Union was largely influenced by the bringing of virgin and fallow land in the eastern territories under cultivation, but no such possibility existed in other European centrally planned economies.

In addition, the quality of soil, climate and weather conditions had a considerable restraining effect on the growth of output in some other countries. Still another important set of factors accounting for variations in agricultural growth rates was the government policy with respect to institutional changes, procurement and purchase prices and, possibly to a less extent, the allocation of investment and other inputs, such as fertilizer. Apart from its variability, the most striking feature of agricultural production in all centrally planned economies was the fact that the rates of growth achieved during the decade were, according to official statements, far too low to meet the requirements for food and agricultural raw materials. The extent of the gap between requirements and output is not easily ascertained, and it cannot be measured by the differences in the rates of growth of industry and agriculture. But the unusually large discrepancies between rates of expansion in the two sectors shown in the following table provide some indication of the magnitude of the problem.

The importance attached to these discrepancies and to the narrowing of the gap between agricultural output and requirements is best illustrated by the fact that the current Soviet seven-year plan, for example, provides for almost equally high rates of increase in agriculture and industry, the planned rates amounting to 70 and 80 per cent, respectively, for the period 1959-1965.

	Indices of gross value of output (pre-war[a] = 100)			
	Industry		*Agriculture*	
	1950	*1960*	*1950*	*1960*
Czechoslovakia	143	404	87	104
USSR	173	520	99	159
Poland	231	778	98	124
Hungary	158	420	89	115
Romania	147	505	81	124
Bulgaria	309	1,228	84	150
Yugoslavia	172	450	83	146

Source: See table 3-1. All data are based on national sources and represent gross output in constant prices, except for industrial production in Yugoslavia where net values are used.

[a] The pre-war years for industry and agriculture, respectively, were for Czechoslovakia, 1937 and 1936; USSR, 1940; Poland, pre-war territory, 1937 and 1934-1938; Hungary, 1938; Romania, 1938; Bulgaria, 1939; Yugoslavia, 1939.

The low rates of increase in agriculture and the resulting rapid shift in the composition of output from agriculture to industry did not reflect the expressed aims of planning authorities. In fact, all the plans provided for much greater rates of expansion of agriculture than were actually attained. But the decisions to increase industrial investment and to expand heavy industry resulted in the imposition of severe restrictions upon the growth of incomes of the population, especially on the farms. The policy of keeping peasants' incomes at very low levels reduced their incentive to produce while, at the same time, the policy of diverting resources to industry resulted in a reduced supply of fer-

Table 3-2. Annual Rates of Growth of National Income, by Sector, 1950 to 1959[a]

(Percentage)

Country	*Total*	*Industry*	*Agriculture*	*Construction*	*Transport and communication*	*Trade and other*
Czechoslovakia	7.5	9.4	−0.1	14.8	13.2	5.7
Eastern Germany	8.8	11.1	2.8	10.9	5.8	5.1
USSR	10.6	12.6	5.4	12.4	17.3	12.2
Hungary	6.2	9.3	1.3	8.0	11.2	3.4
Poland	8.0	12.3	2.2	11.2	8.3	7.3
Yugoslavia	6.3	9.5	2.8	3.0	4.1	7.7
Romania	10.3	14.0	4.9	15.3	12.6	2.6
Bulgaria	8.7	13.3	2.5	13.1	20.7	15.0
China (mainland)	15.2	28.0	10.1	33.0	13.8	10.8

Source: See table 3-1.

Note: In several countries no sectoral indices of net output are available for certain years. In these cases the indices have been estimated on the basis of indices of gross output. The error involved in such estimates is probably minor in those instances where it has been possible to interpolate between years for which both gross and net indices are available. The error is probably larger for years where the net values have had to be extrapolated on the basis of gross values (Bulgaria, 1959-1960, mainland China, 1949-1951 and 1959, Poland, 1949-1951 and the Soviet Union, 1950-1951). It is doubtful, however, whether even in these cases the error involved is significant.

[a] Except for the four cases specified below, terminal years refer to a three-year average centred at 1950 or 1959 (for instance, the figure for 1950 represents an average for 1949-1951). This method has been used in order to reduce the effect of year-to-year fluctuations in agricultural output. The following percentages represent the average annual rates of growth of agricultural output between 1950 and 1959 based on data for single terminal years: Czechoslovakia, 0.8; Hungary, 2.0; Poland, 1.6: Yugoslavia, 7.1; Romania, 5.8; Bulgaria, 4.2. The corresponding rates for national income differ only for Bulgaria and Yugoslavia where they are 9.8 and 7.3 per cent, respectively. There are no significant differences in the case of sectors other than agriculture. The especially large difference between the two agricultural growth rates for Yugoslavia is to be explained by the fact that the harvest of 1950 was very bad while that of 1959 was above average. It is to be noted, however, that between 1953 and 1959 agricultural output rose in this country at an average annual rate of 5.8 per cent irrespective of whether single years or an average of terminal years is used.

For 1950 in Eastern Germany, Romania and the Soviet Union, and for 1959 in mainland China, data were inadequate for the computation of three-year averages. In these cases single terminal years have been used.

tilizer and agricultural implements. Despite government control over wages and prices, such a policy, resulting in insufficient expansion of agricultural supplies, could not continue indefinitely. Towards the end of the first half of the decade, the problem of accelerating the growth of agricultural production was in all countries pushed into the foreground and considerable efforts were made to bridge the gap between agricultural requirements and the growth of agricultural output.

Despite the difficulties in agriculture, the rapid growth of industrial production achieved in all countries was associated with significant increases in national income not only in absolute terms, but also on a per capita basis (*see* table 3-3). In most countries the rise in per capita income took place without any appreciable increase in the proportion of the population engaged in productive activities.[5] It was thus achieved essentially through an increase in output per man, made possible largely by an increase in the amount of capital per worker, and a shift from less productive to more productive sectors, mostly from agriculture to industry.

Table 3-3. Annual Rates of Growth of Population, Labour Force and Per Capita Income, 1950 to 1959

(Percentage)

Country	Population	Labour force		Per capita income[a]
		Total	Productive	
Czechoslovakia	1.1	0.9	0.7	6.4
Eastern Germany	−0.7	1.1	1.0	9.5
USSR	1.6	1.8	1.5	8.9
Hungary	0.7	1.4	1.5	5.3
Poland	1.8	2.0	1.8	5.9
Yugoslavia	1.4	...	...	5.9
Romania	1.3	1.3	1.3	8.9
Bulgaria	0.8	1.3	0.8	8.9
China (mainland)	2.7	...	...	12.1

Source: See table 3-1.

[a] The rates of growth of per capita income are derived from data for the first and last years of the period. In other tables in this chapter the terminal points used in calculating rates of growth are three-year averages.

Owing to the weakness or absence of any systematic relationship between stages of industrial development and rates of growth of agricultural production, construction and transport, it will be seen that inequalities between countries in levels of income were reduced to a far less extent than were inequalities in the degree of industrialization. This is borne out by the newly available data on the relative levels of per capita output of industry and agriculture in various centrally planned economies.

The well-known difficulties encountered in international comparisons of levels of output are greater than usual in the centrally planned economies because of the large inter-country differences in sectoral price ratios and the disparity between domestic and foreign purchasing power of currencies. In recent times, however, several estimates of relative levels of output in industry and agriculture were made in various eastern European

[5] That is, labour engaged in sectors contributing to national income as defined in the centrally planned economies.

Table 3-4 Indices of Per Capita Output, 1950 and 1958

(Average for the group = 100)

Country	Industry		Agriculture		Industry and agriculture	
	1950	1958	1950-1951	1957-1958	1950	1958
Czechoslovakia	189	156	104	94	151	135
Eastern Germany	140	156	101	99	122	136
USSR	116	120	105	111	111	117
Hungary	76	71	111	111	92	85
Poland	90	90	116	114	102	99
Romania	53	60	75	79	62	66
Bulgaria	36	47	88	92	60	63

Source: The estimates for industry are from Tibor Kiss, *A Szocialista Országok Gazdasági Együttmüködése* (Budapest, 1961). The data for 1950 are identical with and those for 1958 somewhat different from, Kiss' preliminary estimates, published earlier elsewhere, which are in agreement with estimates published in *Voprosy Ekonomiki*, No. 1, 1960 (Moscow). The latter publication, in referring to the similarity of estimates of comparative levels of output which have been made in various centrally planned countries, points out that: "These calculations are usually based on volume data for a relatively wide range of identical products and uniform price weights. In order to obtain reliable estimates, it is necessary to include in the calculations a large number, say 100-150, of industrial products and 20-30 agricultural products. In spite of the unavoidable limitations of such calculations, they none the less give an indication of comparative levels of economic development in various countries. This is also indicated by the close similarity of results of various calculations, including the one made by the Scientific Institute of Economic Research of the State Planning Committee of the USSR. The results of such calculations are also confirmed by a comparison with indicators expressed in physical terms".

The estimates for agriculture are from *Gospodarka Planowa*, No. 5, 1961 (Warsaw). They are derived from estimated grain equivalents of output for sixteen major agricultural products.

The index for industry and agriculture combined is obtained as a weighted average of the indices of these two sectors, using the Soviet structure of weights. The use of other national weights would not affect the ranking of countries although it would alter the magnitudes shown in the table.

Table 3-5. Annual Rates of Growth of Employment, by Sector, 1950 to 1959[a]

(Percentage)

Country	Industry	Construction	Transport and communication	Trade and other	Agricultur	Total non-agricultural employment[b]
Czechoslovakia	3.0	3.7	2.8	0.2	−2.4	2.6
Eastern Germany	2.1	2.7	1.8	4.2	−3.2	2.3
USSR	3.5	3.9	4.1	3.1	0.1	3.6
Hungary	5.3	1.9	5.0	3.7	−0.9	3.4
Poland	4.3	5.4	4.3	2.3	0.2	4.4
Yugoslavia[c]	6.2	−1.0	2.2	3.2	−0.8	4.5
Romania	2.8	6.2	4.4	5.5	0.7	3.1
Bulgaria	7.3	7.0	7.6	5.2	−0.7	7.0

Source: See table 3-1.

[a] Total labour force is defined to exclude military personnel, domestics and other persons hired by individuals, as well as other minor groups. As methods of derivation of agricultural employment differ widely from country to country, the data presented for this sector are less comparable than those for other sectors.

[b] Including services.

[c] 1953-1959.

countries and while the results so far achieved do not pretend to reflect the exact relationships between levels of output of different countries, they may be used as indicating broad orders of magnitude.

The relative levels of output in industry and agriculture among countries are shown in table 3-4. As industry and agriculture together account for the major part of national income, their weighted averages may be considered as providing a broad indication of differences in order of magnitude of income levels among countries. Though small differences may well be of no significance, the spread among countries shown in the table does suggest a relationship between relative levels of per capita income and the degree of industrialization. Agricultural output per capita, on the other hand, shows less systematic relationship to the degree of industrialization; it was the lowest in the two least developed countries, followed by the two most developed, and substantially higher in Poland, Hungary and the Soviet Union.

The estimates reproduced in table 3-4 also show a marked narrowing of disparities in per capita output of industry between 1950 and 1958 but little change in the relative per capita levels of agricultural production.[6]

The process of industrialization in the centrally planned economies was associated, as might be expected, with changes in the proportion of the labour force in total population as well as with significant sectoral shifts within the labour force. As shown in table 3-3, the labour force grew more rapidly than population in almost all countries, but the differential increases in the labour force and in the proportion of active to total population were not associated with the degree of industrial development.

Even though government policy emphasized the expansion of productive sectors, employment in these sectors in most countries increased less than total employment. The ensuing fall in the share of productive workers in the total labour force was somewhat more pronounced in the more advanced than in the less advanced countries.

Variations in rates of increase in employment among most of the productive sectors were in general not very great. In agriculture, however, employment declined in most countries, and in those where it did increase the rise was quite insignificant (*see* table 3-5). A notable feature of the inter-country variations in employment was that the rates of growth of employment in industry and in non-agricultural sectors generally tended to be higher in the less advanced than in the more advanced countries. The changes in the agricultural labour force were less closely associated with the degree of industrialization, although in the two most advanced countries, Eastern Germany and Czechoslovakia, the decline in agricultural labour was much more pronounced than in other countries of the group. As may be seen from table 3-6, the differences in sectoral rates of growth of employment resulted everywhere in a rising share of industrial employment and a declining share of agricultural employment in the total. This table reflects in a particularly striking way the wide differences in economic structure among the centrally planned economies. At one extreme, in Eastern Germany, the proportion of the labour force engaged in industry amounted to about 40 per cent while in agriculture it was 22 per cent.[7] In Bulgaria, on the other hand, the proportions were 14 and 72 per cent, respectively. And while precise data are not available for mainland China, there is no doubt that in this country the share of industrial labour in total employment was even smaller.

As may be seen from a comparison of the data in tables 3-4 and 3-6, the sectoral distribution of employment differed considerably from the distribution of out-

[6] Owing to differences in methods of estimation and in terminal years, the changes in relative output levels shown in table 3-4 differ somewhat from those indicated in table 3-2. However, the direction of change shown in both cases is similar.

[7] Average of 1950 and 1959.

Table 3-6. Distribution of Labour Force, by Sector, 1950 and 1959

(Percentage)

Country and year	Productive sectors					Services
	Industry	Agriculture	Construction	Transport and communication	Trade and other	
Czechoslovakia						
1950	30.0	38.6	6.3	5.1	8.3	11.5
1959	36.0	28.5	8.1	6.1	7.8	13.5
Eastern Germany						
1950	38.2	26.6	5.3	6.1	8.5	15.3
1959	41.9	18.1	6.1	6.5	11.3	16.2
USSR						
1950	19.6	50.3	6.3	5.7	4.1	13.8
1959	22.5	42.2	7.5	7.0	4.6	16.3
Hungary						
1950	19.7	52.5	5.3	4.4	5.3	12.9
1959	28.0	42.9	5.6	6.0	6.5	11.0
Poland						
1950	17.4	60.1	4.8	3.8	5.0	8.9
1959	21.2	51.0	6.4	4.7	5.1	11.6
Yugoslavia						
1950[a]	14.8	67.8	4.4	3.0	3.2	6.8
1959	20.1	61.0	3.9	3.2	3.7	8.1
Romania						
1950	12.1	73.8	2.3	1.3	3.2	7.3
1959	13.8	69.2	3.5	1.7	4.0	7.8
Bulgaria						
1950	9.8	79.7	1.9	1.4	2.5	4.8
1959	16.5	66.9	3.1	2.3	3.5	7.7

Source: See table 3-1 and footnote *a* to table 3-5.

[a] 1953.

put. These differences reflect the extremely large variations in sectoral productivity in all centrally planned economies, as may be seen from table 3-7. They appear particularly striking when output per man in various sectors is related to output per man in agriculture. Thus, in comparison with agricultural product per worker, output per man in industry was two to five times as great, construction one and a quarter to four times, and trade one and a half to more than ten times as great. In most countries output per man in transportation also exceeded that in agriculture, and in several cases it was considerably higher.

It is noteworthy that inter-sectoral differences in output per man were larger in the less developed than in the more advanced countries. Indeed, the inequalities in sectoral output per man tended to narrow progressively at higher levels of development. This is indicated by the measure of relative inequality in the distribution of output and employment shown in the last column of table 3-7. It should be stressed however that the wide inter-sectoral variations in output per man reflect to some extent the peculiarities of price formation prevailing in the centrally planned economies which tend to exaggerate the shares of industry and trade in relation to agriculture.[8]

The available estimates of relative productivity of industrial and agricultural labour shown in table 3-8 indicate that labour productivity in both sectors was generally much lower in countries at earlier stages of development. The spread between countries was, however, less pronounced in industry than in agriculture. It is probable that this was largely due to the fact that in less developed countries modernization was introduced to a relatively greater extent in industry than in agriculture. An important influence tending to equalize the productivity of industrial labour in different countries was the fact that newly created industries were provided with relatively modern equipment.[9]

These data together with the information on sectoral allocation of labour and on differences in sectoral productivity (*see* tables 3-6 and 3-7) suggest that the differences in per capita income were strongly influenced by the variations in output per man in industry. They indicate that a significant narrowing of the gap in per capita income among the centrally planned economies would require the economically less advanced countries not only to increase substantially the share of industrial workers in their total labour force but also to raise output per man in industry at a much higher rate than that prevailing in the more industrialized countries.

[8] The effect of price policies on the shares of the remaining sectors is less clear. It is certain, however, that even allowing for these distortions, very substantial differences did exist in sectoral productivities in all countries.

[9] Owing to the many statistical difficulties involved, the conclusions derived from the estimates in table 3-8 should be viewed with great caution. The qualifications suggested in the footnote to the table, however, do not render meaningless the differences in broad order of magnitude which is all that is relevant in the text.

Table 3-7. Product per Worker, by Sector, as Percentage of the Country-wide Average[a]

(Average of 1950 and 1959)

Country	Industry	Agriculture	Construction	Transport and communication	Trade and other	Measure of inequality of sectoral product per worker[b]
Czechoslovakia	161	54	90	52	92	46
Eastern Germany	130	61	84	77	95	31
USSR	194	51	115	52	208	56
Hungary	177	57	150	54	131	50
Poland	197	54	139	59	203	57
Yugoslavia	219	44	157	154	450	78
Romania	251	56	212	217	285	66
Bulgaria	255	58	203	112	349	64

Source: See tables 3-1 and 3-6.

[a] Derived by dividing the sectoral shares of output by corresponding sectoral shares of employment.

[b] Calculated as the sum of differences between the percentage distribution of output and of employment, regardless of sign.

Table 3-8. Output per Man in Industry and Agriculture, Average of 1950 and 1959

(Average for the group = 100)

Country	Industry	Agriculture
Czechoslovakia	129	127
Eastern Germany	124	200
USSR	123	99
Hungary	75	104
Poland	102	86
Romania	91	41
Bulgaria	56	43

Source: Data on output per man in industry in 1957 as given in *Planovane Hospodarstvi*, No. 11, 1959 (Prague), extrapolated through the use of indices of output and employment. Output per man in agriculture was derived from the data in table 3-4 and the available information on the agricultural labour force.

Note: Data on output per man in industry in some cases differ significantly from those which might be derived on the basis of the output data given in table 3-4 and employment data reported in the national statistical yearbooks. As the coverage of industry in the Kiss estimates underlying table 3-4 may differ from the coverage of employment in the national sources, it was preferable to use in this table the estimates of output per man given in the publication quoted above.

Data on output per man in agriculture are undoubtedly much less reliable than those on output per man in industry, owing to the well-known difficulty of estimating agricultural employment in most of the centrally planned economies.

In most countries, the increase in labour productivity in industry and related sectors—construction and transportation—during the decade of the nineteen fifties by far exceeded the increase of productivity in agriculture (*see* table 3-9). In only one of the countries, Yugoslavia, and only during 1953-1959, was the rate of growth higher in agriculture than in industry. The lag in output per man in agriculture occurred in spite of the decline in the agricultural labour force in most cases. In non-agricultural sectors, there was some slight tendency for growth rates of productivity to be relatively higher in the more advanced than in the less advanced countries, but in agriculture no systematic relationship between productivity changes and the stage of development was in evidence. However, since the weight of agriculture in the economy is inversely related to the level of development, the contribution of agriculture to the over-all increase in productivity was much higher in the less developed than in the more developed countries.[10]

As might be expected from the increases in production, rates of expansion of capital stock were high during the period both in absolute terms and on a per capita basis (*see* table 3-10).

[10] This is shown by the following data on the percentage contribution of the various sectors to the growth of average productivity during the 1950-1959 period.

	Industry	Agriculture	Construction	Transport and communication	Trade and other
Czechoslovakia	66	11	13	4	6
Eastern Germany	72	19	7	4	−1
USSR	56	19	9	5	11
Hungary	51	27	19	6	−4
Poland	66	17	9	2	6
Yugoslavia[a]	43	42	9	9	13
Romania	33	60	5	2	1
Bulgaria	29	52	4	4	11

Source: See tables 3-6 and 3-9.

[a] 1953-1959.

Table 3-9. Annual Rates of Growth of Labour Productivity, 1950 to 1959

(Percentage)

Country	Total	Industry	Agriculture	Construction	Transport and communication	Trade and other
Czechoslovakia	6.8	6.3	2.5	10.7	10.2	5.5
Eastern Germany	7.8	8.8	6.2	8.0	4.0	−0.9
USSR	9.0	8.7	5.3	8.1	12.6	8.8
Hungary	4.5	3.7	2.2	5.9	5.8	−0.3
Poland	6.0	7.6	1.9	5.5	3.8	4.9
Yugoslavia[a]	8.3	6.1	6.6	6.3	8.5	6.3
Romania	8.8	10.8	4.2	8.6	7.9	-2.7
Bulgaria	7.7	5.7	3.1	5.8	12.2	9.4

Source: See table 3-2 and 3-5.

[a] 1953-1959.

A notable aspect of the pattern of sectoral changes was the relatively small spread between the rates of growth of capital in agriculture and in industry. In general, however, the variation in sectoral rates of increase in capital was large, and was greater than the variation in the sectoral rates of growth of employment (*see* table 3-5). The smallest rates of increase in capital stock occurred in transportation. In this case, as in other productive sectors, no systematic relationship between the rates of expansion and the level of development could be discerned.

The structural changes resulting from these developments are indicated in table 3-11. They show that in Czechoslovakia and the Soviet Union the proportion of assets in productive sectors in relation to total fixed capital stock was higher than that in Hungary and Bulgaria, but that these differences were substantially reduced between 1950 and 1959. While data on changes in the structure of capital assets are not available for other countries, data on the distribution of investment show that in mainland China and Romania, as well as in Bulgaria, a much greater share of investment was directed to productive sectors than in the more developed centrally planned economies.[11]

Among the productive sectors, the share of industry at the beginning of the period was generally higher and that of transportation lower in the industrially more advanced than in the less advanced countries. By the end of the period, however, the inter-country differences in these shares had largely disappeared. Thus, for example, the share of industry in productive assets in Romania and Bulgaria in 1959 was higher than that in the Soviet Union. In the case of agriculture, however, the share in productive assets had little relation to degree of industrial development even in 1950.[12]

[11] For more details, see *World Economic Survey, 1959.*

[12] It should be pointed out, however, that the inter-country variability in the share of agricultural fixed assets was influenced, perhaps more than in the case of any other sector, by differences in coverage, valuation and other statistical limitations.

Table 3-10. Annual Rates of Growth of Capital Stock, by Sector, 1950 to 1959[a]

(Percentage)

Country	All sectors		Productive sectors	Industry	Agriculture	Construction	Transport and communication	Trade and other
	Total	Per capita						
Czechoslovakia	4.1	3.0	5.3	6.1	5.3	8.1	2.8	4.7
USSR	8.8	7.1	9.4	10.6	8.1	...	7.5	...
Hungary	5.3	4.6	8.2	11.2	10.0	4.5	2.4	15.3
Romania[b]	5.1	3.8	5.7	8.6	4.5	...	0.7	...
Bulgaria	6.9	6.0	10.5	14.0	8.1	9.4	6.5	7.5

Source: See table 3-1.

[a] In Czechoslovakia, the Soviet Union and, probably, Romania the basic data refer to values expressed in constant prices. In Bulgaria and Hungary they refer to book values, but, with the exception of the 1959 price reform in Hungary, changes in prices of investment goods were not very significant. In deriving the data for Hungary an adjustment has been made for price changes in 1959. Data for this country, however, are not quite comparable to those of other countries as they refer to values net of depreciation but including capital repairs. The data for the other countries are gross of depreciation and do not include the value of capital repairs. Data for Romania and Bulgaria are also partly estimated.

[b] 1955-1959.

Table 3-11. Distribution of Fixed Assets, by Sector, 1950 and 1959

Country and item	1950 (percentage)	1959 (percentage)
Czechoslovakia		
Distribution of productive assets:		
Industry	55.7	60.0
Construction	2.0	2.4
Agriculture	17.8	17.8
Transport and communication	20.1	15.8
Trade and other	4.4	4.0
Assets in productive sectors in relation to total fixed assets	45.0	50.0
USSR		
Distribution of productive assets:		
Industry	43.8	46.0
Construction		3.1
Agriculture	27.3	24.1
Transport and communication	26.6	22.3
Trade and other	2.3	4.5
Assets in productive sectors in relation to total fixed assets	53.0	59.0
Hungary		
Distribution of productive assets:		
Industry	35.7	45.2
Construction	2.6	2.0
Agriculture	22.5	26.5
Transport and communication	37.4	23.3
Trade and other	1.7	3.1
Assets in productive sectors in relation to total fixed assets	38.0	49.0
Romania		
Distribution of productive assets:		
Industry	...	52.6
Construction	...	3.7
Agriculture	...	25.7
Transport and communication	...	14.3
Trade and other	...	3.6
Bulgaria		
Distribution of productive assets:		
Industry	37.6	52.4
Construction	2.2	2.0
Agriculture	22.5	18.4
Transport and communication	32.1	22.8
Trade and other	5.6	4.4
Assets in productive sectors in relation to total fixed assets	30.0	44.0

Source: See table 3-10, and footnotes thereto.

A comparison of data on the structure of output and sectoral allocation of capital and labour (*see* tables 3-1, 3-6 and 3-11) makes it possible to shed some light on the sectoral variability in capital productivity on the one hand, and on capital intensity on the other.[13]

[13] The data on productivity of capital are obtained by dividing the shares of output in each sector by the shares of fixed assets; capital intensity data are derived by dividing the sectoral shares of fixed assets by the corresponding shares of employment.

It appears from these data that industrial output per unit of capital was in most countries relatively close to the average productivity of capital in all sectors. However, in Romania and Bulgaria, the least developed countries for which data are available, it was lower than the average, while in other countries it was higher. On the other hand, the productivity of capital in agriculture was in most countries higher than the country-wide average productivity of capital; this was particularly true of the less developed countries. In transport and communication, output per unit of capital was far lower than in other sectors. There was little evidence of any systematic relationship between capital productivity in this sector and a country's level of industrial development.

Between 1950 and 1959 capital productivity fell in agriculture but increased in construction and transport and communication in all countries for which data were available. As these divergent changes tended to offset each other, the variation in aggregate productivity of capital was largely influenced by changes occurring in industry. Thus, both industrial and aggregate productivity of capital increased in Czechoslovakia and the Soviet Union and fell in the two less developed countries, Hungary and Bulgaria. In Romania, for which data are available only for the period 1955 to 1959, aggregate capital productivity increased slightly.

The data on capital per worker in various sectors during 1950-1959, expressed as a percentage of country-wide averages is shown below:

	Industry	Agriculture	Construction	Transport and communication	Trade and other
Czechoslovakia	155	45	25	280	45
USSR	160	45	40	325	...
Hungary	150	45	35	520	35
Romania[a]	340	35	95	870	75
Bulgaria	320	25	80	1,350	155

Source: See tables 3-6 and 3-11.
[a] Average of 1955 and 1959.

In all countries the highest capital intensity was in transportation and the second highest in industry. Among the five countries for which data are available, capital intensity in industry was much higher in relation to agriculture in the two least developed countries than in the other centrally planned economies.

Between 1950 and 1959, in all countries except Romania capital per worker in agriculture increased at a higher rate than in industry; the difference was particularly great in Czechoslovakia and Hungary. Capital per worker in transport and communication actually declined in Bulgaria and Hungary. It rose in the Soviet Union and Romania but at a lower rate than in other sectors and it remained almost unchanged in Czechoslovakia. These differences are indicated by the annual average rates of growth of capital per worker between 1950 and 1959 shown in the text table below (in percentage):

	Total	*Industry*	*Agriculture*	*Construction*	*Transport and communication*	*Trade and other*
Czechoslovakia	4.6	3.0	7.9	4.2	0.0	4.5
USSR	7.8	6.9	8.1	...	3.3	...
Hungary	6.6	5.6	11.0	2.6	−2.5	11.1
Romania[a]	5.7	7.8	4.4	...	1.3	...
Bulgaria	9.4	6.2	8.9	2.2	−1.0	2.2

Source: Tables 3-3, 3-5 and 3-10.
[a] 1955-1959.

These data, together with other indirect evidence, indicate that the growth of capital intensity was generally not higher in the less developed than in the more developed countries. Since capital intensity and labour productivity are closely related, it may be concluded that the inability to narrow the gap between output per man in the less developed and that in the more developed countries was largely due to the absence of any significant reduction in inter-country differences in capital intensity between the less and the more developed countries.

Changes in the pattern of industrial production

The process of industrialization was accompanied by considerable shifts within the industrial sector. The direction of these shifts was determined by government policy which tended to emphasize expansion of capital goods industries as the necessary condition of economic progress. A rise of investment in relation to national income naturally increases the demand for capital goods in relation to that for consumer goods. But industrialization policies in the centrally planned economies endeavoured to adapt the structure of domestic output to this pattern of demand. Consequently, all countries, regardless of the degree of their industrial development or of differences in their natural endowment, increased their output of producer goods faster than that of consumer goods.[14] (*See* table 3-12.) This tendency was somewhat more pronounced, however, in countries at lower levels of industrialization which, as already noted, achieved generallly higher rates of industrial growth than did the industrially more advanced countries.[15]

At the beginning of the period, considerable differences existed in the share of producer goods in total output of various countries; in general, the share of producer goods in gross value of output was higher in the more developed than in the less developed countries (*see* table 3-13). The comparatively higher rates of growth of output of producer goods in relation to that of consumer goods in the less developed countries resulted in a significant narrowing of the spread in shares of producer goods in total output of industry in countries at different levels of development. In fact, the producer goods' share in countries such as mainland China and Romania at the end of the period exceeded that of more industrialized countries such as Hungary and Poland.[16]

The pattern common to all countries of greater expansion of producer than of consumer goods, as well as of heavy industry as compared with light industry, was due to the general policy laid down in the long-

[14] In the classification adopted by the centrally planned economies producer goods include gross value of output of capital goods as well as all primary and intermediate industrial goods irrespective of whether they are used for production of final capital goods or of consumer goods. Consumer goods include only final products.

[15] Except for Yugoslavia, the data on industrial production in this section are expressed in terms of gross value of output. They may therefore differ from the national accounts data employed in the preceding section, which represent net value of industrial production. As the extent of duplication involved in gross value data is not the same in all branches of industry and may differ from country to country, it is necessary to emphasize that the inter-sectoral and inter-country comparisons of gross value data may yield results substantially different from those which would be obtained if value added statistics were used. The latter, however, are available for only a few countries and for isolated years.

[16] The data on output of producer and consumer goods do not yield any direct information on the relationship between final and intermediate goods in countries at different levels of development. The relatively higher share of producer goods in the gross value of industrial production in the more developed countries reflects, however, not only a higher share of capital goods but also a wider range of intermediate stages of processing. It should also be borne in mind that the variations in the share of consumer goods in gross value of output are influenced by the fact that, in the course of industrialization, an increasing proportion of agricultural output is processed by industrial enterprises before it reaches the consumer.

Table 3-12. Annual Rates of Growth of Output and Employment in Industry, 1950 to 1960[a]

(Percentage)

Country and item	Total industry	Producer goods	Consumer goods	Fuels	Ferrous metallurgy	Machine building and metal products	Chemicals (including rubber)	Building materials	Textiles, footwear and clothing	Food
Czechoslovakia										
Output	10.9	12.6	8.9	8.3	12.3	16.4	15.5	16.0	7.2	6.1
Employment	2.9	3.8	1.8	2.5	4.5	5.7	4.5	3.2	0.7	−0.1
Eastern Germany										
Output	11.4	12.2	10.1	5.6[b]	13.6[c]	14.5	11.1	11.1	9.2	11.6
Employment	2.1	...	...	1.2[b]	4.3[c]	3.1	3.2	1.5	1.6	2.2
USSR										
Output	11.6	12.6	10.4	9.2	10.4	15.7	14.9	18.6	9.6	8.7
Employment[d]	4.0	...	...	3.2[e]	3.7	4.3	5.5	7.2	3.7	2.0
Hungary										
Output	10.4	12.1	8.8	7.5[b]	10.7[c]	12.8	16.3	11.5	8.7	8.1
Employment	5.5	...	...	6.8[b]	4.6[c]	5.7	5.9	3.9	5.7	5.7
Poland										
Output	12.9	14.4	11.2	5.8	10.6	22.2	16.9	14.1	11.1	8.5
Employment	3.9	...	...	3.3	2.4	7.5	4.5	5.2	1.2	5.0
Yugoslavia										
Output[f]	9.3	...	...	8.0[e]	16.6	14.5	15.8	5.3	5.9	6.4
Romania										
Output	13.1	14.8	10.8	9.9	14.2	19.3	20.8	15.1	9.5	9.1
Employment	5.3	...	...	3.9	6.1	6.1	10.5	5.2	4.1[g]	3.4
Bulgaria										
Output	14.8	17.8	12.3	11.9	41.3	23.7	23.4	21.8	13.8	10.2
Employment	9.0	...	...	5.8	27.0	9.8	12.1	7.5	6.9	8.5
China (mainland) [h]										
Output	24.0	38.6	19.0	25.2	50.0	43.0	49.3	37.4	14.2	21.8

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on national sources.

[a] Gross value of output. Industrial output includes the following: in Hungary, state industry only; in mainland China, total industry excluding handicrafts; in remaining countries, total industrial output. Employment includes the following: in Czechoslovakia and Romania, workers in total industry; in Eastern Germany, the Soviet Union and Poland, workers and employees in total industry; in Hungary and Bulgaria, workers in state industry. The differences between the rates of increase in industrial employment indicated in this table and those in table 3-5 are due to variations in coverage; data in table 3-5 include, apart from wage and salary earners, members of co-operatives and self-employed persons engaged in industrial production.

[b] Total mining.

[c] Including non-ferrous metallurgy.

[d] Derived from data on output and output per man.

[e] Coal and oil industry only.

[f] Net value of industrial output in 1956 prices, including depreciation.

[g] Excluding clothing industry.

[h] 1949 to 1957.

term plans of economic growth. The aim of this policy was to alter the structure of the economies so as to raise the output of producer goods to the point where it would not only provide the raw materials and equipment needed to maintain the existing level of output and the capital stock, but it would also permit the desired rate of expansion of total output. Although in most countries a substantial proportion of domestic requirements had to be met by imports, this fact had relatively little influence on the planned changes in the domestic distribution of output between consumer and producer goods.

This policy was said to be based on the well-known formula by Marx of "enlarged reproduction" originally related to gross value of output in a closed economy. According to this formula, economic growth requires that gross value of output of producer goods should exceed the value of producer goods used in all sectors of the economy during a given period.[17]

In more explicit terms, this means that in a closed

[17] In Marx's notation the value of output of producer goods is presented as $c_1 + v_1 + m_1$ and that of consumer goods as $c_2 + v_2 + m_2$; c referring to the value of raw materials, intermediate goods and capital used up in the process of production during a given period, v to the wage bill and m to profits. The subscripts 1 and 2 refer to the producer goods and consumer goods sectors, respectively.

The condition of "enlarged reproduction" is stated as $c_1 + v_1 + m_1 > c_1 + c_2$. This formula was frequently presented in the form of: $v_1 + m_1 > c_2$.

It is evident that this formula deals with levels of output and consumption of producer goods only and not with the relative rates of increase in output of producer and consumer goods.

Table 3-13. Distribution of Gross Value of Output of Industry, 1950 and 1960

(Percentage)

Country and year	Producer goods	Consumer goods	Heavy industry						Light industry		
			Fuels	Ferrous metallurgy	Machine building and metal products	Chemicals (including rubber)	Building materials	Other	Textiles, footwear and clothing	Food	Other
Czechoslovakia											
1950	51.5	48.5	8.4	6.9	20.8	4.1	2.7	4.3	17.2	25.8	9.8
1960	59.8	40.2	6.6	7.8	33.7	6.1	4.2	4.3	12.3	16.4	8.6
Eastern Germany[a]											
1950	58.7	41.3	6.6[b]	5.2	25.7	15.8	3.4	2.0	18.8	14.3	8.2
1960	62.9	37.1	3.7[b]	6.3	33.1	15.0	3.3	1.5	15.7	14.5	6.9
USSR[c]											
1950	68.8	31.2	9.7	6.6	15.3	3.3	1.2	12.3[d]	25.2	22.4	...
1960	72.5	27.5	7.7	5.9	21.9	4.4	2.1	19.5[d]	21.3	17.2	...
Hungary[a]											
1950	44.0	56.0	6.1[b]	7.3	19.5	5.0	2.8	3.3	19.3	32.8	3.9
1960	51.2	48.8	4.6[b]	7.5	24.2	8.3	3.2	3.4	16.5	26.7	5.6
Poland											
1950	47.4	52.6	10.2	6.9	9.2	4.7	2.1	4.2	18.7	38.3	5.7
1960	54.4	45.6	5.8	6.2	22.3	7.2	2.5	4.3	17.4	28.1	6.2
Yugoslavia[e]											
1950	...	...	10.0	3.3	14.8	3.8	2.5	12.7	22.7	13.1	17.1
1959	...	...	8.8	6.4	23.4	6.9	1.7	14.3	16.7	10.1	11.7
Romania											
1950	53.0	47.0	11.3	5.4	13.3	3.1	2.4	4.1	22.6	24.6	13.2
1960	60.0	40.0	9.1	6.3	24.0	6.1	3.2	5.4	16.3	19.3	10.1
Bulgaria											
1950	38.2	61.8	3.7	0.1	9.3	2.7	1.9	4.4	21.4	41.2	15.3
1960	49.9	50.1	2.9	1.0	16.8	5.5	3.5	7.8	19.6	27.7	15.2
China (mainland)											
1949	29.6	70.4	3.8	1.8	6.8	1.5	1.1	14.6	36.9	23.6	9.9
1957	57.3[f]	42.7[f]	4.1	8.0	16.2	6.6	2.5	19.9	19.1	20.4	3.2

Source: See table 3-1.

In most cases data are computed on the basis of constant prices. The data cover total industrial output except in Hungary, where they exclude co-operative and private industry, and in mainland China, where they exclude handicrafts. In the classification of industries the following definitions of industries are used unless otherwise indicated. Fuels include extraction and processing; extraction of iron ore is included in ferrous metallurgy; chemicals include products of the rubber industry and extraction of chemical raw materials; foods include tobacco products; heavy industry includes electric energy production and non-ferrous metallurgy; light industry includes wood-working, paper and cellulose, glass and china and printing. For the Soviet Union, the data for machinery and metal products and chemicals are taken from N. S. Khrushchev's speeches at the Twenty-second Congress of the Communist Party of the Soviet Union, as reported in *Pravda*, 18 and 19 October 1961 (Moscow). The gross value of output of the food industry is taken from T. K. Sivolap and A. S. Shatkhan, *Pishchevaia Promyshlennost SSSR* (Moscow, 1957), page 18. Data for coal, ferrous metallurgy, building materials, and textiles, footwear and clothing are estimated on the basis of data on amortization allowances and profits for these industries as given in A. G. Zverev, *Voprosy Natsionalnovo Dokhoda i Finansov SSSR* (Moscow, 1958), page 94, and on the basis of data on cost structure in the corresponding industries. Data on fuels are derived from estimates of value of output of the coal industry and data on its share in total fuel output given in *Planovoe Khoziaistvo*, No. 10, 1961 (Moscow), page 13. In cases where data for 1950 or 1960 were not available, estimates were made by applying indices of growth of gross value of output to the available data.

[a] Data in the first and second columns refer to heavy industry and light industry, respectively.

[b] Total mining.

[c] As indicated in the source to this table, the estimated distribution of gross value of output by industrial branches in the Soviet Union is based on a combination of various sets of data; it may therefore be subject to a considerable margin of error. In particular, the share of the machine building and metal products industries and to a less extent that of the chemical industry may be understated. It is possible that part of the output classified as "other" pertains in fact to the machine building and metal working industries. The estimated share of output of this branch was derived from the following data given by N. S. Khrushchev (*Pravda*, 19 October 1961) for 1960: gross value of output of industry in prices of 1 July 1955, 155 billion roubles; production of machine building and metal working, 34 billion roubles. It is not certain whether this last figure covers the whole of the gross value of output of the machine building and metal working industry.

[d] Including unspecified branches of heavy and light industry.

[e] Value added in 1956 prices.

[f] 1958.

economy no economic growth is possible unless output of capital goods exceeds depreciation and output of raw materials and intermediate goods is greater than their consumption.

This formula was however frequently reinterpreted as relating to industry alone and to an open economy and, even more important, the assertion about the relative levels of output and consumption of producer goods necessary for economic growth was interpreted in terms of relative rates of growth in the producer and consumer goods sectors. According to this version, the condition for economic growth was that gross value of output of producer goods should increase at a higher rate than that of consumer goods.[18]

Although this interpretation has in recent years been frequently criticized in the centrally planned economies on theoretical grounds, there can be little doubt that the policy of increasing the output of producer goods at a higher rate than that of consumer goods imposed itself especially in the less developed countries in view of the need to raise the share of investment in national income. It was also in many instances justified by the fact that reliance on exports of consumer goods as a means of securing necessary capital goods was hardly an effective way of solving the problem of increasing capital formation during the period under review.

As may be seen from table 3-18, the share of producer goods in total output at the beginning of the period was higher in the Soviet Union than in Czechoslovakia and Eastern Germany, the two most industrially developed countries of the group.[19] The very high share of producer goods in the output of the Soviet Union in 1950 was the result of a long period of planned industrialization during which the share of producer goods in total output increased by more than one and a half times. It also reflected the changes which occurred during the Second World War when the output of producer goods increased at an exceptionally high rate while consumer goods output declined.

[18] This statement implies that economic growth can take place only if the share of output of producer goods in total production increases, that is, if the share of investment in the national economy rises. While, however, an identity in the rates of increase in output of producer and consumer goods is in fact consistent with a constant rate of growth of total output, it should be noted that an acceleration of growth would obviously require a higher than average rate of growth of output of producer goods. The required difference between the relative rates of growth of these two sectors may be quite large in the process of transition from a stationary state to one of economic expansion.

It should also be noted that even a constant rate of increase of total production could not be maintained without a higher than average rate of output of producer goods if input-output coefficients were increasing as a result, for instance, of a more capital-intensive form of technical progress or of diseconomies in the use of raw materials and intermediate goods.

For a more detailed discussion of these problems, see *World Economic Survey, 1959*, page 102.

[19] The high share of producer goods in Romania was largely due to the fact that petroleum extraction and refining accounted, even before the war, for a substantial part of total industrial output.

Although the classification of output into producer and consumer goods is useful for some purposes, it is subject to the limitation that it cuts across the classification by industrial branches. In the following discussion, therefore, industries are analysed on the basis of two groups, heavy industry and light industry. In spite of the differences between the two classifications, the variation between the shares and rates of growth in output of heavy industry on one hand and the light industries on the other shows the same tendency as in the case of producer and consumer goods described above. The generally greater decline in the share of light industries than of consumer goods in total production reflects in part at least the shift towards durable consumer goods in the process of economic growth.[20]

Although heavy industry expanded everywhere at a much higher rate than light industry, within heavy industry the variation in the rates of expansion of various branches differed significantly from country to country. These differences were largely influenced by the structure of industry in the initial period, by natural resource endowment and by the degree of dependence on foreign trade. During the period under review, only the Soviet Union could formulate plans with respect to the expansion of various branches of heavy industry with little regard to foreign trade. Mainland China, despite its size and natural resource endowment, continued to have much less freedom of choice because, in the present stage of its development, the utilization of its natural resources is still largely dependent on imports of machinery and equipment. In the remaining countries the growth of heavy industries was largely dependent on imports of raw materials at various stages of processing.

The effect on industrial structures of inter-country differences in resource endowment cannot easily be ascertained on the basis of available statistics because the output of extracting industries is not presented separately in most countries. Thus, the data on output of fuels generally include both extraction and processing of coal, oil and natural gases; similarly, data on ferrous metallurgy include extraction of iron ore. As a result, the shares of these two industries in the total production of different countries were in varying degree influenced by resource endowment. This influence was undoubtedly greater in the fuel industry, where processing accounted for a much smaller proportion of gross value of output, than in ferrous metallurgy. As a consequence, inter-country variations in the share of the fuel industry were largely determined by differences in resource endowment rather than by the level of development reached by different countries. It is for this reason that the shares of fuel in total value of output at the beginning of the decade were much higher in

[20] Durable consumer goods are classified as produced by heavy industry.

Poland and Romania than in other countries of the group.[21]

In order to meet the growing requirements for fuel associated with the expansion of heavy industries, all countries made special efforts to enlarge domestic fuel supplies through increased utilization of low-quality resources such as lignite and brown coal. In spite of this, the increase in output of fuels generally did not keep pace with the increasing requirements of other branches of industry; the result was evident in fuel shortages and increased dependence on imports. A common feature of the experience of these countries was a reduction in the share of the fuel industry in total output between the beginning and the end of the period. Only in mainland China, the least developed country of the group, did the share of the fuel industry show a tendency to rise. Apart from other reasons, such as the low level of output of the fuel industry at the beginning of the period, this increase was associated with the extremely high rates of growth which took place in ferrous metallurgy and other fuel consuming industries.

The share of ferrous metallurgy in gross value of industrial production in most countries averaged about 6 to 7 per cent during the decade. The changes over time in the more developed countries were relatively small and neither their magnitude nor their direction was directly related to the degree of development, or to the relative availability of domestic raw materials. But in the three least advanced countries, the pattern was considerably different. At the begining of the period the share of ferrous metallurgy amounted to no more than one-tenth of one per cent in Bulgaria, to 3 per cent in Yugoslavia and to about 2 per cent in mainland China. In the last two countries the share of these industries rose during the course of the period to 6 and 8 per cent, respectively, bringing it to the level of the most advanced countries.

No systematic relationship was apparent between the shares of chemical industries and the degree of industrialization of most of the planned economies. As in the case of ferrous metallurgy the share of this industry in the three least developed countries was, at the beginning of the decade, substantially below that of the more advanced countries. It is significant, however, that in the process of economic expansion the share of chemicals increased in all countries but one, and the tendency was especially pronounced in the less developed countries. As a result, by the end of the period the share of the chemical industry in total industry in Yugoslavia, Bulgaria and mainland China exceeded that of the Soviet Union and approached that of other more developed countries. The only country where expansion of the chemical industry was less rapid than total production was Eastern Germany where this industry in 1960 nevertheless represented as much as 15 per cent of total value of output, or more than two and a half times as much as in Czechoslovakia. The striking difference between the proportion of the chemical industry in Eastern Germany and that in other countries is only slightly related to differences in levels of development; for the most part it reflects the economic structure which had evolved during the period when the country was integrated with the Federal Republic of Germany.

An outstanding characteristic of the structure of industrial production and its changes over time in the centrally planned economies was the role played by the machine building and metal working industry; in all countries this industry accounted for the major proportion of the output of heavy industry.[22] The share of the industry in total industrial output was generally related to the level of development achieved by various countries, although this relationship did not hold in all cases. Thus, for instance, in 1950 the share of this industry in total production was twice as high in Hungary as in Poland although both countries were at about the same level of industrialization.

Between 1950 and 1960 the rate of expansion of machine building industries exceeded the average rates of growth of industry in all centrally planned economies. This difference was much greater in the less than in the more developed countries and, as a result, the inter-country variations in the share of this industry were considerably reduced. Thus, in 1960 the share of machine building industries ranged from about 33 per cent in the two most industrialized countries, Eastern Germany and Czechoslovakia, to about 22 to 24 per cent in Poland, Hungary and Romania, and even in Bulgaria and mainland China the share of this industry had risen to about 16 to 17 per cent.

Between 1950 and 1960 the share of light industry in total production declined in all countries. This tendency was accompanied by a significant shift from food to semi-durables in most countries. In Romania, Yugoslavia and mainland China, however, an opposite trend was apparent. This latter tendency at first glance seems to contradict the common view that a rise in income levels associated with the process of industrialization leads to a shift in demand and output from food to semi-durables. However, the tendency is less difficult to understand when it is recognized that an important aspect of industrialization consists of increasing the proportion of food which has to be processed in the manufacturing industry before it reaches the consumer.[23] In countries at very low levels of development the effect of increased food processing on the structure

[21] In Poland because of coal production and in Romania because of oil.

[22] It should be noted that the value of output of this industrial branch also includes the value of output of repair shops.

[23] Apart from such products as sugar, spirits and beer, the output of food processing industries was at the beginning of the period very insignificant in the least developed countries. Their importance increased with the process of industrialization and this tendency was closely associated with the shifts of population from rural to urban areas and with the tendency of governments to increase the share of agricultural production distributed through the state-owned network of retail trade.

of industrial output may be greater than the influence of the more rapid increase in requirements for textiles, shoes and other semi-durable consumer goods.

One of the noteworthy consequences of these divergent changes was a considerable narrowing of the differences in the relative shares of these two branches of light industry in each country irrespective of their levels of development. Nevertheless, the considerable inter-country differences in the shares of these industries present in 1950 still remain evident at the close of the period.

During the first part of the decade the rise in the share of investment in national income and the restraints upon the growth of consumption were reflected in the severe limitations placed on the channelling of resources into the expansion of consumer goods industries. Another factor influencing their rate of growth was the slow expansion of agricultural production and therefore of the supply of raw materials to the food industry and other light industries. From the point of view of government policy, the industrial branches most essential for economic growth were the machine building and metal working industries, followed by the industries supplying the raw materials and fuels required for their expansion. But recently the earlier policy of almost parallel expansion of output of identical products of heavy industry in all countries has come under active debate and the question has been raised as to whether the desired structure of supply could not be more efficiently achieved through a greater reliance on foreign trade. The reappraisal of past policies has brought out the fact that, at the inception of the long-term plans of economic development, little attention had been paid to differences in natural endowment and to the advantages which could be derived from greater specialization and international co-operation. The Governments of the countries that introduced central planning after the Second World War were naturally inclined to follow the example of the Soviet Union, which had had two decades of experience in planning. As a result of this reappraisal, however, it has been recognized that in following these policies the fact had been overlooked that the pattern of growth developed in the Soviet Union had been influenced not only by the country's size and natural endowment, but also by its isolation from the rest of the world, a set of conditions which differed considerably from the situation of the other centrally planned economies after the Second World War. The policy of these countries was particularly exemplified by the tendency to develop certain basic producer goods industries even in the absence of conditions necessary for their growth. Thus, for example, the expansion of highly capital-intensive ferrous metallurgy in some countries which lack domestic supplies of coal as well as iron ore, was largely influenced by the autarkic tendencies prevailing at the beginning of the decade.

It should be added, however, that several of the centrally planned economies felt obliged to develop certain lines of production because at the time they were not able to secure the necessary products from abroad. Since all the centrally planned economies undertook to raise investment and to expand the production of capital goods, the resulting shortages of iron and steel, combined with the greater opportunity for securing iron ore and fuel from abroad, induced these countries to develop ferrous metallurgy. In addition, it should be stressed that an important factor operating in the same direction in the early nineteen fifties was the Korean crisis, which resulted in a general revision of plans of economic development and led in all countries to an increase in the output of materials necessary for armaments. The pattern of investment adopted in these circumstances had a considerable influence on the structure of output in the following years. In recent years, however, in connexion with the reappraisal of earlier policies it has been frequently stated that, for example, the expansion of ferrous metallurgy in countries lacking fuel as well as iron ore was not justified. It has also been stated that the tendency to develop parallel lines of production within a given industrial branch in different countries reduced efficiency, and that efficiency could be improved through specialization and the ensuing economies of scale. But the need to develop machine building and metal working as well as other manufacturing industries has never been questioned. It was strongly emphasized that an international division of labour involving a concentration on the expansion of output of primary products or of the consumer goods industry in some countries would slow down the process of industrialization in the countries concerned.

The expansion of machine building and metal working industries in all countries regardless of their levels of development was motivated by several factors. The rapid rates of industrialization resulted, in all countries, in greater increases in demand for products of these industries than for others. Moreover, the capital-output ratio as well as the capital-labour ratio in machine building and metal working was considerably smaller than in many other branches. And, although wages in machine building and metal working industries were generally higher than in many other sectors, the existing terms of trade made it more advantageous to reduce imports or to increase exports of products of these industries than to exchange goods produced in other branches for imported machinery and equipment. The obstacles encountered by the less advanced countries in the initial period of development of machine building and metal working industries were less difficult to overcome than had generally been expected, and an important factor in the success of this effort was the technical assistance provided by the more advanced centrally planned economies.

The process of industrial expansion in all countries

was associated with increasing diversification within each branch of industry and with the creation of entirely new lines of production. This tendency was especially pronounced in the less developed countries. Thus, for instance, within machine building and metal working industries, several countries during the period began production of motor-cars, tractors, electric generators and electronic and other equipment not previously produced.

Similar important changes took place within the chemical and fuel industries. In all countries, with the exception of Eastern Germany, the chemical industry at the beginning of the decade produced a limited number of basic products such as acids, alkalis and mineral fertilizers. By the end of the period steps had been taken in all countries to expand the range of products, in particular organic chemicals, plastics and artificial fibres. This increase in the variety of products took place in all countries regardless of their levels of development, and it was largely motivated by the advantages derived from the replacement of non-ferrous metals by plastics and of natural by artificial fibres.

In the case of fuels, significant changes within the industrial structure also took place in all countries, either through greater expansion in producing countries of oil and natural gas relative to coal or through the expansion in other countries of oil refineries.[24]

The shifts in the allocation of labour were much less

[24] The above analysis of changes in the structure of industry is necessarily based on data on gross value of output because, as pointed out earlier, statistics on value added by industrial branches are available only for scattered years. In the case of Czechoslovakia, Hungary and Poland, it is possible to compare the structure of industrial production based on data on both gross and net value. Although the differences between the two sets of data are substantial, they are not so great as to invalidate the general conclusions based on gross value statistics. It is of interest to note that data on allocation of labour by industrial branches show a pattern similar to that of the structure of output expressed in terms of net value. They provide, therefore, some information on the structure of industry that is not affected by the duplications involved in gross value data.

Table 3-14. Distribution of Industrial Employment, by Branch, 1950 and 1960

(Percentage)

Country and year	Heavy industry							Light industry			
	Total	Fuels	Ferrous metallurgy	Machine building and building products	Chemicals (including rubber)	Building materials	Other	Total	Textiles, footwear and clothing	Food	Other
Czechoslovakia											
1950	50.5	9.2	6.1	24.8	3.5	4.5	2.4	49.5	24.4	11.1	14.0
1960	59.4	8.8	7.2	32.4	4.1	4.6	2.3	40.6	19.7	8.3	12.6
Eastern Germany											
1950	60.7	7.4	3.0	33.3	8.9	3.7	4.4	39.3	20.5	7.5	11.3
1960	62.7	6.8	3.7	36.4	9.7	3.4	2.7	37.3	18.6	7.6	11.1
USSR											
1950	...	7.7	5.3	28.7	3.4	6.1	23.7	...	13.9	11.2	...
1960	...	6.3	4.8	30.4	4.1	7.1	19.8	...	18.1	9.4	...
Hungary											
1950	65.0	13.4	8.2	28.5	4.3	8.1	2.5	35.0	19.8	9.0	6.2
1960	65.5	14.8	7.3	28.3	5.1	6.8	3.2	34.5	18 8	9.0	6.7
Poland											
1950	50.8	12.8	5.0	17.8	5.6	5.3	4.3	49.2	26.1	11.1	12.0
1960	55.8	12.1	4.3	24.9	5.1	5.9	3.5	44.2	20.1	12.3	11.8
Yugoslavia											
1952	...	12.8	4.3	18.7	2.7	5.1	...	...	15.1	7.5	...
1960	...	8.8	4.4	23.4	3.8	4.8	...	...	16.7	9.7	...
Romania											
1950	50.9	7.3	3.7	20.5	2.4	5.7	11.3	49.1	18.8	10.6	19.7
1960	56.9	6.4	4.0	22.2	4.0	5.6	14.7	43.1	16.8	8.8	17.5
Bulgaria											
1950	35.2	9.1	0.3	14.9	2.7	5.1	3.1	64.8	20.9	18.5	25.4
1960	39.2	6.8	1.4	16.9	3.2	5.1	5.8	60.8	20.2	18.0	22.6

Source: See table 3-1.

Note: For Czechoslovakia, the Soviet Union and Romania, wage earners in total industry; for Eastern Germany, Poland and Yugoslavia, wage and salary earners in total industry; for Bulgaria and Hungary wage earners in state industry only.

Table 3-15. Output per Man: Annual Rates of Growth and Percentage Contribution to Increase in Industrial Output, 1950 to 1960[a]

(Percentage)

Country and item	Total	Fuels	Ferrous metallurgy	Machine building and metal products	Chemicals, including rubber	Building materials	Textiles, footwear and clothing	Food
Czechoslovakia								
R	7.8	5.6	7.5	10.2	10.5	11.0	6.6	6.1
C	82	75	75	79	81	89	93	101
Eastern Germany								
R	9.1	4.3	8.9	11.1	7.6	9.5	7.5	9.3
C	88	82	80	88	80	91	88	88
USSR								
R	7.4	3.7 [b]	6.5	11.0	8.9	10.5	5.7	6.5
C	76	62	74	84	76	78	71	83
Hungary								
R	4.0	0.2	5.4	5.9	3.0	7.1	2.7	1.8
C	56	11	68	68	73	77	44	36
Poland								
R	8.7	2.3	8.1	13.7	12.8	8.5	9.7	3.4
C	80	49	85	84	86	76	93	50
Romania								
R	8.2	5.8	7.4	13.0	9.8	9.2	5.2	5.3
C	72	71	71	83	69	79	67	72
Bulgaria								
R	6.6	5.9	11.4	13.8	11.3	8.4	5.3	2.7
C	63	63	74	82	76	74	62	41

Source: See table 3-1.

[a] R refers to average annual rates of increase of output per man; C refers to percentage contribution of output per man to the growth of industrial production; the latter is calculated from the formula $1-\Delta E/\Delta O$, where ΔE represents the percentage increase in employment and ΔO the percentage increase in output.

pronounced than were the changes in the structure of industrial production (*see* table 3-14). These differences in trends were due to the fact that the allocation of labour by industrial branches was influenced by the degree of priority attached by the planning authorities not only to the expansion of specific industries but also to the planned increases in productivity of labour in various industries. Frequently, planned increases in output per man were not realized in practice and the targets set for industrial production could not be achieved without a greater than anticipated increase in employment.

The relationship between the expansion of capital assets and employment in various industries was far from uniform. Apart from expanding output through construction of new plants which, in the beginning of the period, absorbed a relatively small proportion of the increment in employment[25] in several countries, a considerable fraction of the new workers was directed to existing plants, the output of which could be increased in many instances by the introduction of second or third shifts with little additions to capital stock.

The flows of labour from one industry to another were generally quite pronounced between the beginning and end of the period. Most of the countries in 1950 already had a substantial industrial labour force. The rapidly expanding demand for labour in industries such as machine building and metal working was frequently met by the transfer of workers from light industries who were in turn replaced by workers previously engaged in handicrafts and agriculture. The change in the distribution of labour was in all countries characterized by a substantial rise in the share of the machine building and chemical industries and a reduction of the proportion of labour employed in food industries. In other sectors, however, the changes over time were much less uniform.

Output in all centrally planned economies increased at a higher rate than employment. As may be seen from table 3-15, in most countries the rise in productivity of labour ranged from about 7 to 9 per cent per annum, but in Hungary and Bulgaria it amounted to only 4 and 6 per cent, respectively. The highest rates of increase in labour productivity were generally achieved in the machine building industries, the most rapidly

[25] This was due in part to the fact that a large proportion of the new plants was put into operation in highly capital-intensive industries, such as electric power, chemicals and ferrous metallurgy.

expanding branch in all centrally planned economies. Output per man in the building materials industry also increased at relatively high rates, and in Czechoslovakia and Hungary these rates were higher than those achieved in machine building. In several countries, in fact, the increase in output per man in the former industry exceeded the very considerable increases achieved in chemicals and ferrous metallurgy. The increase in productivity in fuels was by far the smallest of any sector in nearly all countries, despite considerable efforts in several countries to raise labour productivity in this sector.

The role played by increases in output per man in the growth of industrial production can be seen from table 3-15 which shows the percentage contribution of increases in labour productivity to the growth of output. This contribution amounted to over 70 per cent in all countries except Bulgaria and Hungary; in the case of Bulgaria the major role played by increases in labour input is explained in part by the country's ample reserves of manpower.

The contribution of increased labour productivity to the rise in output was uniformly high in machine building and also in building materials; however, in other branches, and especially in semi-durable goods industries and the food industry, there were substantial inter-country variations. In the food industry the contribution of increases in productivity to the growth of output amounted, in the two most developed countries, Eastern Germany and Czechoslovakia, to 80 and 100 per cent, respectively, whereas in Poland, Hungary and Bulgaria it did not exceed 50 per cent.

Changes in labour productivity were associated with increases in capital per employed person although the relationship between these two factors was not very close. As already stated, a more efficient utilization of existing capacities resulted, in many instances, in increases in output and productivity with little additions of capital, while in other cases capital requirements increased both in relation to output and to employment. An increase in the amount of capital per worker was generally the result of progressive mechanization of industrial processes, and in some co ıntries it was due, perhaps to an even greater extent, to shifts in the structure of industry towards such branches as ferrous metallurgy, machine building and chemicals, which require more capital per worker than do light industries. The effect of such shifts was reinforced by the tendency to emphasize technical improvements and modernization in heavy rather than in light industries.

These developments cannot be adequately illustrated by quantitative data because statistics of capital assets by industrial branches are available for only three countries. The changes in the distribution of fixed assets by industrial branches in these countries and the annual average rates of increase in capital per worker are indicated in table 3-16.

The information given above may be supplemented by more complete data on inter-branch differences in incremental capital-labour ratios implied in the figures on the distribution of investment and of additions to employment, by branches of industry, which are shown in table 3-17.[26] These data show that the lowest incremental capital-labour ratios were generally achieved in machine building and in light industries and the highest in fuels and ferrous metallurgy. In countries other than the Soviet Union these were followed, in descending order, by chemicals and building materials. In the Soviet Union, the incremental capital-labour ratio in chemicals was much lower in relation to the

[26] The relationship between incremental capital-labour ratios in various industries is obtained by dividing the percentage shares of investment by the percentage shares of the increment in employment. Relative incremental capital-output ratios are obtained by dividing the percentage shares of investment by the percentage shares of the increment in output.

Table 3-16. Distribution of Fixed Assets and Average Rates of Growth of Capital per Worker, 1950 to 1960

(Percentage)

Industrial branch	USSR[a]			Czechoslovakia			Bulgaria[b]		
	Percentage distribution of fixed assets		Average rates of growth of capital per worker	Percentage distribution of fixed assets		Average rates of growth of capital per worker	Percentage distribution of fixed assets		Average rates of growth of capital per worker
	1950	1960	1950 to 1960	1950	1957	1950 to 1957	1952	1959	1952 to 1959
Electric energy	9.3	11.9	...	10.7	13.9	7.1	19.5	21.0	5.0
Fuels	15.7	17.0	8.3	13.4	13.8	3.5	5.1	9.2	12.9
Ferrous metallurgy	8.7	9.6	5.4	10.3	12.1	4.0	0.3	3.5	21.9
Machine building	27.7	20.3	1.9	18.3	18.8	0.1	10.8	11.4	1.3
Chemicals	5.4	4.9	...	3.7	6.3	10.5	5.7	6.8	6.9
Building materials	4.1	5.3	6.4	4.2	5.1	5.7	3.1	4.6	6.0
Textiles, footwear, clothing	4.7	4.5	2.1	16.1	11.3	0.4	14.1	9.3	−3.8
Food	9.1	9.1	7.2	16.6	12.5	2.3	24.8	13.9	−2.1
Other	15.3	17.5	..	6.7	6.2	...	16.6	20.3	...

Source: See table 3-1; *Planovane Hospodarstvi*, No. 3, 1959 and No. 2, 1961, and *Statisticky Obzor*, No. 1, 1959 (Prague).

[a] 1950 end of the year; 1960—beginning of the year.
[b] State industry only.

national average than in any of the less developed countries.

The data reproduced in table 3-17 also provide some information on inter-branch variations in incremental capital-output ratios which have been analysed in more detail for a somewhat different period in other United Nations studies.[27] It will suffice therefore, in the context of the present chapter, to review briefly these variations on the basis of the data on inter-branch distribution of investment and of increments in the gross value of output which are presented in table 3-17.

As might be expected, the incremental capital-output ratio was generally the smallest in light industries and, in all countries but one, somewhat higher in machine building. These ratios were in all cases below the national averages. The highest incremental capital-output ratios were recorded in fuel industries, except in the case of Bulgaria, where the ratio in ferrous metallurgy exceeded that of fuels.

The deviations from the national averages in other branches were less uniform. Differences appear to have been especially large between Bulgaria and other countries in the case of ferrous metallurgy, and between the Soviet Union and the other planned economies in that of building materials.

These differences are probably attributable to special factors. Thus, ferrous metallurgy, an almost entirely new industry in Bulgaria, required a much higher initial investment in relation to output than did other industries in that country. The very high investment-output ratio in the building materials sector in the Soviet Union seems to have been the result of a shift of resources within the sector to the production of cement which is more capital-intensive than is the production of bricks.

As stated in the preceding section, inter-country dif-

[27] *World Economic Survey, 1959; Economic Survey of Europe in 1961.*

Table 3-17. Distribution of Investment and of the Increments of Output and Employment, by Industrial Branch, 1950 to 1960

(Percentage)

Country and item	Electric energy	Fuels	Ferrous metallurgy	Machine building	Chemicals	Building materials	Textiles, footwear and clothing	Food	Other
Czechoslovakia									
Gross value of output	2.8	5.0	7.7	40.1	6.6	4.9	9.3	12.1	11.5
Industrial employment	1.4	7.7	10.3	55.8	5.9	5.0	5.5	−0.2	8.6
Eastern Germany									
Gross value of output	1.2	2.4[a]	6.9[b]	37.8	15.0	3.3	13.4	14.8	5.2
Industrial employment	2.6	4.3[a]	6.8[b]	50.0	13.9	4.3	10.2	7.8	...
USSR [c]									
Gross value of output	...	3.4	5.3	22.9	4.8	2.2	20.1	35.8	5.5
Industrial employment	...	7.4	4.6	33.5	5.8	8.1	—— 32.7 ——		...
Investment in industry		28.8	8.9	14.3	4.3	13.4	—— 8.7 ——		...
Poland									
Gross value of output	2.1	3.9	5.9	27.8	7.2	2.7	16.8	23.8	9.7
Industrial employment	...	8.9	5.3	34.3	6.0	6.1	13.4	14.7	11.3
Investment in industry	...	18.9	14.0	15.5	12.8	7.5	5.4	8.0	17.9
Hungary [d]									
Gross value of output	3.5	3.7[a]	7.7[b]	27.2	10.3	3.4	14.9	23.1	6.2
Industrial employment	3.6	15.0[a]	6.2[b]	30.3	6.1	4.7	15.1	8.5	10.5
Investment in industry	16.6	18.2[a]	12.3	18.5	10.7	5.5	—— 12.1 ——		6.1
Romania									
Gross value of output	2.7	7.9	6.2	25.4	7.0	3.0	13.1	14.1	20.5
Industrial employment	...	5.0	4.4	24.9	6.3	5.6	13.8	6.2	33.7
Investment in industry	11.1	33.1	9.3	7.2	9.4	4.0	2.7	5.9	17.3
Bulgaria [d]									
Gross value of output	3.6	3.0	1.5	20.2	7.0	3.1	17.9	23.6	20.1
Industrial employment	1.3	5.1	2.5	18.5	3.5	5.2	19.6	17.6	26.7
Investment in industry	23.4	13.9	7.8	8.4	6.7	4.5	4.8	8.0	19.9

Source: See table 3-1.

[a] Total mining.

[b] Including non-ferrous metallurgy.

[c] 1950 to 1958. *See* footnote *c* to table 3-13.

[d] State industry only.

Table 3-18. Indices of Per Capita Output for Industry and for Selected Industrial Products

(Czechoslovakia = 100)

Country	Industrial output			Output of machine building industry		Steel		Cement	
	1950	1958	1960	1950	1960	1950	1960	1950	1960
Eastern Germany	73	99	97	93	89	22	38	40 [a]	78
USSR	60	77	73	71	65	60	60	35	57
Hungary	40	45	45	39	29	45	38	40 [a]	43
Poland	47	58	55	22	34	40	45	59 [a]	60
Romania	27	38	38	18	24	14	20	38 [a]	46
Bulgaria	19	30	33	5	10	4	6	51	54

Source: Industrial output per capita for the years 1950 and 1958 derived from the source quoted in table 3-4 and from population statistics; for 1960, derived from 1958 data by applying indices of growth of output and population. Output per capita in the machine building industry for 1960 as given in Kiss, *A Szocialista Országok Gazdasági Együttmüködése*, page 394; for 1950, derived from 1960 data by applying indices of growth of output and population. Per capita output of steel and cement derived from national statistics.

[a] 1949.

ferences in industrial production per capita as well as in output per worker were related to variations in the degree of industrialization of individual countries. This is indicated by data on comparative levels of per capita production in industry, in machine building and in selected commodities, reproduced in table 3-18.

It appears from these data that differences in per capita output of the machine building industry in countries at different levels of development were much greater than those in total industrial production. Variations in output of cement were less systematically related to the levels of industrialization, but per capita steel production was substantially higher in the more developed countries, with the exception of Eastern Germany, than in the less advanced countries. Inter-country differences in per capita industrial production appear to have been reduced between 1950 and 1960, though in the case of machine building these changes were less uniform.

The narrowing of the differences in per capita output was not always associated with similar changes in output per man, as reflected in the data on comparative levels of productivity of labour shown in the text table below.

Differences in industrial labour productivity between the three most advanced countries on the one hand and Poland and Romania on the other were reduced between 1950 and 1960, but in Hungary and Bulgaria output per man in industry fell in relation to the levels attained by other countries.

	Total industry		Machine building	
	1950	1960	1950	1960
Czechoslovakia	100	100	100	100
Eastern Germany	93	99	72	88
USSR	97	94	109	91
Hungary	68	48	74	43
Poland	76	83	53	60
Romania	69	73	62	68
Bulgaria	46	41	25	52

Source: Indices of output per man in industry for 1950 and 1960 were derived from 1957 index as given in *Planovane Hospodarstvi*, No. 11, 1959, and national indices of gross value of output and employment. The 1957 index published by *Planovane Hospodarstvi* was: Czechoslovakia, 100; Eastern Germany, 95; Soviet Union, 97; Hungary, 49; Poland, 80; Romania, 71; Bulgaria, 47.

Indices of output per man in machine building for 1960 given by Kiss in the publication quoted in the source to table 3-4; for 1950, extrapolated from 1960 data by national indices of output and employment.

In the machine building industry, as in total industry, output per man in the more developed economies exceeded substantially the levels attained by the remaining countries, although the relationship was less clear than for industry as a whole. The changes which took place between 1950 and 1960 resulted in a considerable narrowing of the spread between various countries, the only exception being Hungary where output per man in machine building declined very sharply in relation to that of other countries.

Industrialization and foreign trade

The process of economic growth was associated in all centrally planned economies with a considerable expansion of foreign trade. The total trade of these countries increased during the decade at an average annual rate of 12 per cent, about three times as fast as the trade of the under-developed countries and one-third faster than that of the developed economies in the rest of the world.

Although the existence of certain autarkic policies at the beginning of the period, and the resulting expansion of similar lines of production in many countries, tended to slow down the growth of foreign trade, the effect of this factor was largely offset by the impact of rapid industrialization on import requirements and the corresponding rise in exports.

The rates of expansion of foreign trade were not clearly related to the levels of industrialization reached by the various countries, although the least developed

countries generally achieved higher rates of growth than the more advanced countries, with the exception of Eastern Germany (*see* table 3-19). The very high rates of increase achieved by the latter country largely reflected special circumstances which had resulted in a very low level of trade at the beginning of the period[28] and in exceptionally rapid increases during the early years of the decade.

Rates of expansion of trade do not appear to have been very closely related to growth rates of national income. As table 3-20 shows, income elasticities of trade were generally large but they varied substantially from country to country, and there is no indication of a systematic relationship between these elasticities and levels of industrialization. It seems, however, that there was some degree of correspondence between rates of increase of imports and of industrial production. Inter-country differences between the relative rates of expansion of trade and industry were none the less also quite significant, owing chiefly to differences in the structure of industry and in the dependence of various sectors on imported raw materials.

In about half of the countries listed in table 3-20 income elasticities for imports and exports increased from the first to the second half of the period under review, while growth rates of total output declined. This suggests that the expansion of trade was enhanced by the increased diversification of output in individual countries, and by the growing international division of labour.

Some indication of the degree of dependence upon foreign trade is provided by the data on per capita foreign trade[29] shown in table 3-21. There appears to have been some relationship between per capita imports and exports and levels of industrialization. Per capita trade has tended to be higher in industrially more advanced countries than in the less advanced countries, although the Soviet Union and Bulgaria were two major exceptions to this pattern. In the Soviet Union, the relatively low level of per capita trade was mainly due to the exceptionally large size of the country and to the extent of its natural resource endowment. An additional factor was the high degree of

[28] Post-war reconstruction had not been completed by 1950; moreover, exports associated with reparations payments were not included in foreign trade statistics.

[29] Imports and exports per head of total population.

Table 3-19. Trade of the Centrally Planned Economies, 1950 to 1960

Country	Value of trade				Annual rates of growth	
	1950		1960			
	Imports	Exports (millions of roubles)[a]	Imports	Exports	Imports 1950 to 1960 (percentage)	Exports 1950 to 1960 (percentage)
Czechoslovakia	575	701	1,634	1,737	11.0	9.5
Eastern Germany	423	365	1,953	1,972	16.6	18.4
USSR	1,310	1,615	5,067	5,006	14.5	12.0
Hungary	284	296	879	787	12.0	10.3
Poland	601	571	1,345	1,193	8.4	7.7
Yugoslavia	208	139	744	510	13.6	13.9
Romania	219	191	583	645	10.3	13.0
Bulgaria	127	112	570	514	16.1	16.6
China (mainland)	496	475	1,165[b]	1,280[b]	13.0[c]	15.2[c]

Source: See table 3-1.

[a] Foreign trade data reproduced in this table as well as in the following tables in this chapter have been converted into "new roubles" which were introduced as of 1 January 1961 at the rate of one new rouble to 4.44 old roubles. The new rate of exchange is one dollar equals 0.9 rouble.

[b] 1957.

[c] Average for 1950-1957.

Table 3-20. Export and Import Elasticities, 1950-1960

Country	Annual rates of growth of national income (percentage)		Elasticity of imports		Elasticity of exports	
	1950 to 1955	1955 to 1960	1950 to 1955	1955 to 1960	1950 to 1955	1955 to 1960
Czechoslovakia	8.2	7.0	1.28	1.66	1.05	1.49
Eastern Germany	10.2	6.8	1.97	1.93	2.53	1.69
USSR	11.4	9.3	1.40	1.40	1.21	1.11
Hungary	6.3	6.6	1.90	1.82	2.05	1.20
Poland	8.6	6.3	0.81	1.57	0.91	1.21
Yugoslavia	5.2	9.1	2.65	1.46	2.06	1.89
Romania	13.9	6.9	0.99	1.01	1.06	1.62
Bulgaria	9.3	9.7	1.30	2.09	1.47	1.98
China (mainland)	13.1	17.9	1.79	—	1.47	—

Source: See table 3-1.

Table 3-21. Imports and Exports per Capita, 1950 and 1960

(Roubles)

Country	1950		1960		Index of trade[a] per capita, 1960 (1950 = 100)
	Imports	Exports	Imports	Exports	
Czechoslovakia	46.4	56.6	119.7	127.2	240
Eastern Germany	23.0	19.8	113.3	114.4	532
USSR	7.2	8.9	23.6	23.3	291
Hungary	30.4	31.7	87.9	78.7	268
Poland	24.2	23.0	45.3	40.2	181
Yugoslavia	12.7	8.5	39.9	27.4	317
Romania	13.4	11.7	31.7	35.0	266
Bulgaria	17.5	15.4	72.5	65.3	419
China (mainland)	0.9	0.9	1.8[b]	2.0[b]	211[b]

Source: See table 3-1.

[a] Imports plus exports.

[b] 1957.

self-sufficiency with respect to the supply of industrial goods owing to the existence of a highly diversified industry.

The changes in the inter-country differences in per capita trade which occurred between 1950 and 1960 cannot, in all cases, be considered as characteristic for the process of industrialization in the centrally planned economies. As already mentioned, they reflected in some instances temporary conditions of trade prevailing in the beginning of the period.

An alternative and more meaningful measure of dependence on foreign trade is provided by the ratios of imports and exports to national income. But the almost complete dissociation of domestic and foreign trade prices in most of the centrally planned economies and the resulting difficulties in finding appropriate conversion coefficients, does not permit anything more than a very rough evaluation of these ratios. In consequence, the data presented in table 3-22 for the year 1960 should be taken only as an approximate indication of the inter-country differences in the ratios of trade to income, and not as exact measurements for each country.

A comparison of the ratios of trade to national income in the various countries, unlike that of their per capita trade, does not suggest a systematic relationship between the degree of dependence on trade and levels of industrialization. Country size, wealth of natural resources and composition of industrial output appear to have been important factors in determining the degree of dependence on imports and exports, while the share of industry in national income was a significant determinant only in a few cases.

The most significant change in the commodity composition of trade associated with industrialization was the considerable increase of trade in machinery and equipment (*see* table 3-23). The share of these items in imports increased during the decade in all but one country. While this share was generally greater in the less developed than in the more developed countries, it increased more in the latter than in the former. More significant than these changes in imports was the spectacular increase in the share of machinery in exports, and the fact that this increase was much more pronounced in the less advanced countries, some of which had hardly any exports of this commodity group at

Table 3-22. Ratios of Exports and Imports to National Income in 1960[a]

(Percentage)

Country	Imports	Exports
Czechoslovakia	14	15
Eastern Germany	12	12
USSR	4	4
Hungary	17	15
Poland	10	9
Yugoslavia	14	10
Romania	8	9
Bulgaria	17	15
China (mainland) [b]	2	3

Source: Division of General Economic Research and Policies of the United Nations Secretariat.

[a] The lack of adequate information on the relationship between foreign trade and domestic prices made it necessary to convert the foreign trade data by the use of the exchange rates for non-commercial transactions, that is, by so-called tourist rates which presumably correspond roughly to the purchasing power of foreign currencies for consumer goods. Therefore, the ratios shown in the table represent a kind of consumer equivalent of foreign trade in relation to national income. As the cross rates of national currencies in relation to the rouble and the dollar differed substantially, it was found expedient to convert data of each country into dollars at the prevailing tourist rate and then to convert it into roubles at the official rate of exchange. The trade data of the Soviet Union were used without any conversion because, according to official statements, the recent changes in domestic prices and in foreign exchange rates eliminated the differences between domestic and foreign purchasing power of the new rouble.

[b] 1957.

the beginning of the period. Thus, for instance, the share of machinery in the exports of Romania and Bulgaria rose from less than one per cent in the beginning of the period to 17 and 13 per cent, respectively, in 1960.

The increasing share of machinery in imports reflected the growing demand for capital equipment associated with the process of economic growth, while its rise in exports, especially in the less advanced countries reflected structural changes in output brought about by industrialization.

Raw materials and fuels generally accounted for the largest proportion of imports. Next in importance were machinery and equipment, except in the case of the two most developed countries, Czechoslovakia and Eastern Germany, where the import share of food exceeded that of machinery. Except in the Soviet Union, the share of imports of non-edible consumer goods was relatively small, ranging from 3 to 8 per cent of total imports.

The rise in the share of machinery in imports between 1950 and 1960 was accompanied in most countries by a reduction in the share of raw materials and fuels. In more developed countries the share of food in imports also fell, but in the less advanced countries it increased. The changes in the proportion of non-edible consumer goods were much less uniform. Since neither the direction nor the magnitude of changes in the proportions of raw materials, food and non-edible consumer goods in total trade was apparently related to inter-country differences in levels or rates of industrial development, it seems that the only variation in the composition of imports which clearly reflects the degree of industrialization was the rise in the share of machinery and equipment.

A similar conclusion applies even more strongly to

Table 3-23. Commodity Composition of Imports and Exports, 1950 and 1960

(Percentage)

Country and year	Imports				Exports			
	Machinery	Raw materials and fuels	Food	Non-edible consumer goods	Machinery	Raw materials and fuels	Food	Non-edible consumer goods
Czechoslovakia								
1950	11	61	25	3	26	36	13	25
1960	22	53	22	3	45	29	5	21
Eastern Germany [a]								
1950	5	57	34	4	28	53	7	12
1960	12	59	24	5	48	33	4	15
USSR [b]								
1950	22	53	18	7	12	39	21	5
1960	30	41	12	17	21	55	13	3
Hungary								
1950	21	72	4	3	23	18	39	20
1960	27	60	8	5	38	23	21	18
Poland								
1950	32	52	11	5	12	53	24	11
1960	27	52	16	5	28	44	18	10
Yugoslavia								
1953	32	36	29	3	2	75	19	4
1960	37	45	10	8	15	45	29	11
Romania								
1948	25	63	5	7	1	50	49	—
1958	26	60	9	5	12	68	15	5
Bulgaria								
1950	36	56	3	5	—	51	45	4
1960	43	45	5	7	13	30	39	18

Source: Source to table 3-1, supplemented by the following: Bulgaria, *Vneshnyaya Torgovlya*, No. 12, 1961 (Moscow); Eastern Germany, *Der Aussenhandel und der Innerdeutsche Handel*, No. 4/5, 1962 (Berlin); Romania, for 1948, *Mezhdunarodnaya Sotsyalisticheskaya Sistema Khozyaistva* (Moscow, 1958), for 1958, I. V. Dudinsky, *Mirovaya Sistema Sotsyalisma* (Moscow, 1961); data for the Soviet Union in 1950 were derived from Dudinsky's book quoted above; Yugoslavia, estimate derived from United Nations, *Yearbook of International Trade Statistics*.

[a] Data on trade in machinery include consumer durables produced by the machine building industry.

[b] Sum of exports shares do not add to total; the difference represents items not classified.

Table 3-24. Trade Balances by Commodity Group,[a] 1950 and 1960
(Millions of roubles)

Country and year	Total	Machinery	Raw materials and fuels	Food	Non-edible consumer goods
Czechoslovakia					
1950	126	121	−102	−56	163
1960	103	429	−359	−267	300
Eastern Germany					
1950	−58	79	−48	−119	30
1960	19	714	−491	−394	190
Hungary					
1950	12	8	−151	106	49
1960	−92	64	−343	89	98
Poland					
1950	−30	−126	−4	71	29
1960	−152	−30	−170	1	47
Romania[b]					
1948	−28	−73	...	...	...
1958	−12	−60	25	24	−1
1960	62	−13	...	...	...
Bulgaria					
1950	−15	−46	−14	47	−2
1960	−56	−178	−103	173	52
Total above countries (excluding Romania)					
1950	35	36	−319	49	269
1960	−178	999	−1,466	−398	687
USSR[c]					
1950	305	−91	−68	104	−18
1960	−61	−484	681	43	−732

Source: See table 3-23. For Romania, 1960, United Nations, *Economic Bulletin for Europe*, vol. 13, No. 2, 1961 (Geneva).

[a] Minus sign stands for net imports.

[b] Balance in trade of machinery in 1960 derived from data on total trade and from information on the share of machinery in exports and in imports given in the source indicated above.

[c] Balances by groups of commodities do not add to totals, the difference representing items not classified.

exports, where, as already stated, increases in the share of machinery were greater in the less developed than in the more advanced countries. The share of raw materials in exports fell in the two most advanced countries as well as in much less developed countries, such as Bulgaria and Poland. It did increase appreciably in the Soviet Union and Romania, and to a much less extent in Hungary. The share of food in exports fell substantially in all countries other than Yugoslavia.

These changes in commodity trade significantly affected the pattern of trade balances for the various classes of commodities (*see* table 3-24). The resulting shifts in trade balances clearly reflected the expected consequences of industrialization. Net imports of raw materials increased substantially in all countries except the Soviet Union, in consequence of much greater increases in imports than in exports. The rise in demand for imports was largely met by supplies from the Soviet Union, which was able to convert a small import balance in 1950 into a large export balance in 1960, despite rapidly rising domestic demand during the intervening period.

The changes in the balance of machinery and equipment were no less significant. Between 1950 and 1960, most of the centrally planned economies either increased substantially their net exports, or reduced their net imports of machinery and equipment. Net imports of machinery and equipment increased only in Bulgaria, the least developed among the countries listed in the table, and in the Soviet Union, the third most industrialized country of the group, which became the largest net importer of machinery and equipment in the course of the decade.

Changes in net trade in food were also very indicative of the process of industrialization in the centrally planned economies. In all countries except Bulgaria, net imports of food increased or net exports declined during the decade. In the case of Bulgaria, where the rate of industrial growth was equal to or higher than that of the other countries included in table 3-24, agriculture accounts for a relatively large share of the national product. In the absence of adequate exportable supplies of other commodities, net exports of food were increased in order to finance the necessary imports of machinery and equipment and industrial materials. In this country as, in fact, in all other centrally planned economies except the Soviet Union, net exports of non-edible consumer goods also increased between 1950 and 1960.

The preceding review of changes in the commodity trade of the centrally planned economies shows that, in general, these countries were able to adjust the structure of their foreign trade to the domestic requirements arising from their industrialization plans.

The expansion of industrial capacity enabled most countries to reduce net imports or to increase net exports of manufactured goods and to achieve considerable increases in imports of the raw materials required by their expanding industries. Increases in net imports of food or reductions in net exports which occurred during the period under review were also associated with industrialization, but in this case causal relationships were of a more complex character. Changes in net balances of trade in food were obviously influenced by increasing domestic demand associated with rising income levels. But they also reflected the relatively slow increases in agricultural production and in the supply of food, which was in a sense a side effect of the specific pattern of industrialization adopted by the centrally planned economies. As already stated, the rates of growth of agricultural production were strongly influenced by the relative scarcity of capital goods and fertilizers available to this sector, as well as by restrictions on the growth of incomes paid to agricultural producers, restrictions which were motivated by the felt need to maximize the mobilization of available resources for industrialization.

The expansion of foreign trade which played so important a role in the process of industrialization of the centrally planned economies was largely determined by the growing domestic demand for imports of machinery and equipment and raw materials. In fact, export promotion was initially induced not by the need to ensure foreign outlets for the growing domestic production but rather by the need to increase export revenue in order to finance imports required for industrialization.

The crucial role played by imports of machinery and equipment in the process of industrialization, reflected in part in the high share of these goods in total imports, cannot be directly assessed for lack of comparable data on output and trade. But the limited evidence shows that especially in the less developed countries, the impact of imports of capital goods was, as might be expected, very significant. Thus, for instance, in Bulgaria, machinery imported from the Soviet Union alone accounted, according to official sources, for 36 per cent of all investment in machinery and equipment between 1949 and 1957, and, together with imports from other centrally planned economies, it most likely exceeded 50 per cent of the total. In Hungary in 1959, and in Poland in 1957, imports amounted to about 29 and 21 per cent of the total supply of machinery and equipment.[30]

The contribution of imports of machinery and equipment to the process of industrialization was enhanced, especially in the less developed countries, by the fact that these countries were able to secure, mainly from the Soviet Union, complete plants for basic industries. The complexity of modern installations in sectors such as machine building, ferrous metallurgy and the chemical industry, and in power generation made it practically impossible for the less industrialized countries to create or expand these industries from domestic resources only.

In the beginning of the period most of the imported machinery and equipment was supplied by the Soviet Union, but imports from Czechoslovakia and Eastern Germany played an increasingly important role during the decade.

Another equally significant impact of foreign trade on industrialization was the considerable increase in imports of raw materials. The expansion of industrial production at average annual rates, ranging from 10 to 15 per cent in various countries, resulted in a rising demand for raw materials which most countries were unable to meet from domestic production. Apart from the Soviet Union and mainland China, the countries were highly dependent on imports of essential raw materials.[31] The exploitation of relatively small deposits of low-quality raw materials would require considerable capital outlays per unit of output. The possibility of securing imports of raw materials enabled these countries to limit outlays on the expansion of low-efficiency projects which would, in any case, have been inadequate to sustain the high rates of economic growth actually achieved during this period. The resulting savings became available for use in more productive sectors.

Some indication of the role played by imports in the apparent consumption of raw materials in several centrally planned economies is furnished by the data reproduced in table 3-25. It appears from these data that, for instance, imports of iron ore amounted to between 70 and 90 per cent of apparent consumption in the countries listed in the table and that the share of imports of petroleum was even higher, except in the case of Hungary. The bulk of imports of raw materials was supplied by the Soviet Union which, together with other centrally planned economies, accounted for a predominant part of the raw materials imports of this group of countries.

Large increases in imports of raw materials, as well as of capital goods, presented most countries with serious payments problems. A distinctive feature of the development of trade in most centrally planned

[30] Before deduction of exports, as indicated in input-output statistics. In Yugoslavia, the share of imports in total supply was estimated as amounting to 29 per cent in 1955.

[31] Only Poland and Romania, for example, possess large deposits of coal and oil, respectively.

Table 3-25. Imports of Selected Raw Materials: Annual Rates of Growth, 1950 to 1960, and Shares of Net Imports in Apparent Consumption in 1960

(Percentage)

Country and commodity	Annual rate of growth of imports 1950 to 1960	Share of net imports in apparent consumption in 1960	Share of USSR in imports in 1960	Share of other centrally planned economies in imports in 1960
Czechoslovakia				
Petroleum and products	21.3	95	100[a]	...
Iron ore	12.6	80	70	3
Wheat	6.0[b]	40	97	2
Eastern Germany				
Coal	8.8	75	63	35[c]
Coke	4.1	44	40	52[c]
Petroleum	28.7	100	92	...
Iron ore	14.3[d]	73	85	...
Wheat	19.7	51	98	...
Hungary				
Coal	15.6	33	14	85
Coke	5.6	66	55	45
Petroleum and products	27.3[b]	46	96	2
Iron ore	12.0	88	89	4
Poland				
Petroleum and products	18.2	92	82	18
Iron ore	14.4	85	75	3
Wheat	21.8	42	44	3
Bulgaria				
Coke	44.3[e]	95	35	65
Petroleum and products	20.9[e]	81	84	9

Source: As in table 3-1.

[a] Petroleum only.

[b] Average 1954 to 1960.

[c] Estimate based on incomplete data of partners' trade.

[d] Average 1956 to 1960.

[e] Average 1955 to 1960.

economies was the growing importance of exports of machinery and equipment as a source of foreign exchange receipts. A large part of such exports was directed towards the Soviet Union; in 1960 machinery and equipment accounted for about 60 per cent of Soviet imports from Eastern Germany and Hungary, 45 and 30 per cent respectively of those from Czechoslovakia and Poland, and 16 per cent of imports from Bulgaria.

The impact of these developments in trade on the over-all balances is revealed by the data shown in table 3-24. But the crucial importance of the growth of exports of machinery emerges even more clearly if one considers its contribution to the increment in total export revenue from 1950 to 1960 (*see* table 3-26).

While this contribution was the highest in more industrialized countries such as Czechoslovakia and Eastern Germany, it is significant that it amounted to over 40 per cent in two much less developed countries, Hungary and Poland, and to 22 and 17 per cent respectively in Romania and Bulgaria, which are among the least industrialized countries of the group. As

Table 3-26. Exports of Machinery: Share of Machinery in the Increment of Total Exports, 1950 to 1960

Exporting country	Increment in exports (millions of roubles)		Share of machinery in increment of total exports (percentage)
	Total	Machinery	
Czechoslovakia	1,036	598	58
Eastern Germany	1,607	852	53
USSR	3,391	835	25
Hungary	491	231	47
Poland	622	268	43
Romania	454	102	22
Bulgaria	402	67	17

Source: See table 3-1.

Table 3-27. Annual Rates of Growth of Output and Trade of Machinery, and of Fixed Investment, 1950 to 1960

(Percentage)

Country	Export	Import	Output	Investment
Czechoslovakia	16	19	16	12
Eastern Germany	25	26	15	18
USSR	18	18	16	13
Hungary	16	15	13	8
Poland	18	7	22	10
Romania	30	5	19	14
Bulgaria	[a]	18	24	15

Source: See table 3-1.

[a] Since exports of machinery at the beginning of the period were negligible, the annual rate of growth is meaningless and was therefore omitted.

shown in table 3-27, in the four less developed countries exports of machinery and equipment increased faster than imports, and except in Poland faster also than domestic production.

It may be supposed that the impact of the expansion of machinery output on the balance of payments was not confined to its contribution towards the expansion of exports, but that import substitution had also taken place. However, aggregated data for investment and for imports of machinery indicate import substitution clearly only in the case of Poland and Romania, where the growth of imports lagged significantly behind that of investment (table 3-27).

As noted earlier, the policy of expanding output and exports of machinery and equipment resulted from various considerations, including the fact that terms of trade as well as domestic cost relationships favoured the exchange of machinery for other kinds of commodities. Governments were no doubt also influenced in the formulation of policies by the buoyant current and prospective demand for machinery in the centrally planned economies.

In consequence of this policy, rates of growth in several lines of production were increasingly influenced by exports. The available information on the share of exports in the output of specific commodities which is shown in table 3-28, indicates that expanding exports stimulated the growth of output of manufacturing industries not only in the more developed but also in the less industrialized centrally planned economies. In some cases, especially in Eastern Germany, increments in exports exceeded those of output, implying a decline in domestic consumption. Such changes could be due to the saturation of the domestic market with specific goods, but they could also reflect restrictions on domestic consumption imposed for the purpose of raising exports. In other cases exports increased less than domestic production, but they none the less absorbed a substantial share of the increments in output.

In many instances the expansion of exports made possible economies of large-scale production which could not have been achieved within the limits of the domestic markets of the majority of the centrally planned economies.

Although export revenues rose considerably in all centrally planned economies during the decade of 1950-1960, increases were not sufficient to meet the growing demand for imports induced by the high rates of industrialization in several less developed countries. Nevertheless, the imports of these countries increased more than exports owing to foreign credits extended chiefly by the Soviet Union.

The changes in the balance of payments on current account and the role played by net capital flows in the process of industrialization cannot be readily assessed owing to the lack of data on balance of payments. The following review is therefore confined to changes in trade balances, which are not necessarily identical with changes in total current account balances. However, differences do not appear to have been such as to invalidate general conclusions derived from trade data.[32]

As indicated in table 3-29, the more industrialized

Table 3-28. Exports in Relation to Output of Selected Commodities

Country and product	Incremental export-output ratio 1950-1960	Share of exports in output in 1960	Index of output in 1960 (1950 = 100)
Czechoslovakia			
Motor cycles	1.03	75	246
Trucks	0.70	59	207
Tractors	0.55	56	310
Metal working machinery	0.43	45	234
Passenger cars	0.35	54	229
Eastern Germany [a]			
Typewriters, portable	1.12	76	122
Cameras	[b]	52	58
Calculating machines	0.94	79	143
Trucks	[b]	43	91
Wrist watches	0.71	40	150
Railway passenger cars	0.56	66	245
Poland			
Ships	0.70	69	3,200
Railway passenger cars	0.52	55	418
Hungary			
Electric bulbs	0.62	60	258
Buses	0.60	63	433
Radios	0.55	30	216
Romania			
Railway freight and tank cars	0.78 [c]	75	246
Caustic soda	0.59 [c]	41	493
Bulgaria			
Electro-motors	0.44	41	1,662

Source: As in table 3-1

[a] Ratio for the period 1955-1960 and index of output in 1960 on the base 1955 = 100.

[b] Ratio irrelevant because of the fall in output; exports increased in the period 1955-1960 as follows: cameras by 30 per cent; trucks by 2 per cent.

[c] Ratio for the period 1958-1960.

[32] Both imports and exports of centrally planned economies are, as a rule, valued f.o.b. Balances of trade generally account for the major part of total current account balances. The bulk of service payments consists of transportation charges which tend to move in line with imports. It may therefore be assumed that, over an extended period, inter-country differences in trade balances reflect approximately the variations in surpluses or deficits on current account. It should be pointed out, however, that factors such as geographic position, direction of trade flows and prevailing practices with respect to the settlement of transportation costs would tend to produce net surpluses on service transactions in the case of Poland and net deficits in the service balances of Czechoslovakia and, especially, of Eastern Germany. In Poland, according to data published in *Finanse*, No. 5, 1960 (Warsaw), the surplus on service account was equivalent to approximately one-half and one-third of the trade deficit in 1958 and 1959, respectively. It should be added that changes in foreign currency reserves were probably insignificant in all countries except, perhaps, the Soviet Union.

Table 3-29. Trade Balances of Centrally Planned Economies,[a] 1951-1960

Country	1951-1955	1956-1960	1951-1960	Imports 1951-1960	Ratio of trade balance to imports 1951-1960
	(millions of roubles)				(percentage)
Czechoslovakia	233	511	744	10,785	6.9
Eastern Germany	310	565	875	12,083	7.2
USSR	1,049	620	1,669	32,501	5.1
Hungary	22	−236	−214	5,394	−4.0
Poland	−217	−833	−1,050	9,731	−10.8
Yugoslavia	−631	−1,018	−1,649	4,629	−35.6
Romania	−92	84	−8	3,779	−0.2
Bulgaria	33	−72	−39	2,797	−1.4
China (mainland)	−1,077	178[b]	−899	7,618[c]	−11.8[c]

Source: As in table 3-1.
[a] A minus sign indicates import surplus.
[b] 1956-1957.
[c] 1951-1957.

countries, Czechoslovakia, Eastern Germany and the Soviet Union, consistently recorded relatively high trade surpluses. In the other countries, rapidly growing import requirements resulted in trade deficits. For the period as a whole, the export surplus of the Soviet Union accounted for more than half of the combined surplus of all net exporting countries. Among the less industrialized countries, the largest cumulative deficits were incurred by mainland China, Yugoslavia and Poland. The export surplus of the Soviet Union tended to decline from the first to the second half of the period under review, while deficits of the net importing countries tended to rise, except in Romania and mainland China.[33]

It should be added that the trade deficits incurred during the period as a whole and their changes over time were not always a direct consequence of rising imports of machinery and raw materials; they were frequently due to substantial food imports in certain years. This was notably the case in Hungary, Poland and Yugoslavia.

If one considers these data on trade balances as roughly indicative of net flows of foreign credits, it appears that, except in Yugoslavia, the proportion of imports financed by credits was relatively small. It did not exceed one per cent in Romania, one and one-half per cent in Bulgaria and about 4 per cent in Hungary. In Poland the deficit in the balance of trade amounted to some 10 per cent of imports, but in view of relatively large net receipts from services, the actual dependence of this country on foreign loans was presumably much smaller than indicated by this ratio. In Yugoslavia about one-third of imports was financed by foreign loans throughout the period.

The role played by capital flows in the accumulation of resources for economic expansion may be illustrated by the estimates of the ratios of trade balances to domestic fixed investment valued in comparable prices. Such rough estimates covering the period between 1950 and 1959[34] seem to indicate that among net importing countries, this ratio amounted to less than one per cent in Bulgaria and Hungary, 5 per cent in mainland China and 7 per cent in Poland.[35] But it should be mentioned that in mainland China, the ratio of net imports to fixed investment was much higher in the beginning of the period, amounting to about 13 per cent of fixed investment in 1950-1953.

In the Soviet Union, which ran the largest export surplus, the ratio of net exports to fixed investment was only slightly above one per cent during the period taken as a whole and about two per cent in 1950-1953.

The pattern of capital flows suggested by data on foreign trade balances differs substantially from the available information on credits granted and received by various countries shown in table 3-30. Apart from the fact that the latter data are gross credits and do not allow for repayments of loans, they cover only the amounts which could be accounted for on the basis of information relating to individual countries.[36] Their total is substantially lower than the aggregate of credits announced by some of the lending countries.

Thus, for instance, credits granted by the Soviet Union to other centrally planned economies amounted, according to Soviet sources, to 7.8 billion roubles between the end of the Second World War and 1960, while less complete data on credits relating to individual countries based on the same sources and indi-

[33] Within the periods indicated in table 3-29, the pattern of changes was less uniform. In Bulgaria a small deficit at the beginning of the period was converted into a surplus in 1954-1957, which was subsequently replaced by a substantial deficit. In Romania, a high initial deficit was gradually eliminated, and an export surplus emerged by the end of the decade. Hungary recorded small surpluses in most years, the shift from surplus in the first period to deficit in the second resulting primarily from a large import balance in 1957.

[34] See *World Economic Survey, 1960*, page 122.

[35] In the latter country, the inclusion of revenue from services would certainly reduce this ratio substantially.

[36] For more details, see *World Economic Survey, 1960*, page 119.

Table 3-30. Credits Granted and Received by Centrally Planned Economies in 1950-1960[a]

(Millions of roubles)

Country	Net credits granted or received (−)	Credits granted	Credits received
Czechoslovakia	406	418	12
Eastern Germany	−97	314	411
USSR	3,103	3,103	—
Hungary	−496	5	501
Poland	−853	21	874
Romania	−133	20	153
Bulgaria	−464	5	469
Albania	−277	—	277
China (mainland)	288	675	387
North Korea, North Viet-Nam and Mongolia	−1,477	—	1,477

Source: Division of General Economic Research and Policies of the United Nations Secretariat. For full list of sources, *see* United Nations, *World Economic Survey, 1960*, table 3-16, page 120.

[a] Value based on incomplete information. They represent only the amounts of credits accounted for by specific announcements relating to individual countries which are substantially below the total credits extended and received by the centrally planned economies. Credits received from private enterprise economies are not included. Poland had received from the United States loans amounting to about 383 million roubles in the years from 1957 to 1960. Credits received by Yugoslavia from the private enterprise economies during 1950 to 1960 amounted to about 1,453 million roubles net of repayments.

cated in table 3-30 totalled only about 3 billion roubles during the years 1950 to 1960.[37]

Differences between the credit position of mainland China as reflected in the data given in table 3-30 and the information derived from the budget statistics of that country appear to be even greater. According to Soviet sources, credits granted to mainland China between 1950 and 1959 amounted to about 387 billion roubles, whereas Chinese budgetary data show Soviet credits of more than three times that magnitude.

The budgetary statistics of mainland China, unlike the available sources of information for other countries, include data on loans received and granted as well as on repayments of credits expressed in domestic prices. These data indicate that loans received between 1950 and 1957 amounted to some 5.3 billion yuans, and loans granted by mainland China, mostly to other Asian centrally planned economies, totalled 3.9 billion yuans; net borrowing therefore amounted to only 1.4 billion yuans. After allowing for repayment of loans, there was a net outflow of some 200 million yuans in 1950-1957. For 1950 to 1952, net foreign borrowing of mainland China amounted to some 15 per cent of fixed investment, but its position subsequently shifted to that of net capital exporter, and for the period 1950-1959 as a whole a net outflow equivalent to about one per cent of fixed investment was recorded.[38]

The available data on credits and especially those on trade balances suggest that in the aggregate the contribution of foreign credits to the process of industrialization of the centrally planned economies over the decade as a whole was rather small. The actual impact of the inflow of foreign capital on development in the borrowing countries was, however, at times considerably greater than would appear from these data. In the initial stages of industrialization, loans, frequently granted in the form of machinery and equipment or of raw materials for strategically essential industries, played a considerable part in enhancing its progress. In the later stages loans were occasionally extended in the form of food necessary to eliminate shortages that threatened to impede stability and further economic growth.

An important feature of capital flows from the point of view of the debtor countries was the very low interest rate which they carried, amounting in most cases to about 2 per cent per year. This level was far below the potential yield of the investment connected with any given amount of loan, so that the credit operations between the planned economies involved, as a rule, a certain element of aid granted by the creditor to the debtor. It is significant, nevertheless, that during the period under review, the high rates of industrial development in the centrally planned economies were achieved by the utmost mobilization of domestic resources and only to a relatively small extent by the use of foreign credits.

[37] Similarly, according to Bulgarian sources, credits extended to that country between 1948 and 1957 exceeded one billion roubles, while the amounts included in published credit agreements totalled only 469 million roubles between 1950 and 1960.

[38] The available statistics for other countries do not permit similarly detailed estimates. The only relationship that can be established is that of credits granted or received to gross investment. Inevitably the ratios based on credit data differ significantly from those based on net trade statistics. The credits received by Bulgaria were equivalent to about 9.5 per cent of domestic fixed investment, while those received by Hungary and Poland amounted to some 7.4 per cent and 6.3 per cent of fixed investment, respectively. The value of credits granted by the Soviet Union in 1950-1959 was equivalent to approximately 2.6 per cent of its fixed investment. Although Eastern Germany granted credits equivalent to some 3.3 per cent of fixed investment, net foreign lending was negligible in view of the fact that credits extended to that country were almost as large as receipts.

Problems and policies

At the beginning of the nineteen fifties, the centrally planned economies were at markedly different stages of industrialization. At one end were Czechoslovakia and Eastern Germany, which even before the Second World War had reached a relatively high level of development, and at the other extreme were Bulgaria, mainland China and Romania, which had all the characteristics of economically under-developed countries. Perhaps with the exception of Bulgaria and mainland China, however, all these countries were, even at the starting point of their planned expansion, at a more advanced stage of development than most under-developed countries in the rest of the world.

The Soviet Union in the nineteen twenties, and most other centrally planned countries at the end of the Second World War, possessed a sizable industrial sector, a relatively developed transport system and a significant nucleus of skilled workers and technicians. Thus, these countries had far more of the prerequisites for industrial growth than do most under-developed countries. In spite of these advantages, however, the problems faced by the centrally planned economies at the inception of their industrialization plans were, in many respects, similar to those currently faced by the under-developed countries. Indeed, a series of "interlocked vicious circles" had to be broken in order to open the way for rapid economic growth. As in the under-developed countries, the problem was to break the "under-development equilibrium" of income, saving, investment and output at low levels.

The solution of this problem in the centrally planned economies differed, however, from that frequently suggested in relation to the less developed countries, largely owing to the institutional differences prevailing between private and state enterprise economies. In the under-developed countries, where a substantial part of economic activity takes place in the private sector, the approaches to problems of economic growth, known as the "big push", "balanced growth" or the critical minimum effort necessary to overcome the inertia of under-development and bring about a change from a stationary or slow-moving economy to a continuously developing one, have largely been geared to creating inducements for private investment and for increasing absorptive capacity. Policies in these countries, in other words, have been formulated to create conditions for a largely self-sustained process of economic growth through the market mechanism. But in the centrally planned economies, in contrast, the introduction of central planning and direct allocation of resources pushed aside the problem of incentive to save and invest. The predominant part of investment was, in fact, achieved by the government sector within which saving and investment were for all practical purposes a single operation. These institutional features, therefore, eliminated the problem of the market for output of the growing industries.

Removed from such considerations as profitability and demand, the problem of "developmental start" in the centrally planned economies was sought to be solved by expanding the output of capital goods largely for further expansion of industries producing capital goods, rather than for investment in consumer goods industries. Rapid expansion of capital goods industries to produce capital goods was, in fact, considered crucial for economic development.

Such a process, which has as its counterpart a continuous rise in the rate of investment, can clearly go on for a considerable period of time without creating any problem of outlets for the output of expanding industries. Rather, the problem created by this pattern of growth has often been the excess consumer demand which, in spite of restrictions imposed upon the growth of disposable income, has, in many instances, resulted in inflationary price increases. The strong emphasis on the development of heavy industries served the purpose of raising their output levels, which would ensure continuous expansion, ultimately eliminating further need for restrictions on consumption. Only after a certain stage of industrialization had been reached was the emphasis on the development of heavy industries reduced and a much greater proportion of resources devoted to the expansion of agriculture, consumer goods industries and housing.

Industrial development in the centrally planned economies thus followed a sequence which was the reverse of that frequently recommended to less developed countries on the basis of the historical experience of North America and western Europe. According to this view, the most efficient policy would be to start with industries processing agricultural raw materials, then to expand industries producing non-agricultural consumer goods and only in the last stage of industrialization to proceed with the expansion of capital goods industries. At early stages of development, when capital is scarce in relation to labour, it is argued that the least capital-intensive techniques of production should be selected and that capital intensity should be permitted to rise only gradually when labour becomes more scarce and when the rise in income generates increasing amounts of saving. It is recognized, of course, that the possible combinations of capital and labour are not the same in all industries; they are generally more numerous in agriculture and in consumer goods industries than in heavy industry, where the ratio of capital to labour is more rigidly determined by technological requirements. But the desire to achieve the most efficient utilization of resources in the short run would suggest a policy strongly emphasizing

the expansion of industries with a low ratio of capital to labour.

Although initially this policy may bring about larger increases in employment and total output in some instances, it was rejected outright in the centrally planned economies on the basis of long-term requirements for acceleration of economic growth. In these countries the considerations about relative scarcity of capital and labour have had no influence on the choice of the over-all pattern of industrial development. The emphasis placed on heavy industry has led to a capital-intensive form of growth in spite of the fact that in the initial period capital was scarce and labour abundant.

Within branches of industry, however, the choice of techniques has been more closely related to the relative scarcities of capital and labour. While the repeatedly stated policy was to increase output per man through modernization and substitution of labour by machinery and equipment in all productive processes, the scarcity of capital imposed in all centrally planned economies a more diversified approach. The main factor influencing the choice of techniques within an industry was the place occupied by that industry in the priority scale established by the authorities. In industries considered most important from the point of view of economic growth, the general tendency was to choose the most advanced techniques, while in industries of secondary importance more labour-intensive techniques prevailed. Even in the high priority industries, however, the policy of raising the capital intensity was not applied uniformly. Within these industries, high capital-labour ratios were generally applied only to those productive processes where the ratio was more or less technologically fixed; that is, where the standards of quality and uniformity of products could not be maintained with another combination of factors. In processes where the quality of product was not dependent on fixed factor coefficients, the capital-labour ratios were kept low. In some countries, for instance, in such a high-priority industry as machine building, handling of materials, intra-factory transportation, quality control and several other operations were almost entirely manual. Similarly, construction work at the early stages of development was characterized by a very low capital intensity, especially in operations not requiring skilled labour.

The scarcity of skilled labour was, in fact, another factor which, apart from technological requirements, prompted the use of capital-intensive methods in high priority sectors. Even where more labour-intensive methods could be applied, the maintenance of quality standards would have required a much greater supply of highly skilled workers than was available at the earlier stages of development. Although certain products of machine building industries, could be, and in fact in some cases were produced manually, the acquisition of the necessary skills required years of training. If, therefore, the problem of scarcity of capital and labour is reformulated in terms of capital versus *skilled* labour, the relative scarcities of these two factors of production may appear quite different. This aspect of the problem did indeed also influence the choice of techniques in the centrally planned economies.

Thus, while no single principle was applied uniformly to all industries in determining the choice of techniques, the two criteria that figured rather prominently were the existing scarcity of factors of production and the limitations imposed by technological possibilities. The scarcity of factors of production, however, was influential only in a very broad sense. Recent discussions on the efficiency of investment indicate that the tendency to use inadequate criteria and to seek technical perfection frequently led to economically unsound mechanization and thus resulted in waste of capital.[39]

The pattern of industrialization in the centrally planned economies was determined by the system of priorities established by the central authorities in accordance with the prevailing views about the relative importance of various industries for economic growth.

It has often been stated that economic development in the centrally planned countries was governed by the "law of proportional development" and that the task of planning authorities was to act in accordance with this law, though the exact meaning of this law was never made explicit. In vertically complementary industries, undoubtedly, the relative size and the rate of growth of output at various stages of production are determined by technical coefficients. But the impact of these technical restraints is the smaller the less closely related are the industries.

Even in the case of complementary industries, the principle of proportional growth was not applied during a large phase of industrialization. This resulted in the frequent emergence of bottlenecks in various sectors which had to be eliminated in order to create conditions for further expansion. In some cases, inadequate planning was responsible for the imbalance; in others, it was due to under-fulfilment or over-fulfilment of plans in different industries. But frequently it was also a part of deliberate policy aimed at accelerating the growth of certain industries even if complementary industries could not be expanded because of scarce resources. Although such a policy was not in conformity with any principle of proportional development, it could be justified in view of the drive for acceleration of the rate of economic growth. On technical and economic grounds, it may be perfectly rational to expand a given industry beyond the limits set by the existing supply of raw materials or intermediate goods or by the existing demand for its product in anticipation of

[39] For further details, see *World Economic Survey, 1959*, chapter 3.

future growth of supply and demand. The economies of scale and the indivisibility of investment projects in some industries had in most cases made it worth while to expand capacity to a greater degree than was suggested by the availability of materials or by the demand for manufactured goods. Some bottlenecks did inevitably result, but they subsequently were eliminated by the expansion of other industries. By and large, any losses caused by these imbalances were considered less harmful than those frequently incurred by the immobilization of capital in unfinished construction. This was frequently the case where a large number of investment projects undertaken simultaneously could not be completed on schedule owing to shortages of materials and qualified labour. The declared aim of this policy was to expand the production of capital goods irrespective of cost in order to reduce, within a relatively short period, the scarcity of capital.

The alternative of balanced growth, avoiding recurrent bottlenecks, was rejected by the centrally planned economies on the grounds that it would reduce drastically their rate of economic expansion and thus prolong the backwardness of their economies. The effect on the rate of industrialization of losses caused by these disequilibria is likely to have been more than offset by the benefits derived from the expansion of strategically important industries. In a state enterprise economy such losses were not a factor discouraging investment, but they were liable to lead to further restrictions on the growth of consumption.

The policies pursued during the initial phase of industrial development underwent significant changes during the second half of the nineteen fifties. These changes were motivated, in most cases, by the need to devise new methods appropriate to the more advanced stage of economic development. While their timing was inevitably influenced by political factors, the major impetus for them arose from the transformation of the economy following several years of rapid growth. The substantial expansion of basic industries, by preparing the ground for a more balanced growth, led to a change in the scale of priorities. Policies which could meet the needs of a less integrated economy were hardly suited to the requirements of a more complex and diversified economy. With the increasing complexity of interrelations between industries, sectoral imbalances often became an obstacle to economic growth. Furthermore, the fuller utilization of resources and the growing need to satisfy the demand for consumer goods were important factors stimulating the reappraisal of previous policies.

Several policy changes were introduced in the later part of the nineteen fifties. In all centrally planned economies, for instance, there appeared a tendency to decentralize management and to enlarge responsibilities at lower levels of personnel, although only in Yugoslavia, which had introduced far-reaching reforms at an earlier date, was the extent of change substantial.[40] Far more important was the increased allocation of resources for the expansion of agriculture, consumer goods industries and housing. Further, most countries introduced more efficient methods of choice among alternative investment projects within a given industry. These were based on a stricter evaluation of the effects of various combinations of capital and labour on unit costs of output. While in most countries the investment criteria were differentiated—for example, capital intensive projects were favoured in high priority sectors —in some cases it was suggested that at the given level of development a unified measure of effectiveness of investment should be applied for all industries. Moreover, there was a tendency to apply efficiency criteria not only to the choice between alternative investment projects producing identical output but also to the allocation of resources between various industrial and economic sectors.[41] In practice, however, the scope for such decisions has been limited to the choice between industries producing substitutable goods; broader applications of the criteria have not generally been accepted. But the fact that the problem was raised is by itself an indication of the new strategies of economic growth. This new tendency is indicative of the realization that high levels of output attained by key industries reduce the need to concentrate on these sectors, and make it possible to plan for optimum rather than maximum levels of output and investment.

The preference for the optimum approach has, in part, stemmed from the awareness that, in an increasingly complex economy, the maximization of targets for a given industry may not be desirable for the economy as a whole if it absorbs resources needed for the

[40] It may be recalled that the central plan in Yugoslavia contains only general targets relating to output and allocation of investment during a given period. The implementation of the plan is brought about largely by fiscal and financial policies with little interference by the Government in the activities of individual enterprises. The management of enterprises is responsible to the elected council of workers but is generally free to determine its own output, sales and prices. After the fulfilment of obligations to the State and the payment of basic wages to workers, the enterprises are free to determine the allocation of profits for bonuses or reinvestment. According to official statements, such a system could not be effective at the initial stages of industrialization which required rapid and drastic changes in the allocation of income and in the structure of the economy.

[41] Efficiency criteria were never considered a sufficient basis to determine fully the allocation of investment among sectors. It has been argued that even in the economies where price levels adequately indicate relative scarcities, such criteria could not be considered a sufficient basis for long-term planning of investment, because prices mirror present conditions, while investment planning must take into account long-run considerations. For a detailed discussion of these problems, see *World Economic Survey, 1959*.

expansion of complementary industries. Furthermore, as future increases in national product are closely dependent on increases in labour productivity, the need to raise incentives, including such inducements as higher consumption, has now sharpened the quest for optimum expansion in investment, consumption and, consequently, national income. Although some of the new approaches are still in the stage of discussion, they do mark an important change in the industrial policies of the centrally planned economies, indicating a gradual transition to a more balanced growth than in the earlier stages of development.

While the broad approach to economic problems in the nineteen fifties was similar in all centrally planned countries, the formulation of specific policies was inevitably influenced by the economic characteristics of individual countries. Nowhere was this more evident than in mainland China, where the per capita national income and the relative share of industry or agriculture in national output differed sharply for those in, say, Czechoslovakia or Eastern Germany. Mainland China is of special interest, not only because of its endeavour to transform a highly agrarian economy into a well-developed industrial society but also because of certain departures from the pattern established in other centrally planned economies.

In the face of a very pronounced scarcity of capital relative to labour, differences in the allocation of capital and labour to varying sectors were greater in mainland China than in other centrally planned economies. Unlike countries where substantial provisions were made for the supply of machinery and equipment for agriculture, despite a low priority rating of this sector, mainland China decided to postpone any significant mechanization of agriculture; reliance was placed instead on the availability of abundant manpower. In the construction of power stations, roads, irrigation works and drainage facilities, millions of workers were equipped with no more than shovels, wheelbarrows or baskets for carrying earth and materials. Labour-intensive methods were applied to an incomparably greater extent than in any other centrally planned economy in sectors providing large opportunities for factor substitution; at the same time, modern techniques were used in high priority branches of manufacturing industries.

In 1958, however, the massive use of manual labour and home-made equipment was extended and reached unprecedented heights. The only way to overcome backwardness in a short period, it was officially stated, was to mobilize every possible resource and to employ "indigenous" methods of production alongside modern techniques over a wide range of industrial products. Thus, small iron and steel furnaces were established throughout the country, in towns as well as in villages, and millions of peasants were mobilized for expanding the output of capital goods.[42] However, when it turned out that the materials produced by "indigenous" methods were of inferior quality and could not be used by modern metal working and machine building industries, this policy was abandoned in certain fields of production. But, in general, the establishment of low capital-intensive industries in rural areas[43] was considered a promising way of expanding industrial output without incurring the overhead expenses that would be required if labour were to be transferred to the cities.

The extensive use of manpower was closely connected with the establishment of rural communes which integrated the existing collective farms into broader units combining industrial and agricultural activities. The system of communes was considered vital for rapid economic growth in mainland China. Its goals included increases in agricultural production through better organization of work, release of manpower for industries, expansion in manufacturing production in the rural areas with little addition to capital stock, improved food supply for cities and, what is perhaps more important, increase in exports of foodstuffs in order to import strategic investment goods for further industrial expansion. Indeed, industrial expansion in mainland China has been contingent upon agricultural growth.

Many of the expected results of the commune system, however, failed to be achieved. Apart from the fact that a number of industrial goods produced by "indigenous" methods were not usable for further industrial processing, the system of work and of remuneration of labour originally introduced in the communes acted as a disincentive for agricultural producers.[44] While, formally, the commune system was retained, in fact mainland China has reverted to the system of collective farms which have once again become independent economic units.[45]

[42] This was facilitated by the wide dispersion throughout the country of iron and coal deposits, though these were not always of high quality.

[43] It should be noted that these industries in rural areas are not what are often called cottage industries in the underdeveloped countries.

[44] As originally conceived, the authorities of the communes were entitled to allocate labour to argicultural work, construction or local industry in various parts of their territory. Furthermore, the remuneration of labour was to be largely based on equalitarian distribution of a large part of subsistence in the form of meals served in communal establishments and in kind. If it had worked, this policy would have resulted in a greater mobility of labour and greater government control over the supply of argicultural commodities than had been achieved in other centrally planned economies at the corresponding period of their development.

[45] In order to stimulate incentive to work, members of the collective farms were to receive a large proportion of their pay in money, according to work performed, and were to be permitted to retain small plots of land for raising food. Free sale of agricultural produce on local markets was allowed, provided that the compulsory deliveries were fulfilled. The commune was deprived of the right to impose any decisions upon the collective farms and to shift its labour to other sectors. The industrial activity of the communes was at the same time sharply reduced.

Viewed against the background of the country's special problems, it is not surprising that the development of agriculture has now been stated to be the cornerstone of future economic growth. The development of heavy industry is still given a high priority rating among the long-term goals, but for the immediate future, achievement of a greater balance in the expansion of various sectors has come to be considered as the main task. Agriculture has currently been accorded top place in the priority scale of development, followed by light industry, while heavy industry came last. It is likely that some of these changes were influenced by the disastrous effect of successive bad harvests during the past two years and are of a temporary character. The emphasis which had developed after the "big leap forward", on consolidation and elimination of bottlenecks rather than on rapid growth, may give way after some time to further rapid expansion. But the reappraisal of the recent experience indicates clearly that the general tendency is in favour of a more uniform and balanced pattern than had obtained in the past.

Government policy in the centrally planned economies played a decisive role in industrialization not only directly through its impact on the domestic economy, but also through the channel of foreign trade. The interrelations between industrialization and foreign trade were greatly influenced by the existence of state monopolies of foreign trade and state control of domestic markets, without which the centrally planned economies would not have been able to bring about changes of such magnitude in their foreign trade as did actually occur in the nineteen fifties. New links were forged between foreign trade and domestic output as a result of concerted actions aimed at the mobilization of all available resources for economic growth. These actions frequently involved restraints on consumption in order to release goods for export or to reduce non-essential imports, and thus to secure larger imports of capital goods, fuels and raw materials which were of strategic importance for further industrialization. Indeed, without increases in such essential categories of imports, it would not have been possible to achieve high rates of economic growth. This was particularly true of countries with little, if any, capacity in the capital goods industries. But even where such industries did exist, they were at the beginning of the nineteen fifties confined mostly to the production of a limited variety of equipment, suited to satisfy the pattern of domestic demand prevailing before the war.

The importance of exports in the centrally planned economies lay largely in their ability to pay for additional imports. Since deficiency of domestic demand is not a problem in these countries, there was hardly a question of looking upon exports as a means of filling any void in domestic effective demand.[46] In subsequent stages of industrialization, however, export expansion was increasingly favoured by the desire to improve efficiency of production through greater specialization and by securing economies of scale in lines of production where the size of the domestic market was below the optimum level.

The rates of expansion of foreign trade and the considerable changes in its composition could not have been achieved if the centrally planned economies had not functioned within an integrated trade area, comprised of economies at different levels of development and endowed with a large variety of natural resources. The development of new industries, especially in the less advanced countries, which could hardly find outlets for their new products elsewhere in the world, was greatly facilitated by the existence of a relatively closed international market of the centrally planned economies. A decisive part was played in this respect by the Soviet Union which, by virtue of its large industrial capacity and rich natural resource endowment, supplied heavy equipment and raw materials to other centrally planned countries in exchange for the products of their industries. The increasing Soviet demand for imports of machinery, equipment and other manufactures was due to the fact that industrialization in the Soviet Union itself was at the same time proceeding rapidly along a diversified front.

Trade relations between centrally planned economies were based on commercial principles. The bilateral trade agreements were generally the result of bargaining in which each country strove to obtain the most advantageous terms with respect to the choice of goods, delivery dates and prices.[47] None the less, the trade of the centrally planned economies was also influenced by considerations relating to the interests and the economic strength of the group as a whole. These considerations exerted some influence on trade flows, despite inadequate co-ordination of national economic plans especially during the first half of the decade. Commercial policies were at first strongly influenced by the Soviet Union, but in more recent years an increasingly important part has been played by the Council for Mutual Economic Assistance. Although only an advisory body, the Council has helped to achieve better co-ordination of national economic plans and policies for enlarging the scope of international division of labour and, thus, for seeking greater advantages from foreign trade among the countries of the group.

The role played by considerations relating to the economic and political interests of the area as a whole

[46] It is only in the short run that the capacity of a given industry may outstrip domestic demand and thus create a need for foreign outlets for its products.

[47] Although foreign trade prices in the centrally planned economies are as a rule based on those prevailing in world markets, prices arrived at in bilateral agreements could deviate from world prices in either direction. This is especially the case with respect to manufactured goods, where differences in specifications and quality standards make it more difficult to take world prices as the exclusive basis for determining prices in trade among the centrally planned economies.

cannot readily be ascertained. Cases have been known of countries exporting specific commodities to other centrally planned economies although occasionally more advantageous terms would have been obtained in third markets.[48] But the existence of an integrated trade area of the centrally planned economies facilitated the development of a pattern of foreign trade most suitable for the fulfilment of plans of industrial growth. New industries, especially in the less advanced countries, could hardly expect to find outlets for their new products in the rest of the world.

The preference given to intra-trade, as well as the fact that the standards of requirements of various centrally planned economies did not greatly differ, made it possible for less developed countries to export machinery, equipment and other manufactured goods to other members of the group. The resulting economies of scale and the previously mentioned advantages derived from such a pattern of trade, were important factors in accelerating the process of industrialization of these countries.

The principle of comparative advantage in its traditional sense did not play a prominent part in altering the pattern of production and foreign trade in the centrally planned economies. It was given greater consideration in the development of primary production and of the first stages of processing of raw materials than in that of manufacturing industries. Initially high production costs in some industries in the less advanced countries were considered transitory and therefore of little significance in the formulation of production and foreign trade plans.

The attention devoted to increasing the economic strength of the group as a whole may have contributed to the fact that throughout the nineteen fifties the Soviet Union was a net importer of machinery, obtained in exchange for exports of raw materials. The increasing diversification of output may, of course, have given rise to the need for certain types of equipment not produced domestically; but in a country with advanced technology, and abundant supply of raw materials and a large domestic market, this could have been only a short-run phenomenon.[49]

The continued importation of machinery and equipment provided for in the long-term plans may have been motivated in part at least by the desire to promote the economic growth of the area as a whole. The cessation of such imports would deprive other centrally planned economies of the means for financing their imports of raw materials and equipment. In order to assure their continued growth, the Soviet Union may have felt obliged to furnish assistance in the form of long-term loans or grants, to supply raw materials on less favourable terms, or to accept imports of less essential goods.

Problems of international co-operation, such as these, have figured prominently in the deliberations of the Council for Mutual Economic Assistance. The Council has actively participated in promoting specialization in such industries as machine building and chemical manufacturing. Its basic policy is to promote international division of labour among branches of a given industry rather than among various industries. In extractive industries development must of course be tied to the availability of natural resources. Since not all countries are equally well endowed with such resources, the Council has often recommended expansion of output of extractive industries to meet the requirements not only of the producing country but also those of other centrally planned economies; and in order to lessen the financial burden, it has suggested that the prospective importing countries should participate in the additional investment required for the expansion of capacity. In consequence, in several instances the intra-country co-operation took the new form of direct investment of some centrally planned economies in the projects developed in other countries. The work of the Council's commissions dealing with specialization in production of specific items in various countries has prepared the ground for several international agreements affecting both the foreign trade of the countries concerned and their production targets. In this way the national plans for economic growth of the centrally planned economies have become increasingly interrelated.

[48] Such temporary disadvantages were, however, largely compensated by the advantages derived from the fact that intra-group trade was not subject to cyclical fluctuations of prices and of quantities of goods traded.

[49] Especially if one takes into account the fact that the capital-output ratio and construction time are much smaller in engineering industries than in mining.

Part II

CURRENT ECONOMIC DEVELOPMENTS

Chapter 4

RECENT TRENDS IN THE DEVELOPED COUNTRIES

Economic recovery in North America

The decline in economic activity in North America which started in the middle of 1960 came to an end in the first quarter of 1961. In the United States the seasonally adjusted index of industrial production, which had fallen by about 7 per cent between May 1960 and February 1961, recovered rapidly after the latter month and by December 1961 it was about 4 per cent higher than the previous peak attained early in 1960. In Canada also, where industrial production had stagnated for about a year at a level slightly lower than the peak of the first quarter of 1960, economic activity recovered after March 1961; industrial production continued to grow until the end of the year though at a somewhat slower pace than in the United States.

As in the case of the previous three post-war recessions, the 1960/61 recession in the United States was caused by a slackening in aggregate demand, particularly in certain key components of final demand[1] mentioned below. The pace of expansion in demand had slowed down considerably in the period immediately preceding the recession. An important factor in this development was the contractionist influence of the federal programme for the fiscal year 1960.[2] Federal expenditure on goods and services, having risen

[1] For convenience, the term "final demand" is used throughout this chapter to signify gross national expenditure less changes in inventories.

[2] United States fiscal years end on 30 June of the specified calendar years.

Table 4-1. United States: Gross National Product and its Components

(Billions of dollars at 1954 prices; seasonally adjusted annual rates)

Item	Peak 1960 second quarter	Change compared with preceding quarter					
		Recession			Recovery		
		1960		1961			
		Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter
Final demand	438.5	−0.7	1.6	−3.0	6.3	5.1	12.1
Personal consumption	299.5	−0.9	1.0	−2.6	4.6	3.4	5.8
Durable goods	42.5	−1.7	0.8	−4.0	2.2	0.1	3.2
Non-durable goods	142.9	−0.9	−0.7	0.3	1.0	1.9	1.4
Services	114.2	1.6	0.8	1.2	1.4	1.4	1.3
Gross private fixed investment	57.4	−1.1	−0.3	−3.2	1.7	2.0	2.3
Residential construction	18.1	−0.2	−0.4	−1.0	1.1	1.1	0.8
Other construction	15.9	−0.2	0.7	—	0.2	−0.2	−0.2
Producers' durable equipment	23.4	−0.7	−0.6	−2.2	0.4	1.1	1.7
Government purchases of goods and services	80.6	0.7	−1.0	3.0	1.4	1.0	2.6
Federal	42.7	0.2	−1.3	1.5	1.6	0.3	1.8
State and local	37.8	0.6	0.3	1.5	−0.2	0.8	0.6
Net exports of goods and services	1.0	0.6	1.9	−0.2	−1.4	−1.3	1.4
Exports	25.4	—	0.7	−0.4	−1.2	0.7	1.5
Imports	24.4	−0.7	−1.1	−0.2	0.2	1.9	0.2
Changes in inventories	4.9	−2.6	−3.4	−2.1	6.1	1.0	0.8
Non-farm	4.7	−2.7	−3.3	−2.2	5.9	1.1	1.0
Farm	0.2	0.1	−0.1	0.1	0.1	—	−0.2
Gross national product	443.4	−3.2	−1.8	−5.2	12.3	5.3	12.8

Source: United States Department of Commerce, *Survey of Current Business* (Washington, D.C.).

sharply during the fiscal year 1959, levelled off in the following year; computed on the national accounts basis, the federal government budget deficit of about $5 billion in the fiscal year 1959 was replaced by a surplus of over $2 billion in the following fiscal year.

Table 4-1 gives a general indication of the changes in the major components of demand during the recession and in the first phase of recovery. It can be seen that there was a decline in final demand in the third quarter of 1960 despite an improvement in the foreign balance and a moderate rise in public consumption. The primary reasons for this slackening in final demand were a decrease in durable consumption and a fall in fixed investment activity; the former was reflected in a rise in the share of personal disposable income devoted to savings. The fall in fixed investment demand resulted largely from a reduction of business outlays on new plant and equipment reflecting a steady increase in the volume of idle equipment and a worsening of business expectations. The rise in the level of excess capacity during the year preceding the recession resulted from a failure of industrial production to keep pace with the enlargement of productive capacity. Industrial production in the months preceding the recession was no higher than it had been a year earlier, although growing business expenditure on plant and equipment had increased the productive capacity of industry during that period.

As indicated by table 4-1, aggregate demand and production were more severely affected by a change in business inventory policies due to a shift in business expectations than by the decline in final demand. The declines in consumer expenditure on durables and in fixed investment activity after the middle of 1960 were largely responsible for a change in the optimistic business expectations entertained earlier in the year and for the inventory movements during the recession shown in the table.

As in the case of the preceding recession in 1957/58, the public sector played a dominant part in halting the recession in the first quarter of 1961.[3] The public sector has also provided the major driving force behind the expansion of production since the end of the recession. A large number of administrative and legislative measures taken by the Federal Government were aimed directly at stimulating economic activity; others, though not related to economic conditions, nevertheless had a significant expansive impact on the economy.

With the slackening in economic activity in the middle of 1960, the "built-in stabilizers" in the economy came into operation; a sharp rise in payments of unemployment insurance benefits in the second half of the year helped in sustaining personal incomes. In addition, the Government took a number of measures to stimulate demand. Credit conditions, which had been eased earlier in the year, were relaxed further through successive reductions in Federal Reserve Bank discount rates and in reserve requirements against demand deposits for central reserve city banks. A number of measures were also taken to aid residential construction, which had declined steadily since the middle of 1959.

Early in 1961 the Government took additional measures to halt the recession and promote economic recovery. Federal procurement and construction programmes, including construction of federal-aid highways, schools and post offices, were accelerated and tax refunds were expedited. The payment of veterans' life insurance dividends was advanced; the total dividend of $258 million payable over the entire calendar year was made in the first quarter. In addition, a special dividend payment of $218 million was made in June and July. Price supports were raised for most price-supported commodities for the 1961 crop year, and payments to farmers for storage of crops under price support loans were expedited. Legislation was enacted providing for a temporary extension of the period during which unemployment insurance benefits might be paid; social security benefits were increased and aid was extended to children dependent on unemployed persons.[4]

Other federal expenditures were stepped up in 1961, notably in the areas of defence and space exploration. There were also increases in federal grants to states and localities for urban renewal, area redevelopment, highways and public assistance, and in payments to farmers as a result of participation in the feed grains programme.

It can be seen from table 4-1 that government expenditure on goods and services rose sharply in the first quarter of 1961; this increase was almost sufficient to offset the decline in fixed investment during that quarter. Public consumption continued to provide a powerful stimulus to the expansion of demand and production during the first phase of recovery covering the remaining three quarters of the year. Aggregate demand was also sustained through the measures designed to increase transfer payments to individuals. These payments had the effect of sustaining personal incomes and expenditure during the recession and of stimulating the growth of this component of demand in the first phase of recovery.

It is possible to obtain a broad indication of the expansive role of the public sector from table 4-2 which sets forth the government budget position in 1960 and 1961. It can be seen that the balance on the total gov-

[3] For a detailed analysis of the role of the public sector in the 1957/58 recession and the subsequent recovery, *see* United Nations, *World Economic Survey, 1958* (Sales No.: 59.II.C.1), pages 184 to 189.

[4] For details of these and other executive and administrative measures and of legislative recommendations and actions in 1961, *see* "Annual Report of the Council of Economic Advisers" in *Economic Report of the President* (Washington, D.C., January 1962).

Table 4-2. United States: Government Receipts and Expenditures in the National Income Accounts, 1960 and 1961

(Billions of dollars; seasonally adjusted annual rates)

Period[a]	Total government			Federal government			State and local government		
	Receipts	Expenditures	Surplus or deficit (−) on income and product account	Receipts	Expenditures	Surplus or deficit (−) on income and product account	Receipts	Expenditures	Surplus or deficit (−) on income and product account
1960									
First half.....	139.7	134.7	5.0	97.0	91.5	5.5	48.9	49.4	−0.5
Second half.....	138.6	139.8	−1.2	95.1	94.2	0.9	49.5	51.6	−2.1
1961									
First half.....	139.4	146.6	−7.2	94.6	99.5	−4.9	51.6	54.0	−2.4
Second half.....	151.1	156.6	−5.5	101.2	103.8	−2.6	53.0	56.0	−3.0

Source: Economic Report of the President, January 1962, and other official sources.

Note: Federal grants-in-aid to state and local governments are reflected in federal expenditures and state and local receipts and expenditures. Total government receipts and expenditures have been adjusted to eliminate this duplication.

[a] Quarterly averages.

ernment budget in terms of the national income accounts, at a seasonally adjusted annual rate, shifted from a surplus of $5 billion in the first half of 1960, to a deficit of $1.2 billion in the second half of that year, and to a deficit exceeding $7 billion in the first half of 1961. Although government expenditure continued to grow rapidly until the end of 1961, the budget deficit was reduced by about $2 billion in the second half of the year, owing to a substantial rise in tax revenue which accompanied the recovery in economic activity.

As indicated by table 4-2, particularly significant was the steep rise in federal expenditure. The growth in these outlays in the second half of 1960 reflected the increase in transfer payments to persons and the expansion in non-defence expenditure. In 1961, however, about half of the rise in total federal expenditure was accounted for by the growth in defence expenditure.

Monetary and credit policies followed by the Federal Reserve and the Treasury during the recession and in the first phase of recovery were also designed to promote the expansion of economic activity. As noted earlier, monetary policy, which had been restrictive early in 1960, was gradually reversed in the course of that year. During 1961 Federal Reserve and Treasury debt operations provided the basic liquidity for economic expansion; the Federal Reserve increased member bank reserves by about one billion dollars through substantial net purchases of United States Government securities. The monetary and debt management policies were generally directed at holding down the long-term rates of interest which actually declined until May and rose only moderately thereafter. At the same time downward pressure on short-term rates was deliberately avoided so as to discourage the outflow of funds to foreign money markets.

Among the federal credit programmes particularly important as expansive factors were those aimed at encouraging residential construction. As noted earlier, a number of measures were taken in 1960 to stimulate housing investment. These were followed by several additional measures in 1961: the maximum permissible interest rate on insured home loans of the Federal Housing Administration (FHA) was reduced in two successive stages in February and May from 5.75 per cent to 5.25 per cent; purchase and selling prices for federally underwritten mortgages under Federal National Mortgage Association (FNMA) secondary market operations were raised in a series of steps. In addition, the Federal Home Loan Bank Board took a number of actions to encourage the flow of funds into housing construction. Other measures taken to promote construction activity included a request to local public agencies in February to accelerate urban renewal activities and an elimination by FHA in July of the continuing service charges formerly permitted for certain home mortgages.

The above measures were instrumental in reversing early in 1961 the declining trend in residential construction which had continued since the middle of 1959. Investment in housing revived after the first quarter of 1961 and continued to grow at a relatively rapid pace until the end of the year. As shown in table 4-1, the rise in this component of investment accounted for the greater part of the expansion in fixed investment demand during the early phase of recovery in the second and third quarters of 1961.

The upturn in industrial production after February 1961 resulted in a gradual increase in the rate of

utilization of equipment and in a rapid growth in corporate profits which had fallen steadily since the end of the first quarter of 1960. These developments had a favourable impact on business confidence which received additional stimulus from a steep rise in new federal obligations foreshadowing a substantial expansion in outlays.

The improvement in business men's expectations was reflected in their fixed investment decisions and inventory policies. The decline in business expenditure on new plant and equipment was halted in the second quarter of 1961, and there was an appreciable rise in this component of demand during the second half of that year. At the same time business stocks, which had been reduced in the latter phase of the recession, were rapidly built up. It can be seen from table 4-1 that this swing in inventories made a substantial contribution to the growth of production during the early months of recovery; in the second quarter of 1961, it accounted for about one-half of the total rise in production.

The recovery in economic activity was accompanied by a steady and rapid expansion of personal income and consumption due largely to an increase in employment and in weekly hours worked, discussed later in this chapter. Although consumer outlays helped to sustain the growth of aggregate demand, they did not keep pace with the rise in personal disposable income until the closing months of 1961. The ratio of personal savings to personal disposable income rose in the second and third quarters of 1961, but remained unchanged in the fourth quarter following an upsurge in consumer expenditure on new automobiles.

As indicated in table 4-1, there was some deterioration in the foreign balance of the country during the recovery. The growth in exports experienced in 1960 was halted in 1961, owing partly to the slowing down in the pace of business expansion in western Europe discussed below. On the other hand, the volume of imports, which had declined during the recession, recovered to its pre-recession level; part of this rise, however, was accounted for by the rebuilding of inventories of imported goods and did not have an adverse effect on the growth of domestic demand.

Economic developments in Canada during 1960 and 1961 broadly resembled those in the United States and were partly influenced by the fluctuations in demand of that country described above. As shown in chart 4-1, however, the amplitude of fluctuation in industrial production was more moderate in Canada than in the United States; this was partly due to a more pronounced inventory swing in the latter country. Production declined mildly after the early months of 1960, and levelled out thereafter for about a year before a sustained recovery set in after the first quarter of 1961.

As in the case of the United States, an important factor in the decline of production in Canada after the opening months of 1960 was a slackening in fixed investment demand. It can be seen from table 4-3 that the volume of business gross fixed investment in 1960 was substantially lower than in the preceding year. The greater part of the decline was accounted for by residential construction, which was adversely affected by a sharp contraction in the lending activity of the chartered banks and the Central Mortgage and Housing Corporation. Business expenditure on plant and equipment was also moderately lower than in 1959. The main factors which helped in sustaining the volume of final demand during 1960 were a growth of exports to western Europe and a rise in public and private consumption; exports to the United States were adversely affected by the recession in that country. Business inventory policies in the course of the year, which reflected the developments in final demand mentioned above, also had an adverse effect on production; the rate of inventory accumulation, which was high in the first quarter of 1960, fell sharply in the second quarter; this was followed by a liquidation of stocks in the third quarter.

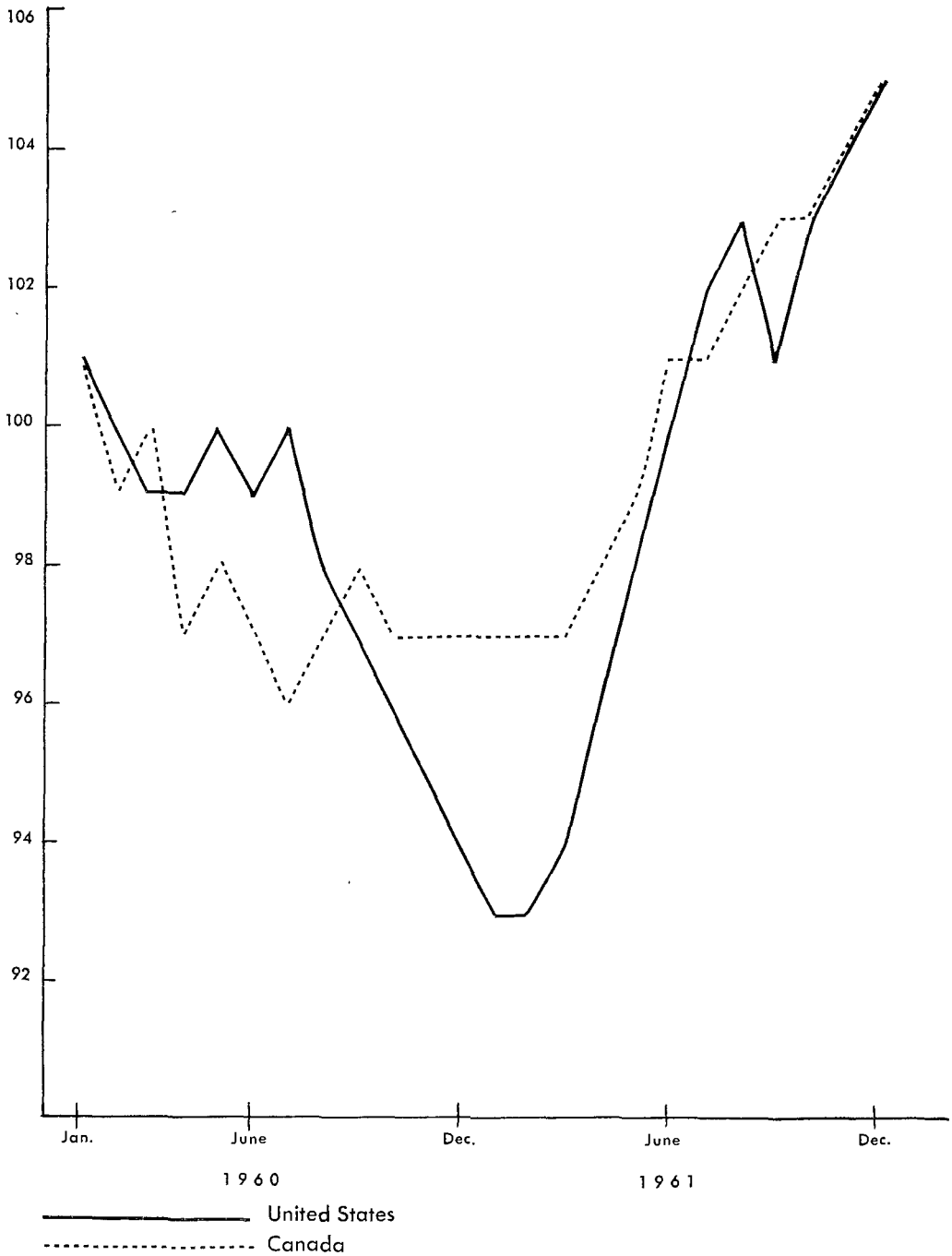
Towards the end of 1960 the Government took a number of measures to stimulate economic activity and reduce the level of unemployment. The Municipal Winter Works Programme, which is designed to create additional employment opportunities during the winter months, was started six weeks earlier than usual and was expanded to include additional types of projects; the Canadian Parliament enacted legislation providing for technical and vocational training assistance to workers, and lending terms under the National Housing Act were liberalized. The latter measure, together with an easing in conditions of mortgage credit in the course of 1960, was instrumental in stimulating housing investment in the course of 1961.

The recovery of economic activity in Canada after the first quarter of 1961 was also aided by a continued expansion in the volume of exports and of government expenditure on goods and services. Exports were in particular stimulated by the revival of economic activity in the United States and by special sales of wheat to mainland China and eastern Europe which helped in reducing the volume of farm inventories.[5] Business expenditure on plant and equipment did not recover until the second half of the year and advanced only moderately; for the year 1961 as a whole expenditure was slightly lower than in the preceding year (*see* table 4-3). The growth in personal consumption contributed to the expansion of demand and production, but generally did not keep pace with personal disposable income. Non-farm business inventories, which had been reduced moderately during part of the recession, rose slowly until the last quarter of 1961 when stock accumulation became more pronounced.

[5] Higher wheat export sales made it possible for the Canadian Wheat Board sharply to increase participation payments to farmers.

Chart 4-1. United States and Canada: Monthly Indices of Industrial Production, 1960-1961

(Seasonally adjusted; first quarter 1960=100)



Source: For the United States, *see* table 4-1; for Canada, Dominion Bureau of Statistics, *Canadian Statistical Review* (Ottawa).

Table 4-3. Canada: Gross National Product and its Components, 1959-1961

(Billions of Canadian dollars at 1957 prices, except as indicated)

Item	1959	Percentage change from preceding year	
		1960	1961
Final demand	32.9	2.1	3.3
Personal expenditure on consumer goods and services	21.6	2.7	2.9
Durable goods	2.6	−0.3	3.6
Non-durable goods	11.0	2.9	2.9
Services	8.0	3.4	2.8
Business gross fixed capital formation	6.6	−5.0	−3.9
New residential construction	1.6	−19.0	0.5
New non-residential construction	2.5	−2.8	2.3
New machinery and equipment	2.5	2.0	−12.1
Government purchases of goods and services	6.2	1.4	5.6
Net exports of goods and services	−1.4		
Exports	6.6	4.1	6.7
Imports	−8.1	−1.0	1.1
Change in inventories	0.3	—[a]	−0.6[a]
Non-farm	0.4	−0.1[a]	−0.1[a]
Farm	−0.1	0.1[a]	−0.5[a]
Gross national product	33.3	1.9	1.8

Source: Canada, Dominion Bureau of Statistics, *National Accounts, Income and Expenditure, Fourth Quarter and Preliminary Annual, 1961* (Ottawa, 1962).

[a] Changes in business inventories are in billions of Canadian dollars at 1957 prices.

Despite the rapid expansion of economic activity in North America after the early months of 1961, the rise in production for the year as a whole was relatively small as compared with that for western Europe and Japan. Both in Canada and the United States gross national product in 1961 was only about 2 per cent higher than in the preceding year; as shown below, considerably higher rates of growth were attained in most other industrial countries during 1961. In Canada, a poor grain harvest resulting from drought conditions in the prairies was responsible for a production loss equivalent to about one per cent of the gross national product.

Slower growth of production in western Europe and Japan

The economic upswing in western Europe and Japan, which started in the latter part of 1958, came to a temporary pause in the course of 1961. The pace of expansion in industrial activity in western Europe had already slowed down in the course of 1960; this trend continued into the early months of 1961. Thereafter, the seasonally adjusted index of industrial production for the group as a whole levelled off for about six months before rising moderately in the last quarter of 1961; the rise continued into the early months of 1962. For the year 1961 as a whole the volume of industrial production in western Europe was about 5 per cent above the level of 1960 as compared with a rate of growth of 10 per cent recorded in 1960 (*see* table 4-4).

It can be seen from table 4-4 that the rate of increase in industrial production in 1961 declined in all countries of western Europe with the exception of Norway. The decline was relatively moderate in Belgium and Sweden, but more pronounced in the other countries and particularly steep in the Netherlands and the United Kingdom. In the latter two countries and in the Federal Republic of Germany, the seasonally adjusted index of industrial production declined for a substantial part of the year; in the Federal Republic and the Netherlands this occurred during the second and third quarters and in the United Kingdom after August 1961. In Japan, the boom in industrial activity did not come to a halt until the end of 1961, and the rate of growth of production in that country was, as in the earlier years of the upswing, appreciably higher than in western Europe.

The foregoing developments in industrial activity were instrumental in slowing down the expansion of total product in most countries of western Europe and in Japan in 1961. As indicated in table 4-4, however, the deceleration in the growth of the gross national

Table 4-4. Western Europe and Japan: Industrial Production and Gross National Product, 1959-1961

(Percentage change from preceding year)

Country	Industrial production			Gross national product (at constant prices)		
	1959	1960	1961	1959	1960	1961
Western Europe[a]	6	10	5	5	6	4
Austria	6	10	4	4	8	5
Belgium	5	6	5	4	4	3
Denmark	8	5	...	6	7	5
Finland	9	14	7	7	8	6
France	3	12	6	2	6	4
Germany (Federal Republic)	7	11	6	7	9	5
Italy	10	15	10	8	7	8
Netherlands	9	13	1	6	8	2
Norway	6	7	7	4	6	5
Sweden	4	6	5	5	4	5
United Kingdom	5	7	1	4	4	2
Japan[b]	24	27	22	18	13	10

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from replies of Governments to the United Nations questionnaire of November 1961 on economic trends, problems and policies; Organisation for European Economic Co-operation, *General Statistical Bulletin* (Paris); and official national sources.

[a] European members of the Organisation for Economic Co-operation and Development; excludes Finland. Gross national product data of member countries combined on the basis of 1954 prices and exchange rates.

[b] Figures of gross national product are in respect of the fiscal years beginning 1 April of the years specified.

product was relatively moderate as compared with that of industrial production, owing largely to a continued rapid expansion of the service sectors of the economy. In Italy and Sweden total production increased slightly faster in 1961 than in the preceding year despite a slower rise in industrial production, a development which is partly explained by the fact that agricultural production, which had fallen in 1960, recovered in 1961.

The slowing down in the rate of growth of production in western Europe resulted in part from shortages of manpower in certain countries. The expansion in demand and production in the first two years of the upswing—1959 and 1960—had been accompanied by a substantial rise in employment and a steady decline in the level of unemployment. Shortages of skilled labour were experienced in some sectors of the economy; this was particularly true of the construction industry in several countries. In such conditions some reduction in the rate of growth of production as compared with the earlier phase of the boom was probably inevitable.

Equally significant in lowering the rate of increase of production, however, was a slackening in aggregate demand in the course of the year. A marked weakening in final demand in some of the major western European countries led to a slower rate of inventory accumulation, as indicated in table 4-5, and to a levelling off or a fall in the volume of industrial production in the course of the year. Particularly important in lowering the over-all rate of growth of production of the area as a whole was a weakening of demand in the Federal Republic of Germany and the United Kingdom, which together account for over one-half of the industrial production of the area.

An important factor in slowing down the rate of growth in western Europe was a weakening in export demand from countries outside the area, discussed later in this chapter. The rapid rise in exports had, as indicated in the following table, played a significant expansive role in the early phase of the upswing, but it came to an end in the course of 1960 owing to the economic recession in North America and a slackening in the import demand of the primary producing countries. During 1961 exports of western Europe to the rest of the world dropped slightly; there was also some slowing down in the growth of intra-European trade, but this was largely a result rather than a cause of the easing in demand.

Western Europe,[a] combined gross national product and merchandise exports to rest of world[b]

(Percentage change from preceding year)

Year	Gross national product	Exports to rest of world
1959	5	9
1960	6	7
1961	4	—1

Source: See table 4-4.

[a] European members of the Organisation for Economic Co-operation and Development.

[b] Gross national product at 1954 prices and exchange rates; exports at constant prices.

Table 4-5. Western Europe and Japan: Gross National Product and its Major Components, by Country, 1959-1961[a]

(At constant prices; percentage change from preceding year)

Country and year	Gross national product	Personal consumption	Government expenditure	Fixed investment		Exports and imports of goods and services		Change in inventories[c]
				Total	Industrial[b]	Exports	Imports	
Western Europe[d]								
1959	5	4	4	7	...	9	9	1.1
1960	6	5	4	10	..	11	16	2.6
1961	4	5	5	8	...	5	6	1.7
Austria								
1959	4	5	3	4	3[e]	9	13	1.7
1960	8	7	4	13	18[e]	12	19	4.3
1961	5	7	2	6	5[e]	7	8	4.2
Belgium								
1959	4	5	5	10	...	7	13	—
1960	4	4	1	6	...	11	13	0.9
1961	4	3	1	9	...	...	...	...
Denmark								
1959	6	6	4	18	24	6	20	2.7
1960	7	5	4	12	32	9	10	3.8
1961	5	6	6	6	4	4	4	2.6
Finland								
1959	7	7	7	9	11	15	19	...
1960	8	8	3	20	38	15	26	...
1961	6	7	6	7	10	6	7	...
France								
1959	2	2	5	—	...	11	−1	0.9
1960	6	6	2	6	9	15	17	2.2
1961	4	5	5	8	14	5	7	1.1
Germany (Federal Republic)								
1959	7	6	9	11	5	14	19	2.0
1960	9	7	7	12	18	13	17	3.4
1961	5	8	6	9	11	4	9	2.3
Italy								
1959	8	6	2	10	5	17	10	0.9
1960	7	6	6	15	21	20	37	2.0
1961	8	7	5	11	17	18	15	2.0
Netherlands								
1959	6	3	−1	15	16	12	14	1.8
1960	8	7	5	10	15	13	17	4.6
1961	2	5	3	8	16	3	7	3.7
Norway								
1959	4	5	1	−3	−6[f]	9	4	−1.3
1960	6	6	3	2	25[f]	9	11	1.5
1961	5	5	4	8	12[f]	6	9	1.8
Sweden								
1959	5	4	5	8	8	2	1	−0.7
1960	4	1	2	4	10	12	16	2.7
1961	5	6	5	3	17	4	1	1.3
United Kingdom								
1959	3	4	2	7	−6[f]	3	7	0.7
1960	4	3	2	10	18[f]	4	10	2.5
1961	3	1	6	7	20[f]	2	−1	1.1
Japan								
1959	18	7	7	24	30	15	33	7.3
1960	13	8	10	33	40	10	21	7.2
1961	10	9	10	19	18	7	22	7.3

Source: See table 4-4.

[a] Data conform as far as possible to the system of national accounts of the Organisation for Economic Co-operation and Development.

[b] The coverage of industrial investment for different countries is not identical.

[c] Changes in inventories are expressed as a percentage of 1959 gross national product.

[d] European members of the Organisation for Economic Co-operation and Development; data of member countries combined on the basis of 1954 prices and exchange rates.

[e] Investment in equipment.

[f] Investment in manufacturing.

It can be seen from table 4-5 that the rate of increase in the volume of exports of goods and services declined in all countries of western Europe and in Japan in 1961. The decline was very pronounced in all countries with the exception of Italy, where export demand continued to provide a strong stimulus to production. There was also some slowing down in the rate of growth of imports in western Europe associated with the slackening in the pace of industrial expansion and a slower rate of inventory accumulation. Imports, however, rose moderately faster than exports and the real foreign balance declined in all countries with the exception of Italy, Sweden and the United Kingdom.

In Japan, where industrial production rose at a rapid pace until the end of the year, the rate of growth of imports was maintained in 1961; government liberalization of imports contributed to this development. The rapid rise in imports was accompanied by a weakening in export demand, with the result that a severe deterioration occurred in the balance of payments, prompting the authorities to take a number of measures aimed at restraining the growth of domestic demand and imports. These measures included a raising of discount rates by the Bank of Japan coupled with a request to private banks to restrict business loans, an increase in the rate of advance deposits required for imports and a curtailment of public investment. Government policy was instrumental in slowing down the expansion of business investment and in easing the pressure of domestic demand towards the end of 1961.

Throughout most of 1961, as in the preceding year, fixed investment demand was the most expansive component of demand in western Europe and Japan. In most countries the rate of growth of fixed investment was appreciably higher than that of gross national product; particularly steep was the rise in industrial investment (*see* table 4-5). There was, however, some slowing down in the rate of increase of fixed investment in the course of 1961, and for the year as a whole it rose less than in 1960 in all countries except Belgium, France and Norway. In the first two countries, where the upswing in economic activity had started later, an acceleration in business investment was largely responsible for a bigger rise in total fixed investment in 1961. In Norway a steep rise in investment in ships, which had fallen in the preceding year, helped in raising the rate of growth in total fixed investment substantially above that recorded in 1960.

The slower pace of expansion in fixed investment demand in 1961 was, as indicated in table 4-5, partly accounted for by a lower rate of increase in industrial investment. The boom in industrial investment, which had started after the first phase of the upswing, came to an end in many countries during 1961, a development which contributed to the easing in demand pressures. This was particularly true of the Federal Republic of Germany and the United Kingdom. In the former country new orders for capital goods were moderately lower in the second half of 1961 than in the first half of the year. Similarly, in the United Kingdom, new orders for the home market in the machine tool industry declined after the first quarter of 1961; this tendency has continued in both countries into the early months of 1962. Although for the year 1961 as a whole fixed investment in manufacturing in the United Kingdom rose moderately faster than in 1960, there was a fall in this component of investment between the third and fourth quarters of 1961.

With the slowing down in the expansion of fixed investment and export demand, public and private consumption assumed a greater significance in the growth of aggregate demand and production during 1961. In most countries of western Europe and in Japan the contribution of government expenditure on goods and services to the rise in aggregate demand was substantially larger in 1961 than in the earlier years of the upswing. This was particularly true of the United Kingdom where the rise in public consumption, due largely to an increase in defence and local authorities' expenditure, accounted for about one-third of the moderate rise in total product.

Considerably more significant, however, was the role of personal consumption in stimulating the expansion of aggregate demand in 1961. The continued strength of consumer demand for goods and services during the year followed a rapid growth in personal incomes for which increases in employment and especially in wage rates were largely responsible. It can be seen from table 4-5 that, with the notable exception of the United Kingdom, personal consumption rose in all countries more rapidly in relation to total output during 1961 than it had in the earlier years of the upswing. The expansive role of consumer expenditure was particularly important in Austria, the Federal Republic of Germany and the Netherlands. The uneven rates of growth of consumer expenditure in Sweden during the three years of the upswing, indicated in the table, resulted in part from government announcements of a turnover tax from the beginning of 1960 and an increase in that tax at the beginning of 1962; these announcements, which were made in advance of the introduction of the taxes, resulted in an exceptionally large volume of purchases at the end of 1959 and 1961.

In the United Kingdom, consumer demand, strongly influenced by government policies, restrained the growth of production significantly during the second halves of 1960 and 1961. Consumer expenditure rose rapidly in 1959 and the early months of 1960 in line with the growth of production. During the first half of 1960 the Government took a number of measures to limit the expansion of demand; apart from restrictive monetary measures of a general character, hire-purchase facilities were curtailed at the end of April, 1960. Personal consumption levelled off in the second and third quarters of 1960 and declined moderately in the last quarter of the year. This was instrumental in halt-

ing the growth of industrial production, which remained generally unchanged between May 1960 and February 1961. Following an easing in hire-purchase terms in January 1961, there was a revival in consumer demand and industrial production, owing largely to a significant recovery in the purchase of motor-cars in the first half of the year. In July 1961, however, after a substantial outflow of short-term capital, the Government introduced a new series of restrictive measures in an effort to restore confidence in sterling and strengthen the balance of payments position. These measures included the imposition of a surcharge of 10 per cent on purchase tax and the other main customs and excise duties, an advance in bank rate from 5 to 7 per cent and further restrictions of credit; at the same time the Government called for a wage pause. The measures in question halted the flight of capital, but had an adverse impact on consumer demand and on industrial production, both of which declined during the second half of 1961.

Developments in employment, wages and prices

The business upswing in the industrial countries discussed above was accompanied by a rise in employment in 1961. It can be seen from table 4-6 that total civilian and manufacturing employment was in all countries higher in the last quarter of 1961 than it had been a year earlier. In some countries of western Europe and

Table 4-6. Changes in Employment and Unemployment, Fourth Quarter 1959-1961

Country and year	Total civilian employment (percentage change from fourth quarter of preceding year)	Employment in manufacturing (percentage change from fourth quarter of preceding year)	Unemployment[a] (percentage)
Western Europe			
Austria			
1959	1.7	1.4	4.3
1960	2.0	3.2	3.2
1961	1.6	2.0	2.9
Belgium			
1959	...	−0.4	8.2
1960	...	3.6	6.6
1961	...	4.0	5.9
Denmark			
1959	...	7.0	7.2
1960	...	1.8	5.4
1961	...	—	5.3
Finland			
1959	3.2	10.0	1.9
1960	3.4	4.5	1.3
1961	3.1	2.0	1.1
France			
1959	−1.0	−1.6	1.3
1960	0.7	1.1	1.1
1961	0.8	0.8	0.9
Germany (Federal Republic)			
1959	1.1[b]	2.4	2.2
1960	1.9[b]	4.1	1.3
1961	1.3[b]	1.3	1.1
Italy			
1959	...	6.2	8.5
1960	...	5.5	7.7
1961	...	2.9	7.1
Western Europe (continued)			
Netherlands			
1959	...	2.9	1.7
1960	...	2.9	1.1
1961	...	2.7	1.0
Norway			
1959	1.3	2.6	2.6
1960	1.5	2.6	2.0
1961	2.2	2.9	1.5
Sweden			
1959	0.8	2.2	1.6
1960	2.1	4.2	1.1
1961	1 3	1.0	1.2
United Kingdom			
1959	1.5	2.9	2.0
1960	1.9	3.1	1.7
1961	0.8	0.6	1.8
North America			
Canada			
1959	3.1	2.0	5.2
1960	1.5	−3.3	6.8
1961	2.2	2.8	5.6
United States			
1959	2.2	3.4	5.1
1960	0.9	−1.9	5.7
1961	0.5	0.7	5.6
Japan			
1959	1.2	−0.8	2.7
1960	2.6	14.0	2.3
1961	0.9	9.7	2.1

Source: Statistical Office of the United Nations, *Monthly Bulletin of Statistics;* and official national sources.

[a] The percentage of unemployment relates generally to the ratio of registered applicants for work or surveyed unemployed to the civilian labour force available for hire in the fourth quarter of the years specified. Unemployment percentages are not, however, comparable between countries owing to differences in definition and seasonal variation.

[b] Percentage changes in annual averages, compared with preceding year.

in Japan, however, the easing of demand was reflected in a slowing down of the rate of growth of employment, especially in the manufacturing sector of the economy. The volume of unemployment nevertheless declined and the number of unfilled job vacancies rose in most countries during the year (*see* chart 4-2). In the United Kingdom, however, the slackening of demand in the second half of 1961 resulted in a moderate increase in unemployment and a fall in the number of vacancies.

In North America the recovery in economic activity after the early months of 1961 resulted in an increase in total civilian and manufacturing employment. As in the earlier post-war recoveries, however, employment increased appreciably more slowly than production be-

Table 4-7. Cost Components and Wholesale Prices of Manufactured Goods, 1959-1961[a]

(Percentage change from preceding year)

Country and year	Output per man-hour	Hourly earnings	Labour cost per unit of output	Import prices of raw materials	Wholesale prices of manufactured goods
Western Europe					
Austria					
1959	8	8	−1	−3	...
1960	7	10	3	13	...
1961	2	6	4	...	...
France					
1959	7	6[b]	−1	9	7
1960	9	7[b]	−2	6	4
1961	4	8[b]	3	−3	3
Germany (Federal Republic)					
1959	8	5	−3	−7	−1
1960	8	9	1	2	1
1961	5	10	5	−4	2
Netherlands					
1959	8[c]	2[b]	...	−3	—
1960	10[c]	9[b]	...	2	—
1961	—[c]	5[b]	...	−3	—
Norway					
1959	7[c]	9	...	—	—
1960	4[c]	4	...	−2	2
1961	5[c]	4	...	−1	—
Sweden					
1959	6[c]	4	...	−5	—
1960	1[c]	6	..	2	2
1961	2[c]	9	. .	1	3
United Kingdom					
1959	5	4	−1	−3	—
1960	5	8	3	3	2
1961	1	7	7	−1	2
Canada					
1959	4	3	−1	...	1
1960	2	4	2	...	—
1961	2	3	—	..	1
Japan					
1959	13	5	−7	−7	1
1960	10	3	−7	5	3
1961	10	10	—	—	1

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Statistical Office of the United Nations, *Monthly Bulletin of Statistics;* Organisation for Economic Co-operation and Development, *General Statistical Bulletin;* and official national sources.

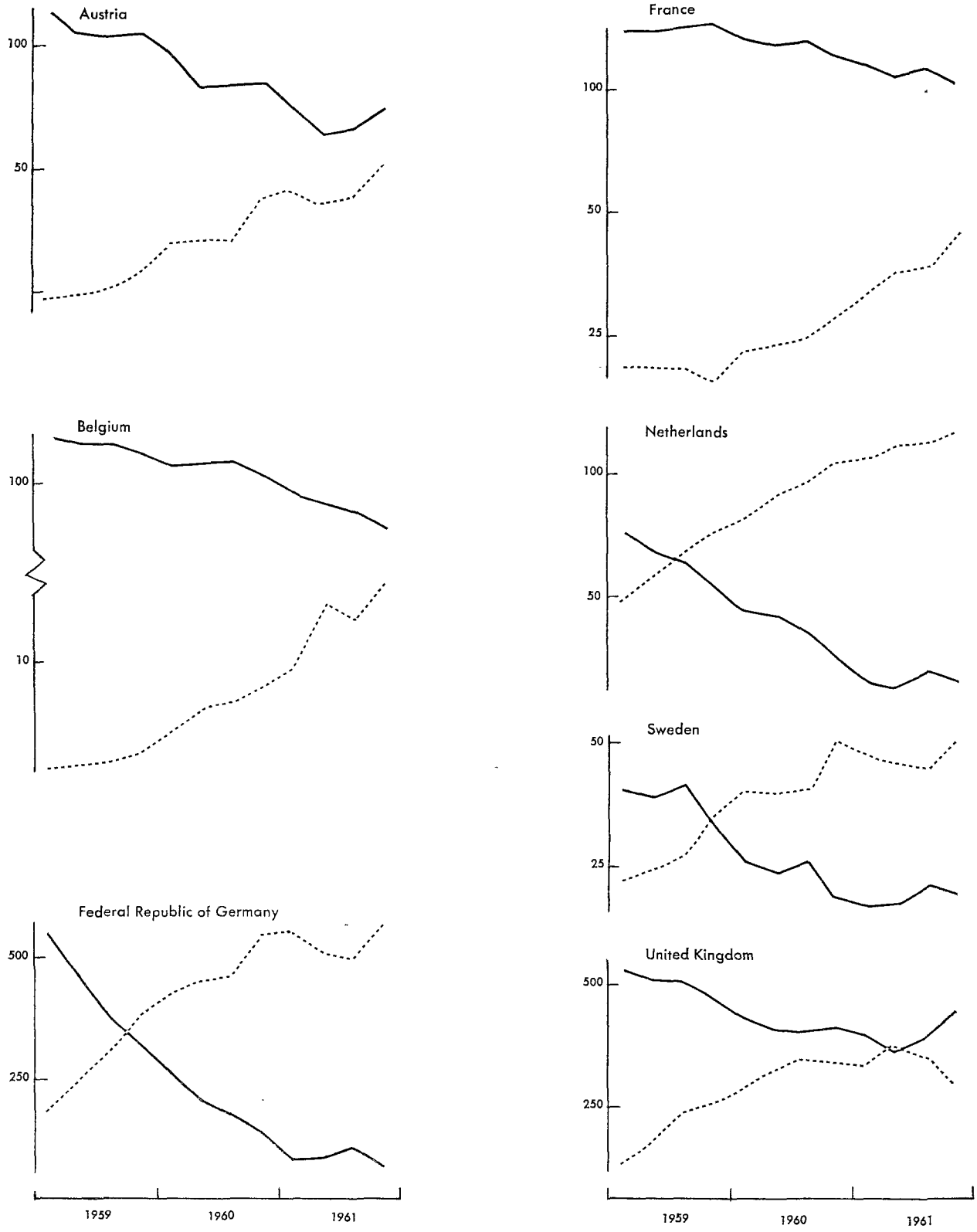
[a] The figures are not comparable between countries because of differences in definitions and the methods of computation.

[b] Hourly wage rates.

[c] Output per worker.

Chart 4-2. Western Europe: Number of Unemployed and Number of Vacant Jobs, 1959-1961

(Quarterly averages in thousands, seasonally adjusted; ratio scale)



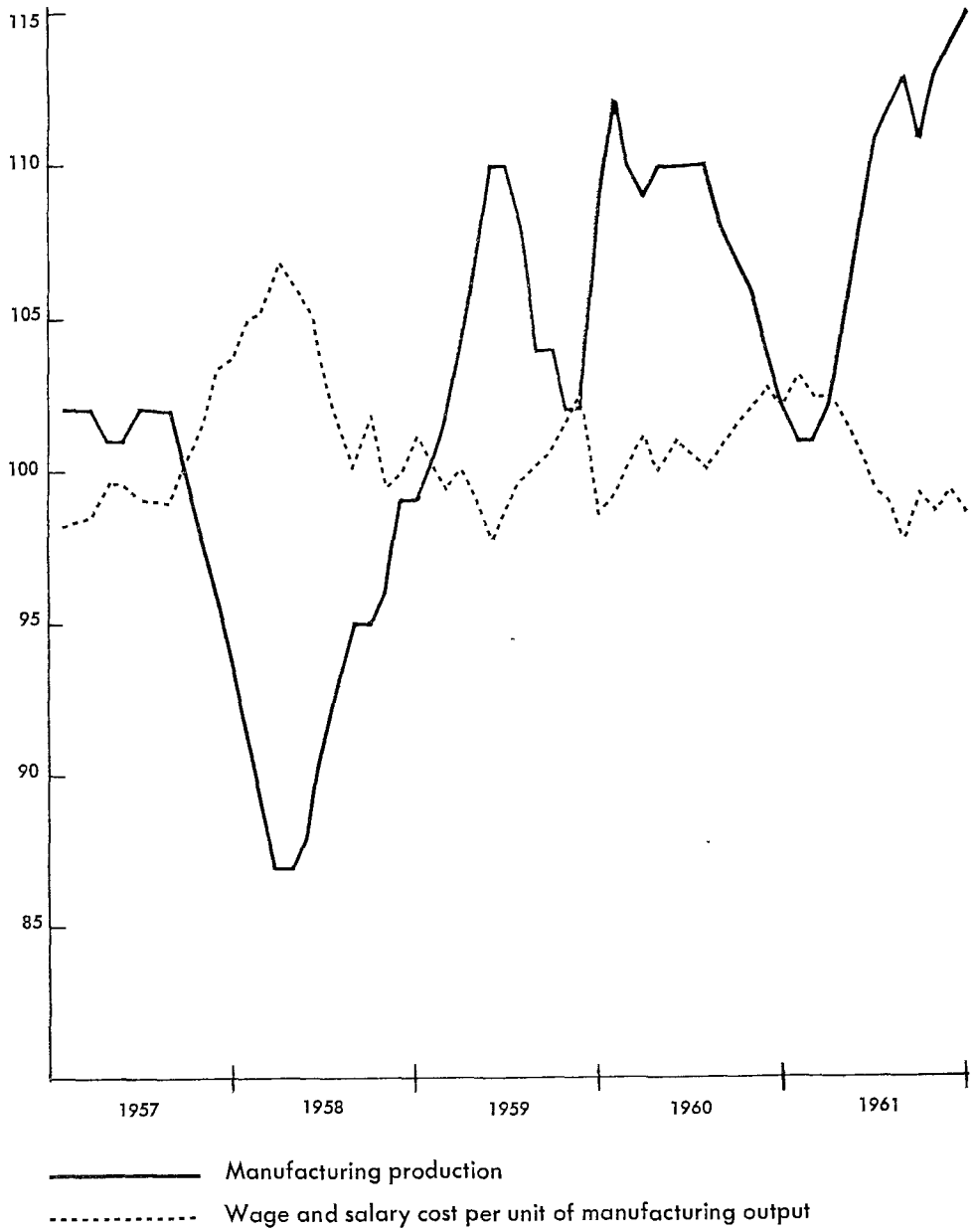
Source: Organisation for Economic Co-operation and Development, *General Statistical Bulletin* (Paris).

cause of a rise in the number of hours worked per week and in labour productivity. Consequently, although industrial production in the United States recovered after February, the seasonally adjusted figures of unemployment did not start declining until three months later. Between May and December 1961, however, unemployment fell from 7 to 6 per cent of the civilian labour force after allowing for seasonal factors; this trend continued into the early months of 1962. In both Canada and the United States, unemployment remained higher than the level considered normal by the Governments throughout the first year of the recovery.

Wage rates and hourly earnings rose substantially in 1961; as shown in table 4-7, in many countries labour earnings in 1961 rose at the same rate as in the preceding year and in some of them even faster. Particularly marked was the rise in hourly earnings in France, the Federal Republic of Germany and Sweden; in the latter two countries the volume of unemploy-

Chart 4-3. United States: Monthly Indices of Manufacturing Production and Wage and Salary Cost per Unit of Manufacturing Output, 1957-1961

(Seasonally adjusted; average 1957=100)



Source: United States Department of Labor, *Employment and Earnings Statistics* (Washington, D.C.), and United States Department of Commerce, *Survey of Current Business.*

ment had declined to very low levels. In the United Kingdom most of the rise in wages shown in the table took place as a result of wage settlements in the early part of the year prior to the adoption of a "wage pause" policy by the Government.

The rapid rise in wage rates in western Europe was accompanied by a slowing down in the growth of output per man-hour in industry; although the data on labour productivity are subject to some uncertainty, it seems safe to draw this conclusion from table 4-7. The slower rise in labour productivity was due in part to a reduction of slack in productive capacity in some sectors of industry as the economic upswing entered its third year. Labour productivity was, however, also affected adversely in some countries by an easing of demand in certain key industries, such as steel and consumer durables, in the course of the year, which resulted in a lower degree of utilization of labour and equipment. In Norway and Sweden, where the growth of industrial production was maintained in 1961, output per man rose at a moderately higher rate than in 1960.

The above developments in wages and labour productivity resulted in substantial increases in wage cost per unit of output. The rise in wage costs exerted an upward pressure on wholesale prices of manufactured goods, which rose moderately in most countries, despite a fall in import prices of raw materials and a reduction in profit margins in some countries. In Japan, the rapid rise in manufacturing production which continued until the latter part of 1961, was accompanied by a relatively high rate of growth in output per man-hour, matching the advance in hourly earnings.

Developments in wages and productivity in North America during 1961 were very different from those in western Europe, largely because of the different phasing of the economic cycle in the two areas. The recovery in industrial production after the early months of 1961 was accompanied by a steep rise in output per man-hour which exceeded the rate of increase in hourly earnings. This was reflected in a fall in labour costs per unit of output and in a pronounced rise in industrial profits despite general stability in wholesale prices of manufactured goods.

Chart 4-3 illustrates the experience of the United States during the last two periods of recession and recovery as regards changes in labour cost per unit of output in manufacturing. It can be seen that during the years 1957 to 1961, there was a distinct tendency for labour cost per unit of output to rise during periods of falling production and to decline during the phase of recovery. This has resulted largely from the fact that labour productivity has risen rapidly during periods of rising production but has levelled off or declined during recessions; differences in the rate of increase of labour earnings between periods of recession and recovery have been relatively small.

In most countries of western Europe and in Japan consumer prices rose more rapidly in 1961 than during the preceding two years. Food prices advanced sharply in a number of countries as a result of government measures aimed at raising farm incomes by permitting an increase in prices of agricultural products; an additional factor in some countries was a poor harvest of home-grown food. The upward trend in prices of services and in rents and the rise in wholesale prices of manufactured goods mentioned above also contributed to the rise in the consumer price index. In the United Kingdom part of the increase in consumer prices was accounted for by the imposition in July 1961 of a 10 per cent surcharge on purchase tax and the other main customs and excise duties.

The rise in consumer prices in North America during 1961 was relatively small. Retail prices of industrial goods, like the wholesale prices of manufactures, generally changed little during the period of recovery, partly because of the decline in wage cost per unit of output mentioned earlier. Prices of services continued their upward trend in both Canada and the United States; the effect of this rise on the consumer price index, however, was partly offset by a decline in food prices.

Recent developments in foreign trade

Expansion of production was accompanied by a further advance in foreign trade. There was, however, a pronounced slowing down in the rate of growth for industrial countries as a whole. In 1961 the quantum of imports was only 7 per cent higher than in 1960, compared to an increase of 11 per cent from 1959 to 1960. The change in aggregate imports was the net result of a rise of 8 per cent in western European imports and a fall of one per cent in North American imports (*see* table 4-8).

In western Europe the falling rate of expansion in domestic activity, reinforced by slower accumulation of raw material inventories, led to a lower rate of growth of imports. In North America the recession in the latter part of 1960, accompanied by an inventory reduction, resulted in falling imports during that year and in the early months of 1961; the subsequent recovery caused imports to rise again in the second half of 1961.

Exports from industrial countries increased by 5 per cent in 1961 as against 12 per cent in the preceding year, partly as a consequence of slower growth in the

import demand of the industrial countries themselves, and partly as a result of a levelling off in exports to primary producing countries.

Table 4-8. Change in Quantum of Imports and Exports, 1959-1961

(Percentage change from preceding year)

Item and year	Industrial countries[a]	Western Europe	North America
Imports			
1959	13	10	17
1960	11	17	−4
1961	7	8	−1
Exports			
1959	8	11	−1
1960	12	12	13
1961	5	6	1[b]

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Organisation for Economic Co-operation and Development, *Foreign Trade Statistical Bulletins, Series A* (Paris).

[a] Including Japan.

[b] First three quarters, as compared with corresponding period of preceding year.

The terms of trade of North America and western Europe improved by about 3 per cent from 1960 to 1961. This was a result of a small increase in the unit value of exports and a fall in the unit value of imports (*see* table 4-9). The latter decline corresponds to a reduction in the over-all price level of primary commodities. The decline in import unit value in Japan was accompanied by a fall in export unit value, so that the terms of trade were unaffected on balance.

Table 4-9. Unit Value and Terms of Trade, 1959-1961

(Indices, 1953 = 100)

Item and area	1959	1960	1961
Unit value of exports			
North America	107	108	109
Western Europe	99	100	102
Japan	95	98	96
Unit value of imports			
North America	101	102	100
Western Europe	94	95	94
Japan	83	83	81
Terms of trade			
North America	106	106	109
Western Europe	105	106	109
Japan	114	119	119

Source: See table 4-10.

The pressure on prices of primary commodities, particularly those of agricultural origin, resulted from a relatively slow growth of demand combined with an expanded supply. On the other hand, prices of manufactures exported by the industrial countries increased in 1961 as a result of generally rising labour costs in western Europe. Recent movements in the terms of trade in favour of the principal industrial countries represent the continuation of a trend which has lasted for several years; since 1953 there has been an improvement of 9 per cent in the terms of trade in western Europe and of 11 per cent in the United States. Canada, which reduced the external value of its currency in the course of 1961, experienced a decline of about 2 per cent in its terms of trade in that year.[6]

Imports of foodstuffs fell between the first three quarters of 1960 and 1961, mainly owing to good harvests in most western European countries; the exception was Italy where imports of food increased. Imports of raw materials also declined, partly because of the slowing down in industrial production and partly because of cautious inventory policies accompanying uncertainty regarding raw material prices. The reduction was particularly marked in the United Kingdom, where there had been unusually large imports of iron and steel in the first half of 1960. Imports of fuels by western Europe continued to increase steadily, reflecting the expanding role of oil as a source of energy.

Imports of manufactures continued to grow at a rapid rate—although less than in 1960—and accounted for a major part of the increase in imports by western Europe. Imports of machinery in particular expanded by about 30 per cent in the first nine months of 1961, indicating the continued high level of industrial investment in western European countries.

United States imports fell slightly from 1960 to 1961, but less than the year before, owing to the start of the upswing in business activity (*see* table 4-10). The reduction was mainly in crude materials, basic metals and finished manufactures; there was a sharp setback in imports of automobiles. Imports of food and semi-manufactures changed little.

The rapid increase in Japanese imports in 1961 reflects not only the continued growth of economic activity, but also a further substantial liberalization of imports. The expansion was considerable for all commodity categories, though 50 per cent higher for finished products than for total imports.

Changes in the value and commodity composition of exports from the industrial countries corresponded fairly closely to the shifts in imports discussed above, owing to the fact that about two-thirds of these exports

[6] The average exchange rate of the Canadian dollar in 1961 was 2 to 3 per cent lower than in 1960. Import unit values increased by more than 2 per cent in terms of Canadian dollars, while export unit values were approximately stable, reflecting lower United States dollar prices for Canada's exports of primary products.

Table 4-10. Changes in Quantum of Exports and Imports, by Country, 1959-1961

(Percentage change from preceding year)

Country and item	1959	1960	1961
Belgium and Luxembourg			
Exports	13	9	5[a]
Imports	12	13	6[a]
Denmark			
Exports	8	7	4[a]
Imports	20	12	4[a]
France			
Exports	20	17	5
Imports	−2	20	9
Germany (Federal Republic)			
Exports	14	15	6
Imports	21	19	8
Italy			
Exports	23	21	20
Imports	13	42	14
Netherlands			
Exports	12	13	5
Imports	13	14	11
Norway			
Exports	11	7	5
Imports	9	22	7
Sweden			
Exports	8	13	4[a]
Imports	5	18	−1[a]
United Kingdom			
Exports	4	6	2
Imports	7	13	−2
Canada			
Exports	3	5	6[a]
Imports	11	−2	−1[a]
United States			
Exports	−3	15	−1
Imports	19	−4	−1
Japan			
Exports	19	14	6
Imports	26	26	32

Source: Organisation for Economic Co-operation and Development, *General Statistical Bulletin, 1962;* United States Department of Commerce, *Survey of Current Business;* and Bank of Japan, *Economic Statistics Monthly* (Tokyo).

[a] First three quarters, as compared with corresponding period of preceding year.

go to other industrial countries. There was a general expansion in exports of foodstuffs and raw materials from western European countries, food exports from France registering a particularly noteworthy advance. United States exports of grains, tobacco and processed foods increased between 5 and 15 per cent, but shipments of raw cotton, petroleum products and coal fell. On balance, United States exports of crude materials and foodstuffs remained practically unchanged.

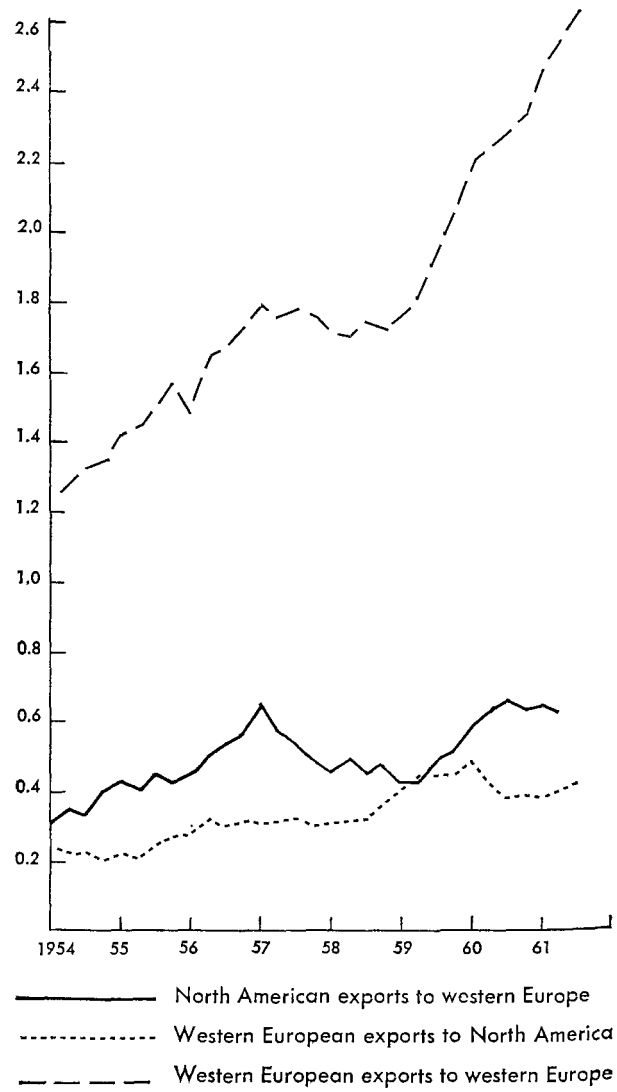
The value of world exports of manufactures, based on data for eleven leading countries, was 5 per cent higher in 1961 than in 1960, as against an advance of 16 per cent in the preceding year.[7] A considerably greater than average advance was recorded by the Federal Republic of Germany, Italy, Sweden and Switzerland, while exports from Belgium, France and Canada lagged significantly; the United States experienced a small absolute reduction in exports.

As already indicated, demand for machinery increased considerably, and the value of machinery exports from western European countries rose by 17 per

[7] United Kingdom Board of Trade, *Board of Trade Journal* (London), 20 April 1962.

Chart 4-4. Trade among Industrial Countries, 1954-1961

(Seasonally adjusted monthly averages; billions of dollars)



Source: Organisation for Economic Co-operation and Development, *Foreign Trade Statistical Bulletins, Series A.*

Table 4-11. Changes in Quantum of Trade between Regions, 1959-1961

(Percentage change from preceding year)

Region and year	To industrial countries			To primary producing countries	To the world
	Total[a]	Western Europe	North America		
Exports from industrial countries[a]					
1959	14	11	22	−2	8
1960	13	21	−5	9	12
1961	7[b]	10[b]	−2	1[b]	5
North America					
1959	5	−2	9	−8	−1
1960	16	36	−4	7	13
1961	—[b]	−2[b]	−2	1[b]	1
Western Europe					
1959	18	15	35	—	11
1960	13	17	−7	9	12
1961	10[b]	12	−3	−1[b]	6
Imports from primary producing countries					
1959	12	10	8	...	...
1960	7	10	−2	...	...
1961[b]	6	6	−1	...	...

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on data from Organisation for Economic Co-operation and Development, *Foreign Trade Statistical Bulletins, Series A;* and official national sources.

[a] Including Japan.

[b] First three quarters, as compared with corresponding period of preceding year.

cent in the first nine months of 1961. The expansion was especially marked in the Federal Republic of Germany despite the price increases associated with revaluation. United States exports of machinery rose by about 10 per cent, and Japan's by 23 per cent. For other manufactures developments varied. Continental western European countries experienced a moderate expansion in exports of textiles based mainly on trade within the European Economic Community (EEC), while the United Kingdom and the United States experienced a slight reduction. Shipments of motor vehicles by all principal producers levelled off or declined.

An examination of the flows of trade between the major economic areas reveals three features as outstanding: (1) strongly expanding trade among western European countries, as shown in chart 4-4; (2) fluctuations in transactions between North America and western Europe owing to differences in the phasing of the business cycle in the two areas, also shown in chart 4-4, and finally (3) the rather slowly expanding trade between industrial and primary producing countries.

The rate of growth of trade within western Europe slowed down from 1960 to 1961, though much less than trade with other areas, as may be seen from table 4-11. This continues a tendency which has been maintained since about 1958 whereby the internal trade of western Europe has grown faster than its trade with other areas.

There appear to have been three main phases in the development of intra-European trade since the Second World War. During the first period, up to about 1954, the western European economy was recovering from the effects of the war and was replacing from its own resources goods which it had previously had to import from other countries. In these circumstances, of course, trade among the western European countries grew much faster than their imports from the rest of the world. This tendency was reinforced by the fact that western European countries liberalized their imports from one another more quickly than those from the rest of the world, especially the dollar area. As the balance of payments with the dollar area improved, however, western European restrictions on imports of dollar goods were relaxed, and beginning from about 1954 the differential liberalization of imports from North America and western Europe was progressively reduced. Partly because of this lowering of trade barriers against North America, imports of western Europe from the rest of the world rose approximately in line with total imports from 1954 to 1958.

By 1958, much of western Europe's discrimination against imports of dollar goods had disappeared, or was disappearing, so that other influences began to make an impact upon the distribution of that area's trade, and once again its internal trade began to grow faster than its trade with the rest of the world. The difference has been particularly marked in the trade of the European Economic Community since 1958. Exports of the European Free Trade Association (EFTA) countries to one another have also been growing faster than those to the rest of the world, but their imports

from one another have not moved out of line with imports from other areas to the same extent, as may be seen from table 4-12.

Table 4-12. Quantum Indices for Internal and External Trade in Western Europe, 1960-1961

(1958 = 100)

Area and year	Intra-trade	Extra-trade	
		Import	Export
OEEC			
1960	136	125	116
1961	148	132[a]	116[a]
EEC			
1960	152(139)[b]	127	125
1961[a]	176(161)[b]	135	129
EFTA			
1960	125	125	115
1961[a]	137	127	120

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on Organisation for Economic Co-operation and Development, *Foreign Trade Statistical Bulletins, Series A*, February 1962 and *General Statistical Bulletin*, March 1962; European Economic Community, *Foreign Trade, 1962*, No. 2 (Brussels).

[a] Based on first three quarters.

[b] Figures in parentheses reflect an approximate adjustment for the transfer of the Saar from France to the Federal Republic of Germany in the middle of 1959. For this purpose, an estimate was made of what the value of trade would have been in 1958, the base year, if the Saar had been included in the Federal Republic's trade area in that year, as in 1960 and 1961. The following data are available:

	Trade of Saar, 1958 (millions of dollars)		
	With France	With Federal Republic of Germany	With other countries
Deliveries	481	179	81
Receipts	521	174	26

Source: Statistisches Bundesamt, *Wirtschaft und Statistik* (Stuttgart), July 1959.

From these figures it follows that trade among the EEC countries would have been about $650 million higher in 1958, and that the trade of both France and the Federal Republic of Germany would have been 4 to 5 per cent higher.

Two factors contributing to the greater expansion of intra-trade than total trade since 1958 are the commodity composition of imports and the reduction of internal tariffs. In table 4-13 the intra-trade of EEC countries by commodity groups has been expressed as a percentage of total imports. While there has been some shift towards intra-trade in all the main commodity groups, the change is much less striking than might have been expected. Much of the change since 1958 occurred between 1958 and 1959—partly as a result of the transfer of the Saar from France to the Federal Republic of Germany. Since 1959, in two of the commodity categories—fuels and machinery—the share of intra-trade has declined, and it is only in foodstuffs and miscellaneous manufactures that there have been significant increases.

Thus changes in the origin of imports of particular commodities resulting from tariff reductions or other provisions of the Treaty of Rome do not appear to be the main factor in the shift to intra-trade within EEC. This may be seen most simply from the fact that if EEC imports of all the main commodity groups had risen by the same proportion from 1958 to 1961 (that is, in the same proportion as total imports) the share of intra-trade would have risen only from 30 per cent in 1958 to 33 per cent in the first half of 1961, one-half of the increase being due to the transfer of the Saar; in fact the share of intra-trade in the latter period was 36 per cent.

More important, therefore, in explaining the shift to intra-trade is the fact that manufactures are the fastest growing component of imports, as may be seen from table 4-14, and that EEC supplies about half of its own import requirements for manufactures, as compared with much smaller proportions for the other commodity groups (*see* table 4-13). In view of the well-known tendency for world trade in manufactures to rise more rapidly than trade in primary products, it is not surprising that trade among the industrially developed western European countries should have been increasing faster than their trade with the rest of the world.

While the reductions in the internal tariffs of the EEC countries (reaching 60 per cent of the 1957 level

Table 4-13. European Economic Community: Intra-trade as Percentage of Total Imports, 1958-1961

Item	1958	1959	1960	1961[a]
TOTAL	29.6[b]	33.3	34.3	35.9
Food and beverages	18.4	22.1	23.7	23.9
Fuels	21.2	23.3	23.9	21.7
Raw materials	11.5	14.4	14.5	14.5
Machinery	52.2	55.8	52.4	54.6
Other manufacturers	48.9	50.2	50.8	53.2

Source: European Economic Community, *Foreign Trade, 1962*, No. 1.

[a] First six months.

[b] Adjustment for the transfer of the Saar would raise the share of intra-trade in 1958 to about 31.5 per cent of total imports. The commodity distribution is not exactly known, but the major part of the Saar's deliveries consisted of fuels, semi-finished and finished products of iron and steel and chemicals.

Table 4-14. European Economic Community: Changes in Imports by Commodity Sections, 1958-1961

Item	Value of imports, 1960 (percentage)	Percentage change per year	
		1958-1960	1960-1961[a]
TOTAL	100.0	14.5	8.5
Food and beverages	18.5	5.6	0.3
Fuels	11.8	−0.2	7.6
Raw materials	23.2	13.7	−0.3
Machinery	14.4	23.6	28.1
Other manufactures	31.4	27.2	8.2

Source: European Economic Community, *Foreign Trade, 1962*, No. 2.
[a] First three quarters.

by the beginning of 1962) have not been the main factor in the geographic shift in the Community's trade, it is not impossible that the stage has been reached at which tariff discrimination, of limited extent thus far, will begin to exert a greater impact on the trade of EEC as the margin between the internal and the external tariff widens.

Developments in trade between North America and western Europe in recent years are illustrated in chart 4-4. Trade flows in the two directions have not been synchronized, because of differences in the timing of upswings and recessions. This has resulted in substantial fluctuations in the balance of trade between the two areas, which will be discussed below. Another characteristic feature is the tendency of exports from North America to fluctuate much more than exports from western Europe, despite the larger fluctuations in North American industrial production.

The fact that western Europe's exports to North America did not decline sharply during the recession of 1958 has been ascribed to an upward trend in North America's demand for foreign manufactures at a time of rapid expansion of productive capacity in western Europe and Japan. However, part of the strength of western Europe's exports in 1958 was the result of special factors, such as the exceptional success of the European small car in the United States market at that time, and the expectation of a steel strike. During the recession of 1960 United States imports from Europe declined somewhat more than in 1958.

Fluctuations in western Europe's imports from North America in recent years appear to be connected with the extent of pressure on domestic resources associated with the various phases of business expansion. In addition to normal trade, the United States has supplied marginal demands in western Europe during peak periods of expansion, demands which have fallen off sharply when pressures have subsided, as in 1958. The acceleration of economic activity in western Europe during 1959 and 1960 caused imports from North America to increase by 36 per cent, while the slackening in the rate of growth in late 1960 led to a levelling off in imports from North America between 1960 and 1961.[8] Particularly large fluctuations were recorded in imports of machinery and transport equipment, which increased by 3 per cent from 1958 to 1959 and by 83 per cent from 1959 to 1960; in 1961 the rate of increase dropped sharply once again.

We have seen that the fact that the industrial countries have been carrying on more and more of their trade with one another rather than with the primary producing countries is due principally to differences in the rate of growth of import demand for primary products and manufactures rather than to shifts in the sources of supply of particular commodities. By the same token, the share of primary producing countries in the imports of the industrial countries has been fairly stable for most commodity groups. The major exceptions are the strong upward trend in the share of primary producing countries in imports of fuel by the industrial countries—owing to the shift to imports of petroleum from the Middle East and North Africa—and a slight reduction in the share of primary producing countries in imports of foodstuffs. Consequently, the major reason for the relatively slow rate of growth of imports by industrial countries from primary producing countries is to be found in the small share of the latter countries in the fast growing imports of manufactures.

While the above holds true in general, in the first nine months of 1961 the rate of expansion of imports of industrial countries from one another was not appreciably higher than imports from primary producing countries (6 to 7 per cent in both cases). This is largely because of the sharp decline in imports of industrial countries from one another accompanying the levelling off in demand in western Europe.

Exports from industrial countries to primary producing countries, which had increased by 9 per cent from 1959 to 1960, showed little change from the first nine months of 1960 to the first nine months of 1961. The latter development appears to have resulted from

[8] Exports from the United States to EEC countries increased slightly from 1960 to 1961, but this was more than cancelled by a larger fall in the exports to EFTA countries, mainly to the United Kingdom.

the reduction of export earnings of primary producing countries during the last six months of 1960. Because of the time lag between the ordering and delivery of capital goods, which form a major part of the imports of primary producing countries, increases and decreases in export earnings of these countries tend to be reflected in corresponding shifts in imports some time later.

The balance of payments

The balance of trade of the industrial countries as a whole changed slightly, from a deficit of $3.2 billion in 1960 to one of $3.4 billion in 1961 (*see* table 4-15). Within this total the trade balance of North America improved by $900 million while that of Japan deteriorated by more than $1,100 million; there was little change for western Europe as a whole.

Among the countries of western Europe, trade balances deteriorated in the Netherlands, Norway and Switzerland as a result of heavy imports associated with a high level of investment activity. An improved balance was experienced in the Federal Republic of Germany and in the United Kingdom, where the terms of trade improved by about 3 per cent.

In a number of countries net income from services, notably tourism, increased in 1961 but the United Kingdom and the Federal Republic of Germany experienced a substantial deterioration in the service balance. The increase in the Federal Republic's trade surplus was more than offset by a larger deficit on the balance of services (tourism and profits on foreign investment in the country) with the result that the over-all balance on current account declined significantly.

The United Kingdom, which had previously been running a large deficit in its balance of payments, experienced a rise in exports and a decline in imports in 1961. This resulted in a reduction of more than $700 million[9] in the trade deficit which was partly offset by a continued decline in the net balance of invisibles associated with higher government expenditure abroad. The reduction in imports was associated with a fall in stockbuilding accompanying the slowing down in business activity. In Japan the internal boom and liberalization of imports, combined with a slackening in the demand for export products, led to a sharp rise in the trade deficit.

Differences between year-to-year movements in balances of trade and changes in gold and foreign exchange reserves, as shown in table 4-15, largely reflect capital movements. While balances on current account generally changed only moderately in 1961, over-all balances of payments were considerably affected by shifts in short-term capital. And although the current accounts of the United Kingdom and the United States improved in 1961, there were substantial short-term capital outflows from both these countries during the early part of the year. The cause of these outflows was mainly the expectation of further currency realignments following upon the appreciation of the Deutsche mark in March 1961.

The reserves of gold and foreign exchange of western Europe as a whole increased more slowly in 1961 than in 1960. Of the continental countries, Belgium-Luxembourg, France, Italy and Switzerland all added more to their exchange reserves in 1961 than in 1960 despite the fact that trade balances were little changed in France and Italy, and actually deteriorated significantly in Belgium-Luxembourg and Switzerland. The reserves of the Federal Republic of Germany, on the other hand, showed a net reduction, alongside a rise in the active balance of trade: this can be seen as an effect of policies designed to stop the inflow of short-term capital as well as the deterioration on service account. In the United Kingdom there was a considerable outflow of funds in the first half of 1961, followed by an influx of short-term capital in the second half, as confidence in the currency was restored; a small net increase in reported reserves was made possible by a drawing on the International Monetary Fund.

The slower rate of accumulation of gold and foreign exchange reserves in western Europe was accompanied by some improvement in the position of Canada and the United States and a sharp deterioration in Japan. While these countries were also affected by capital movements reflecting the ebb and flow of confidence, or adjustments in relative interest rates, changes in the rate of accumulation of reserves were in the same direction as shifts in trade balances. Despite the improvement, the United States continued to run a deficit in its balance of payments of $2,450 million, as shown in table 4-16. This was financed by an outflow of gold amounting to about $850 million and by an increase in liquid liabilities to the rest of the world.

Various measures were taken by the United States Government to restore equilibrium in the balance of payments. In order to improve the balance on current account military requirements overseas were to be supplied increasingly from United States sources, and foreign aid and grants were, to a larger extent, to be tied to purchases of United States goods and services (including shipping). Steps were taken to stimulate exports by various means, to reduce artificial incentives to investment abroad in economically developed countries, and to make domestic investment more attrac-

[9] According to balance of payments estimates. Data in table 4-15 are based on trade returns.

Table 4-15. Trade and Changes in Foreign Exchange Reserves, 1960 and 1961

(Millions of dollars)

Country and year	Total trade			Change in gold and foreign exchange reserves
	Exports, f.o.b.	Imports, c.i.f.	Balance	
Industrial countries[a]				
1960	79,701	82,891	−3,190	...
1961	84,234	87,601	−3,367	...
Western Europe[b]				
1960	50,674	55,974	−5,300	...
1961	54,291	59,530	−5,239	...
Belgium-Luxembourg				
1960	3,775	3,957	−182	200
1961	3,924	4,208	−284	235
Denmark				
1960	1,494	1,805	−311	−43
1961	1,537	1,870	−333	−2
France				
1960	6,862	6,276	586	350
1961	7,223	6,679	544	869
Germany (Federal Republic)				
1960	11,415	10,103	1,312	2,204
1961	12,687	10,941	1,746	−195
Italy				
1960	3,648	4,725	−1,077	126
1961	4,188	5,222	−1,034	336
Netherlands				
1960	4,028	4,531	−503	403
1961	4,307	5,112	−805	−27
Norway				
1960	880	1,461	−581	27
1961	929	1,615	−686	−5
Sweden				
1960	2,566	2,885	−319	54
1961	2,738	2,923	−185	183
Switzerland				
1960	1,880	2,243	−363	262
1961	2,043	2,707	−664	436
United Kingdom				
1960	9,955	12,368	−2,413	489
1961	10,311	11,871	−1,560	85
Canada[c]				
1960	5,563	6,232	−669	−40
1961	5,791	6,285	−494	228
United States[c] [d]				
1960	19,409	16,194	3,215	−1,703[e]
1961	19,916	15,976	3,940	−857[e]
Japan				
1960	4,055	4,491	−436	502
1961	4,236	5,810	−1,574	−338

Source: United Nations, *Monthly Bulletin of Statistics*, May 1962; United States Department of Commerce, *Survey of Current Business*, March 1962; International Monetary Fund, *International Financial Statistics* (Washington, D.C.), May 1962.

[a] Western Europe, North America and Japan.

[b] OECD European countries, Finland and Spain.

[c] Imports reported f.o.b. adjusted to c.i.f. by adding 10 per cent to f.o.b. value.

[d] Excluding exports of military goods.

[e] Gold only.

Table 4-16. United States: Balance of Payments, 1960 and 1961

(Millions of dollars)

Item	1960	1961
Export of goods[a]	19,409	19,916
Import of goods	−14,722	−14,524
Balance of trade	4,687	5,392
Military expenditures, net	−2,713	−2,550
Income of investment abroad, net	3,205	3,645
Other commercial transactions, net[b]	−2,054	−2,120
Government grants and capital, net[a]	−2,750	−2,831
Direct and long-term portfolio investment, net	−2,344	−2,000
Balance on current and long-term capital account	−1,872	−597
Recorded short-term capital movements, net	−1,409	−1,241
Unrecorded transactions	648	616
TOTAL BALANCE[c]	−3,929	−2,454

Source: United States Department of Commerce, *Survey of Current Business*, March 1962.

[a] Excluding military aid and exports in connexion with such aid.

[b] Commercial services, remittances and pensions.

[c] Financed by reduction in gold and convertible currency and increased liquid liabilities.

tive.[10] In addition, the Federal Republic of Germany undertook to increase its military purchases from the United States.

The Federal Republic of Germany, like the United States, has had a large and stable trade surplus; this has resulted in the building up of large reserves of foreign exchange over a period of some years. As noted earlier, in March 1961 the Federal Government decided to revalue the Deutsche mark by about 5 per cent. Besides easing the pressure on prices, the revaluation was intended to encourage imports and thereby reduce the surplus in the balance of payments. A reduction in the rate of interest to 3.5 per cent in January 1961 did not sufficiently discourage the inflow of short-term capital, and after the appreciation the Bundesbank reduced the rate further to 3 per cent. Large special payments were made including transfers to the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD) and accelerated repayments of foreign debt. The total of $1.4 billion in transfers contributed to a reduction in the official reserves of the country.[11]

The large deficit in the balance of payments of the United Kingdom for 1960 had been financed by a considerable inflow of short-term capital. In March 1961, after the revaluation of the Deutsche mark, there was a wave of speculation against sterling. The reserves of the United Kingdom fell by over $170 million in March alone. As the result of a meeting at the Bank for International Settlements in Basel, the central banks of other western European countries agreed to the provision of short-term credit to offset part of the outflow of hot money. Under the Basel arrangement the equivalent of $900 million was made available, but the recorded outflow from the United Kingdom to non-sterling countries exceeded $1,400 million for the period March through July and led to a substantial reduction in reserves. In July the Government announced a series of measures to strengthen the balance of payments, including an increase in the bank rate to 7 per cent, a substantial drawing from the IMF, restrictions on investment in non-sterling countries, the holding of aid to less developed countries at a figure "not much above the current level" and reductions in overseas administrative expenditure. In addition, the North Atlantic Council was requested to review the financial conditions under which United Kingdom forces were being maintained in Germany. The drawings negotiated with the Fund amounted to $1,500 million, supplemented by a stand-by arrangement for a further $500 million.[12] These measures quickly strengthened the external position so that the Basel credit and about one-quarter of the drawings on the IMF could be repaid before the end of the year.[13]

The Basel arrangement was followed by a new agreement under the auspices of the IMF under which ten leading industrial countries stand ready to lend their currencies to the Fund, up to a total amount of $6 billion, to meet any threat to the international monetary system.[14]

[10] For details, see *Economic Report of the President*, January 1962, pages 159-60.

[11] The residual item, probably reflecting unrecorded capital movements, showed an inflow of $350 million during the first half of 1961 and an outflow of about the same amount during the second half.

[12] United Kingdom, *Economic Survey, 1962*, Cmnd 1678 (London), pages 32 and 33.

[13] Bank rate was also reduced in several steps, to a level of 4.5 per cent by April 1962.

[14] International Monetary Fund, "Press Release No. 377", 8 January 1962.

Current situation and outlook[15]

The expansion of demand and production in the industrial group of countries continued into the early months of 1962. Although it is generally expected that the pace of growth will slow down in the current year, for the year 1962 as a whole the group will show an appreciably higher rate of increase in production than that attained in 1961. This will result primarily from developments in the United States which alone accounts for over one-half of the output of the group, and for which the year 1962 is expected to represent the first full year of recovery from the 1960/61 recession. In

[15] Based in part upon replies of Governments to the United Nations questionnaire of November 1961 on economic trends, problems and policies.

western Europe, with the exception of France and the Netherlands, all countries anticipate a moderate decline in the rate of growth in total product; a more pronounced fall in this rate is anticipated in Japan. In the United Kingdom the increase in gross national product in 1962 is unlikely to exceed significantly the modest rate recorded in 1961.

The course of production during 1962 is likely to be determined primarily by developments in demand. This is particularly true of North America where ample labour and equipment are available to permit an appreciably higher rate of growth than is anticipated at present. According to the McGraw-Hill survey,[16] in the United States manufacturers were operating at an average rate of 83 per cent of capacity at the end of 1961, and were planning to add a further 4 per cent to capacity in 1962. Unemployment, although lower than it had been in the early phase of the current recovery, was still equivalent to about 5.5 per cent of the civilian labour force in March 1962 on a seasonally adjusted basis, and was not expected to fall below 4.5 per cent during the rest of the year. In Canada also the available plant capacity and supply of manpower are considered adequate for a substantial rise in production.

In western Europe, where production has been rising at a relatively rapid pace since the latter part of 1958, the available productive capacity and, especially, the supply of labour are less plentiful than in North America. Shortages of skilled labour were experienced in some countries during 1961, although the slackening in demand in the course of that year generally eased the pressure in the labour market. In most countries a greater expansion of demand could generate higher rates of growth in production than those anticipated by governments early in 1962. This is particularly true of the United Kingdom, where the index of industrial production early in 1962 was no higher than it had been two years earlier, although substantial additions had been made to productive capacity during the investment boom of 1960 and 1961. Labour resources were also adequate to permit an appreciably higher rate of growth in production in 1962 than was generally anticipated.

In the United States expectations early in the year were for a substantial rise in gross national product in 1962. The President's Budget Message of January 1962 was based on an estimate of a gross national product of $570 billion at current prices for 1962, about $50 billion higher than in 1961. This implied a rise of 9.5 per cent at current prices and about 8 per cent at constant prices. Subsequent developments made it appear unlikely, however, that these expectations would be fully realized. In the first quarter of 1962 the total volume of output, seasonally adjusted at an annual rate, was only about 4 per cent above the average 1961 level and one per cent higher than in the last quarter of that year. The main reason for this relatively small advance was a deceleration in the growth of final demand owing to a fall in fixed investment, durable consumption and exports and a slower rate of increase in public consumption. Fixed investment was expected to recover: the McGraw-Hill survey of business investment intentions[17] suggested that business outlays on plant and equipment, which had levelled off in the first quarter would rise so as to show an advance of 11 per cent for the year 1962 as a whole. Moreover, residential construction, which had dropped in the first quarter, was expected to move moderately upwards once more.

No significant acceleration was expected in other expenditure. Government purchases of goods and services were expected to maintain the same rate of expansion as in the first quarter of 1962—about $2 billion a quarter. It was anticipated that demand for exports would be maintained at the level reached in the early months of 1962. The slower rate of expansion anticipated in western Europe and Japan, especially the expected slackening of industrial investment in these areas, discussed below, seemed likely to result in a weakening of demand for United States exports. Since imports were expected to rise with the growth of domestic demand, there was a possibility that the foreign balance would deteriorate in 1962.

Personal expenditure on goods and services was expected to advance in line with the rise in personal disposable income. Durable consumption, which declined on a seasonally adjusted basis in January and February 1962, recovered subsequently. It was not, however, expected that during the rest of the year it would rise appreciably above the level reached in March and April.

The rate of inventory accumulation rose substantially in the first quarter of 1962, but this was attributed partly to a buildup of steel stocks in anticipation of a possible work stoppage: the announced labour-management settlement removed this influence from the inventory situation. In the absence of a market acceleration in final demand, it seemed likely that the rate of inventory accumulation would level off or even decline later in the year. Official expectations were that by late 1962 the continued advance of production would depend heavily on the ability of fixed investment outlays to replace inventories as a key expansionary force.

In Canada also an appreciably higher rate of growth in total product is expected in 1962 than that recorded in 1961. An anticipated rise in fixed investment activity, following the decline in 1961, is expected to make a significant contribution to the expansion of

[16] *See* "Business' Plans for New Plants and Equipment, 1962-1965", *15th Annual McGraw-Hill Survey* (New York), April 1962.

[17] *Ibid.*

demand and production in the current year. A survey of investment plans conducted at the end of 1961 indicated that total expenditure on fixed capital, which had fallen by about 2 per cent in 1961, would rise by 6 per cent in 1962. It is also anticipated that consumer spending will provide considerably more stimulus to the economy than in the past year. In view of its close economic ties with the United States, however, the course of economic activity in Canada during 1962 will be strongly influenced by developments in the United States.

In western Europe and Japan the weakening in demand experienced during 1961 is expected to continue in the current year. The primary reason for this development is an anticipated slackening in fixed investment activity. Import demand of the rest of the world, which had eased considerably in 1961, is not expected to weaken further in the current year but may even become firmer. The rate of increase in government expenditure on goods and services will generally be maintained and personal consumption is expected to grow in line with the rise in total production.

The slackening in fixed investment demand is expected to result largely from a slower rate of growth in business expenditure on plant and equipment. As explained earlier, the boom in industrial investment in western Europe and Japan, which had lasted for over two years, came to an end in many countries in the course of 1961. Although for the year 1961 as a whole substantial increases were recorded in industrial investment, there was a distinct tendency for a levelling off or decline in this component of demand in the latter part of the year. The slackening in industrial investment demand is expected to become more pronounced and widespread in 1962.

In western Europe, several of the countries which have replied to the United Nations questionnaire on economic trends, problems and policies anticipate a significant slowing down in business fixed investment demands[18] in Japan also the Government anticipates a decline in this component of demand. In France a rise in investment by nationalized industries is expected to offset an anticipated fall in private business expenditure on plant and equipment; in the Netherlands the rate of increase of both private and public fixed investment is expected to be maintained. As mentioned earlier, these two countries anticipate a somewhat higher rate of growth of production in 1962; in the Netherlands an improvement in the foreign balance, which had deteriorated severely in 1961, is expected to contribute to a higher rate of growth.

Particularly significant in slowing down the expansion of demand in western Europe as a whole is the anticipated slackening of fixed investment demand in the two major countries of the area—the Federal Republic of Germany and the United Kingdom. In the former country, in addition to an expected fall in business purchases of equipment, as indicated by a continued decline in new orders for capital goods, building investment is expected to be limited by a shortage of manpower. In the United Kingdom, although investment in the public sector, which accounts for about 40 per cent of total investment, is expected to rise at about the same rate as in 1961, a considerable reduction is anticipated in the rate of growth of total fixed investment. This would result largely from a fall of expenditure on plant and equipment in the manufacturing sector.

In view of the expected slackening in domestic demand in both western Europe and Japan the realization of the anticipated rates of growth in the two areas will depend greatly on the vigour of import demand in the rest of the world. The latter will in turn be influenced by developments in the United States, through their effect both on direct purchases from the other industrial countries and on the foreign exchange earnings of the primary exporting countries. The downward revision of expectations in the United States therefore has a bearing on the realization of projected rates of growth for 1962 in other industrial countries.

[18] The countries which report such expectations are Belgium, the Federal Republic of Germany, Norway, Sweden and the United Kingdom.

Chapter 5

RECENT TRENDS IN THE PRIMARY EXPORTING COUNTRIES

Balance of payments pressure continued to act as a major restraining influence on economic developments in the primary exporting countries in 1961. The slackening rate of growth in western Europe tended to curb the demand for imports from the primary exporting countries and there was no compensating expansion in demand from North America. As a result, the volume of exports from the primary exporting countries rose less between 1960 and 1961 than in the preceding interval. The effect of this slackening was enhanced by a further decline in the average price of primary commodities moving in world trade: the over-all terms of trade deteriorated by about 2 per cent and, in the aggregate, export earnings were only 2 per cent above the 1960 level.

Pressure on reserves had compelled a number of countries to tighten control over imports towards the end of 1960. These measures took effect in 1961 and, along with the restraining effect exerted by the failure of export incomes to rise significantly, they helped to hold imports down fairly close to the 1960 level.

The combined trade deficit of the primary exporting countries, after having widened very substantially in 1960, was thus reduced slightly in 1961. It was covered in the main, as in 1960, by an inflow of capital in various forms from the industrial countries. And as, in addition, exchange controls helped to curb the outflow of funds from some of the countries that had been losing capital in 1959 and 1960, there was some recovery in aggregate reserves. This, however, was concentrated among the economically more developed members of the primary exporting group. In the underdeveloped countries reserves were drawn down and international liquidity significantly reduced.

Production in the primary exporting countries was generally higher in 1961 than in 1960, especially in the agricultural sector, and this helped to sustain an increase in average per capita consumption. Reflecting, in many cases, development plans initiated earlier, investment also rose, though to a rather smaller extent than between 1959 and 1960.

Though it is probable that, in the aggregate, the expansion was somewhat less vigorous, there were more countries in 1961 than in 1960 in which total expenditure tended to press more intensively on available resources. The result was an increase in inflationary forces, and the retail price level showed a much greater disposition to rise. This occurred in some of the countries in which the contribution of imports to total supplies had been reduced; more frequently, however, the increase in expenditure, raising the demand for imports beyond the level that could be financed by export earnings and capital receipts, was accompanied by a deterioration in the external balance as well as in the internal balance.

International trade

The over-all rate of growth in the trade of the primary exporting countries slackened markedly in 1961. On the export side, this reflects chiefly the levelling off of the demand for primary commodities in western Europe; on the import side, it reflects chiefly the cutbacks initiated around the turn of the year in a number of countries in which stresses on the balance of payments had mounted in the course of 1960.

Though most of the primary exporting countries conformed to this general pattern of change, there were a number of notable exceptions—countries that increased their export earnings substantially more between 1960 and 1961 than between 1959 and 1960, as well as countries in which there was an acceleration in the rate of growth of imports. However, generalizations based on changes in the value of trade of the primary exporting countries as a group need to be interpreted with due regard not only to these exceptions but also to the course of events in one or two major trading countries: because of their magnitude in 1960 and 1961 these trade swings exercised a considerable influence over the aggregates for the primary exporting countries as a group. Of particular significance were the changes in some of the more developed among the primary exporting countries—large increases in exports by Australia and Greece, for example, and large reductions in imports into Australia and South Africa. In terms of the aggregates for the primary exporting countries as a group, the dramatic improvement in the balance of trade of Australia and South Africa went a long way to offset a deterioration in the balance in a number of less developed countries.

As in previous years, changes in import prices were generally much smaller than those in export prices. As the latter were almost universally downward—fractionally in Latin America, sharply in southern and south-eastern Asia—there was a widespread deterioration in the terms of trade. It was least in Latin America —where foreign trade had remained remarkably static over the period 1958-1961—and greatest (about 5 per cent) in Africa and southern and south-eastern Asia, where the incidence of primary commodity price changes was most marked. On the average, the primary exporting countries had to export 2 per cent more in 1961 than in 1960 in order to acquire the amount of foreign exchange necessary to purchase the same volume of imports.

CHANGES IN EXPORTS

The quantum of goods shipped by the primary exporting countries in 1961 was about 5 per cent above the 1960 level (*see* table 5-1). This represents an increase more or less in line with the average rate of growth in the nineteen fifties but appreciably less than had been recorded during the period immediately preceding. The demand for the products of the primary exporting countries had expanded by almost 8 per cent between 1958 and 1959, when the industrial countries were recovering from the 1957/58 recession, and by almost 6 per cent between 1959 and 1960, when the upsurge in requirements in western Europe and Japan was offset to some extent by a contraction in North America. In 1961, as indicated in the previous chapter, the rate of expansion in import demand fell away steadily in western Europe and there was no compensating resurgence in demand in North America. Though there was a further large proportionate increase in the demand of the centrally planned countries, their gross imports from the primary exporting countries remained too small—less than 5 per cent of the total exports of the latter—for this increase to exert much influence on the over-all rate of growth of trade (*see* table 5-2).

The slackening in the rate of expansion in the demand for the products of the primary exporting countries was accompanied by a further, though smaller, increase in the production of most primary commodities. Since supplies were in most cases already ample—and in some cases being held off the market in producer-owned or government-owned stocks—the failure of demand to rise more rapidly resulted in a further lowering of the average level of primary commodity prices.[1] This in turn was reflected in a reduction in the average unit value of exports of the primary exporting countries. After levelling out in 1960, this resumed its downward drift and in 1961 it averaged about 3 per cent below the 1960 figure. As a result, export receipts which had increased by rather more than 5 per cent between 1959 and 1960, increased by less than half as much between 1960 and 1961.

Exports to North America actually realized somewhat less than in 1960. This reflects a decline in shipments from Latin America, resulting in part from the reduction in trade between Cuba and the United States. The counterpart to this was a large proportionate increase in exports from Latin America to the centrally planned countries. Africa registered the opposite changes—a substantial reduction in exports to the centrally planned countries and a comparable increase (largely cocoa, coffee and diamonds) in exports to North America. Africa was the only region to earn appreciably more from exports to western Europe. Oceania increased its exports considerably to every

[1] The nature and magnitude of the changes in prices are discussed in United Nations, "Commodity Survey, 1961" (mimeographed document E/CN.13/54).

Table 5-1. Primary Exporting Countries: Changes in Terms of Trade, by Region, 1960 and 1961

(1958 = 100)

Region	Exports				Imports				Terms of trade	
	Quantum		Unit value		Quantum		Unit value			
	1960	1961[a]	1960	1961[a]	1960	1961[a]	1960	1961[a]	1960	1961[a]
Primary exporting countries	114	120	98	95	110	112	99	98	99	97
Latin America	111	112	95	95	98	100	98	98	96	96
Africa[b]	120	129	94	90	109	105	97	98	97	92
Outer Europe[c]	131	135	95	93	110	134	96	95	99	98
Western Asia	120	125	91	89	116	119	97	96	94	93
Southern and south-eastern Asia	107	114	111	103	117	120	102	99	109	104
Oceania	113	128	98	97	124	117	100	102	97	95

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Monthly Bulletin of Statistics*.

[a] Preliminary, based in many countries on trade in the first three quarters of the year. Owing to differences in time and country coverage and to rounding, the value indices implicit in these figures are not always precisely the same as those presented in subsequent tables.

[b] Continental Africa.

[c] Greece, Ireland, Portugal and Spain.

Table 5-2. Primary Exporting Countries: Distribution of Exports, by Region, 1960 and 1961

(For 1960, value in millions of dollars, f.o.b.; for 1961, index, 1960 = 100)

Exporting region and period	Importing region					
	World[a]	North America	Western Europe	Japan	Centrally planned countries	Primary exporting countries
Primary exporting countries[b]						
1960	31,275	6,781	13,212	1,782	1,360	7,629
1961	102	99	101	121	113	101
Latin America						
1960	8,609	3,743	2,726	242	307	1,573
1961	99	92	100	155	155	97
Africa[c]						
1960	6,348	503	4,147	117	391	973
1961	103	114	105	134	84	97
Western Asia						
1960	4,269	431	2,205	297	71	1,162
1961	103	100	100	119	124	105
Southern and south-eastern Asia						
1960	7,670	1,287	2,062	764	467	3,000
1961	98	100	94	103	85	102
Oceania						
1960	2,801	289	1,461	338	123	552
1961	112	132	97	136	204	107
Other[d]						
1960	1,579	528	612	25	1	368
1961	109	113	101	113	271	115

Source: Statistical Office of the United Nations.

[a] Including exports whose destination was not reported.

[b] Sum of regions indicated; Greece, Ireland, Portugal, Spain and Turkey are not included.

[c] Continental Africa.

[d] Mostly the West Indies.

other region, including North America which took more sugar and meat. The Caribbean area (other than Cuba) also gained from larger sugar exports to the United States as well as from an increase in petroleum exports. Partly because of a decline in the price of rubber and copra, the total value of exports from southern and south-eastern Asia was 2 per cent below the 1960 level, notwithstanding a 2 per cent expansion in trade within the region and a 3 per cent rise in sales to Japan. All the other regions increased their shipments to Japan, too: Africa and Oceania by about a third and Latin America by over a half. Western Asia increased its exports to Japan (mostly petroleum) by 18 per cent; slightly larger in absolute terms was the increment in its sales to all the other primary exporting regions.

The proportion of primary exporting countries registering a decline in export receipts rose from less than 30 per cent in 1960 to over 40 per cent in 1961. The proportion registering a decline of over 5 per cent increased sharply, from less than a seventh to almost one-fourth of the total, while the proportion registering an increase of more than 20 per cent dropped to about a third of the 1960 figure. As several important trading countries were involved in this slackening in the rate of growth in export earnings, the contrast between 1960 and 1961 was much more marked in terms of total earnings than in terms of number of countries (*see* table 5-3).

The 3 per cent decline in the average unit value of exports from the primary exporting countries was largely the result of major reductions in the average prices of a small number of raw materials (most notably rubber, sisal and copra) and foodstuffs (most notably cocoa, *robusta* coffee and butter). Among the countries whose export earnings dropped by 5 per cent or more between 1960 and 1961, the decline in rubber and copra prices accounted for the greater part of the reduction in Cambodia, Ceylon, the Federation of Malaya, Indonesia, North Borneo, the Philippines, the Republic of Viet-Nam, Sarawak and Singapore. In Cambodia and the Republic of Viet-Nam there was also a reduction in the volume of rice exports, following a poor 1960/61 harvest in the Republic of Viet-Nam

Table 5-3. Primary Exporting Countries:[a] Distribution of Changes in Exports and Imports, 1960 and 1961

Ratio (previous year = 100)	Exports, f.o.b.				Imports, c.i.f.			
	Number of countries		Export receipts (billions of dollars)		Number of countries		Import expenditure (billions of dollars)	
	1960	1961[b]	1960	1961[b]	1960	1961[b]	1960	1961[b]
Less than 90	7	9	0.3	2.5	3	9	2.1	4.6
Less than 95	11	19	1.2	7.1	5	17	2.9	9.3
Less than 100	22	33	7.0	12.6	9	30	3.7	15.3
100 or more	57	46	22.9	17.9	67	46	30.4	19.6
More than 105	41	31	13.4	13.2	58	31	27.0	12.6
More than 110	31	21	8.8	7.6	47	21	23.4	9.2
More than 120	17	6	4.3	0.7	25	9	11.7	6.0
More than 130	8	2	1.9	0.2	6	2	1.5	1.9
TOTAL	79	79	29.9	30.5	76	76	34.1	34.9

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on International Monetary Fund, *International Financial Statistics* (Washington, D.C.).

[a] Listed in ascending order of export index for 1961 (1960=100), the countries included are: Sarawak, Libya, Dominican Republic, Republic of Viet-Nam, United Arab Republic, Ecuador, Argentina, Tanganyika, Philippines, Federation of Malaya, Cambodia, Cyprus, New Zealand, Syria, Tunisia, Algeria, Colombia, Indonesia, Singapore, Ceylon, Chile, North Borneo, Burma, Guatemala, Uganda, Morocco, Haiti, Costa Rica, Surinam, Spain, Sudan, Ghana, Venezuela, Iraq, Hong Kong, Réunion, Rhodesia and Nyasaland, Kuwait (exports only), Cameroun, Portugal, El Salvador, Pakistan, Guadeloupe, Panama, Nigeria, Kenya, Madagascar, Barbados, Honduras, India, Martinique, South Africa, Aden, Turkey, Mexico, Israel, Saudi Arabia (exports only), Jamaica, Netherlands Antilles, Greece, Brazil, Nicaragua, British Guiana, Sierra Leone, Ethiopia, Paraguay, Peru, Bolivia (exports only), Thailand, Angola, Ireland, Australia, China (Taiwan), Trinidad, former French Equatorial Africa, Republic of Korea, Jordan, Uruguay and Mauritius.

[b] Preliminary, estimated for some countries on the basis of less than twelve months' trade.

and in anticipation of a poor 1961/62 harvest in Cambodia; in Ceylon, rubber shipments were smaller in volume as well as in value; and this was also the case in Sarawak, where petroleum shipments were lower, too. In the Philippines the effect of lower copra prices was accentuated by a reduction in the volume of shipments—of abaca as well as of coconut products. It was largely as a result of movements in rubber and copra prices that the unit value of exports from southern and south-eastern Asia, which had risen by about 5 per cent between 1959 and 1960, declined by about 7 per cent between 1960 and 1961.

Sisal prices had risen to a relatively high level in 1960—the average for the year was the highest since the Korean boom—and the steep decline in 1961 caused a sharp reduction in the average unit value of exports from Tanganyika. A small decline in the value of Chilean exports reflects a lower average price for copper.

In the case of the decline in food prices, the incidence was greatest in the export proceeds of New Zealand where, in addition to a reduction of almost a fifth in the average unit value of butter, there was a reduction in volume and price of meat. The decline in cocoa and *robusta* coffee prices was offset, and in some instances more than offset, by an expansion in the amount shipped, most notably in the case of the major African producers—Angola, Cameroun, Ethiopia, Ghana, Kenya and Madagascar. The decline in price did contribute to a reduction in the export earnings of the Dominican Republic and Ecuador (cocoa) and Uganda (coffee), however, though the main factor reducing earnings in these countries was lower production—not only of cocoa and coffee but of sugar in the Dominican Republic, bananas in Ecuador and cotton in Uganda.

Reductions in export quantum accounted for the bulk of the loss among the other countries whose 1961 receipts were below the 1960 level. The reductions were mostly in food crops—rice in Burma, wheat in Argentina and Tunisia, fruit in Algeria and Cyprus, and coffee in Colombia, Costa Rica, Guatemala and Haiti—but a decline in the earnings of the Sudan and the United Arab Republic reflects chiefly smaller cotton shipments, while Syria exported a smaller volume of textiles and reductions in sales of iron ore affected the receipts of Morocco, Tunisia and Venezuela.

In the aggregate, Venezuelan earnings in 1961 were approximately the same as in 1960: increased petroleum shipments almost compensated for the reduction in sales of iron ore. Compensating quantum increases also kept the earnings of Iraq and Kuwait fairly steady (in the face of lower petroleum prices) as well as those of Rhodesia and Nyasaland (in the face of lower copper prices) and Portugal and to a less extent Spain, where unit values also dipped slightly. Apart from Cameroun and Ghana—mentioned above as countries in which cocoa proceeds were held steady by offsetting price and quantum movements—El Salvador, Hong Kong, Réunion and Surinam also belonged to the

group whose export earnings were much the same as in 1960. Pakistan was also in this category but, in contrast to most of the other members, its receipts were held constant by higher prices—for jute and cotton—in the face of a sharp reduction in quantum.

The remainder of the primary exporting countries earned more in 1961 than in 1960; in almost all cases as a result of an increase in the volume of exports, and often in the face of a decline in unit value. Among the few increases in earnings due at least in part to higher prices were those of Bolivia (tin), China (Taiwan) and Thailand (which exported more rice at rather higher prices), India (which gained from higher prices for jute goods as well as from an expansion in tea sales), Brazil, Mexico and Nicaragua (which earned more from their cotton exports partly or wholly because of higher prices) and some of the sugar exporters that gained from access to the higher priced United States market from which Cuba had been barred.

The increase in quantum was not confined to a narrow range of exports. Among the foodstuffs it included rice, sugar, cocoa and coffee, mentioned above, and also cereals (particularly wheat and barley from Australia, largely to mainland China), meat (Ireland and Paraguay) and bananas (Honduras and Panama). An increase in the export receipts of Nigeria was due in part to a recovery in shipments of ground-nuts following a better 1960 crop. Greece and Turkey sold substantially more tobacco. South Africa and Uruguay exported more wool, the latter liquidating inventories that had accumulated in 1960. There were larger shipments of petroleum from most exporters, raising the receipts of Aden, Libya, the Netherlands Antilles, Saudi Arabia and Trinidad, despite lower prices for many products. Peru shipped more cotton and sugar and also a larger quantum of fish products and nonferrous metals and ores. Increased ore shipments were also the principal component in a rise in the export earnings of the Republic of Korea. Diamonds were among the items contributing most to an increase in exports from Israel and South Africa.

The quantum increases were thus widespread geographically also. The sharpest rise was in Oceania (more than one-eighth) but there were sizable increases (of about 7 per cent) from Africa and southern and south-eastern Asia. There were smaller increases from western Asia (about 4 per cent) and also from outer Europe, where a major upsurge had occurred in the two preceding years. The smallest advance was in Latin America: here between 1960 and 1961 there was only a fractional expansion in the quantum of exports. It was in this region, however, that prices were firmest: on the average there was only a fractional decline. In Oceania, outer Europe and western Asia, the average unit value of exports was between one and 3 per cent

Table 5-4. Primary Exporting Regions: Exports of Selected Categories of Goods to Industrial Countries, First Three Quarters of 1960 and 1961

(For 1960, value in millions of dollars in the first three quarters of the year; for 1961, index, 1960 figure = 100)

Exporting region and period	*Total*	*Foodstuffs*	*Raw materials*[a]	*Fuels*	*Manufactures*[a]
Latin America					
1960	5,457	2,685	1,213	1,092	467
1961	96	85	109	98	113
Africa[b]					
1960	3,948	1,438	1,742	140	628
1961	101	102	91	246	94
Middle East[c]					
1960	3,136	191	314	2.515	116
1961	100	94	88	101	105
Southern and south-eastern Asia					
1960	3,356	737	1,825	137	656
1961	95	104	84	110	114
Oceania					
1960	1,875	785	991	14	86
1961	98	94	97	186	122
TOTAL, above					
1960	17,771	5,836	6,084	3,898	1,954
1961	98	93	93	106	108

Source: United Nations, *Commodity Trade Statistics*, Statistical Papers, Series D.

[a] Metals are included with "manufactures".

[b] Continental Africa.

[c] Western Asia and north-east Africa.

below the 1960 level, in Africa there was a decline of about 4 per cent, while in southern and south-eastern Asia—which as pointed out above, was the only region to register a rise in 1960—the decline was about 7 per cent.

About three-fourths of all exports from the primary exporting countries have gone to the industrial countries in recent years. Though trade with North America lagged in 1961 there was a compensating increase in shipments to Japan: in total value, exports to the industrial countries as a group were about 2 per cent higher than in 1960.

To judge by imports into the industrial countries in the first nine months of the year, there was a significant change in the composition of their purchases from the primary exporting countries: in value terms there was a noticeable switch from raw materials and foodstuffs to fuels and manufactures (including metals). Shipments of the former categories from the primary exporting countries to the industrial countries were about 7 per cent lower in value while shipments of the latter were about 7 per cent higher (*see* table 5-4).

Part of the contrast may be ascribed to the price changes noted above and part to the reduction in import demand for such products as sugar, meat and butter following an increase in domestic production in Europe. Since, in relation to average prices in the corresponding period in 1960, the prices of agricultural products in the fourth quarter of 1961 were somewhat lower than those of fuels, metals and manufactures, it is probable that this change in composition of trade was characteristic of 1961 as a whole. The only regions to export more foodstuffs to the industrial countries in 1961 were Africa (which shipped a much larger volume of coffee and cocoa) and southern and south-eastern Asia (which sold more sugar to the United States and Japan and more rice to western Europe and at somewhat higher prices). Part of this increase—particularly in the case of sugar and the beverage crops—represents a diversion of trade from Latin America whose food exports dropped by about 15 per cent in value.

In the case of raw materials, by contrast, Latin America was the only region to expand its exports to the industrial countries: this reflects chiefly an increase in fibre shipments to western Europe. The sharpest decline was in exports from southern and south-eastern Asia: these dropped by about 16 per cent in value in the wake of falling rubber and copra prices.

Earnings from fuel exports to the industrial countries were 6 per cent higher in the aggregate: only Latin America sold less petroleum than in 1960 and there was a notable growth—from a small base—in shipments from Africa. There was also a marked increase in shipments of coal from Australia to Japan, and in the course of the year arrangements were made for a further expansion in this trade.

The largest relative increase was in exports of manufactured goods. The principal components of this were cotton and jute textiles (particularly from southern and south-eastern Asia) and non-ferrous metals (particularly from Latin America). Exports of manufactures from Oceania to the industrial countries—chiefly Japan—increased by more than a fifth and included a significantly greater volume of iron and steel. There was a reduction, however, in the value of exports of manufactures from Africa, in which a 6 per cent decline in the average price of copper played a major part.

CHANGES IN IMPORTS

Imports into the primary exporting countries after having been cut back in the wake of the 1958 recession had rebounded in 1960. With the slowing down in the rate of increase in the demand for their exports and the renewal of the downward drift in export prices, the trade deficit had widened ominously in the course of 1960.[2] By the end of the year many countries had been compelled to put a curb on imports in order to restore their current payments balance. In addition, a number of countries that had experienced a serious outflow of capital in 1960 tightened exchange controls and took action—direct and indirect—to restrain import expenditure in order to protect their dwindling reserves. The result was reflected in the course of imports in 1961: after an expansion of about 7 per cent between 1959 and 1960, the quantum of imports into the primary exporting countries increased at a diminishing rate in the first half of 1961 and for the year as a whole showed little advance on the 1960 level (*see* table 5-1). The average price of imported goods dipped fractionally in this period, and total import expenditure was about 2 per cent above the 1960 figure.

The principal reason for the decline in the average unit value of imports lies in the relative magnitude of intra-regional trade in southern and south-eastern Asia where, as indicated above, the decline in export prices was sharpest. The unit value of exports from the industrial countries rose by about one per cent between 1960 and 1961 and it is this increase that is reflected in the rise in import prices in Africa and Oceania. There was a slight reduction in prices paid by outer Europe—where imports rose sharply to over a third above the 1958 level—and also by western Asia. In Latin America there was no change in the average.

Though in quantitative terms the major cutbacks were in Oceania (6 per cent in quantum) and Africa (4 per cent)—and within these regions chiefly in Australia and South Africa—the restraint on imports

[2] *See* United Nations, *World Economic Survey, 1960* (Sales No.: 61.II.C.1), page 179.

was a fairly general one. In 1960 fewer than an eighth of the primary exporting countries imported less than in the previous year; in 1961 about 40 per cent of the primary exporting countries reduced their imports (*see* table 5-3). Compared with 1960, there were over three times as many countries registering declines of more than 5 per cent in 1961 and less than half as many registering increases of over 10 per cent.

Most of the countries registering a decline in import expenditure between 1960 and 1961 had enjoyed an over-average increase in imports between 1959 and 1960. Of the seventeen countries reducing their imports by more than 5 per cent between 1960 and 1961, twelve—Algeria, Australia, Burma, El Salvador, India, Kenya, Libya, Mauritius, the Republic of Korea, South Africa, Syria and Uruguay—had increased their imports by more than the 10 per cent average in the previous interval, and most of them had run into payments difficulties or were concerned about the rapid running down of reserves. In the other five countries—Angola, Ceylon, Dominican Republic, Madagascar and Sarawak—imports declined for the second successive year.

A majority of the countries experiencing a more modest reduction in imports in 1961 were also among those whose imports had risen more than the average in 1960. They included Barbados, Colombia, Ecuador, Haiti, Iraq, Jamaica, Mexico, Pakistan and Paraguay. Several other countries experienced a slight contraction in imports in 1961 after a moderate expansion in 1960: Brazil, Costa Rica, Jordan, Rhodesia and Nyasaland and Singapore. In Guatemala, import expenditure remained virtually constant over the three years. Only Venezuela in this group of countries recorded a minor reduction in imports in 1960 after a much sharper decline between 1959 and 1960 in the wake of domestic deflation and an outflow of private capital.

Not all the countries that had increased their imports by more than the average in 1960 cut back the rate of increase to less than the average in 1961. Indeed, of the twenty registering an expansion of more than 10 per cent between 1960 and 1961, fourteen had raised their imports by more than 10 per cent in the previous interval: Argentina, Chile, former French Equatorial Africa, Indonesia, Israel, New Zealand, North Borneo, Panama, Peru, Portugal, Réunion, the Sudan, Trinidad and Tunisia. Before the end of 1961 several of these countries were forced to take defensive action in support of reserves. Five of the other six countries in this group—Cameroun, Ethiopia, Ireland, Tanganyika and Uganda—had increased their imports relatively little in 1960 and the sixth (Spain) had recorded a sizable reduction.

The final group of countries—those registering a moderate expansion, of less than 10 per cent, between 1960 and 1961—also consisted predominantly of those that had had an over-average increase in the preceding interval. Among the countries for which the expansion between 1960 and 1961 represented a material reduction in the rate of increase were British Guiana, Cambodia, China (Taiwan), the Federation of Malaya, Ghana, Greece, Guadeloupe, Morocco, Nicaragua, Nigeria, the Philippines, the Republic of Viet-Nam, Surinam and the United Arab Republic. These include some of the major exporters of rubber, copra and cocoa whose terms of trade deteriorated most sharply between 1960 and 1961. For Aden, Martinique and Thailand, on the other hand, the relative rate of expansion between 1960 and 1961 was of much the same order as between 1959 and 1960, while Cyprus, the Netherlands Antilles and Turkey recorded a modest increase in 1961 after a cutback in 1960.

The primary exporting countries draw about two-thirds of their imports from the industrial countries. To judge from the exports of the industrial countries in the first three quarters of the year, that proportion may have dropped back slightly in 1961. Where a cutback occurred in the imports of the primary exporting countries its incidence was somewhat greater on the types of goods provided by the industrial countries than on the food, fuel and raw materials coming in large measure from the less developed countries. Offsetting this to some extent, however, was the fact that the average price of goods obtained from the industrial countries was fractionally higher in 1961 than in 1960, while that of goods coming from other primary exporting countries was somewhat lower.

In the aggregate it would appear that imports of the primary exporting countries from the industrial countries registered very little change in over-all value between 1960 and 1961: there were small increases in purchases of chemicals, machinery and vehicles and fuels but these were offset by reductions in purchases of other manufactures, raw materials and foodstuffs (*see* table 5-5). To judge by the returns for the first three quarters of the year the only regions to import more from the industrial countries in 1961 than in 1960 were southern and south-eastern Asia and the Middle East: the expansion was chiefly in capital goods and—on a much smaller scale—fuels, though the Middle East also purchased more chemicals and southern and south-eastern Asia took a greater volume of manufactures and raw materials (mostly cotton from the United States).

There was a sharp cutback in imports of manufactured goods into Africa and Oceania—in line with policies being pursued in Australia, Rhodesia and Nyasaland and South Africa—but both these regions imported more foodstuffs from the industrial countries. In the case of Africa this was chiefly grain from the United States. As a result of this expansion, Africa replaced southern and south-eastern Asia as the largest importer of foodstuffs from the industrial countries: imports were at the annual rate of almost $800 million in the first three quarters of the year.

Table 5-5. Primary Exporting Regions: Imports of Selected Categories of Goods from Industrial Countries, First Three Quarters of 1960 and 1961

(For 1960, value in millions of dollars in the first three quarters of the year; for 1961, index, 1960 figure = 100)

Importing region and period	Total	Food-stuffs	Raw materials[a]	Fuels	Manufactured goods			
					Total	Chemicals	Machinery and vehicles	Other manufactures[a]
Latin America								
1960	4,675	417	192	92	3,975	550	2,135	1,290
1961	100	95	98	89	101	103	102	98
Africa[b]								
1960	4,510	541	150	163	3,656	364	1,658	1,634
1961	95	110	93	94	92	100	93	91
Middle East[c]								
1960	2,096	261	95	40	1,700	183	782	735
1961	102	98	91	114	103	110	108	97
Southern and south-eastern Asia								
1960	4,126	630	269	65	3,162	467	1,344	1,351
1961	106	92	107	127	109	98	114	103
Oceania								
1960	1,604	51	85	16	1,451	150	649	652
1961	90	107	75	94	91	94	95	86
TOTAL, above								
1960	17,011	1,901	790	377	13,943	1,714	6,567	5,662
1961	99	99	96	101	100	104	102	96

Source: United Nations, *Commodity Trade Statistics*, Statistical Papers, Series D.

[a] Metals are included with "other manufactures".

[b] Continental Africa.

[c] Western Asia and north-east Africa.

Almost one-third of the flow of machinery and vehicles from the industrial countries to the primary exporting countries went to Latin America in 1961. There was a 2 per cent increase in this trade, despite the virtual elimination of that segment of it moving from the United States to Cuba. Latin America also spent slightly more on chemicals than in 1960; in all the other categories there was a reduction, so that on balance the total value of imports from the industrial countries remained more or less at the 1960 level.

External equilibrium

Following the widespread and rapid expansion of imports in 1960, 1961 opened with many primary exporting countries under considerable external pressure. Restraining measures were adopted, directly or indirectly curbing import demand, and as indicated above, the expansion was brought almost to a halt, at least in aggregate terms. As there was a further, albeit small, advance in total export earnings, the over-all trade deficit—which had increased considerably in 1960—was reduced slightly in 1961. The reduction was probably between $200 and $300 million or about 5 per cent—a much smaller change than had occurred in any of the three preceding years. Reflecting this swing in the balance of trade, total official holdings of gold and foreign exchange, having been drawn down materially in 1960, were built up again in 1961. This recovery, however, owed a good deal to capital movements of various kinds including, in particular, substantial drawings on the International Monetary Fund (IMF).

Aggregated figures of this nature, however, subsume a considerable range of results for individual countries. As suggested in the preceding section, much of the improvement on merchandise account occurred in a few countries, the most dramatic change being registered in Australia. If Oceania and western Asia are omitted from the reckoning, it is seen that in the other regions the balance of trade continued to deteriorate in the first half of the year, and despite a large number of calls on the IMF, aggregate gold and foreign currency reserves in Latin America, Africa and southern and south-eastern Asia were 4 per cent lower in mid-1961 than at the end of 1960. And less than half of this loss had been recovered by the end of the year.

Though the available data are far from comprehensive, it is clear that 1961 saw a further expansion in the over-all flow of capital to the primary exporting countries. Since several of the countries from which private capital had been moving out in 1960 took steps to halt the outflow, the net improvement in the capital account of the primary exporting countries was even more decisive. As in the case of trading results, however, the aggregate conceals some widely divergent movements among the constituent countries: in some even the larger net inflow of capital was insufficient to restore external equilibrium and in others the capital

account provided little or no offset to a deteriorating current account.

Measured in terms of official reserves and net IMF position, the over-all international liquidity of the primary exporting countries in the period 1960-1961 was shaped partly by the violent swings that occurred in a few countries—downward and upward in Australia, Brazil, South Africa and Venezuela and upward and downward in Argentina, Indonesia, Morocco and the Philippines—and partly by persistent changes in a number of other countries: most notable among these were increases in the Federation of Malaya, Israel and Spain and reductions in Chile, Colombia, India, Mexico, New Zealand, Portugal, Turkey and the United Arab Republic.

CHANGES IN TRADE BALANCES AND RESERVES

With import expenditure increasing less than export earnings and net capital receipts significantly larger than in 1960, there was an appreciable improvement in the over-all balance of payments of the primary exporting countries in 1961. Official foreign exchange reserves which had been drawn down sharply in 1960 were raised substantially in 1961. Foreign exchange holdings of the commercial banks followed the same pattern: down sharply in 1960 and up—though only modestly—in 1961. The change in over-all liquidity of the primary exporting countries, however, moved differently: the enlargement of IMF facilities served to increase it by about $0.3 billion in 1960, while in 1961 a good deal of these IMF resources were put to use and, in terms of statistical aggregates, three-fourths of the expansion in official reserves was offset by a net decline in the gross drawing potential available to primary exporting members of the IMF (*see* table 5-6).

Table 5-6. Primary Exporting Countries: Regional Changes in Trade Balances and Liquidity

(Millions of dollars)

Region	Balance of trade[a]		Net change in other items		Change in official reserves		Change in IMF position[b]	
	1960	1961	1960	1961	1960	1961	1960	1961
Latin America	281	180	−351	−270	−70	−90	320	−206
Excluding Cuba	256	102	−213	−130	43	−28	320	−206
Excluding Cuba and Venezuela	−988	−1,152	1,176	1,077	188	−75	−151	−206
Outer Europe[c]	−921	−1,424	1,293	1,645	372	221	62	50
Excluding Spain	−924	−1,041	924	1,043	—	−58	—	—
Africa and the West Indies	−1,988	−1,670	...	...	...	...	...	...
Selected countries[d]	−1,119	−948	907	989	−212	40	−13	−17
Excluding South Africa	−1,547	−1,397	1,522	1,288	−25	−110	—	8
Middle East	850	850	...	...	...	...	...	...
Selected countries[e]	−30	18	53	−32	23	−14	96	3
Excluding Saudi Arabia	−640	−812	654	756	14	−56	27	3
Southern and south-eastern Asia	−2,084	−2,125	...	...	...	...	...	...
Selected countries[f]	−1,756	−1,865	1,937	1,700	181	−165	188	−163
Oceania[g]	−683	−132	260	555	−423	423	125	−19
TOTAL	−4,545	−4,321	...	...	...	...	...	...
Selected countries[h]	−5,099	−4,817	4,916	5,204	−183	401	778	−352
Excluding Oceania	−4,416	−4,686	4,656	4,664	240	−22	653	−333
Excluding Oceania and South Africa	−3,973	−4,488	4,400	4,660	427	−172	666	−308
Excluding Oceania and outer Europe	−3,495	−3,262	3,363	3,019	−132	−243	591	−383
Excluding Oceania, outer Europe and South Africa	−3,052	−3,065	3,107	2,672	55	−393	604	−358
Excluding Oceania, outer Europe, South Africa, Saudi Arabia, Cuba and Venezuela	−4,932	−5,227	5,236	4,807	304	−420	366	−358

Source: International Monetary Fund, *International Financial Statistics*.

[a] Exports f.o.b. minus imports c.i.f.

[b] Measured gross; each member's "IMF position"—reflecting its potential drawing rights—is equivalent to twice its quota minus the Fund's holdings of its currency.

[c] Greece, Ireland, Portugal and Spain.

[d] Aden, Cyprus, Ghana, Morocco, Nigeria, Rhodesia and Nyasaland, Sierra Leone, South Africa, Tanganyika, Tunisia, former French Equatorial Africa, French and United Kingdom dependencies in Africa and the Caribbean, excluding Algeria. (A portion of the sterling and franc holdings allocated to this region belong to territories in other regions.)

[e] Ethiopia, Iraq, Israel, Jordan, Libya, Saudi Arabia, Sudan, Syria, Turkey and United Arab Republic.

[f] British North Borneo, Brunei, Burma, Ceylon, China (Taiwan), Federation of Malaya, Hong Kong, India, Indonesia, Pakistan, Philippines, Republic of Korea, Republic of Viet-Nam, Sarawak and Thailand.

[g] Australia and New Zealand.

[h] Net totals for Latin America, outer Europe, Oceania and the "selected countries" indicated in Africa and the West Indies, the Middle East and southern and south-eastern Asia. Algeria is included in the trade balance. Changes in sterling balances not allocated by region are included in the reserve totals.

The decline in official reserves in 1960 was concentrated largely in Africa and Oceania and it was in these regions that the most notable recovery occurred in 1961. This was almost entirely the result of a reduction in the trade deficit in Australia and South Africa where imports were cut back and exports increased; both countries borrowed from the IMF, and Australia also experienced a larger inflow of capital from other sources, while exchange controls imposed in South Africa curbed the outflow of private capital. In Nigeria and Rhodesia and Nyasaland the movement in reserves was also reversed. In the former an increase in exports narrowed the trade gap; in the latter the recovery in reserves was brought about partly by increasing the trade surplus and partly by reducing the outflow of funds. A rise in reserves in East Africa was more the result of net capital movements than of any improvement in the trade balance.

Most of the other countries in Africa and Oceania lost foreign exchange in 1961. A rise in imports, not covered by an increase in export earnings, caused a sharp deterioration in the merchandise balance in Ghana and Morocco and a reversal in the movement of exchange holdings, both public and private. There were similar, though smaller, changes in Tunisia, and the reserves of the French franc area also declined. In New Zealand the trade balance moved from active to passive as earnings declined and imports rose, and reserves were drawn down for the second year running: at the end of 1961 official exchange holdings were equivalent to only six weeks' import expenditure at current rates. By that time, however, New Zealand had acceded to the IMF, thus raising its potential liquidity to within the normal range of three-four months' imports.

In southern and south-eastern Asia, the Middle East (excluding Iran, Kuwait and the oil territories of the Persian Gulf for which current data are not available) and Latin America (excluding Cuba for which recent official data are also lacking) liquidity changes were in the opposite direction: upward in 1960, downward in 1961.

In southern and south-eastern Asia the pattern was set by Indonesia, Pakistan, the Philippines and the Republic of Viet-Nam. All these countries had passive trade balances in 1961 and in all except Pakistan imports were higher and exports lower than in 1960. There was also a decline in liquidity in Burma, Ceylon and India in 1961, but this followed a decline in 1960: largely because the trade account was more nearly in balance the loss of reserves was smaller in 1961. Indeed, in Ceylon and India the reduction in liquidity in 1961 took the form of a drawing on the resources available from the IMF rather than a decline in foreign exchange holdings, official or banking.

Most of the other countries in southern and south-eastern Asia increased their reserves in 1961: in the case of China (Taiwan), the Republic of Korea and Thailand (where the trade deficit was reduced) to a greater extent than in 1960; in the case of British North Borneo, Brunei and Sarawak, the Federation of Malaya (where the trade surplus was reduced) and Hong Kong (where the trade deficit was increased) to a smaller extent than in 1960. In the Federation of Malaya, indeed, export earnings slipped back almost an eighth from the high 1960 level, while import expenditure rose to a record figure and the expansion in official foreign exchange holdings was almost offset by a contraction in those of commercial banks.

In the Middle East the reversal in the over-all movement of reserves was not the result of a reversal in particular countries: only in the Sudan was there a swing from accumulation in 1960 to decumulation in 1961 as rising imports turned the trade balance from active to passive. In most countries the 1960 movement persisted into 1961. Reserves expanded again in Ethiopia, Israel, Jordan, Libya and Saudi Arabia; contracted again in Iraq, Syria, Turkey and the United Arab Republic.

In Latin America (excluding Cuba) over-all changes in foreign exchange holdings were relatively small: a rise in official reserves in 1960 was more or less offset by a decline in the holdings of commercial banks, while in 1961 these movements were reversed. But the gain in official reserves in 1960 was accompanied by a considerable ($320 million) expansion in the accommodation available from the IMF, while the loss in reserves in 1961 took place in the face of a considerable ($206 million) call on IMF resources. Thus there was a substantial deterioration in over-all liquidity.

By far the largest reduction in foreign exchange holdings in 1961 occurred in Argentina where, under the impact of a decline in export earnings and a rise in import expenditure, the trade deficit rose by about $330 million to approximately $500 million. This reduction followed a major expansion in official reserves in 1960; other reductions were smaller, but they followed a drawing down of official reserves in 1960 as in Chile, Colombia, the Dominican Republic, El Salvador and Panama. In Chile, Colombia and, to a less extent, El Salvador, where imports had risen in 1960 (and in 1961 in the case of Chile) in the face of static or declining export earnings, the reduction in reserves in 1961 was accompanied by a considerable weakening of the gross IMF position. In the Dominican Republic there was a shrinkage of the active trade balance between 1960 and 1961, but the loss in reserves reflects chiefly a continuation of the capital flight that had started in 1958.

Elsewhere in Latin America, official foreign exchange holdings were increased in 1961, most notably in Brazil, Mexico, Peru, Uruguay and Venezuela. In Venezuela this reflects chiefly the drying up of the outflow of capital that had proceeded at a high level since 1958. In the other countries, an expansion of

export earnings played a more significant role, accompanied in Mexico and Uruguay by a cutback in imports and in Peru by an inflow of private capital. In Mexico, by contrast, the effect of a sharp reduction in the trade deficit was offset by adverse movements of private capital: there was an increased outflow and a smaller inflow, and the recovery in the official reserves to the end-1959 level at the end of 1961 reflects, in large measure, a loan from the United States Export-Import Bank. The official reserves of Ecuador and Nicaragua were sustained by IMF borrowing: both experienced an outflow of private capital and in Ecuador there was a sharp drop in export earnings which halved the active balance of trade.

Among the primary exporting countries of Europe there was a further sizable increase in foreign exchange reserves in 1961. It was concentrated overwhelmingly in Spain where, notwithstanding a major expansion in imports unsupported by any rise in export earnings, the inflow of invisibles and capital raised official holdings to record levels—approaching one billion dollars in March 1962. In Greece and Ireland there was relatively little change in the passive trade balance—both exports and imports expanding moderately—and an increase in invisible earnings, particularly from tourism, and in the inflow of capital raised official reserves by about 12 per cent and 6 per cent, respectively. In Portugal, on the other hand, a 20 per cent increase in import expenditure was financed almost entirely from reserves: official exchange holdings fell by about an eighth to the lowest end-year level since 1953.

In the aggregate, there seems to have been a slight narrowing in the trade gap of the primary exporting countries between 1960 and 1961 and this helped to bring to a halt the drain on reserves that had occurred in 1960. Also contributing to the over-all recovery that was registered in official reserves—about $0.4 billion—were several other factors including, in particular, an expansion in earnings from items other than trade (particularly tourism), the receipt of more grant income and more capital (public and private), an increase in gold production ($50 million, very largely in South Africa) and a movement of foreign exchange from the IMF to national holdings.

If Oceania is omitted from the primary exporting group,[3] the 1960 trade deficit is seen to be much smaller and the change between 1960 and 1961 a widening rather than a narrowing of the gap. Outside Oceania there was a sizable rise in reserves in 1960 but a small decline in 1961. If outer Europe is also excluded, the reduction between 1960 and 1961 in the trade deficit in the remaining primary exporting countries was insufficient to prevent an appreciable running down of official reserves. If South Africa is excluded the result is a slight increase in the trade deficit between 1960 and 1961 and a much larger decline in reserves. The omission of the two major oil exporters —Saudi Arabia and Venezuela—with their large trade surpluses, exposes the nature of the changes occurring in the under-developed members of the primary exporting group. The 1960 movement was sharply reversed in 1961: there was a measurable widening of the trade gap (to about $5.2 billion), a considerable drain of reserves (of over $0.4 billion) and a substantial reduction in the liquidity provided by drawing rights on the IMF (of almost $0.4 billion).

[3] For lack of current data this group already excludes the petroleum exporters of the Persian Gulf, the Netherlands Antilles and Portuguese and Spanish territories in Africa.

THE FLOW OF CAPITAL

The slight decline in the merchandise deficit of the primary exporting countries as a group eased the strain on the balance of payments of several of its members in which it had been mounting rapidly in 1960. The pressure on the external equilibrium of many countries remained very strong, however: the over-all rise in official reserves in 1961 was less a measure of the general slackening of that pressure than of the results of actions taken by a few countries to curb imports. It was also a reflection of a further expansion in the net inflow of capital to a number of countries in the group.

It was pointed out in the foregoing discussion that the widening of the combined trade gap in 1960 and the consequent drawing down of reserves in a number of primary exporting countries occasioned a good deal of borrowing from the IMF. In the aggregate the net drawings of the primary exporting countries rose from a mere $15 million in 1959 to $97 million in 1960 and to no less than $577 million in 1961. Operations were widespread, but the bulk of the funds went to Latin America ($275 million to Colombia, Chile, Argentina, Mexico, Brazil, Ecuador, Costa Rica, Nicaragua and Honduras), Oceania ($175 million to Australia) and southern and south-eastern Asia ($161 million to India, Indonesia and Ceylon). The only borrower in Africa was South Africa ($25 million) while in the Middle East—which had been a major borrowing region in 1960—a $9.5 million drawing by Turkey was more than offset by repayments by Iran, the Sudan, Syria and the United Arab Republic. In outer Europe, Spain repaid the amount of $50 million borrowed in 1959.

Unlike the IMF, the International Bank for Reconstruction and Development (IBRD) disbursed less to the primary exporting countries in 1961 than in 1960 —about $452 million as against about $510 million. Since repayments were appreciably greater in 1961, net disbursements dropped rather more sharply—from $218 million to $156 million. The only region to receive more in 1961 than in 1960 was Latin America— $55 million as against $29 million. Net disbursements dropped 9 per cent in southern and south-eastern Asia (to $76 million), 64 per cent in the Middle East (to $28 million) and 82 per cent in Africa (to $14 million). Oceania was again a net repayer—to the extent

of about $17 million. The largest individual advances were those going to India ($45.5 million net), Brazil ($17.4 million), Colombia ($16.5 million), Mauritania ($15.3 million), Gabon ($14.8 million) and Pakistan ($13.4 million).

The amount disbursed by the International Finance Corporation (IFC) in the primary exporting countries in 1961 was under $8 million, less than two-thirds of the 1960 figure. As before, most of the investments were made in Latin America: Colombia ($2.4 million), Peru ($1.3 million), Chile ($1.1 million) and smaller amounts in Mexico and Venezuela. One of the largest amounts ($2.3 million) went to Tanganyika as part of the capital of a sugar growing and milling project agreed to in 1960.

An increase in expenditure in Africa was also a feature of the United Nations Expanded Programme of Technical Assistance (EPTA) in 1961. Project costs exceeded $31 million in 1961—compared with $28 million in 1960—while a further $18 million was disbursed under the regular technical assistance programme and aid from the specialized agencies. About $10 million of the EPTA disbursements were in southern and south-eastern Asia, $8 million in Latin America and the Caribbean, somewhat more than $6 million in Africa and somewhat less than $6 million in the Middle East.

One of the reasons for the falling away of IBRD lending is the diminishing capacity of many potential borrowers among the primary exporting countries to carry new external debt: as their total foreign indebtedness mounts, the ability of these countries to service additional loans from normal—often slow-growing—export earnings tends to shrink. For this reason, disbursements from the International Development Association (IDA)—mostly in the form of long-term low interest loans—might be expected to increase. Its first credit was agreed to in May 1961; by April 1962 it had committed about $200 million, mostly in the form of fifty-year loans at no cost other than a 0.75 per cent per annum service charge, with repayments to commence only after ten years. Very little of this money was paid out in 1961, however: its contribution to the flow of capital lies in the future.

Another source of capital of considerable potential importance is the Inter-American Development Bank (IDB). Within the region its activities were widespread in 1961: it negotiated no less than seventy-three loans and committed almost $294 million. The largest amounts were for projects in Venezuela ($42 million), Colombia ($36 million), Chile ($33 million), Brazil ($32 million), Argentina ($30 million) and Peru ($29 million), but twelve other countries were among the borrowers and the purposes of the loans covered a wide spectrum: over one-third of the capital committed was to be drawn from a Social Progress Trust Fund. The impact of these operations lies almost wholly in the future: less than $6.5 million was disbursed in 1961.

About $6 million of the IDB disbursement was in United States dollars. This was a small fraction of total public loans made by the United States to Latin America in 1961: on a net basis this rose sharply from less than $0.2 billion in 1960 to about $0.7 billion in 1961. Public grants to Latin America also rose and in the aggregate the outflow of non-military funds from the United States to Latin America reached about $0.85 billion—over three times as much as in 1960. Most of United States public funds, however, went elsewhere: the total of non-military grants flowing to regions other than Latin America was in excess of $1.3 billion in 1961. This was about 14 per cent more than in 1960 but the increase was offset by a reduction in public loans: these (net of repayments) amounted to rather less than $0.8 billion as against rather more than $0.9 billion in 1960. Thus the bulk of the increase in the aggregate net outflow of public funds (loan and grant) from the United States between 1960 and 1961—from $2.4 to $3.0 billion—represents the expansion in Latin American capital aid.

The movement of United States private capital followed a different pattern: the net flow to Latin America declined substantially, but there was a major increase in the flow to other primary exporting countries. The decline in the net amount of private capital moving to Latin America (about 14 per cent) affected long-term as well as short-term flow, but in the former it was concentrated in portfolio and other forms of indirect investment: the amount of direct private investment—at about $0.2 billion—was more than double the 1960 figure. Direct United States private investment also rose sharply in other primary exporting regions, thus reversing the decline that had been under way since 1957: in the aggregate, net direct private investment in the primary exporting countries increased from less than $0.3 billion to about $0.6 billion. Short-term private investment (also measured net) increased by almost 50 per cent to about one billion dollars (including that going to Japan)—virtually the same expansion as recorded by total long-term private investment.

Excluding private short-term capital and public military grants, the net outflow of capital from the United States to the primary exporting countries (and Japan) thus rose from about $3 billion in 1960 to about $4 billion in 1961, somewhat more than half of the increment going to Latin America.

There was also a substantial increase—more than one-third—in the outflow of public capital from the United Kingdom. The increase amounted to about $123 million—from $340 million to $463 million—and almost 90 per cent of it went to the continent of Africa, 60 per cent in the form of grants and 40 per cent as loans. Next to Africa, the largest outflow in 1961 was to Asia: this remained more or less at the 1960 level

of $129 million but the proportion in the form of grants rose from 37 per cent to 46 per cent. Public capital moving from the United Kingdom to other primary exporting regions remained at about $100 million, dropping from 28 per cent to 22 per cent of the total.

The increase in the flow of public capital from the Federal Republic of Germany to the primary exporting countries was also rather more than a third: from $336 million in 1960 to $452 million in 1961. In this case, however, three-fourths of the increment was in the form of loans—about $42 million to Asia, $22 million to outer Europe, $15 million to Latin America and $7 million to Africa. Most of the increase in grants went to outer Europe (about $17 million). By far the largest recipient of public capital from the Federal Republic of Germany was Asia: in 1961 countries in this region received the equivalent of $292 million—over 60 per cent of the total—compared with about $73 million going to outer Europe and $70 million to Latin America.

The outflow of funds from a number of other industrial countries also appears to have been greater in 1961 than in the previous year, though official data are lacking for the precise measurement of the change in actual movements of capital. French budgetary provisions for the African franc area, for example, reached a total equivalent to almost $600 million. Most of this represents subventions of local expenditures by the Governments of former French African territories, as well as various types of technical assistance.

France and the Federal Republic of Germany were again the principal contributors to the European Economic Community Development Fund whose revenue has been increasing steadily from the equivalent of $58 million in 1958 to a planned $224 million in 1962. By the end of 1961, projects to a value of $250 million had been approved, mostly in the former French territories, for financing by grants from this Fund.

There was also an increased outflow of capital from Japan, partly in reparation payments, partly in direct investment and partly in deferred payments for exports. The reparations went to countries in South East Asia, chiefly to Burma, Indonesia and the Philippines. The investments were more widely spread, not only over southern and south-eastern Asia, but also in Latin America, the Middle East and Africa, designed in many cases to develop industries that would subsequently export to Japan—iron ore and petroleum, for example.

Funds also continued to flow from the Union of Soviet Socialist Republics, chiefly to the countries with which earlier rouble credits had been arranged. The United Arab Republic, for example, received the final instalment of the 700 million rouble loan in terms of which various industrial projects had been undertaken since 1958, including in particular the steel works at Helwan. A steel plant was also among the industrial projects financed in part by Soviet loans to India. Indonesia was also a major recipient of Soviet funds in 1961.

THE IMPACT ON POLICY

It was largely as a result of these capital movements —and in particular, the greatly expanded operations of the International Monetary Fund—that the foreign exchange holdings of the primary exporting countries recorded an over-all increase in 1961. The proportion of countries in which official reserves increased during the year rose from 40 per cent in 1960 to over 50 per cent in 1961, and the proportion in which reserves increased by more than 30 per cent rose from 11 per cent to 18 per cent. Among the latter were Bolivia, Israel, Paraguay, Peru, the Republic of Korea, and Spain as well as several countries which had drawn from the IMF—Australia, Brazil, Nicaragua and South Africa, for example.

Notwithstanding this over-all increase, the number of countries in which reserves were sharply reduced was greater in 1961 than in 1960: thus the proportion losing more than a fifth of their official exchange holdings in the course of the year rose from 18 per cent to 23 per cent. In some cases—Argentina, Chile, Costa Rica, Indonesia, for example—these reductions in reserves took place in spite of substantial borrowing from the IMF.

Despite some easing of pressure on reserves, therefore, the general shape of balance of payments policy in 1961 was defensive: in some cases—particularly where measures had been adopted early—it became somewhat less so as the year advanced; in other cases, actions became progressively more restrictive. The most common was quantitative control over imports: these were imposed or made more stringent in a number of countries—late in 1960 or early in 1961 in Ceylon, India, Mexico, New Zealand and South Africa, later in 1961 in Indonesia and at the beginning of 1962 in Chile. India cut many import quotas, giving priority to the importation of essential maintenance goods—raw materials, components and spares for keeping up current production—rather than capital goods for new development. In the last quarter of the year import licences had to be suspended in Indonesia, while in Chile all exchange transactions were halted around the turn of the year while a new system of control was instituted—including the raising of prior deposits on permitted imports and a reversion to what was, in effect, a set of multiple exchange rates.

In a number of countries, fiscal action was also taken to influence the trade balance. In South Africa, duties were raised on many less essential imports and also on motor-cars. In the Philippines the raising of duties was associated with some tariff rationalization, the higher rates being designed to protect domestic industry. In Mexico, drawbacks of duty were offered on materials incorporated into manufactures to be subsequently ex-

ported. Mexico also lowered taxes on major exports—notably coffee and cotton—as did a number of other countries, including Argentina (on 1961/62 agricultural crops) and Ceylon (on rubber and coconut products). In the United Arab Republic the premium on repatriated proceeds of cotton exports was raised in December 1961, thus making possible a higher discount on export prices.

In some countries a similar result was secured by adjustment of the rate of exchange. In Brazil, where the value of the free cruzeiro depreciated from 205 to 318 per United States dollar in the course of 1961, the coffee cruzeiro was altered from 90 to about 134 (per dollar). The Korean kwan was halved in value in February 1961, and smaller changes in the same direction were effected in Colombia (where the free rate slipped from 7.23 to 8.82 pesos per dollar), in Costa Rica (where the principal export rate was brought into line with the import rate, from 5.60 to 6.22 colones per dollar), in Ecuador (where the sucre was devalued—from 15 to 18 per dollar—in July and the free rate slipped from 17.50 to 21.62 sucres per dollar in the course of the year) and in the Philippines (where following devaluation of the export rate in 1960, the exchange system was simplified in January 1962, the effective import rate being raised from about 2 to about 3.5 pesos per dollar). In the Republic of Viet-Nam, the imposition of a general tax on exchange transactions at the beginning of 1962 had the effect of devaluing the piastre from 35 to 60 per dollar. In February 1962 the Israeli pound was devalued by a similar proportion: from 1.80 to 3.00 per dollar. In Argentina the peso came under increasing pressure as domestic costs and prices rose, the trade gap widened and reserves were drawn down: in March 1962 the central bank ceased to support the exchange rate of 83 pesos per dollar that had been in effect since January 1959; the market was closed for three weeks and a rapid depreciation of the peso ensued.

Most of these modifications of exchange rates were designed to correct for changes in relative price levels, induced largely by domestic inflation but also to some extent by the downward drift in the prices of some major primary commodities. By stimulating exports and deterring imports, these measures were enlisted in support of the balance of payments. In the Philippines, efforts were also made to curb the demand for imports by imposing restraints on credit—higher interest rates and limitations on bank advances. Disinflationary domestic policies were also adopted by Australia, Rhodesia and Nyasaland, South Africa and, to a less extent, New Zealand, in defence of the external balance. The impact was most marked in Australia, but imports were also reduced in Rhodesia and South Africa.

Rhodesia and South Africa were among the countries which imposed or tightened exchange controls towards the end of 1960 or in the first half of 1961 in order to curb the flight of private capital. In South Africa the net outflow of private capital was reduced from over $200 million in 1960 to about $100 million in 1961: the rate of withdrawal declined from over $50 million in the first quarter of 1961 to about $7 million in the last quarter. In Rhodesia a net outflow of almost $50 million in 1960 was converted into a net inflow of over $25 million in 1961. Controls also helped to restrain the flow of capital from Venezuela. The flight of private capital from Cuba and the Dominican Republic, on the other hand, seems to have continued in 1961. In August the Cuban currency was changed and all paper money replaced by new notes. In the Dominican Republic the practice of leaving abroad a portion of the proceeds of exports was reflected, as in 1960, by a rapid running down of reserves in the face of another large active balance of trade.

Domestic equilibrium

There was a general increase in gross domestic product in the primary exporting countries between 1960 and 1961. Its basis lay largely in the agricultural sector, which had shown little or no over-all advance in the preceding interval, but there were also increases in manufacturing output and in the output of mining and other sectors, though in many cases these were rather smaller than in 1960. While in general the expansion in domestic production was somewhat greater between 1960 and 1961 than between 1959 and 1960, the contribution coming from abroad showed no such advance. Consequently, the increase in total supplies was much the same as in the previous interval.

The counterpart to the expansion in agriculture was a tendency for consumption to rise to a rather greater extent than in 1960. Conversely, the falling off in the growth of imports exerted its greatest impact on the expansion of investment: this was somewhat less than in 1960. In the aggregate, gross domestic expenditure seems to have increased between 1960 and 1961 by much the same proportion as between 1959 and 1960.

Though exports increased somewhat less between 1960 and 1961 than in the previous interval and gross domestic product increased appreciably more, the proportion of total output going into exports again increased, though only fractionally. However, as average export prices were somewhat lower, this yielded an increment in purchasing power over imports that was proportionately less than the increment in production. At the same time, domestic demand tended to run ahead of available supplies in a number of countries. The result in some cases was a rise in import expendi-

ture financed by borrowing or by running down reserves. Where imports could not be expanded sufficiently, the imbalance was reflected in rising prices. On the whole this occurred more frequently in 1961 than in 1960. And in some cases, where the connexion between prices and wages was close or sensitive, there was a tendency for an inflationary spiral to develop. In general, therefore, the domestic equilibrium that had been established by means of stabilization programmes in various countries in 1959 and 1960 came under mounting pressure in 1961.

CHANGES IN SUPPLY

Domestic production in the primary exporting countries increased to a somewhat greater extent between 1960 and 1961 than between 1959 and 1960. The gain was almost entirely in agriculture: expansion in the other sectors was much the same in 1961 as it had been in the previous period. In 1960, agriculture had failed to advance in about 40 per cent of the primary exporting countries; in 1961 this happened in only about a fourth of these countries.[4] It was largely as a result of this improvement in agricultural performance that the average rate of growth of per capita gross domestic production was more or less doubled: from about one per cent between 1959 and 1960 to about 2 per cent between 1960 and 1961.

Total agricultural production which had barely increased between 1958/59 and 1959/60, rose by over 5 per cent between 1959/60 and 1960/61. The expansion was general: the few countries to reap poorer crops in 1960/61 were concentrated largely in east and north Africa, though there were also declines in Panama and Turkey and a smaller out-turn of rice in Burma and Indonesia, while in Argentina over-all output was maintained by greater pastoral production in the face of a reduction in the cereal harvest. Among the most notable increases were those in Australia (especially cereals), Ceylon (copra), Ghana (cocoa), Greece (olives, tobacco, cotton, rice and several fruit crops), Iran (sugar, barley and tobacco), Jordan (wheat), Syria (where there was a notable recovery in almost all crops) and Venezuela (maize, sugar, cocoa, cassava and sesame).

One of the most important contributions to the better food supply was the out-turn of rice: despite the reductions in Burma and Indonesia, there was a gain of almost 8 per cent in southern and south-eastern Asia and an increase in production in Africa and Latin America also. Maize production was also higher in these regions, particularly in Argentina, southern Africa and Thailand. Increases in sugar production were widespread; in Latin America and southern and south-eastern Asia the 1960/61 harvest was a record one, in India the expansion turned the country into a net exporter. There were increases in coffee production in Africa and Asia in 1960/61, and in Latin America in 1961/62, but in total neither crop was up to the record 1959/60 level. Cocoa production, on the other hand, increased both in 1960/61 and in 1961/62, expansion in west African crops dominated the 1960/61 increase, recovery in Brazil that of 1961/62. There was little change in the volume of palm oils produced, but the distribution of sources was different: a rise in coconut output in southern and south-eastern Asia made good a decline in the African output of palm oil and palm kernels. The west African ground-nut harvest recovered strongly from the reduction registered in 1960.

Among the non-food crops, the primary exporting countries produced a substantially larger cotton crop than in 1959/60, particularly in Latin America and India. Latin America also produced more wool, but this was offset by a slight decline in Oceania. The jute crop in India and Pakistan was down in volume but up in export value. There was a decline in abaca output in the Philippines but a compensating increase in sisal output in east Africa and Brazil. Rubber production increased by about 5 per cent, largely because of a recovery in Indonesia.

In contrast to 1960, 1961 saw an expansion in mining output (excluding petroleum) no greater than the expansion in agriculture. Lead ore production in the primary exporting countries was down by about 7 per cent, though more of the output was locally refined. Production of copper, tin and zinc recorded only slight increases—about one per cent. Copper output rose in Latin America and the Philippines but declined in Africa, Australia and the Middle East. Contraction in tin ore production in the Congo (Leopoldville) and Indonesia was rather more than offset by expansion elsewhere. Increases in zinc ore output in Latin America and Spain more than compensated for reductions elsewhere. As more of this ore was refined domestically —especially in Australia, the Congo (Leopoldville) and Spain—the increase in zinc metal output was appreciably greater. Iron ore production was about 3 per cent higher than in 1960, despite a sharp cutback in Venezuela and North Africa.

Fuel production rose less in the primary exporting countries between 1960 and 1961 than it had between 1959 and 1960, but it rose more than in the rest of the world. In the case of coal there was an increase of about 5 per cent, as against a decline of about 2 per cent elsewhere. The principal gains were in Australia, India and South Africa, though on a smaller scale

[4] This generalization and others made in this section should be regarded as suggestive rather than definitive. They are based on preliminary data, assembled to provide indicators, for forty-two countries. This is a smaller sample than was used in United Nations, *World Economic Survey, 1960*, and among the countries omitted for lack of data are several that probably experienced poorer harvests in 1960/61 than in 1959/60. The inclusion of these countries might well have lessened the contrast between 1961 and 1960 in respect of the role of agriculture in the growth of total production.

there were increases in several other countries, especially in southern and south-eastern Asia and Latin America. The output of crude petroleum was about 7 per cent above the 1960 level, compared with about 5 per cent in the rest of the world. Gains were widespread, greatest in absolute terms in the exporting countries of the Middle East but also significant in many Latin American countries—especially Argentina, Brazil, Chile and Mexico—and in the new producing countries of Africa.

There was a slight tendency for the growth in electricity production to slow down in 1961: in the world as a whole (excluding mainland China) the rate dropped back from 9 per cent in 1959 and 1960 to about 7 per cent; in the primary exporting countries it slipped from 10 per cent to 9 per cent. This was largely the result of a deceleration in Australia—where the rate of growth dropped from 11 per cent to 4 per cent—and in a few of the smaller producing countries, such as Algeria, Colombia, Ireland, Tunisia and Turkey. Kenya was the only country to produce less electricity in 1961 than in 1960, while in about 30 per cent of the primary exporting countries an increase of more than one-eighth was registered.

The contrast between the primary exporting countries and the rest of the world was much more marked in respect of steel. The rate of growth of world production (outside mainland China) dropped back sharply from 12 per cent to 4 per cent, whereas in the primary exporting countries there was some acceleration—from 13 per cent to 16 per cent. Only Chile registered a decline in steel production between 1960 and 1961 and there were increases of over an eighth in Spain, a sixth in South America and a fourth in India and Mexico.

Cement production continued to expand at the world average rate of about 7 per cent a year. The increase was appreciably greater than this in Oceania, southern and south-eastern Asia and outer Europe, appreciably less in Latin America, the Middle East and Africa, where the most significant lag was in Mexico and Trinidad, Turkey and the United Arab Republic, South Africa and Tunisia.

In the aggregate, manufacturing production in the primary exporting countries increased by rather less than 5 per cent between 1960 and 1961—approximately the same proportion as in the industrial countries, but a much lower proportion than had been registered in the previous year. In about half of the primary exporting countries for which estimates could be made, manufacturing production increased by more or less the average proportion—between 4 and 6 per cent; in a third the increase was greater, in a sixth it was less. Half of this last group consisted of countries in which manufacturing output was lower in 1961 than in 1960 (*see* table 5-7).

An aggregation of the out-turn of major sectors in forty-two primary exporting countries suggests that in real terms the gross domestic product rose by 4 to 5 per cent between 1960 and 1961, compared with 3 to 4 per cent between 1959 and 1960. The distribution of changes did not differ greatly between one interval and the next, though there was a slight drift towards the extremes: in 1961 both the proportion of countries registering a reduction in per capita production (about a fourth) and the proportion registering an increase of over 3 per cent (rather more than a third) were somewhat higher than in 1960. The proportion registering some acceleration in the rate of expansion—about a third—was slightly less than the proportion in which there was a deceleration. The gain in the average rate of growth reflects the fact that more of the countries with a large absolute gross domestic product —notably Argentina, Brazil, India and Spain—were in the high-growth group in 1961 than in 1960.

The improvement in the average rate of expansion in domestic production was not paralleled by a comparable growth in total supply: the sharp deceleration in the rate of increase in imports discussed in the first part of this chapter was sufficient to reduce the rate of expansion in available supplies below the 1960 level. Between 1959 and 1960 the upsurge in imports was such that very few countries—less than 5 per cent —experienced a reduction in total supplies. Between 1960 and 1961, by contrast, more than a third of the primary exporting countries disposed of a smaller per capita supply.

The impact of changes in the flow of goods from abroad was greatest among the countries that had experienced a loss of reserves in 1960: these were generally the countries in which the swings in imports—upward in 1960 and downward in 1961—were sufficient to impose a pattern on total supplies. Of the countries that had gained reserves in 1960, only a fourth registered a decline in per capita supplies between 1960 and 1961; of those that had lost reserves in 1960, almost a half disposed of a smaller volume of goods per capita in 1961. With the exception of New Zealand—where imports continued to rise—all the countries that had their official reserves drawn down by a sixth or more in 1960 experienced a reduction in per capita supplies between 1960 and 1961.

In the aggregate about 37 per cent of the primary exporting countries had a smaller volume of supplies available to them—on a per capita basis—in 1961. The sharpest declines were in countries in which the 1961 harvest was a relatively poor one—Burma, Kenya, the Sudan, Tanganyika, Turkey and the United Arab Republic—but there was also a reduction in Australia were the cutback in imports was aggravated by a recession in industrial activity. At the other end of the scale, the proportion of countries in which per capita supplies available in 1961 were more than 3 per cent above the 1960 level was also about 37 per cent. The most notable expansion was in China (Taiwan), Greece, Ireland, Israel, Panama, Peru and

Table 5-7. Primary Exporting Countries: Indicated Change between 1960 and 1961 in Total Supplies and Selected Components[a]

Country[b]	Agriculture[c]	Manufacturing	Mining	Electricity	Gross domestic product	Imports[d]	Total supplies[e]
Spain	B	C	C	C	B	F	C
Israel	C	E	D	C	C	D	D
Argentina	A	C	F	C	C	E	C
Republic of Viet-Nam	B	B	...	C	B	C	B
Peru	B	C	C	...	B	F	C
Sudan[f]	−B	C	...	...	A	−B	A
Indonesia	−B	...	B	...	A	F	B
Tanganyika	−C	...	C	C	−C	B	−B
Guatemala	A[g]	B	...	D	B	−B	A
Malaya	B	B	D	D	C	C	C
Thailand	B	C	E	E	B	C	B
Philippines	B	C	C	...	B	A	B
Republic of Korea	C[h]	−B	E	B	B	−C	B
Greece	F	C	−C	D	C	B	C
China (Taiwan)	C[h]	D	B	D	C	E	C
Jordan	F	C[i]	[i]	...	D	A	C
Ireland	C	C	D	B	C	D	C
Puerto Rico[f]	C	C	...	...	C	B	C
Pakistan	B	B	E	...	B	−B	A
Chile	A[g]	C	C	C	C	E	C
Turkey	−B[g]	A	A	C	−B	C	A
Mexico	B	B	−B[j]	C	B	−C	B
India	C	C	C	E	C	B	C
Burma[k]	A[h]	...	−B	...	A	−D	−B
Ghana	C	...	−C	B	C	C	C
Brazil[l]	C	C	E	C	C	A	B
Rhodesia	C	C	B	C	B	−B	B
Portugal	B[h]	B	−C	D	B	E	C
Colombia	B	B	−B	B	B	B	B
Panama	−B	C	...	D	C	D	C
Cambodia	C	A	...	D	B	A	B
Iraq[f]	B[g]	D	C	D	C	B	C
Ceylon	D[g]	...	...	B	C	−D	B
Venezuela	C[h]	B	A	D	B	−B	B
United Arab Republic	−E[g]	B	D	...	−B	B	A
New Zealand	A	B	−B	C	B	C	B
Australia	D	−C	B	B	A	−D	−B
Syria	F	C	...	C	C	−E	B
Kenya	−B[h]	C[i]	[i]	−B	−C	A	−C
Iran	D[g]	...	C[m]	...	...	...	...
El Salvador	B[g]	...	...	C	...	−D	...
South Africa	B[h]	C	C	C	B	−C	A
AVERAGE [n]	B	B	C	C	B	B	B

Source: Division of General Economic Research and Policies of the United Nations Secretariat; Statistical Office of the United Nations, *Monthly Bulletin of Statistics*, Food and Agriculture Organization of the United Nations, *Monthly Bulletin of Agricultural Economics and Statistics* (Rome); replies to the United Nations questionnaire of November 1961 on economic trends, problems and policies; national publications.

[a] Based on preliminary official estimates of the national accounts or on "indicators" derived from official or semi-official statistics of production, trade and transport. Where indicators were used, changes in gross domestic product and its components reflect changes in real terms in the output of all the items of goods and services for which data were obtainable, combined in accordance with weights derived from national accounts of recent years. The indicated changes are necessarily tentative, being based in some cases on less than a full year's figures, both for the sectors shown and for other sectors for which estimates were made. The symbols indicate a percentage range of increase or decrease (−): A = −1 to 1; B = 2 to 5; C = 6 to 10; D = 11 to 15; E = 16 to 20; F = 21 and over.

[b] Countries are arrayed in descending order of change in gold and foreign exchange holdings in 1960, from the largest relative increase to the largest relative decline.

[c] Including livestock, except where stated.

[d] Quantum index.

[e] Weighted aggregate of gross domestic product and imports; the weight attached to imports was derived from the national accounts for 1959.

[f] Change between 1959/60 and 1960/61 (July-June).

[g] Excluding livestock.

[h] Including forestry and fishery.

[i] Mining is included with manufacturing.

[j] Excluding petroleum.

[k] Change between 1959/60 and 1960/61 (October-September).

[l] Agricultural production based on 1961/62 crops. The destruction of 5 million bags of old coffee stock has been treated as a deduction from agricultural and gross production and from investment.

[m] Petroleum only.

[n] Based on production in the countries for which symbols are indicated, weighted by the average output of the sector in question in dollars in 1952-1954, except for imports, for which 1960 dollar values were used as weights, and electricity, for which actual 1960 and 1961 output was used.

Spain, where an upsurge in imports supplemented a substantial rise in domestic production.

CHANGES IN THE USE OF SUPPLIES

The changes that occurred in the magnitude and composition of the flow of goods in the primary exporting countries had their counterpart in changes in the way in which the goods were used. The expansion in agricultural production helped to induce a greater increase in consumption between 1960 and 1961 than had taken place between 1959 and 1960. The decline in the rate of growth of mining production was related to the decline in the rate of growth of exports. One aspect of the curb on imports was a smaller expansion in capital formation, both fixed investment and inventory accumulation.

On a per capita basis, the average indicated rate of increase in real consumption, public and private, was twice as high between 1960 and 1961 (about 2 per cent) as it had been between 1959 and 1960. The number of countries registering a greater increase in 1961 than in 1960 was slightly smaller than the number registering a smaller increase, but it included several major countries—Argentina, India, Pakistan and Spain, for example—in which there was a marked rise in consumption. And the proportion of countries in which per capita consumption rose by 3 per cent or more was somewhat greater in 1961 (38 per cent) than in 1960 (32 per cent).

At the same time, the average indicated rate of growth in fixed investment slipped back slightly: between 1959 and 1960 it was 8 to 9 per cent, between 1960 and 1961 it was 7 to 8 per cent. In about 44 per cent of the primary exporting countries the rate of expansion was lower; in about 32 per cent it was higher, in the remaining 24 per cent it was more or less the same. The proportion of countries achieving high indicated rates of increase—over 10 per cent above the previous year—dropped back from 39 per cent in 1960 to 36 per cent in 1961. Correspondingly, the proportion of countries in which fixed investment declined rose from 17 per cent to 21 per cent, and the proportion in which the expansion was 5 per cent or less rose from 17 per cent to 24 per cent.

Most of the countries in which indicated per capita consumption declined between 1960 and 1961 registered little or no expansion in investment (*see* table 5-8). The exceptions were Indonesia, the Republic of Korea, the Sudan and the United Arab Republic. In Indonesia and the Republic of Korea a larger proportion of total supplies went into stocks as well as into fixed capital formation. There was also an increase in exports in Indonesia but because of a sharp decline in average unit value, earnings were down and the trade balance moved from surplus to deficit. Though imports of consumer goods were substantially greater than in 1960, rice imports were reduced and food supplies were smaller—especially in Java where there was a poor cereal crop—and the cost of living rose rapidly, especially in the second half of the year. This rise, along with a further expansion of credit to the public sector, served to accelerate very sharply the rate of increase in domestic prices.

In the Sudan, on the other hand, a smaller proportion of supplies was used for exports and, despite a further rise in both public and private investment, there was some deceleration in the rate at which prices had been rising. The United Arab Republic also exported much less in 1961; the increase in fixed investment —chiefly in the public sector—was less than in 1960 and there was some drawing down of inventories which also helped to reduce the pressure on supplies and maintain price stability.

Among the countries in which, on a per capita basis, both consumption and investment declined—Australia, Guatemala, Jordan, Mexico, South Africa and Turkey —the reduction was confined largely to the private sector: government expenditure, current and capital, was generally higher in 1961. These were the countries in which demand was being held in check for balance of payments reasons. Except in Guatemala, exports absorbed a significantly larger proportion of supplies than in 1960. In Australia the disinflationary measures introduced in November 1960 served to depress demand and bring the rise in retail prices to a virtual halt, but it also tended to reduce industrial production and increase the level of unemployment; as external accounts improved, policies were modified in the course of 1961 and by the beginning of 1962 were predominantly expansionary. To a less degree, South Africa went through a similar cycle of restriction—chiefly through monetary policy—in defence of shrinking reserves, and expansion when the external balance seemed stronger. In Mexico, even more than in South Africa, investment was affected by the outflow of private capital: despite a considerable increase in public investment, total fixed capital formation was no greater than in 1960 and, as in Australia, the upward movement of prices was halted. In Turkey, by contrast, inflationary pressures tended to re-emerge in 1961: public expenditures offset in large measure the reductions in private consumption and investment, induced by the poor 1961 harvest and the earlier policy of deflation that had caused prices to decline in 1960.

Most of the countries in which consumption rose moderately between 1960 and 1961—between one and 3 per cent, on a per capita basis—experienced a vigorous expansion in investment. The exceptions were Burma, Ceylon and the Republic of Viet-Nam and to a less extent Ghana and New Zealand. In these countries private capital formation tended to lag, absolutely in the first three countries—all of which suffered from internal disturbances in differing degree—and relatively to 1960 growth in Ghana and New Zealand. Except

Table 5-8. Primary Exporting Countries: Indicated Change between 1960 and 1961 in the Use of Supplies[a]

Country[b]	Total supplies	Consumption	Gross capital formation		Gross domestic expenditure	Exports		
			Fixed investment	Rate of stock accumulation		In current prices	In 1960 prices	In import equivalent
Mexico	B	B	A	...	B	C	C	C
Venezuela	B	C	−D	+	B	A	A	−B
Guatemala	A	B	−B	...	B	−B	−B	−B
Greece	C	C	D	+	C	C	D	C
Malaya	C	B	E	−	C	−C	D	−C
Philippines	B	B	D	...	B	−D	−B	−D
Ethiopia	B	B	D	...	B	D	E	D
Australia	−B	A	−B	−	−B	E	E	E
United Arab Republic	A	A	C	−	A	−D	−D	−D
Ceylon	B	B	B	+	B	−B	B	A
Iraq[c]	C	B	E	...	C	A	C	A
Ireland	C	B	D	−	C	E	E	E
Jordan	C	B	A	+	C	F	F	F
New Zealand	B	B	B	...	B	−C	A	−C
Portugal	C	C	D	+	C	A	A	A
Puerto Rico[c]	C	C	B	−	C	C	C	C
Rhodesia	B	C	−C	−	B	A	B	A
South Africa	A	A	B	−	A	C	C	B
Spain	C	B	G	+	C	−B	A	−B
Burma[d]	−B	B	−B	−	B	−D	−E	−D
India	C	C	E	...	C	C	B	C
Pakistan	A	C	−B	−	B	B	−C	A
Sudan[e]	A	A	F	...	A	−C	−E	−F
China (Taiwan)	C	C	B	...	C	E	D	E
Peru	C	B	D	−	C	D	E	D
Syria	B	B	C	...	B	−C	−D	−C
Colombia	B	C	C	+	C	−C	−C	−C
Israel	D	C	C	...	D	C	B	C
Republic of Viet-Nam	B	B	−C	...	B	−E	A	−D
Turkey	A	A	−C	...	−B	C	C	C
Republic of Korea	B	−B	C	+	B	F	F	F
Thailand	B	B	C	+	B	E	D	D
Chile	C	C	D	...	C	−B	B	−B
Ghana	C	B	B	−	B	A	F	A
Argentina	C	C	D	...	C	−D	−D	−D
Indonesia	B	A	D	+	B	−C	C	−C
Brazil[e]	B	C	B	...	B	D	D	D
AVERAGE[f]	B	B	C	−	B	B	C	B

Source: Division of General Economic Research and Policies of the United Nations Secretariat; replies to the United Nations questionnaire of November 1961 on economic trends, problems and policies.

[a] In the absence of official figures many of the symbols in this table are based on "indicators" derived from national statistics of trade, production and public finance. Where indicators were used, changes in expenditure reflect "apparent disappearance" (production minus exports plus imports, with due allowance for inventory changes whenever possible). Consumption was measured by the apparent disappearance of major food items, major textile items and major consumer durables. Fixed capital formation was measured by the apparent disappearance of cement, steel, machinery and major producer durables. In some countries an index of construction activity was also used in assessing investment changes. In most cases the indicators were computed in real (physical) terms; where values were used, they were reduced to a constant (1960) price basis by means of the most appropriate available deflator. Where official estimates were used, they were preliminary figures. In general, the indicators were based on a comparison of figures for at least the first three quarters of 1961 with those for the corresponding period in 1960. The symbols indicate a percentage range of increase or decrease (−): A = −1 to 1; B = 2 to 5; C = 6 to 10; D = 11 to 15; E = 16 to 20; F = 21 to 30; G = 31 to 40.

[b] Countries are arrayed in ascending order of increase in the cost of living index, averaging the change between 1960 and 1961 and the change during 1961.

[c] Change between 1959/60 and 1960/61 (July-June).

[d] Change between 1959/60 and 1960/61 (October-September).

[e] The destruction of 5 million bags of old coffee stock has been treated as a deduction from supply and from gross capital formation.

[f] Indicated changes in supplies, consumption, fixed investment and gross domestic expenditure weighted by the 1952-1954 average net national product at factor cost in dollars; indicated changes in exports weighted by export values in 1960.

in Burma, there was a marked worsening in the terms of trade and in all five countries, foreign exchange reserves were under pressure and official policy was to restrain import demand. Internally, price movements were generally small, indicating a fair degree of balance between supplies and their use: there was a slight deceleration in the rise in the cost of living in Burma, a slight acceleration in Ceylon and the Republic of Viet-Nam, a further increase of about 2 per cent in New Zealand where wage pressures began to mount in the face of over-full employment, and a sharper rise in Ghana in the wake of poor domestic food crops and a rise in customs duties imposed, in part, to narrow the budgetary gap opened up by a decline in revenue from cocoa exports as the terms of trade deteriorated.

The other countries registering a moderate rise in per capita consumption—Cambodia, Ethiopia, Malaya, Iraq, Ireland, Peru, the Philippines, Spain, Syria and Thailand—all increased their fixed capital formation by substantially more. In most of these countries the expansion was proportionately greater in the public sector than in the private sector, both in current expenditure and in investment. Except in Ethiopia and Malaya, there were signs of demand pressures in this group of countries. In Ireland and the Philippines, however, the cost of living rose rather less in 1961 than in 1960. In the Philippines, monetary policy was tightened during the year in order to curb the demand for imports in the face of a decline in exports, deteriorating terms of trade and dwindling reserves. In Ireland, on the other hand, international liquidity was well maintained and an appreciable expansion in industrial employment was accompanied by some increases in wages and in wage claims. Average retail prices continued to rise at much the same rate as in the previous period in Iraq (between 2 and 3 per cent a year), Peru (between 4 and 5 per cent) and Cambodia (about 6 per cent). In Spain, where there was a great spurt in domestic expenditure following the recession of 1960, the price increase accelerated perceptibly. There was a rather more marked acceleration in Syria and Thailand, stimulated in part by an expansion of government borrowing and, in the case of Thailand, by higher rice prices.

The principal feature of the expenditure pattern of the remaining primary exporting countries whose national account indicators are set forth in table 5-8 is the increase in consumption. In most, this was associated with a decline or a very small expansion in investment, but in a few countries 1961 saw a considerable expansion in both consumption and investment.

The countries registering a large increase in consumption—public even more than private—along with a reduction in investment, include Pakistan, Rhodesia and Venezuela. The decline in investment was largely in the private sector: in Rhodesia it reflects a lower volume of building, in Pakistan and Venezuela the reduction was concentrated to a greater extent in plant and equipment. In Pakistan, where the external balance was sustained by an increased flow of aid and more favourable terms of trade, less resources were devoted to exports, credit conditions were liberalized in mid-year—primarily to stimulate investment in the eastern region—and pressure on supplies began to push up prices again. In Rhodesia and Venezuela the state of external balance was improved by the slowing down or reversal of capital flight and a small rise in exports, but the domestic balance was less satisfactory: in Rhodesia the slow rise in prices continued, while in Venezuela the level of unemployment remained high.

Brazil and China (Taiwan) were countries in which there was a relatively large gain in consumption and a relatively small gain in fixed capital formation. Both were under external pressure and devoted to much higher proportion of their resources to exports in 1961 than in 1960. In China (Taiwan), domestic pressures abated somewhat: the expansion in investment was much smaller than in the previous interval, more of it was financed from savings and there was a marked deceleration in the rate at which prices had been rising. In Brazil, by contrast, there was a sharp rise in the rate of increase in the cost of living, occasioned in part by a rise in the cruzeiro cost of imports as the exchange rate depreciated. The impact on the gross domestic product and investment of another large coffee crop in 1961/62 was neutralized to a degree by the destruction of a more or less equivalent amount of older, lower-grade coffee from government-held inventories, but the financing of the new crop—again in excess of export requirements—continued to aggravate the inflationary effects of an imbalance between domestic saving and investment.

In the countries in which both consumption and fixed capital formation were expanded to an over-average degree, the pressure of demand strained internal and external equilibrium to an increasing extent as the year progressed. The exception was Greece where a substantial rise in production and in foreign currency earnings—from trade and invisibles—provided adequate resources for the rise in expenditure: the budget was in surplus, unemployment was reduced, private savings and foreign exchange reserves increased and prices remained relatively stable.

In the other countries in this group—Argentina, Chile, Colombia, India, Israel and Portugal—prices moved upwards, very sharply in the Latin America members, where the wage-price spiral, which had been slowed down by stabilization measures in 1960, began to accelerate again in 1961. A smaller proportion of resources was devoted to exports—in Argentina and Colombia, indeed, there was a sizable absolute decline in exports—and despite a considerable inflow of for-

eign capital, foreign exchange reserves were drawn down in all countries except Israel: slightly in India and Portugal, drastically in the Latin American countries. In Israel, though the inflow of funds continued, the rise in domestic prices and costs helped to widen the trade gap and it was to improve the balance in the trade account that the currency was devalued in January 1962. In the case of Argentina and Chile, the deteriorating domestic balance was reflected in increasing pressure on the foreign exchange market and by early 1962 a decline in the value of the currency.

If the experience of this last group of countries is considered in conjunction with that of some of the countries in which domestic expenditure rose somewhat less—Brazil, Indonesia, the Republic of Korea, the Republic of Viet-Nam and Syria, for example—it is evident that there was a perceptible strengthening of inflationary forces in the primary exporting countries in 1961. The proportion of countries in which retail prices began to rise, or rose at a faster pace than in the previous year, was about 39 per cent in 1961 compared with about 27 per cent in 1960. Conversely, the proportion in which prices were stable or falling dropped from 45 per cent in 1960 to about 33 per cent in 1961. In about one-fourth of the primary exporting countries the cost of living index rose by 6 per cent or more between the last quarter of 1960 and the last quarter of 1961. This was approximately the same proportion as in 1960. While in 1960, however, less than half of these countries registered an acceleration in the rate of increase, in 1961 there was acceleration in two-thirds, and in only 13 per cent was there a slackening or reversal (*see* table 5-9).

Changes in the money supply also point to a quickening of inflationary forces. Almost twice as many countries experienced an acceleration in the rate of increase in money supply in 1961 as in 1960—relative in each case to the increase in the previous year. Among the countries in which the supply of money expanded by more than 10 per cent from one year to the next, the contrast was even more marked: about 60 per cent registered some acceleration in 1961 as against only 14 per cent in 1960. Similarly, the majority of reversals of trend were from downward to upward between 1960 and 1961, whereas between 1959 and 1960 the majority had been from upward to downward. In the aggregate, the proportion of primary exporting countries increasing their money supply by more than 3 per cent rose from about 60 per cent in 1960 to about 74 per cent in 1961 (*see* table 5-10).

Table 5-9. Primary Exporting Countries: Distribution of Changes in the Cost of Living

Trend in 1961[a]	*Total*	*Number of countries in which, relative to the corresponding quarter of 1960, the cost of living index in the last quarter of 1961 was*					
		98 or less	*99 to 101*	*102 to 105*	*106 to 109*	*110 to 120*	*Over 120*
Trend continued	22	1	11	7	3	—	—
Trend reversed	10	4	1	4	1	—	—
Rise decelerated	11	—	4	6	—	1	—
Rise accelerated	18	—	—	8	5	2	3
TOTAL	61	5	16	25	9	3	3

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Monthly Bulletin of Statistics.*

[a] Change between the last quarter of 1960 and the last quarter of 1961 is compared with the change between the last quarter of 1959 and the last quarter of 1960.

Table 5-10. Primary Exporting Countries: Distribution of Changes in the Supply of Money

Index of change in money supply[a] *(corresponding figure in preceding year = 100)*	*Total*		*Number of countries in which, in relation to the change during the preceding year, the change during the indicated year registered*							
			Continuation of trend		*Reversal of trend*		*Deceleration*		*Acceleration*	
	1960	*1961*	*1960*	*1961*	*1960*	*1961*	*1960*	*1961*	*1960*	*1961*
Less than 97.5	7	4	1	1	5	3	1	—	—	—
98 to 100	1	2	—	1	1	1	—	—	—	—
101 to 103	9	5	1	—	—	2	7	3	1	—
104 to 110	12	15	3	3	2	3	4	8	3	1
111 to 117	7	11	1	1	—	—	6	5	—	5
118 and over	7	6	3	—	—	—	2	1	2	5
TOTAL	43	43	9	6	8	9	20	17	6	11

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on International Monetary Fund, *International Financial Statistics.*

[a] An arithmetic average of the change during the year and the change in the average between successive years.

The strengthening of inflationary forces derived in large part from developments in the public sector. Among the thirty-six countries for which appropriate data are available, the proportion in which the government incurred a cash deficit rose from 55 per cent in 1960 to 72 per cent in 1961. Moreover, in 70 per cent of these countries, the impact on the money supply of government transactions with the banking system was more expansionary (or less contractionary) between 1960 and 1961 than it had been between 1959 and 1960. And in over 70 per cent of the countries in which government indebtedness began to increase or increased at a more rapid pace, the expansion in 1961 amounted to 6 per cent or more of government expenditure in 1960 (*see* table 5-11).

Table 5-11. Primary Exporting Countries: Distribution of Changes in Government Budgetary Position

Change from preceding year in the trend of government indebtedness[a]	*Change in indebtedness*[a] *during 1961 as percentage of total expenditure in 1960*				
	0 to 5	*6 to 10*	*11 to 15*	*Over 15*	*Total*
Rise began	3	4	1	—	8
Rise decelerated	3	3	—	2	8
Rise accelerated	2	3	4	1	10
Decline began	2	—	—	—	2
Decline decelerated	3	2	1	1	7
Decline accelerated	—	1	—	—	1
TOTAL	13	13	6	4	36

Source: Division of General Economic Research and Policies of the United Nations Secretariat, based on International Monetary Fund, *International Financial Statistics* and national sources.

[a] As measured by the net change—indebtedness minus deposits—in government dealings with the banking system.

Outlook[5]

In so far as developments in the primary exporting countries are shaped by external forces—most notably the demand for the commodities they export and the flow of non-trade funds—it would appear that 1962 should be another year of over-all stability. Exports to North America should respond to the expected continuation of the recovery from the 1960/61 recession, while the rate of expansion in exports to the other industrial countries may not rise much above the 3 per cent recorded in 1961 as growth rates level off in western Europe and slacken in Japan. If industrial inventories are expanded, total demand for primary commodities might increase more rapidly than is implied in this, but as capacity to produce most of the commodities still appears ample, the sort of price changes which might set off such inventory building seems unlikely.

On balance the prospects are for an over-all expansion in the volume of exports between 1961 and 1962, somewhat greater than that which occurred between 1960 and 1961. It is probable, however, that part of the increase arising from volume will again be lost on price. The declines which depressed the unit value of exports between 1960 and 1961 (chiefly those of butter, cocoa, copra, rubber, jute, sisal and lead and zinc) seem to have levelled out, but they left the price index of primary commodity exports in the first quarter of 1962 between one and 2 per cent lower than in the corresponding portion of 1961. In the aggregate therefore, though an expansion in export earnings is indicated for 1962, the advance may not be very much greater than that which occurred between 1960 and 1961.

The supply of foreign exchange from non-trade sources would also appear likely to be somewhat greater than in 1961. Undisbursed balances on the books of the major lending institutions were all higher at the beginning of 1962 than a year earlier, and some of the more recently established of them—notably the IDA and the IDB—are likely to pay out substantially larger sums in 1962. Moreover, national foreign aid commitments—bilateral and under consortium arrangements—were also generally greater. In the aggregate, moreover, the international liquidity of the primary exporting countries—as measured by the sum of their foreign exchange holdings and gross IMF position—was also greater at the beginning of 1962.

[5] This section is based in part on replies received from Governments to the United Nations questionnaire of November 1961 on economic trends, problems and policies.

Import capacity of the primary exporting countries as a group should therefore be appreciably greater than in 1961 and given the persistent pressure of demand for imports in most of these countries the prospects are for an increase in the over-all rate of growth of import expenditure that was slowed down by payments difficulties in 1961.

Estimates of 1961/62 crops and forecasts of the output of other sectors in 1962 point to the conclusion that total production in the primary exporting countries will probably expand by a proportion of the same order as that indicated earlier in this chapter as the growth between 1960 and 1961. The increase in agriculture will probably be somewhat smaller, the increase in the other sectors—influenced by the maturation of recent investment in industry, by an expansion in the demand for minerals and by a greater increase in trade —probably somewhat larger.

It seems likely, therefore, that the increment in available supplies will be somewhat larger than it was in 1961. And the indications are that relatively more of it will go into capital formation. The opportunity for this will arise from the expected increase in imports, the occasion for it rests in the proliferation of development plans, several of which will get under way in 1962. Though taxes are being raised in a number of countries, it is probable that the bulk of the increase in incomes generated in the process of investment will augment the claims on the supply of consumer goods. The expansion in local food crops and in the output of local industry will probably accommodate most of this increase, but competition not only for domestic supply but also for foreign exchange is more likely to intensify than to abate.

Equilibrium was under considerable strain in a number of primary exporting countries in 1961; containment of inflationary pressures will depend in part on the extent to which production can be increased (or supplemented from abroad) and in part on the extent to which money incomes can be diverted into savings. Prospects for the former seem reasonably bright; prospects for the latter are less so, as many governments find it difficult to follow fiscal and credit policies which would restrain disequilibrating expansion of monetary demand without adversely affecting production.

While the over-all outlook for the primary exporting countries indicates a situation rather more expansionary than that which prevailed in 1961, prospects inevitably differ widely from country to country and even from sector to sector within individual countries. While agricultural production is expected to be generally higher, for example, a number of the declines that are predicted in 1961/62 crops will hold down the increase in gross domestic product—in China (Taiwan) and Cuba (sugar), Ghana (cocoa), Kenya (many arable crops), Pakistan, India and the United Arab Republic (cotton), Uganda (coffee and cotton). In Cambodia and Thailand, the flooding of the Mekong has had an adverse effect on the rice crop and exportable supplies may be lower. In Guatemala and Nigeria the gross domestic product is expected to increase no faster than the population.

Most countries expect to increase their export earnings in 1961 but a number foresee special difficulties, general or in respect of particular commodities. Colombia, for example, is among the countries that expect no expansion in coffee sales: its hopes are pinned on subsidiary items of trade. New Zealand expects the high level of butter stocks to militate against its exports of this product; Venezuela sees little prospect of raising its iron ore earnings. Nigeria, which experienced a sharp deterioration in the terms of trade in 1961, expects that this factor will hold down export earnings in 1961. The expected reduction in crops mentioned in the previous paragraph will also tend to depress the earnings of the countries concerned.

Exceptions to the general expectation of an increase in the availability of foreign currency from sources other than trade are fewer. Even countries with relatively large loan maturities falling due in 1962—Colombia, South Africa and Turkey, for example—seem sanguine about refinancing. And the diminution of private capital outflows which occurred in 1961 is expected to continue, exchange controls remaining in force in such countries as Ghana, Rhodesia, South Africa and Venezuela. Stricter controls over non-trade payments have been instituted in the Philippines and over the repatriation of foreign-owned capital in Ceylon. Apart from the widespread assumption that public capital will be available on at least the scale of 1961, many countries have taken additional steps to increase the inflow of private capital—Burma, Singapore, Spain and Thailand, for example.

Though the over-all capacity to import will probably be appreciably higher in 1962 than in 1961, not all primary exporting countries will be in a position to increase imports. Strains on the external balance remain severe in a number of cases, and measures adopted late in 1961 or early in 1962 are likely to result in a reduction in import expenditure, or at least in its rate of increase. Modifications of effective exchange rates should restrain imports into such countries as Argentina, Israel and the Republic of Viet-Nam. Quantitative controls are likely to reduce total imports into Cambodia, Ceylon, Ghana and New Zealand, and also into Chile where a system of prior deposits instituted early in the year should exert a similar effect. Restrictive credit or fiscal policies are designed to curb the demand for imports in Colombia and the Philippines. In India a number of import quotas have been cut in order to give higher priority to materials and components required to keep local industries running at near capacity rates. Licensing or duties are expected to reduce the importation of consumer goods in a num-

ber of countries—including Ghana, Nigeria and Venezuela—in order to release more exchange for capital goods. In many cases the intensity and duration of the restraints on imports will depend in part on the success of complementary measures to stimulate exports.

The pressure to increase imports will almost certainly rise—even in many of the countries where the policy is one of restraint—as the rate of investment is stepped up. And this is an almost universal intention. Development plans of varying degrees of complexity are now in operation in most of the primary exporting countries, at least in the public sector. Capital expenditure by government—not only in housing, transport, power and other elements of infrastructure but also in many cases in agriculture and industry—is budgeted to expand by proportions ranging from 4 per cent in the Philippines to 35 per cent in Spain. And even where private investment has not been integrated into the development plan, measures have been adopted in a number of countries to promote parallel expansion: relaxation of credit in the Federation of Malaya, South Africa and Turkey, for example, "pioneer status" tax incentives in several countries in the West Indies, Africa and southern and south-eastern Asia, accelerated depreciation allowances in Australia as part of a wider reflationary policy involving a reduction in income and excise taxes and an increase in social insurance payments as well as an expansion in public capital formation.

The rise in public investment foreshadowed by these plans is to be financed in part by the expected increase in receipts of capital from abroad and in part by an increase in taxes—as in the Ivory Coast, the Republic of Korea, South Africa and the United Arab Republic, for example. In some cases, however, a larger fiscal deficit is contemplated, as in India. It is probable that the shortfall in domestic savings—a perennial problem which was tending to become more serious in a number of countries in the course of 1961—will be accentuated in 1962. The extent to which this gap disturbs the internal economic equilibrium of the primary exporting countries depends in large measure on the external situation. If export earnings rise sufficiently, an appropriate expansion of imports will be possible. If not, the provision of an adequate supply of imported goods will depend chiefly on the willingness of the industrial countries to finance a larger trade deficit.

If equilibrium in the primary exporting countries is to rest on trade rather than aid, the initial responsibility for performance in 1962 depends on productivity and output in their export industries. The course of export prices and earnings, however, then depends largely on demand in the industrial countries: if this were to expand vigorously, growth in the less developed countries would be that much more certain.

Chapter 6

RECENT TRENDS IN THE CENTRALLY PLANNED ECONOMIES

Industrial production as well as national income continued to rise at high, albeit somewhat decelerating, rates in all European centrally planned economies in 1961. Agricultural production, however, slowed down considerably and in some cases declined. In contrast to the high rates of growth in income in the European centrally planned economies, the expansion in mainland China came to a virtual standstill.

Investment activity slowed down in all centrally planned economies and in most countries the rate of increase in retail sales and personal consumption also declined.

The balance between supply and demand improved in Poland, Bulgaria and Romania, but seems to have deteriorated in other countries as a result of greater increases in money payments to the population than in the supply of consumer goods. In several countries specific shortages, especially of meat, were apparent throughout the year. None the less, real wages in industry have increased in most countries. While the pressures of demand upon supply which developed in some of the European centrally planned economies were relatively limited, in mainland China the situation deteriorated considerably, largely under the impact of the bad harvest, which affected supplies of consumer goods for the second consecutive year. Foreign trade of the European centrally planned economies continued to expand rapidly although its rate of growth slackened in 1961 for the second year in succession; the trade of mainland China, however, seems to have declined, mainly as a result of a considerable fall in exports.

Agricultural production

Unfavourable weather conditions adversely affected agricultural production in most of the centrally planned economies in 1961. This was reflected either in absolute declines in output, as in Bulgaria, Hungary and apparently mainland China, or in insignificant increases, as in the case of Czechoslovakia and the Soviet Union[1] (*see* table 6-1). In consequence agricultural production fell considerably short of the relatively high rates of expansion envisaged in the plans for 1961. Poland was the only country to record a substantial gain in output in 1961, which amounted to 10 per cent as compared to a 5.5 per cent increase in 1960 and a 4 per cent target provided for in the 1961 plan.

In most countries unfavourable harvests were chiefly responsible for reducing the growth of total agricultural production. Among crops, output and yields of bread grains were generally more satisfactory than those of feed crops, sugar-beets and potatoes. Output of animal husbandry products increased in most countries more than crops although in this sector also production fell short of the levels planned for 1961.

While the non-fulfilment of the plans for agricultural production gave rise to some difficulties in most of the centrally planned economies, in mainland China the poor harvest of 1961 had far-reaching repercussions on all sectors of the economy and resulted in a sharp deterioration of the economic situation. While no data on agricultural production in mainland China have been published, indirect evidence seems to indicate that output of grains has probably remained at approximately the same level as in 1960. In recent years grain production seems to have fallen by about 30 per cent from the peak attained in 1959, and in 1961 it was only slightly above the 1954-1957 average.

The disastrous situation created by the two consecutive bad harvests becomes particularly evident if one bears in mind that from 1957 to 1961 the population of mainland China increased by at least 60 million people; in consequence, the per capita grain production in 1961 seems to have been about 10 per cent lower than in 1957.

In most of the European centrally planned economies the 1961 grain output was substantially higher than the 1954-1958 average. From 1960 to 1961 it declined slightly in Bulgaria, Czechoslovakia and Romania and possibly also in Hungary and Eastern Germany, but

[1] No data on changes in total agricultural output were published for 1961 by Eastern Germany, Romania and the Soviet Union. A rough estimate based on statistics of production of specific items seems to indicate that total agricultural output rose by about 2 per cent in the Soviet Union.

Table 6-1. Indices of Agricultural Production, 1956 to 1961

(Preceding year=100)

Country and item	1956	1957	1958	1959	1960	1961 Planned	1961 Actual
Bulgaria							
Gross agricultural output	93.6	116.5	99.4	118.1	103.3	113.5	97.6
Crops	91.4	122.5	93.7	125.8	101.8	...	...
Animal products	98.0	105.3	111.4	104.5	106.4	...	...
Czechoslovakia							
Gross agricultural output	102.4	99.4	102.6	98.9	106.0	107.1	101.0
Crops	99.2	96.1	104.6	95.2	110.0	...	100.0
Animal products	106.6	103.5	100.3	103.4	101.0	...	102.0
Eastern Germany							
Gross agricultural output	96.6	117.1	109.2	103.7	...	...	...
Hungary							
Gross agricultural output	87.5	113.4	105.5	105.5	95.1	107.9	99.0
Crops	...	..	98.2	107.9	93.9	110.6	94.0
Animal products	...	...	116.9	100.3	94.9	104.5	106.0
Poland							
Gross agricultural output	107.4	104.1	103.0	99.0	105.5	104.3	110.2
Crops	108.1	101.9	102.0	98.6	108.8	102.7	111.2
Animal products	106.4	107.6	104.3	99.7	100.7	106.7	108.5
Romania							
Gross agricultural output	80.3	124.4	85.2	121.1	100.7	119.0	100.0
Crops	74.7	134.8	78.5	129.0	97.4	...	...
Animal products	93.5	104.9	101.7	107.0	109.4	...	..
USSR							
Gross agricultural output	113.5	102.1	110.7	100.0	102.3	...	102.0[a]
Crops	114.8	98.5	114.6	95.6	103.0	...	..
Animal products	110.6	110.7	104.6	106.7	99.0	..	...

Source: Reports on fulfilment of plans; national statistical yearbooks and statistical bulletins, and replies of Governments to the United Nations questionnaire of November 1961 on economic trends, problems and policies.

[a] Estimated.

it rose by about 2 per cent in the Soviet Union and by 9 per cent in Poland (*see* table 6-2). In most countries increased yields raised the output of bread grains, but the effect of such gains on total production was partly or wholly offset by reductions or much smaller increases in coarse grains output. Among other crops, output of sugar-beets and potatoes fell substantially in all countries except Poland and, in the case of potatoes, Czechoslovakia, where production rose. In most cases these changes were determined by variations in yields. While no data on changes in output of sugar-beets or potatoes are available for the Soviet Union, it seems that sunflower seeds were the only industrial crop to increase substantially, rising by 17 per cent in 1961.

In all countries for which data are available, procurement of grains by the state purchasing agencies increased considerably faster than output, thereby raising the share of total grain production at the disposal of the government (*see* table 6-3). In contrast, state procurement of meat either declined in absolute terms, as in the Soviet Union and Hungary, or increased only slightly. The major exception was Poland where procurement rose by 16 per cent. Sales to the government of milk and especially of eggs increased in all countries.

The increased emphasis in recent years on the development of agriculture was reflected in larger investments in that sector, and in a rise in the supply of fertilizer. In the Soviet Union, for example, state investment, mainly allocated to state farms, increased by 22 per cent; total investment in agriculture increased less, however, since investment in collective farms does not appear to have risen in 1961. In Poland total agricultural investment advanced by 8 per cent. A rise in the supply of tractors resulted in substantial increases

Table 6-2. Output of Major Crops, 1954 to 1961

(Thousands of tons)

Country	Grains				Sugar-beets				Potatoes			
	Average 1954-1958	1959	1960	1961	Average 1954-1958	1959	1960	1961	Average 1954-1958	1959	1960	1961
Bulgaria	3,700	4,840	4,790	4,240	900	1,450	1,650	1,434	250	400	...	...
Czechoslovakia	4,962	5,515	5,760	5,660	6,012	4,946	8,404	6,750	8,240	6,330	5,090	5,640
Eastern Germany	5,944	5,948	..	..	6,086	4,659	6,840	...	13,261	12,440	14,820	...
Hungary	5,273[a]	6,560[a]	6,260[a]	5,740[a]	2,012	2,680	3,370	2,350	2,364	2,370	2,660	1,670
Poland	12,558	14,123	14,270	15,500	7,342	5,975	10,260	11,600	34,128	37,700	37,860	45,300
Romania	8,699	10,632	9,826	10,600	1,740	3,446	3,400	2,900	2,703	2,896	3,009	...
USSR	113,200	125,900	134,400	137,300	35,489	43,942	57,700	...	83,425	86,600	84,000	84,000

Source: See table 6-1.

[a] Wheat, barley and corn only.

Table 6-3. Indices of Procurement of Major Agricultural Products, 1959 to 1961

(Preceding year=100)

Country	Grains			Meat			Milk			Eggs		
	1959	1960	1961	1959	1960	1961	1959	1960	1961	1959	1960	1961
Bulgaria	...	..	...	104.0	82.0	...	142.0	116.0	...	97.0	164.0	...
Czechoslovakia	...	105.0	119.0[a]	103.0	107.0	103.0	...	103.0	112.0	106.0	103.0	111.0
Eastern Germany	...	...	...	...	110.0	...	...	105.0	...	105.0	123.0	...
Hungary	107.0	106.0	115.5	114.0	103.0	98.5[b]	106.0	103.0	101.5	112.0	86.0	118.5
Poland	116.0	85.0	117.1	94.0	100.0	116.0	107.0	100.0	103.6	120.0	115.0	114.6
Romania	...	...	113.0[c]	...	...	...	...	...	125.0	...	...	...
USSR	82.0	100.2	111.4	132.0	105.3	96.2	113.0	105.4	107.6	127.0	113.9	114.3

Source: See table 6-1.

[a] Bread grains only.

[b] Including poultry.

[c] Wheat only.

in tractor stocks, the rate of increase amounting to 29 per cent in Romania, 13 per cent in Hungary and 10 per cent in Bulgaria. In Poland nearly 13,000 tractors were delivered to agriculture during 1961, almost one-third more than in 1960. In the Soviet Union, however, the stock of tractors increased by only 4 per cent, that of trucks by 2 per cent and of grain combines by about one per cent, while the stock of tractor-drawn sowing machines fell by 10 per cent.

In several countries a substantial part of investment outlays was devoted to irrigation and the improvement of the soil. The most significant results were achieved in Hungary and Bulgaria, where the share of irrigated land in the total rose considerably in 1961.

In most of the European centrally planned economies institutional changes consisted chiefly in a further expansion of the state and collective farm sectors. However, in view of the high proportion of arable land which had already been absorbed by these sectors in most countries, their growth in 1961 was relatively limited.[2] In Poland, there was no increase in the state and collective farm sectors in 1961 although they accounted for only 13 per cent of arable land.

In the Soviet Union the practice of converting less efficient collective farms into state farms, which had been widespread in recent years, appears to have been discontinued in 1961.[3]

Relatively important changes occurred in the distribution of livestock as between state and collective farms on the one hand, and private owners[4] on the other. The shift in 1961 was especially significant in Hungary, where the share of cattle owned by the collective and state farm sectors rose from 34 per cent in 1960 to 44 per cent in 1961, while that of pigs increased from 25 per cent to 36 per cent.

Cattle numbers increased by 8 per cent in the Soviet Union and at a similar rate in Bulgaria (*see* table 6-4). In other countries the increases were smaller and in Eastern Germany the number of cattle declined. In most countries pig numbers increased more substantially: by over 15 per cent in Hungary; 13 per cent in the Soviet Union; about 12 per cent in Eastern Germany, and by more than 6 per cent in Poland. In Bulgaria, Czechoslovakia and Romania they either fell slightly or remained unchanged. Output of meat increased in Bulgaria and Poland by about 13 and 11 per cent, respectively; in other countries increases were relatively small. In the Soviet Union meat as well as milk production increased by no more than about one per cent. Among the remaining countries, milk production rose substantially only in Bulgaria where the increase was over 7 per cent; in Czechoslovakia and Poland the rise in 1961 did not exceed 3 and 4 per cent, respectively.

[2] With the exception of Hungary where the proportion of arable land in the state and collective sectors rose from 77 per cent in 1960 to 96 per cent in 1961.

[3] Between 1958 and 1960 the number of collective farms fell by about 35 per cent while that of state farms rose by about 23 per cent. In 1961 about 60 per cent of the sown area. and about 48 per cent of cattle and pigs belonged to collective farms. State farms owned 21 per cent of cattle and 25 per cent of pigs, while the stocks owned privately amounted to 31 and 28 per cent of total, respectively.

[4] Stock privately owned by members of state and collective farms and other persons.

Table 6-4. Indices of Livestock Numbers and Production of Animal Husbandry, 1961

(Preceding year=100)

Country	Cattle	Cows	Pigs	Sheep	Production of		
					Meat	Milk	Eggs
Bulgaria	107.5	106.0	99.9	102.9	112.7	107.5	110.0
Czechoslovakia	103.0	100.7	98.9	...	103.5	103.0	103.7
Eastern Germany	97.6	100.2	111.6				...
Hungary	102.6	99.7	115.5	111.0	102.4	100.0	
Poland	105.4	100.5	106.5	95.4	111.1	104.0	108.7
Romania	101.8	100.4	100.0	102.7	...		
USSR	108.0	104.3	113.1	102.7	101.1	101.3	105.0

Source: See table 6-1.

Industrial production

Unlike agricultural output, industrial production continued to expand rapidly in all European centrally planned economies. As indicated in table 6-5, the average rate of increase for this group of countries amounted to about 9 per cent in 1961, as compared to the 10 per cent increase achieved in 1960. While in most countries the decline in the rate of expansion was relatively small, or as in the case of Poland

Table 6-5. Indices of Industrial Production,[a] 1958 to 1961

(Preceding year=100)

Country	*1958*	*1959*	*1960*	*1961*	*1961 (planned)*
Bulgaria	115.0	120.4	113.3	109.7[b]	107.8
Czechoslovakia	111.3	110.9	111.7	108.9	109.3
Eastern Germany	111.2	112.0	108.3	105.9	107.2
Hungary	111.3	110.8	113.4	112.0	107.8
Poland	109.9	109.2	111.1	110.5	107.7
Romania	109.5	110.2	116.9	115.6	113.5
USSR	110.0	111.4	109.9	109.2	108.8
TOTAL, above countries	110.3	111.1	110.0	109.2	108.7
China (mainland)	166.2	139.3	119.0	...	...

Source: See table 6-1.

[a] For Bulgaria, Czechoslovakia, Eastern Germany, Poland, the Soviet Union and China (mainland), total industry; for Hungary and Romania, state and co-operative industry. Group indices are weighted averages of country indices. The weights used were the averages of the ratios of output of electric energy and industrial employment in each country in 1956 to the totals of the group. These indices should be considered only as broad approximations of the changes in aggregate output.

[b] State and co-operative industry.

negligible, a significant deceleration occurred in Bulgaria, Czechoslovakia and Eastern Germany. Most plans for 1961 had provided for some slowing down of industrial expansion, and, in fact, the growth of output in 1961 exceeded the planned targets by a considerable margin in Romania, Hungary, Poland and Bulgaria.

In Eastern Germany and to a less extent in Czechoslovakia, however, the fulfilment of the plans fell short of targets. In Eastern Germany industrial production was adversely affected not only by a persistent labour shortage,[5] but also by the effects of a reorganization of industry which had been undertaken in order to reduce the country's dependence on supplies of machinery and spare parts from the Federal Republic of Germany. According to official statements, the consequent shifts to equipment manufactured in other centrally planned economies involved readjustments and retooling which were bound to slow down the growth of output during the transitional period. In Czechoslovakia, as in Eastern Germany, scarcity of labour in specific sectors such as mining and metallurgy contributed to the non-fulfilment of production targets.

The developments in mainland China were of an entirely different nature and magnitude from those reviewed above. While the lack of official statistics renders any definite appraisal of the situation difficult, indirect evidence seems to indicate that after several years of rapid growth, industrial expansion has come to a virtual standstill. In 1961 industrial production seems to have remained close to or even below the previous year's level. The difficulties encountered in the industrial sector were largely influenced by the setback of agriculture. The shortfall of agricultural output had resulted in a decline in the supply of agricultural raw materials to industry, as well as in severe food shortages, which had an adverse effect on labour productivity. An important consequence of the shortage of agricultural supplies was a reduction of exports and an increase in imports of food, which reduced the country's ability to finance imports of raw materials and equipment for the industrial sector. But even apart from the effects of the agricultural crisis, the further expansion of industry was hampered by imbalances and bottlenecks which had developed during the preceding period of rapid growth. It appears from official statements that defective planning and lack of coordination between complementary enterprises or industrial branches had resulted in shortages of machinery, equipment, spare parts and materials in some cases and involuntary stock accumulation in others. In consequence, the degree of utilization or plant capacity was considerably reduced, quality standards deteriorated, and over-all efficiency declined.

In these circumstances, the main emphasis shifted in 1961 from further expansion to the elimination of bottlenecks and the improvement of quality standards, especially in heavy industry. Although some increases in output of specific products of light industry were reported, it seems that their effect on total production was offset by declines in branches depending on agricultural raw materials.

In order to alleviate the difficulties arising from the low supply of agricultural goods, efforts were made to raise the output of fertilizers and of agricultural machinery and equipment, and to increase the output of substitutes for agricultural raw materials, notably of chemical and synthetic materials.

In the four countries for which data are available, the output of producer goods expanded more rapidly than that of consumer goods. The 1961 plans provided in both sectors for lower rates of growth than were achieved in 1960, except for production of consumer goods in the Soviet Union. In Hungary, Poland and

[5] The labour shortage was largely due to a continuous outflow of population to the Federal Republic of Germany which seems to have been arrested since August 1961.

Table 6-6. Indices of Output of Some Major Branches of Producer Goods Industries, 1960 and 1961

(Preceding year=100)

Country	Engineering[a]		Chemicals[b]		Construction materials	
	1960	1961	1960	1961	1960	1961
Bulgaria	121.1	115.5	121.6	111.9	125.8	113.0
China (mainland)	...	...	...	...	...	..
Czechoslovakia	115.9	111.9	124.8	112.9	113.4	107.3
Eastern Germany	110.4	106.8	107.4	108.3	109.7	105.1
Hungary	119.5	115.0	115.4	120.0	110.6	104.0
Poland	118.5	117.8	121.4	119.1	109.9	110.5
Romania	120.7	120.0	118.8	127.0	103.2	...
USSR	116.0	116.0	112.0	114.0	118.0	112.0

Source: See table 6-1.
[a] For Bulgaria, Eastern Germany, Romania and the Soviet Union, engineering and metal working industry.
[b] For Bulgaria, Romania and the Soviet Union, including the rubber industry.

Indices of output of producer and consumer goods

(Preceding year = 100)

	1959	1960	1961	1961 (planned)
Hungary[a]				
Producer goods	112.7	114.3	112.0	109.1
Consumer goods	107.8	109.5	110.0	105.7
Poland				
Producer goods	113.2	113.5	111.9	108.9
Consumer goods	104.9	108.3	108.1	106.1
Romania				
Producer goods	114.4	116.1	117.1	113.8
Consumer goods	104.4	115.9	113.4	113.0
USSR				
Producer goods	112.2	110.9	110.0	109.5
Consumer goods	110.3	107.1	106.6	106.9

Source: See table 6-1.
[a] Producer goods refer to heavy industry, consumer goods to light industry and food industries.

Romania plans for both sectors were over-fulfilled and in the Soviet Union the planned output of producer goods was surpassed. Owing to the substantial over-fulfilment of plans, the production of consumer goods in Hungary and of producer goods in Romania expanded somewhat more in 1961 than in 1960, as the following indices of output of producer and consumer goods show.

Within the producer goods sector, the best results were attained in the chemical industry. While in most cases the output of the engineering industry rose somewhat less rapidly in 1961 than in 1960, and the output of construction materials rose much more slowly, the expansion in chemical production exceeded or closely approached that of the preceding year in four of the seven countries for which data are available (*see* table 6-6).

The slowing down of the expansion in the engineering industries was most marked in Czechoslovakia and Eastern Germany. In Czechoslovakia shortages of materials are reported to have hampered production; export plans as well as domestic deliveries of equipment to priority projects were adversely affected. A similar but more critical situation developed in Eastern Germany, where engineering output rose less than half as fast as in the other countries shown in table 6-6. In the Soviet Union, however, engineering output expanded at the same rate as in 1960, despite a serious lag in the vital branch of chemical engineering equipment where output rose by only 7 per cent as compared with the planned increase of 27 per cent and the 29 per cent increase achieved in 1960.

The decline in the expansion of output of construction materials in Czechoslovakia and Hungary was greater than planned, and in Eastern Germany the slowing down occurred in spite of a planned acceleration.

While no plan data for the Soviet Union are available, the decline from 18 to 12 per cent in the rate of expansion of construction materials output has apparently contributed to the non-fulfilment of construction plans discussed below. Poland and most probably

Table 6-7. Indices of Output of Fuel, Power and Selected Basic Materials, 1960 and 1961

(Preceding year=100)

Item	USSR		Other eastern European countries	
	1960	1961	1960	1961
Coal[a]	101.3	100	105.5	105.1
Crude oil	114.1	112	102.3	103.7
Natural gas	126.5	129	114.2	111.2
Electric power	110.3	112	113.0	106.4
Pig-iron	108.8	109	108.3	104.8
Rolled steel	108.5	108	111.7	108.7
Cement	117.3	112	114.5	107.6

Source: See table 6-1.
[a] Hard coal, brown coal and lignite on a ton-to-ton basis.

Romania were the only countries to achieve greater increases in output of building materials in 1961 than in 1960.

The sharp increase in chemical production in Romania was principally due to an accelerated expansion of production of synthetic fibres and rayons. In Eastern Germany, where chemicals account for a relatively large proportion of total industrial output, the industry was among the few in which production plans were fulfilled and output rose more than in 1960. In the Soviet Union, where the chemical industries also expanded somewhat more than in 1960, there were substantial increases in the output of new products and a further acceleration of fertilizer production, which increased by 10 per cent following increases of 4 and 8 per cent in 1959 and 1960.

Changes in output of pig-iron and steel in the Soviet Union were similar to those recorded in 1960; output of electricity increased at a slightly higher rate than in 1960 and that of cement at a considerably reduced rate (*see* table 6-7).

In the other eastern European countries as a group, the expansion of iron and steel, cement and electricity production slackened significantly. Smaller increases in the output of pig-iron and cement were common to most countries of the group. In the case of steel output the lower average growth rate for the group reflected primarily developments in Czechoslovakia, and in that of electricity the change was principally due to a

Table 6-8. Indices of Output of Selected Consumer Goods, 1960 and 1961

(Preceding year=100)

Item	USSR		Other eastern European countries	
	1960	1961	1960	1961
Passenger cars	111	107	123	...
Motor cycles and scooters	111	106	113	100
Bicycles	85	103	89	106
Washing machines	132	144	124	116[a]
Radios	103	102	89	111[b]
Television sets	135	113	143	113
Refrigerators	124	130	141	127
Sugar	106	132	105[b]	...
Meat	104	96	105	108
Butter	102	105	107	103
Vegetable oils	84	114	111	106
Shoes	108	106	109	104
Cotton fabrics	105	101	105	105
Woollen fabrics	106	104	103	103
Silk fabrics	102	101	106[b]	105[b]

Source: See table 6-1.
[a] Excluding Czechoslovakia for which data are not available.
[b] Excluding Eastern Germany for which data are not available.

Table 6-9. Indices of Industrial Employment and Output per Man,[a] 1957 to 1961

(Preceding year=100)

Country and item	1957	1958	1959	1960	1961	1961 plan
Bulgaria						
Industrial employment	115.1	107.0	116.9	110.4	101.9	103.5
Output per man	99.3	107.4	103.0	102.7	107.8	104.1
Czechoslovakia						
Industrial employment	103.7	103.6	103.5	104.5	103.6	102.6
Output per man	106.3	107.4	107.1	106.9	105.1	106.5
Eastern Germany						
Industrial employment	103.6	102.6	102.1	100.1	98.5[b]	100.6
Output per man	103.9	108.7	110.0	108.2	107.5[b]	106.6
Hungary[c]						
Industrial employment	100.9	104.3	106.1	106.7	103.7	102.6
Output per man	111.3	107.8	104.7	105.1	108.0	105.3
Poland						
Industrial employment	103.7	101.3	101.4	100.4	102.9	101.1
Output per man	105.9	108.4	107.6	110.7	107.4	106.4
Romania						
Industrial employment	100.2	103.6	103.2	105.0	106[b]	104.1
Output per man	108.2	105.8	106.7	111.3	109[b]	109.0
USSR						
Industrial employment	103.0	103.6	103.4	104.8	105.0	102.6
Output per man	106.5	106.0	107.4	105.0	104.0	106.0

Source: See table 6-1.
[a] Unless otherwise indicated, coverage is the same as that of table 6-5.
[b] Estimated.
[c] State industry, except for data for 1961 which are for socialist industry.

decline in power production in Eastern Germany, following a 15 per cent increase in 1960.

Coal production remained practically unchanged in the Soviet Union and increased moderately in other eastern European countries owing to the slight but sustained expansion of hard coal production in Poland and more rapid increases in lignite and brown coal output in most other countries. Crude oil production increased substantially in the Soviet Union, but remained unchanged in Romania, the other major producer in the area. Output in Hungary rose by one-fifth, however, reflecting a further recovery from the steep declines which had occurred between 1955 and 1957.[6]

An important development in the supply of fuel was the completion, in October, of the Czechoslovak section of the oil pipeline system supplying Soviet oil to eastern Europe.

Within the consumer goods sector, the expansion of output of durable goods tended to slacken, although, as shown in table 6-8, rates of increase continued to be higher than those of food and clothing. While the deceleration in consumer durables was in some cases the effect of relatively high levels of output attained previously, in other cases it was the result of government decisions aimed at shifting resources to other uses; this factor affected especially the production of passenger cars and motor cycles.

In the food sector a notable change was the 4 per cent decline in industrial output of meat and the 32 per cent increase in output of sugar in the Soviet Union. The latter was made possible in part by imports of raw sugar from Cuba.[7] The increase in the sugar supply seems to have exceeded domestic requirements, as retail sales rose only by 10 per cent.

Industrial employment continued to increase in 1961 in all eastern European countries except Eastern Germany where it seems to have declined slightly after showing virtually no change in 1960 (*see* table 6-9). In Bulgaria and Hungary greater stress on efficiency and cost reduction resulted in considerably smaller increases of industrial employment than those of recent years, and in both countries output per man rose substantially more than in 1959 or in 1960. On the other hand, in Poland the increase in industrial employment the increase in industrial employment in 1961 was significantly higher than in 1960. This acceleration reflected the relaxation of measures to restrict labour recruitment which had previously been applied for the purpose of restoring the balance between money income and supplies after its sharp deterioration in 1959.[8] In Czechoslovakia, Romania and the Soviet Union the increase in industrial employment continued at about the same rate as in recent years.

Except in Bulgaria and Hungary, labour productivity rose somewhat less in 1961 than in 1960. In the Soviet Union, in contrast to most post-war years, the increase in employment in 1961 contributed more significantly to the expansion of industrial production than did the rise in output per man. The slowing down, for the second year in succession, of the growth of output per man was the effect of the reduction in working hours. In fact, output per man-hour increased in 1961 by 11 per cent as compared to a 4 per cent increase in output per man. In Czechoslovakia, the growth of output per man was likewise reduced by a shortening of working hours.

[6] The fall resulted in part from flooding of oilfields. The 1961 production was approaching the level of output of 1955.

[7] Output of sugar produced from domestically-grown sugar-beets rose by 16 per cent.

[8] See *World Economic Survey, 1959*.

Allocation of national product and changes in supply and demand

In the majority of the centrally planned economies national income in 1961 increased at lower rates than in 1960 (*see* table 6-10) and in mainland China national income appears to have declined. These changes reflected the slowing down of industrial production and also the lower rate of growth or, in some cases, the decline of agricultural output. The increases in national income were also generally lower than those provided for in the plans for 1961. In Poland, however, largely as a result of a considerable improvement in agricultural production, the growth of national income exceeded both the expansion achieved in 1960 and the planned increase for 1961.

Gross fixed investment generally increased at a lower rate than in 1960. In Hungary, however, fixed investment declined by 18 per cent in 1961, following a 17 per cent increase in 1960. Among other countries for which data are available the greatest slowing down took place in Bulgaria; the increase of investment in 1961 was only 3 per cent, as compared with an increase of 22 per cent in 1960. In both Hungary and Bulgaria, the growth of investment had previously slackened in 1960 following an unusually high rate of expansion in 1959.

Whereas in Bulgaria and Hungary the changes in investment followed in accordance with plans, in Eastern Germany and the Soviet Union the reduction in growth of investment was not anticipated. In Eastern Germany, the plan for 1961 called for a 9 per cent increase in investment or about the same rate of expansion as attained in 1960; the actual increase was around 2 per cent. This shortfall was attributed to the lagging output of construction materials, to labour shortages and to the non-fulfilment of targets by the machinery industry. In the Soviet Union centrally planned investment increased in 1961 by 9 per cent as

Table 6-10. Indices of National Income, Retail Sales and Investment,[a] 1959 to 1961

(Preceding year=100)

Country	National income				Retail sales[b]				Investment[c]		
	1959	1960	1961	1961 (planned)	1959	1960	1961	1961 (planned)	1959	1960	1961
Bulgaria	121.6	106.8	103	112	118.9	111.1	109	107	148.0	122.4	103
Czechoslovakia	106.0	108.3	107	108	107.6	109.3	104[d e]	104	119.6	112.6	107
Eastern Germany[d]	108.5	104.6	103	...	110.2	106.9	106	...	116.7	109.3	102[f]
Hungary	106.9	110.1	105[g]	107	112.6	110.1	102[d]	105	139.9	116.6	82
Poland	104.9	104.8	108	105	110.4	101.7	109	104	117.2	107.2	110[g]
Romania	113.1	110.9	110	115	105.6	115.7	115	115	117.9	132.1	121[h]
USSR	108.0	107.8	107	109	108.0	110.1	104	106	113.3	107.9	104[g]

Source: See table 6-1. For Eastern Germany the national income figure for 1961 was derived on the basis of information that the increase in the last three years amounted to 17 per cent (*Neues Deutschland* (Berlin), 29 March 1962).

[a] In constant prices, unless otherwise indicated.

[b] Data refer to state and co-operative trade in all countries except Bulgaria, Czechoslovakia and Eastern Germany, where private trade is included. For Hungary the figures include the value of centrally distributed commodities sold in private shops. Soviet data exclude sales of food products on a commission basis by consumer co-operatives.

[c] For Bulgaria, centrally planned investment; for Czechoslovakia, Poland and the Soviet Union, total investment; for Eastern Germany, Hungary and Romania, state and co-operative investment. Data for Eastern Germany exclude replacement.

[d] In current prices.

[e] Not strictly comparable to the previous year because of change in coverage.

[f] Based on data for eleven months.

[g] Partly estimated.

[h] Excluding investments of collective farms from own resources.

compared with a rise of 13 per cent in 1960 and a planned increase for 1961 of 14 per cent. Moreover, investment financed from funds at the disposal of enterprises declined by some 12 per cent and investments of collective farms and investment in private housing construction increased only slightly, if at all. As a consequence, total investment increased in 1961 by an estimated 4 per cent as compared with a rise of 8 per cent in 1960.

The non-fulfilment of investment plans in the Soviet Union was said to be due to an excessive number of investment projects, delays in design of plant and equipment and an insufficient supply of labour in some regions.[9] In the collective farm sector the lag in investment was at least partly due to the slow rise in output and in farm income. The degree of fulfilment of state investment plans differed considerably in various industrial branches. There were apparently unusually large discrepancies between planned and actual investment increases in such industries as metallurgy, machine building, chemicals and generation of power, as well as in the light industry group.[10] On the other hand, state investment in agriculture increased at the planned rate of 22 per cent.

A considerable decline in the rate of growth of investment also took place in Czechoslovakia and Romania. In both countries a slackening in the rate of growth was provided for in the plans, but the rates actually achieved were somewhat lower than planned. In Czechoslovakia, centralized investment fell about 8 per cent short of the planned increase while non-centralized investment was 6 per cent higher than planned. As a result, while total investment was only slightly lower than planned, its composition deviated from the planned allocation of resources owing to differences in the types of investment financed from centralized and non-centralized funds.

In Poland, the acceleration in the rate of increase of investment was somewhat less than called for by the plan. Among notable developments were a 14 per cent expansion of private investment in agriculture and an increase of 20 per cent in private housing completions.[11] Investment in the state and co-operative sectors rose about 8 per cent, the same rate as in the preceding year.

In the absence of data for most countries, changes in personal consumption cannot be ascertained with any degree of precision. From data on retail trade, however, it appears that with the exception of Poland the increase in personal consumption in 1961 was everywhere lower than in 1960 (*see* table 6-10). The deceleration in growth of personal consumption was particularly pronounced in Hungary, the Soviet Union and Czechoslovakia. In Bulgaria, Romania and Eastern Germany retail sales and probably personal consumption rose only slightly less than in the preceding year; in the first two countries the rates of expansion of retail sales were in 1961 among the highest in the centrally planned

[9] Owing to these and other factors, machinery and equipment deliveries and construction fell short of their targets by 4 and 5 per cent, respectively.

[10] The planned and actual rates of increase were as follows: machine building, 40 and 14 per cent; chemicals, 42 and 13 per cent; power plant construction, 25 and 7 per cent; light industry, 54 and 18 per cent. The sources of these data are *Finansy SSSR*, No. 1, 1961 (Moscow) and *Pravda* (Moscow), 23 January 1962.

[11] In 1960, private investment in agriculture declined 7 per cent, while private investment in housing rose 5 per cent.

economies.[12] An important factor limiting the growth of consumption in most countries was the lag in agricultural production. As indicated earlier, agricultural output either declined or increased insignificantly in all countries except Poland.

Although the plans for 1961 provided for a reduction in the rate of expansion of retail sales and thus also of personal consumption, the actual changes were less than those planned in Czechoslovakia, Hungary and the Soviet Union. In Bulgaria and Poland the volume of retail sales was greater than the planned level; in Poland, indeed, the rate of expansion of personal consumption accelerated sharply in 1961, the increase amounting to 6.5 per cent as compared with about one per cent in 1960.

The data on changes in national income, fixed investment and retail sales suggest that the share of resources allocated to personal consumption declined in 1961 in Czechoslovakia, Hungary and the Soviet Union. Retail sales in these countries increased at a much slower rate than national income. In Czechoslovakia, for which data on personal consumption are available, the latter increased by 3 per cent in 1961 as compared with a 7 per cent increase in national income. Since gross fixed investment kept pace with the rate of increase of national income and net exports fell, it appears that social consumption[13] and accumulation of stocks increased at a higher rate than national income. For Hungary and the Soviet Union, no data on changes in personal consumption are available. It is, however, unlikely that consumption in these countries increased faster than retail sales; the latter expanded at a rate of 2 per cent in Hungary and 4 per cent in the Soviet Union, indicating a substantial reduction in the share of consumption in national income. In Hungary these changes were accompanied by an improvement in the balance of trade, and in both countries by a more than proportional rise in social consumption and in accumulation of stocks.

Table 6-11. Poland: Allocation of National Income, 1960 and 1961

Item	1960 (billions of zlotys)[a]	1960 (indices, preceding year = 100)	1961 (indices, preceding year = 100)
Consumption	275.4	101.5	107
Personal	245.9	100.9	106.5
Social	29.5	107.7	115
Accumulation	90.1	106.6	110
Net fixed investment	65.2	103.7	108
Increase in stocks	24.9	115.3	115
Balance of foreign trade	−12.5	66.5	108
National income	353.0	104.8	108

Source: Trybuna Ludu (Warsaw), 6 February 1962; *Rocznik Statystyczny*, 1961 (Warsaw).
[a] 1958 prices.

While similar in direction, the shift in the distribution of resources was less marked in Poland. In this country, the only one for which detailed data on changes in the allocation of the national income are available, net fixed investment rose at about the same rate as national income and the proportion of net imports to the national product remained unchanged (*see* table 6-11). The difference between the 6.5 per cent increase in personal consumption and the 8 per cent increase in national product was accounted for entirely by the more than proportional expansion of inventory accumulation and social consumption, in both instances amounting to 15 per cent.

In the remaining countries, interpretation of the available information on changes in national income, investment and retail sales is much more difficult. In Romania, both retail sales and fixed investment in 1961 increased at a substantially higher rate than national income. Indirect evidence, however, seems to indicate that the share of personal consumption remained approximately the same as in 1960 and that the more than proportional increase in fixed investment was made possible by a relative decline in the total of other components of national expenditure: net exports, changes in inventories and social consumption. In Eastern Germany, personal consumption seems to have risen at approximately the same, or at only a slightly higher rate than national income, while the rate of increase in total investment was somewhat lower. In Bulgaria shifts in the allocation of national income seem to have been directed towards personal consumption.

The increases in the share of resources allocated to social consumption and to stock accumulation which seem to have occurred in some countries may in part be related to the increase in military outlays which began around the middle of the year. This appears to have been especially significant in the Soviet Union where a 33 per cent increase in military expenditure exerted a considerable influence on the pattern of allocation of resources.

Changes in money payments to the population in relation to output were not always in line with the shifts in the allocation of resources. In most countries money income appears to have increased at a lower rate than in 1960. In some countries, such as the Soviet Union,

[12] It should be noted, however, that in countries such as Bulgaria and Romania, the share of consumer goods passing through retail trade channels is probably increasing more rapidly than in most of the other countries. In consequence, the rise in retail trade is likely to exceed the growth in consumption. Thus, in Bulgaria, consumption rose by less than 12 per cent in 1959 while retail sales increased by 19 per cent. In 1961 the corresponding increases were about 5 and 11 per cent.

[13] Social consumption is defined in the centrally planned economies as current consumption of goods by institutions, organizations and enterprises providing services such as education, health, state and local administration and defence. In most countries, however, subsistence of military personnel is included in personal consumption.

Table 6-12. Indices of Output per Man and of Money Wages in Industry,[a] 1959 to 1961

(Preceding year=100)

Country	1959		1960		1961	
	Output per man	Money wages	Output per man	Money wages	Output per man	Money wages
Bulgaria	103.0	103.4	102.7	107.1	107.8	105.2[b]
Czechoslovakia	107.1	101.7	106.9	103.7	105.1	103.7
Eastern Germany	110.0	106.9	108.2	103.2	107.5	...
Hungary	104.7	103.0	105.1	101.4	108.0	100.6[b]
Poland	107.6	106.9	110.7	102.2	107.4	103.0
Romania	106.7	104.5[c]	111.3	110.6[c]	109.1[d]	104.0[c]
USSR	107.4	103.0[e]	105.0	...	104.0	104.0[e]

Source: See table 6-1.

[a] Wages relate to average earnings per employed person.

[b] Production workers only.

[c] Including allowances and benefits not included on the wage data for the other countries.

[d] Estimated.

[e] Average earnings in all sectors of the economy.

Table 6-13. Wage Bill and Retail Trade, 1959 to 1961

Country and year	Wage bill	Value of retail trade	Volume of retail trade	Retail trade[a] (billions of national currency units)
	(indices, preceding year = 100)			
Bulgaria				
1959	115.6	117.1	118.9	21.6
1960	115.5	110.7	111.1	23.9
1961	108.5	109.1	109.1	26.1
Czechoslovakia				
1959	104.6	105.0	107.6	...
1960	106.3	107.4	109.3	94.8[b]
1961	106.1	103.8[b]	...	98.4[b]
Eastern Germany				
1959	109.7	110.2	110.7	42.1
1960	104.6	106.9	108.2	44.9
1961	..	106.0	..	47.6
Hungary				
1959	108.2	111.2	112.6	61.7
1960	105.8	109.9	110.1	67.8
1961	103.8	102.3	...	69.4
Poland				
1959	110.8	111.4	110.4	219.4
1960	103.4	103.6	101.7	227.6
1961	107.7	110.2	109.0	251.0
Romania				
1959	110.1[c]	104.1	105.6	36.1
1960	118.4[c]	114.8	115.7	41.4
1961	111.6	114.7	114.7	47.6
USSR				
1959	106.5	106.4	108.0	71.1
1960	...	109.5	110.1	77.8
1961	110.6	103.1	104.0	80.2

Source: See table 6-1. Wage bills for Czechoslovakia and Poland are taken from data as actually reported. Those for other countries are derived from the percentage of increases in employment and average wages. Data for Bulgaria and Rómania are partly estimated.

[a] For coverage, *see* footnote *b* of table 6-10.

[b] Not strictly comparable to the previous years because of change in coverage.

[c] Including allowances and benefits not included in the wage fund for the other countries.

Czechoslovakia and Eastern Germany, the rise in income payments exceeded increases in the supply of consumer goods, intensifying existing pressures on total supplies or on supplies of specific commodities. In other countries, such as Poland, Romania and Bulgaria, shifts in the allocation of national income in favour of consumption together with restraint on money wages helped to reduce pressures that had developed in preceding years.

It can be seen from table 6-12 that money wages in industry were nowhere allowed to increase faster than output per man. In Hungary and Poland, where the share of consumption in national income declined, productivity increased substantially more than wages and the resulting fall in unit wage costs was an important factor tending to reduce the pressure of demand upon supply of consumer goods. This was especially significant in Hungary where industrial wages remained practically unchanged despite an 8 per cent increase in productivity. In Bulgaria and Romania, where the share of personal consumption either remained stable or rose, average wages also increased substantially less than productivity. In the Soviet Union and Czechoslovakia, however, the reduction in the share of resources allocated to consumption was not accompanied by a decline in wages per unit of output.

The changes in the balance between demand and supply are reflected to some extent in the data on wage bills and retail trade presented in table 6-13. These figures, together with other scattered information, give some indication of the nature of the changes in supply and demand for consumer goods in 1961. In the Soviet Union the total wage bill increased by about 11 per cent in consequence of a growth of more than 6 per cent in the number of wage and salary earners and an increase in average wages of around 4 per cent. Total money income of the population appears to have increased somewhat less, inasmuch as the available information suggests that farm incomes increased only slightly while no advances in pension and similar

benefits were reported.[14] None the less, there is no doubt that the rise in total money income exceeded that of retail sales, which amounted to slightly more than 3 per cent. The resulting pressures of demand upon supply of consumer goods was reflected in scarcities of specific goods, especially of meat and meat products, the supply of which fell by 4 per cent. The disparity between the increase in money income and the increase in supplies did not lead to any adjustment in consumer prices[15] and real wages increased at the same rate as money wages.[16]

The unusually large increase in the wage bill in the Soviet Union exceeded the planned quota by a substantial amount. While wages in general increased in accordance with the plan, employment increased more than anticipated.[17] This was largely due to unplanned increases in industrial employment made necessary because of the non-fulfilment of plans for increases in labour productivity. Gains in productivity fell short of targets, partly as a result of the fact that reductions in hours worked were not fully offset by a more effective utilization of working time.

In Czechoslovakia, increases in average wages and in employment contributed in about equal proportion to the increase in the wage fund, which amounted to 6.3 per cent. Gross money proceeds of collective farms rose by 6.5 per cent as a result of a 4 per cent rise in state procurement and a 20 per cent increase in free market sales. It appears therefore that total money income of the population increased faster than retail sales, which rose by less than 4 per cent in 1961. Shortages of some types of consumer durables, of meat and at times of other foods were reported in 1961 without any apparent effect on prices in the state and co-operative trade network.

Some disparity between the increase in money income and the supply of consumer goods also seems to have developed in Hungary, where the total wage bill rose by 3.8 per cent as a result of a 2 per cent increase in employment and a 1.8 per cent advance in the average wage. Gross money proceeds of agricultural produce resulting from deliveries to the state purchasing agencies rose by 6 per cent. Retail sales increased by 2.3 per cent. During part of the year shortages were reported in the supply of meat, vegetables and many imported items. Free market food prices rose by around 4 per cent, reducing somewhat the extent of the real increase in wages, which was in any event relatively modest in money terms. In Eastern Germany, the greater than planned increases in money incomes of the population and the smaller than planned increases in supplies of consumer goods gave rise to shortages of various consumer goods in 1961 and prompted the authorities to introduce measures tending to restrict the growth of incomes in the following year.

While the increase in pressure of demand upon supply of consumer goods which developed in 1961 in several centrally planned economies was relatively limited, in mainland China the situation deteriorated considerably. The continuing low level of supplies resulted in severe cuts in the food rations allotted to the urban population. Although total money incomes appear to have declined in 1961 in consequence of a reduction in the number of wage earners and of other measures tending to reduce effective demand, the decline in income payments apparently was not commensurate with the fall in supplies. It has been stated that in order to reduce the mounting excess of money in the hands of the population it will be necessary to reduce government expenditure or to raise tax revenue, and to impose tighter control over credit disbursements of the banks.

The remaining three countries, Poland, Bulgaria and Romania, seem to have experienced an easing of the pressure of demand upon supply of consumer goods. In Poland, any inflationary pressure which may have arisen from the slight reduction in the proportion of the national product devoted to personal consumption was kept in check by a restriction of wages in relation to output. The wage bill rose 7.7 per cent as a result of an increase in employment of 3.9 per cent and a rise in the average wage of 3.7 per cent. The aggregate money income of peasants from sales to the State rose by 11 per cent, while personal income from pensions, family allowances and sickness benefits advanced by about 7 per cent. Total consumer incomes probably rose by somewhat more than 8 per cent as compared with an increase in the volume of retail sales by over 9 per cent. Although the rise of aggregate money income was greater than had been foreseen in the 1961 plan, planned retail sales were exceeded by a substantial amount.[18] In general, consumer supplies seem to have been adequate to meet demand without undue strain. An increase in the consumer price level of less than one per cent seems to have been the result of minor adjustments in the price structure. Real wages

[14] Disposable income was increased in part as a result of a reduction or elimination of income tax payments by lower-wage groups which became effective on 1 October 1961. Workers earning less than 60 roubles per month were exempted from income tax completely, while the taxes of those earning between 60 and 70 roubles were reduced by 40 per cent. The aim of these measures is eventually to abolish income taxes altogether.

[15] In June 1962, however, prices of meat in state and co-operative trade were increased by 30 per cent and those of butter by 25 per cent. According to official statements, this step was taken in order to raise funds for increased payments to agricultural producers so as to stimulate output of livestock products.

[16] The increase in average wages was associated with a further narrowing of wage differentials favouring the lower-income brackets. This process, which had begun in 1959, affected 40 million wage and salary earners by the end of 1961.

[17] Total employment was planned to increase by 3.20 million workers but actually rose by 3.95 million. The planned increment in industrial employment was 0.58 million, while the actual increment amounted to 1.12 million.

[18] The volume of retail sales was planned to increase by 4.3 per cent; it actually rose by 9 per cent, slightly less than the increase in current prices which amounted to about 10 per cent.

rose by about 3 per cent as compared with a fall in the preceding year of 1.5 per cent.

In Romania wages rose by 4 per cent and employment by over 7 per cent, resulting in an increase in the wage bill of about 12 per cent as compared with an increase of almost 15 per cent in retail sales. These developments were in contrast to the situation during the two preceding years when the wage bill increased much more rapidly than retail sales. Although no data are available on peasant incomes, pensions and other payments, there is little doubt that a better balance between total money incomes and consumer supplies prevailed in 1961 than in the preceding years.

In Bulgaria, a lack of balance between consumer incomes and supplies had developed in 1960 as a result of sharp increases in wages and employment, amounting to an estimated 7 and 8 per cent, respectively. The increase in the total wage bill of about 15.5 per cent was accompanied by an increase of only 11 per cent in the volume of retail sales. In 1961 the recruitment of labour was sharply reduced and the rise in the labour force did not exceed 2.5 per cent. Average wages also increased less than in 1960, the rise amounting to perhaps 5 per cent. Retail sales increased by 9 per cent, while the total wage bill appears to have risen by some 8 per cent and total money income increased less owing to the lag in farm output and income. Although this reversal of the situation which had developed during the preceding year resulted in a lessening of the pressure of demand upon supply, specific shortages continued in 1961, especially with respect to high quality clothing, consumer durables and meat. While prices in state and co-operative trade remained unchanged, prices charged by peasants on the collective farm market for meat and vegetables continued to increase in 1961, although at a much slower rate than in 1960.

Foreign trade

In 1961 the turnover of foreign trade (exports plus imports) of six of the centrally planned economies increased by 8 per cent (*see* table 6-14). A comparison with the data for 1960 indicates some slackening in the rate of expansion in all listed countries except Poland. Although the expansion slowed down most substantially in Romania, that country none the less recorded the greatest increase in 1961, at a rate of 17 per cent as compared to the exceptionally high rate of over 33 per cent in 1960. Apart from Romania only two other countries, Bulgaria and Hungary, experienced a significant decline in the rate of increase of trade.

Data on exports, imports and trade balances in 1961 are available for only four countries (*see* table 6-15). These countries were equally divided with respect to changes in their balances: in Czechoslovakia and Poland balances deteriorated to some extent, while the balances of Bulgaria and Hungary improved appreciably. The deterioration in the balance of Czechoslovakia occurred as a result of a smaller increase in exports than in imports, which reduced the active balance for the second successive year. In Poland, a rise in the passive balance reflected the general advance in the level of both exports and imports, which widened the absolute gap despite the fact that exports rose at a somewhat higher rate than imports. The improvement in the balance of Hungary was associated with an 18 per cent increase in exports which converted a large passive balance in 1960 into a small surplus in 1961. In Bulgaria the expansion of exports exceeded that of imports sufficiently to reduce the previous year's relatively large passive balance to negligible proportions. Although no separate data on the exports and imports of Romania were available at the time of writing, official government information indicated that the trade had been in balance in 1961.

Data on the commodity composition of trade in 1961 are scanty, and complete information is, in fact, only available for two countries, Hungary and Poland (*see* table 6-16). The composition of the exports and imports of these countries showed relatively little change between 1960 and 1961. There was some in-

Table 6-14. Foreign Trade Turnover, 1959 to 1961

Country	1959	1960 (indices, preceding year = 100)	1961	Value of trade, 1961 (millions of roubles)
Bulgaria	141.4	115.2	110.1	1,194
Czechoslovakia	115.9	112.5	110.7	3,730
Hungary	118.3	118.4	111.0	1,848
Poland	112.1	110.0	113.1	2,871
Romania	107.8	133.2	117.0	1,437
USSR	121.5	106.4	104.0	10,475
TOTAL, countries listed above	119.2	110.7	108.0	21,555
Eastern Germany	115.9	112.5	...	...

Source: See table 6-1.

Table 6-15. Exports and Imports, 1959 to 1961

(Millions of roubles)

Country and item	1959	1960	1961
Bulgaria			
Exports	420	514	595
Imports	521	570	599
Balance	−101	−56	−4
Czechoslovakia			
Exports	1,554	1,737	1,908
Imports	1,442	1,634	1,822
Balance	112	102	86
Eastern Germany			
Exports	1,909	1,972	...
Imports	1,793	1,953	..
Balance	116	19	...
Hungary			
Exports	693	787	926
Imports	714	878	922
Balance	−21	−91	4
Poland			
Exports	1,031	1,193	1,353
Imports	1,278	1,345	1,518
Balance	−247	−152	−165
Romania			
Exports	470	645	.
Imports	452	583	.
Balance	18	62	.
USSR			
Exports	4,897	5,006	.
Imports	4,566	5,066	...
Balance	331	−60	...

Source: See table 6-1.

crease in the share of manufactured consumer goods in the exports of both countries, but no significant change in the import shares of these commodities. Export and import shares for food and agricultural materials showed divergent tendencies. In Hungary the export share for these commodities declined while the import share increased, whereas in Poland shifts were in the opposite direction: a rise in the share of agricultural products in exports was accompanied by a decline in their share in imports. The development in Hungary appears to have been attributable to drought which had an adverse effect on domestic supplies. In Poland, on the other hand, favourable crop results permitted a relatively large expansion of exports of food and other agricultural products.

The share of machinery and equipment declined both in the exports and the imports of Hungary. In Poland it remained unchanged in the case of exports, while it rose to some extent in that of imports. The absence of any increase in the share of machinery in the exports of these two countries (as well as in the exports of Czechoslovakia, where the share was officially reported to have been 44.6 per cent of the total in 1960 and 44 per cent in 1961) seems to indicate that plans to stimulate this category of exports met with certain difficulties common to several of the larger exporters of machinery. Such difficulties do not as yet appear to have affected Bulgaria, where exports of machinery still account for a relatively small share of the total. According to official information, machinery exports from that country increased by one-third in 1961, almost three times as fast as total exports.

Trade with other countries of the group continued to account for the preponderant part of the total trade of each of the countries listed in table 6-17. However, the share of trade with the rest of the world, which had increased significantly in 1960, continued to rise in 1961, except in the case of Hungary where it remained roughly unchanged after a decline in 1960. In view of the lack of data for 1961 for the Soviet Union, Eastern Germany and mainland China, it is, however, not possible to arrive at firm conclusions regarding changes in the geographic pattern of the trade of the centrally planned economies as a group.

Some indirect indications of the direction of such changes can be obtained from the trade statistics of partner countries in the rest of the world (table 6-18). It appears that trade of the Soviet Union with the rest of the world increased by 12 per cent or at a higher rate than its total trade, that of other eastern European countries rose by 9 per cent, while the trade of mainland China declined owing to a 13 per cent reduction

Table 6-16. Hungary and Poland: Commodity Composition of Foreign Trade

(Percentage of total exports and total imports)

Country and item	1959	1960	1961
Hungary			
Exports:			
Machinery and equipment	34.6	38.0	37.2
Fuels and industrial raw materials	23.9	23.6	22.4
Food and agricultural raw materials	22.7	20.6	19.8
Manufactured consumer goods	18.8	17.8	20.8
Imports:			
Machinery and equipment	25.5	27.8	25.5
Fuels and industrial raw materials	60.9	58.9	59.1
Food and agricultural raw materials	9.0	8.3	10.6
Manufactured consumer goods	4.6	5.0	4.8
Poland			
Exports:			
Machinery and equipment	26.3	28.0	28.0
Fuels and industrial raw materials	49.0	43.8	39.1
Food and agricultural raw materials	18.2	18.1	21.5
Manufactured consumer goods	6.5	10.1	11.4
Imports:			
Machinery and equipment	27.5	27.1	29.1
Fuels and industrial raw materials	48 6	51.5	49.7
Food and agricultural raw materials	16.9	16.0	15.3
Manufactured consumer goods	7.0	5.4	5.9

Source: See table 6-1.

Table 6-17. Geographical Distribution of Trade[a] of Centrally Planned Economies, 1959 to 1961

(Millions of roubles)

Country and year	Trade with centrally planned economies		Trade with rest of the world	Total trade
	USSR	Other		
Bulgaria				
1959	493	268	182	943
1960	576	313	195	1,084
1961[b]	597	358	239	1,194
Czechoslovakia				
1959	1,068	1,067	864	2,999
1960	1,160	1,249	961	3,371
1961	1,232	1,270	1,161	3,730
Hungary				
1959	417	544	457	1,418
1960	—	1,181	—	485	1,666
1961	—	1,313	—	535	1,848
Poland				
1959	689	715	906	2,310
1960	770	819	949	2,538
1961	877	875	1,119	2,871
Romania				
1959	437	295	192	923
1960	493	393	342	1,228
1961[b]	—	934	—	503	1,437

Source: See table 6-1.
[a] Exports plus imports.
[b] Distribution by areas estimated.

of that country's exports. The group's total trade with the rest of the world therefore increased by only 7 per cent, which represents a sharp decline in the rate of expansion compared to that of 1960. The increase in extra-group trade of all centrally planned economies cannot readily be compared with that of their total trade in 1961 as shown in table 6-14, however, because the latter excludes Eastern Germany and mainland China.

The most striking increase occurred in trade with Latin America, both exports and imports rising by 50 per cent. The major factor accounting for this upsurge was the development of trade with Cuba. The expansion of trade with Latin America was most significant in the case of the Soviet Union, but substantial increases were also recorded by other eastern European countries and mainland China. Other substantial advances occurred in imports from North America and from Australia and New Zealand. These were chiefly a consequence of developments in mainland China which are further examined below. China also accounted for the fact that the total trade of centrally planned economies with western Europe showed only small gains, despite increases of 6 to 10 per cent in the trade of the Soviet Union and other eastern European countries with that area.

The development of trade with Asia and the Far East followed a similar pattern, considerable advances achieved by other centrally planned economies being largely offset by a decline in the trade of mainland China.

Data on the commodity composition of trade with the rest of the world are available only for the first half of 1961 (*see* table 6-19), and moreover, they cover only three-quarters of total east-west trade. As table 6-19 shows, substantial increases were recorded in exports to the rest of the world of foodstuffs, mineral fuels and lubricants, and of manufactures other than machinery, transport equipment and chemicals. In the case of foodstuffs, both the Soviet Union and the other eastern European countries contributed to the expansion. The rise in exports of mineral fuels and lubricants was chiefly attributable to the Soviet Union, while that of manufactures originated primarily in mainland China, which appears to have accelerated such exports in order to compensate for the reduction of its exports of raw materials.

Developments in mainland China strongly influenced the composition of imports of centrally planned economies as a group from the rest of the world. Large Chinese food imports in 1961—chiefly from Canada and Oceania—raised the share of foodstuffs in the group's import trade from 11 per cent in 1960 to 18 per cent in 1961. At the same time a reduction in Chinese imports of manufactures other than machinery and chemicals, combined with a smaller decline in Soviet imports, caused a sharp fall in the import share of this class of commodities. A shift in the commodity composition of imports in favour of machinery and transport equipment, on the other hand, was solely attributable to rising imports into the Soviet Union and other eastern European countries.

The indirect evidence provided by these partial data points to a significant shift in the structure of the trade of mainland China under the impact of recent economic developments in that country.

On balance, the centrally planned economies in their trade with the rest of the world continued to be net importers of all categories of manufactures. At the same time they maintained their position as important net exporters of foodstuffs, raw materials and mineral fuels and lubricants.

Table 6-18. Trade of Centrally Planned Economies with Rest of World,[a] 1959 to 1961

(Millions of dollars)

Area and year	USSR		Other eastern European countries[b]		China (mainland)[c]		Total	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Canada and United States								
1959	29.7	20.6	60.0	105.8	5.2	1.7	94.9	128.1
1960	29.5	48.0	65.1	182.4	6.1	9.1	100.7	239.5
1961	29.0	69.5	68.6	165.1	3.4	120.6	101.0	355.2
Latin America								
1959	27.6	44.1	104.9	107.1	2.5	2.8	135.0	154.0
1960	102.3	137.1	127.7	128.5	4.0	41.4	234.0	307.0
1961	180.0	249.0	167.0	146.7	10.0	79.0	357.0	474.7
Middle East[d]								
1959	155.1	114.9	146.4	139.1	26.2	39.4	327.7	293.4
1960	132.9	128.5	157.6	153.1	26.2	58.0	316.7	339.6
1961	150.0	122.7	155.8	166.9	24.2	30.4	330.0	320.0
Western Europe[b] [e]								
1959	671.1	464.6	1,232.2	1,179.8	195.7	369.9	2,099.0	2,014.3
1960	762.1	674.9	1,411.4	1,310.8	231.2	372.1	2,404.7	2,357.8
1961	804.9	717.8	1,523.4	1,439.4	181.7	181.3	2,510.0	2,338.5
Finland								
1959	147.3	140.0	55.5	40.2	4.7	16.5	207.5	196.7
1960	150.8	139.8	63.7	46.8	4.5	6.6	219.0	193.2
1961	150.4	127.7	68.3	56.2	2.7	6.0	221.4	189.9
Yugoslavia								
1959	57.6	47.2	112.5	100.2	2.6	1.4	172.7	148.8
1960	56.9	52.7	153.8	129.5	0.5	1.1	211.2	183.3
1961	29.2	50.9	123.5	107.9	...	0.2	152.7	159.0
Asia and the Far East								
1959	151.6	249.1	90.6	82.5	354.0	172.3	596.2	503.9
1960	181.9	245.0	133.9	132.8	385.0	162.8	700.8	540.6
1961	252.0	295.1	198.5	142.2	348.2	121.7	798.7	559.0
Australia and New Zealand								
1959	0.2	12.3	8.6	56.8	10.2	37.1	19.0	106.2
1960	0.4	36.8	10.9	53.4	11.5	33.1	22.8	123.3
1961	1.0	27.8	9.7	53.0	8.5	170.3	19.2	251.1
Africa[f]								
1959	1.1	48.7	36.5	17.4	4.3	21.5	41.9	87.6
1960	11.7	56.2	47.3	41.1	7.3	24.8	66.3	122.1
1961	20.3	28.9	51.2	53.2	6.9	13.1	78.4	95.2
TOTAL								
1959	1,241.3	1,141.5	1,847.2	1,828.9	605.4	662.6	3,693.9	3,633.0
1960	1,428.5	1,519.0	2,171.4	2,178.4	676.3	709.0	4,276.2	4,406.4
1961	1,616.8	1,689.4	2,366.0	2,330.6	585.6	722.6	4,568.4	4,742.6

Source: Statistical Office of the United Nations, and Statistisches Bundesamt, *Wirtschaft und Statistik*, No. 3, 1961 and No. 3, 1962 (Stuttgart).

[a] Exports from and imports to the centrally planned economies as derived from data of their trading partners.

[b] Including trade between Eastern Germany and the Federal Republic of Germany.

[c] Including trade of North Korea, North Viet-Nam and Mongolia.

[d] Including Libya, Ethiopia, Sudan and United Arab Republic.

[e] Metropolitan countries in the Organisation for European Economic Co-operation.

[f] Excluding Libya, Ethiopia, Sudan and United Arab Republic.

Table 6-19. Composition of Trade of Centrally Planned Economies with Rest of the World, 1959 to 1961

(Millions of dollars)

Item and year	USSR		Other eastern European countries		China (mainland)		Total	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Foodstuffs								
1959	103.3	35.3	162.7	90.8	26.1	0.3	292.1	126.4
1960	83.4	43.0	205.2	121.1	50.6	3.4	339.2	167.5
1961	118.1	30.3	239.7	130.5	57.1	134.0	414.9	294.8
Fats and oils								
1959	0.4	3.3	2.9	10.4	3.3	0.1	6.6	13.8
1969	2.5	4.1	5.3	7.5	11.3	2.3	19.1	13.9
1961	2.0	15.6	5.8	14.8	3.0	1.3	10.8	31.7
Raw materials								
1959	102.3	21.7	57.6	113.7	57.6	15.6	217.4	151.0
1960	138.2	63.6	85.8	147.9	108.7	61.5	332.8	273.1
1961	125.0	77.4	103.3	156.1	67.9	28.5	296.2	262.0
Mineral fuels and lubricants								
1959	133.5	0.2	79.5	1.2	0.4	0.1	213.4	1.5
1960	155.0	—	83.1	2.2	4.5	0.2	242.7	2.4
1961	194.8	0.1	89.1	1.0	6.6	1.6	290.5	2.7
Chemicals								
1959	12.9	11.1	44.5	51.2	4.9	42.5	62.4	104.9
1960	23.8	28.1	59.2	69.1	5.0	54.9	87.9	152.1
1961	23.8	20.2	59.9	82.7	6.2	39.5	89.9	142.4
Machinery and transport equipment								
1959	14.3	98.2	63.9	98.1	—	24.0	78.2	220.3
1960	19.6	174.0	86.4	131.3	—	23.4	106.5	328.7
1961	18.8	213.8	83.8	167.4	—	20.7	103.5	401.9
Other manufactured goods								
1959	59 7	98.3	115.8	156.1	19.5	97.1	194.9	351.5
1960	79.1	175.6	166.1	223.5	48.5	140.6	293.7	539.7
1961	87.3	164.4	166.3	253.4	97.7	41.2	351.3	459.0
TOTAL								
1959	426.5	268.1	526.8	521.5	111.7	179.8	1,065.1	969.5
1960	501.7	488.4	691.1	702.7	229.0	286.3	1,421.8	1,477.0
1961	569.8	521.8	747.9	805.9	239.4	266.8	1,557.1	1,594.5

Source: United Nations, *Commodity Trade Statistics*, Statistical Papers, Series D, January-June 1959, 1960 and 1961.

Plans for 1962

The plans for economic development for 1962 provide for an acceleration of growth of national income in most centrally planned economies with the exception of Czechoslovakia and Poland which plan for a slightly lower rate of increase than in 1961 (*see* table 6-20).

The greatest acceleration is planned by Bulgaria where the growth rate is to rise from about 3 per cent in 1961 to 14 per cent in 1962. The rates of expansion planned for 1962 by other countries range from about 7 per cent in Czechoslovakia and Poland to 13 per cent in Romania.

All countries of the group plan to increase gross fixed investment at higher rates than in 1961. The change is particularly significant in Hungary where investment in the state and co-operative sectors is planned to rise by 16 per cent in 1962, after a 20 per cent decline in 1961.

Retail sales are planned to increase at an accelerated rate in most countries except Poland and Romania which had registered the greatest percentage increases in the group in 1961. In all countries the planned increases in retail sales are smaller than those planned for national income, indicating a shift in the allocation of resources toward investment. In most countries average money wages in industry are also planned to increase at a lower rate than in 1961; in fact, Hungary and Romania are the only countries to have planned for 1962 a certain acceleration in the rise of average wages. Average wages are to increase by about 2 to 3 per cent in all countries except Romania, where a 5 per cent increase is provided for. The rate of increase in average wages is considerably lower than the planned rise in output per man.

The acceleration of growth of national income in 1962 is planned to be achieved largely through very considerable increases in agricultural production, while industrial production is to increase at the same or slightly lower rates than in 1961. In accordance with the pattern of industrial development as foreseen by the long-term plans, the highest rates of growth in 1962 are planned for metallurgy, electric power and, especially, for engineering and chemical industries. In the Soviet Union, however, a certain deceleration of expansion appears to be planned for the engineering industry, where the planned increase in output in 1962 amounts to 12 per cent as compared to the 16 per cent rise attained in 1961.

In all the countries for which data are available, labour productivity is expected to increase substantially faster than employment. Planned advances in industrial employment generally do not exceed 2 to 3 per cent, except in Romania, where the plan foresees a 4.5 per cent increase. In contrast to the planned slowing down of industrial production, agricultural output, which had either declined in 1961 or had increased very slowly, is planned to increase by about 25 per cent in Bulgaria and the Soviet Union, by more than 9 per cent in Hungary and by 5 per cent in Czechoslovakia. In Poland, however, where agricultural production had risen by 10 per cent in 1961, the 1962 plan anticipates only a 2 per cent rise.

The problem of agriculture was again brought into sharp focus by the difficulties encountered in 1961. These difficulties, together with the relatively poor achievements of the preceding years, had rendered the attainment of the planned long-term agricultural targets problematical. The Soviet Union devoted particular attention to these problems. According to an official statement, the difficulties in raising Soviet output in conformity with the plan largely resulted from insufficient supplies of fertilizer and equipment, and, especially in the case of meat, from a lack of adequate production incentives.[19]

In order to improve the situation the plans for 1962 provide for increases in agricultural investment and a rise in the supply of fertilizers on the one hand, and for increases in the area under fodder crops on the other. Such increases are to be achieved by the sowing of areas which would normally have been left fallow under the prevailing crop rotation system. The consequent rise in the output of highly productive crops, such as corn, pulses and sugar-beets, is expected to reduce the cost of fodder and thereby increase the profitability of meat production.

Initially, it appears to have been the intention to confine production incentives to measures aimed at reducing costs and increasing productivity. But in the course of 1962 prices paid to agricultural producers for meat were increased by 35 per cent on the average, and simultaneously retail prices charged for meat and meat products as well as milk in state and co-operative trade were raised by 30 per cent.

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[19] According to A. Soroka, *Ekonomika Selskogo Khozyaistva*, No. 9, 1961 (Moscow), page 16, in 1959, average prices received by collective farms for 100 kilogrammes of beef were almost ten times as high as prices received for 100 kilogrammes of grain, but the cost of production of beef was twenty times as high. It seems that this discrepancy was mainly due to the fact that labour input per unit of output is much greater in animal husbandry than in crop production, largely because of considerable differences in the degree of mechanization. According to *Pravda*, 1 June 1962, prices received by collective farms in 1961 for cattle and pigs were about 30 per cent and for poultry about 40 per cent below cost.

Table 6-20. Planned Targets for 1962
(Indices, 1961=100)

Item	Bulgaria	Czechoslovakia	Hungary	Poland	Romania	USSR
National income	114.0	106.5	109.0	107.0	113.0	108.6
Gross fixed investment[a]	111.0	107.5	116.0	110.0	...	108.1
Personal consumption	...	106.2	104.0	104.0	...	106.0
Retail sales	107.8	105.5	104.0	104.6	112.7	107.4
Industrial production	109.9[b]	109.9	108.0[c]	108.4	113.5[c]	108.1
Producer goods	...	...	...	108.4	115.7	108.8
Consumer goods	...	...	..	108.3	109.9	106.6
Industrial employment	102.3	103.0	102.6	102.7	104.5	102.4
Output per man in industry	107.4	107.2	105.3	105.5	108.5	105.6
Agricultural production	125.4	105.1	109.2	102.0	...	125.0[d]
Money wages	102.3[e]	101.6	102.5[f]	102.4	106.5[f]	102.7
Residential housing construction[g]	115.6	101.5	96.0	105.7	112.2	119.5
Exports	119.9	...	110.0	108.7	117.0	106.6[h]
Imports	111.6	...	...	102.8	114.0	...

Source: Plans for 1962; replies of Governments to the United Nations questionnaire of November 1961 on economic trends, problems and policies.

[a] For Bulgaria and the Soviet Union, centrally planned investments; for Czechoslovakia and Poland, total investment outlays; for Hungary, investment outlays in state and co-operative enterprises.

[b] Centrally planned industry only.

[c] Socialized industry only.

[d] As stated by I. S. Senin, Chairman of the Budgetary Committee of the Supreme Soviet of the USSR (*Pravda*, 7 December 1961).

[e] In industry only.

[f] Real wages.

[g] For Bulgaria and the Soviet Union computed in millions of square metres of living area; for Czechoslovakia, Hungary and Romania computed in thousands of dwellings; for Poland in thousands of rooms.

[h] Exports plus imports.

Economic situation in Yugoslavia

The rate of growth of the national income of Yugoslavia was lower in 1961 than in 1960 and much lower than foreseen in the annual plan. The slowdown reflected a decline in farm output, the result of a severe drought, and a slackening in the rate of expansion in all major sectors (*see* table 6-21). In the course of the year, there was a marked increase in inflationary pressure. Although price increases were anticipated in connexion with trade and foreign exchange measures introduced in 1961, the actual rise in prices was much greater than expected.

The elimination of multiple exchange rates and the liberalization of imports gave rise to difficult problems of readjustment of internal prices and of the structure of production. The simultaneous reduction in government control over the financial resources of enterprises[20] added to the problems of adjustment.

Owing to bad weather, agricultural production fell for the second consecutive year. The decline in 1961 amounted to more than 6 per cent as against a planned increase of some 16 per cent. The fall was entirely due to lower crop production; the output of animal husbandry was increased somewhat, as a result of a 5 per cent rise in meat production.[21] Industrial production, which was planned to increase by 12 per cent, actually rose by only 7 per cent, half as much as in 1960. The slackening was due in part to the difficulties connected with the readjustment of output to the new pattern of domestic and foreign demand resulting from changes in the price structure, as well as to reduce demand for manufactured goods on the part of agricultural pro-

Table 6-21. Indices of Gross National Output, by Sector[a]
(Preceding year=100)

Item	1960	1961	1961 (planned)	1962 (planned)
Total gross output	106.2	105.5	112.5	116
Industry	115.3	107.0	112.0	113
Agriculture	90.0	94.0	116.0	123
Construction	107.7	109.2	108.0	110
Transport	118.0	106.0	...	109
Trade	114.0	109.6	...	111

Source: Reply of the Government of Yugoslavia to the United Nations questionnaire of November 1961 on economic trends, problems and policies; *Sluzebni List* (Belgrade), 30 December 1961.

[a] Gross value of total production representing the sum of gross value of output of individual sectors.

[20] Enterprises were given more freedom in utilizing their resources by the elimination of the statutory obligation with respect to the allocation of investment to fixed assets and working capital. In addition they were allowed to utilize freely the revenue from sales of fixed assets, raw materials and semi-finished products. The progressive profits tax was replaced by a uniform tax on the gross revenue of enterprises with the object of raising incentives for increasing productivity and economizing the use of manpower.

[21] Changes in output of the major agricultural products were as follows (indices, preceding year = 100):

	1960	1961	1962 (planned)
Wheat and rye	86.4	88.4	119.0
Maize	92.3	73.9	153.0
Sugar-beets	94.6	76.8	170.0
Meat	110.4	105.5	97.0
Milk	99.3	99.2	107.0

Table 6-22. Yugoslavia: Selected Indices of Economic Activity

(Preceding year=100)

Item	1959	1960	1961	1961 (planned)	1962
National income	118	106	104	113	116
Gross fixed investment	117	108	107	105	113
Personal consumption	114	...	104	108	108
Volume of retail sales	114	114	108	...	...
Value of retail sales	117	119	117	...	...
Non-agricultural employment	107	109	106	...	106
Industrial employment	106	107	105	105	105
Output per man in industry	105	108	103	107	107
Cost of living index	102	111	110	...	...
Real wages in industry	112	108	105	...	104

Source: See table 6-21; *Statisticki Godisnjak*, 1961 (Belgrade); Federal Statistical Office, *Indeks*, No. 2, 1961 (Belgrade).

ducers caused by the fall in their incomes. Shortages of working capital also contributed to the restriction of output in certain branches of industry.[22]

Output of agricultural machinery declined by approximately 30 per cent in 1961 as against a 10 per cent increase experienced in the preceding year. Reductions were also registered in shipbuilding and miscellaneous machinery and equipment production. Output of ferrous metallurgy rose by 2 per cent, coal by 4 per cent and textiles by 3 per cent. In 1960 the rates of growth of these branches were 13, 6 and 14 per cent, respectively. In contrast, the output of crude oil, electric power and machine tools expanded at unchanged or even accelerated rates while the rates of expansion of electrical engineering and most types of consumer durables continued to be high. Aggregate output of the food processing industry rose by 13 per cent.[23]

Personal consumption rose in 1961 at the same rate as national income, about 4 per cent, considerably less than the planned increase of 8 per cent (*see* table 6-22). On the other hand, fixed investment expanded at a higher rate than national income, rising by 7 per cent as compared with the planned increase of 5 per cent. Social consumption also increased at a higher rate than national income but investment in inventories rose less, while net foreign borrowing rose by some 50 per cent. Although consumption increased much less than anticipated, its share in national income remained unchanged. It is therefore clear that the considerable price increases which occurred in 1961 were not due to any shift in the allocation of resources in favour of investment and social consumption. A 7 per cent increase in price levels was anticipated in connexion with the readjustments related to the elimination of multiple foreign exchange rates. In fact, the cost of living went up by 10 per cent. The increase in the cost of living above the anticipated rate was largely the result of a rise in the cost of food and of services. Prices of manufactured goods increased at less than the average rate of price rise.

Table 6-23. Yugoslavia: Balance of Payments

(Billions of dinars)[a]

Item	1959	1960	1961	1962 (planned)
Exports of goods	143.0	169.8	166.9	201.0
Imports of goods	198.4	237.5	263.2	278.0
Balance of merchandise trade	−55.4	−67.7	−96.3	−77.0
Balance of other transactions on current account	19.2	23.3	26.3	28.0
Total balance on current account	−36.2	−44.4	−70.0	−49.0

Source: See table 6-21.

[a] In foreign prices converted into dinars at the exchange rate of 300 dinars to the dollar.

It was intended that the effect of the anticipated price increases on real personal income would be compensated for by increases in money earnings. The actual increases in wages and other incomes were, however, greater than anticipated, affecting price levels both from the cost and from the demand side.[24] Despite

[22] Shortages of working capital were to some extent the effect of credit restrictions aimed at reducing the pressure of demand upon domestic supply and the demand for imports. These measures seem to have been introduced in order to cope with the problems arising from the trade and currency reform on the one hand and from the rise in disposable income of the enterprises due to reduction in taxes on the other. It has been anticipated that credit restrictions will force the enterprises to restrain the use of their own funds for fixed investment in order to replenish their working capital. In many instances enterprises were spending a large proportion of their funds on fixed investment, expecting to increase their working capital through bank credits.

[23] This increase occurred despite the fall in total agricultural output. It was probably made possible by the fact that meat output expanded, and that the total production of state farms, which are the most important suppliers of food processing industries, increased by 10 per cent in 1961.

[24] An additional element of pressure of demand upon supply was an increase of almost 40 per cent in consumer credit. In 1961 such credit amounted to about 15 per cent of the income of wage and salary earners employed in state and co-operative sectors.

a considerable rise in the cost of living the average real earnings of wage and salary earners in non-agricultural occupations rose by 4 per cent; real farm income increased less, and possibly not at all. Prices received by agricultural producers rose by 12 per cent and manufacturers' prices by 4 per cent, while investment costs seem to have risen by about 14 per cent as a result of a rise in prices of equipment due to foreign exchange reforms, as well as of a rise in prices of building materials and labour.

Changes in the balance of payments in 1961 were greatly influenced by the decline in agricultural production (*see* table 6-23). The fall in farm output made it necessary to resume imports of cereals; the latter accounted for about one-half of the increment in total imports. Another factor, also apparently contributing to the unscheduled rise in imports, was the liberalization of import controls. The slower than anticipated growth of exports was due to several circumstances, including not only the fall in agricultural supplies but also a smaller than planned rise in industrial production and, in some cases, a fall in profitability of exports resulting from the elimination of differential exchange rates.[25]

The Yugoslav plan for 1962 provides for the resumption of the high rates of expansion achieved before 1961. National income is planned to increase by 16 per cent, industrial production by 13 per cent and agricultural output by 22 per cent. While personal consumption is planned to increase less than national income, disposable income is also scheduled to increase much less than output. It is expected that the measures taken to implement this policy will ensure greater price stability in 1962 although some price increases are anticipated in connexion with the further adjustment of the internal price structure in relation to the new foreign exchange rate. Great emphasis is placed in the plan for 1962 on the development of branches which may help to reduce import requirements or to increase exports. A considerable improvement in the balance of trade is expected as exports are planned to rise by 18 per cent and imports by 6 per cent.

[25] In order to enable enterprises to adjust to the new conditions created by the adoption of a single rate of exchange, export subsidies were in some cases temporarily retained. These took the form of tax exemptions and, in the case of some products, of export premiums. However, exports of less profitable items were reduced.

The effect of the unification of exchange rates was, however, to stimulate exports of food inasmuch as the new unified rate (750 dinars to the dollar) was substantially above that prevailing before the reform. Exports of food and, especially, of livestock products did not decline in 1961 despite a fall in output.