

department of economic and social affairs

# **world economic survey, 1969-1970**

the developing countries in the 1960s:  
the problem of appraising progress



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# NOTE

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## FOREWORD

This report, *World Economic Survey, 1969-1970*, is the twenty-second 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 on economic matters. It is also intended to stimulate interest in and discussion of international economic problems among a more general public audience.

The present *Survey* appears at the beginning of the Second United Nations Development Decade for which guidelines and objectives were laid down in an International Development Strategy adopted by the General Assembly in resolution 2626 (XXV) on 24 October 1970. This Strategy calls for a systematic scrutiny of the progress that has been made towards achieving the goals of the Decade. The General Assembly itself is to make an overall appraisal on a biennial basis.

In order to prepare the ground for such appraisals as the Decade advances, the present *Survey* is addressed to the methodological problems that are involved in measuring progress in the developing countries. It reviews the data that are available and

suggests ways in which they might be used to throw light on the economic and social performance in the 1960s of the countries—both developing and economically more advanced—that will be implementing the International Development Strategy in the 1970s.

The *Survey* consists of five chapters preceded by a brief introduction setting forth the principal features of the measurement problem. Chapter I deals with the production of goods and services and the ways in which this might be measured. The next two chapters deal with the ways in which what has been produced is used—chapter II for the purpose of immediate consumption and the raising of levels of living, and chapter III for expanding the capacity of the economy to produce goods and services in the future. As production, consumption and investment are closely interrelated operations, their continuity and growth require a viable economy; hence chapter IV is concerned with the question of economic balance both within individual countries and between one country and the rest of the world. Chapter V looks more closely at the “rest of the world”, which, in the case of the developing countries, consists of the more advanced countries whose trade and aid policies shape the external environment affecting the development process.

The *World Economic Survey* is prepared in the Centre for Development Planning, Projections and Policies of the Department of Economic and Social Affairs of the United Nations Secretariat.





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## 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., 1960/61

Use of a hyphen (-) between dates representing years, e.g., 1961-1963, signifies the full period involved, including the beginning and end years.

~~Ref.~~ Reference to "tons" indicates 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.

The following abbreviations have been used:

AfDB	African Development Bank
AsDB	Asian Development Bank
CMEA	Council for Mutual Economic Assistance
DAC	Development Assistance Committee [OECD]
ECE	Economic Commission for Europe
EDF	European Development Fund
EEC	European Economic Community
EIB	European Investment Bank
FAO	Food and Agriculture Organization of the United Nations
FUNDWI	Fund of the United Nations for the Development of West Irian
GATT	General Agreement on Tariffs and Trade
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IMF	International Monetary Fund

ISIC	International Standard Industrial Classification
OECD	Organisation for Economic Co-operation and Development
SITC	Standard International Trade Classification
SNA	System of National Accounts
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNFC	United Nations Fund for the Congo
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency
USDA	United States Department of Agriculture
WFP	World Food Programme
WHO	World Health Organization

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.



## INTRODUCTION

This *Survey* deals with the process of economic and social development and with the possibility of measuring it in ways that might be helpful not only in assessing the nature and pace of the progress that is being made but also in evaluating the efficiency of the policies that are being pursued. In order to carry out such an appraisal it is necessary to break down the complex concept of development into some of its components. It is useful, for example, to distinguish between those aspects of development that are directly reflected in human welfare and those that concern the economy as a mechanism through which individuals seek to co-operate in pursuit of their manifold objectives. By the same token, the time element needs to be kept in mind, characteristics of the current status being measured alongside those actions the fruits of which will be yielded only in the future. It is also useful to distinguish between those features of development whose effect is limited very largely to the community or national entity concerned and those that relate that entity to the rest of the world.

In the first instance, therefore, an appraisal of the state of development of a country and its progress in a given period of time requires an evaluation of performance in three separate areas—the production of goods and services, the level of living of the inhabitants and changes in the capacity of the economy to deliver needed goods and services in the future. To help in such an evaluation four criteria may be applied: in each of the areas in question, the actual performance of a country can be measured against its declared intentions, against the bench-mark of some earlier performance, against the recorded achievements of other countries in comparable situations and finally against some average or minimum target designated on an international basis.

The applicability of such criteria tends to differ from case to case. In general, the more aggregative the phenomenon, the more readily can a common measure be applied and interpreted. The more importance attaching to the structure of production, the constituent elements in the level of living and the pattern of investment and capacity expansion, the more difficult it becomes to devise appropriate bench-marks—other than the country's own intentions when these have been integrated into a development plan. The combination of goals and the weight given to each of the components in the three

main areas are unique to each country and each period, so that a satisfactory unitary measure of economic and social progress is likely to remain elusive. "Development" is no predestined path along which all countries must go; it is a diverse and uncertain process reflecting the culture and preferences of people as well as the resources at their disposal and an ever-changing technology.

In order to measure changes that have been taking place in any of the areas of principal concern in the development process, it is necessary to devise appropriate "indicators", if possible of a quantitative nature. At the country level a large number of such indicators may be desirable and feasible, taking into account the complexities and peculiarities of the local situation. At the international level selectivity is called for: the indicators would need to be confined to the most significant and widespread aspects of economic and social progress and their form would have to reflect current statistical practice as far as this was possible. While in the long run new methods of measuring the course of development can be introduced, in the shorter run it is usually necessary to prepare indicators from the currently available supply of socio-economic statistics.

In choosing indicators by which, in each of the main areas, the course of progress is to be assessed, it seems wise, therefore, to concentrate, at least in the first instance, on those phenomena about whose incidence it is possible to make a normative judgement that is likely to be widely accepted. In general, a measure of achievement in physical terms will tend to be more convincing than a financial one, though the latter may be useful as an indicator of intention and of the effort that has been made. In the welfare area, for example, a decline in infant mortality rates is likely to prove a better indicator of development than would an increase in the amount or proportion of resources devoted to health services. Similarly, the value added in agriculture and industry—or the material output—probably provides a less equivocal measure of performance in production than would changes in the GDP as a whole.

For the purpose of progress appraisal each country must select the series of indicators it judges to be most appropriate in the light of its own economic and social circumstances, its own ability to carry out the necessary measuring process, the character-

istics of its own development plan and the detail with which it wishes to monitor the operation of specific policies. The perfection of such indicators is, indeed, an integral part of the planning function itself.

At the international level the battery of indicators must necessarily be a more limited one. While it should be designed to assess progress in each of the main areas of development, it must also serve as a common measuring rod, applicable to the greatest possible extent to all the developing countries. This does not mean the rejection of any indicator that is not available in an equally accurate and timely fashion from every developing country. But it does mean that countries that cannot provide a particular indicator that has been chosen on the basis of its appropriateness and availability in most developing countries, will need to be assisted to gather the requisite information as a regular part of economic intelligence operations. Until such information becomes available a substitute indicator will have to be used.

Over a given period of time, such as that for which progress is to be measured, many of the objectives being aimed at by individual countries are essentially competitive in their nature: the resources absorbed in seeking one are not available for achieving others. Thus, while intercountry comparisons can be made item by item, it is extremely difficult to compare the performance of economies as a whole. There are no objective criteria for judging the proper division of resources between consumption and investment, or the allocation to one component of the level of living or one element of production capacity rather than another. It is because of this difficulty that so much emphasis has had to be placed on comparisons of over-all production: it could be argued that the better the production performance—that is, the more goods and services are produced—the better the prospects for allocating resources to each of the various end uses that make up the development process. Or, even more certainly, failure to produce the required goods and services will prevent or retard the achievement of higher levels of living or greater productive capacity.

While meaningful assessment of performance in respect of a range of relevant but diverse indicators can be made only at the country level—this being the highest level at which the concept of economic and social development has operational significance—there are two ways in which helpful international comparisons can and should be made. One involves combining a number of specially selected indicators into a single measure of socio-economic status by which countries can be ranked. The other involves the diagnosis of imbalances which, unless corrected, are likely to slow down the future rate of progress.

A "socio-economic status" ranking depends on an essentially subjective and normative selection and weighting of indicators. It thus differs from a ranking by "degree of development" or by "correspondence points"—concepts that are based essentially on statistical correlations, over some historical period, between various quantifiable characteristics of economies with different levels of *per capita* income. In the present context it is assumed that each country decides on the path it wishes to follow, and formulates its development strategy accordingly. National choices are all subject to various constraints—population, natural resources, local culture, historical ties, current socio-economic status and so on—but these differ so widely in their effect that they are unlikely to propel countries to a specific course of development. While domestically, therefore, the criteria of performance must be combined in accordance with the country's own objectives and priorities, an international ranking system must rely on a common set of indicators chosen on the basis of an *a priori* judgement of the importances of the phenomena they measure.

Before suggesting the phenomena that seem to merit inclusion in such a set, it is necessary to take into account the dynamic aspects of the problem. As indicated above, development implies not only current status but future capability of maintaining (and enhancing) that status. Hence, an international comparison must include some indication of the viability of the economy and the extent to which past performance has given rise to imbalances that might conceivably threaten future performance.

In the light of these considerations, those aspects of socio-economic performance that appear to be most significant for international assessment include material output per person, adequacy of nutrition, infant mortality and life expectancy, literacy, availability (or lack) of gainful employment, internal price stability and domestic and foreign savings ratios. These phenomena are not equally easily measurable, and the practical problems involved in devising indicators that could be brought together for ranking countries and compiling a composite index virtually rule out any immediate solution. The difficulties are partly conceptual (as in the case of unemployment in an economy with an important subsistence sector) and partly statistical, for many countries do not yet have an accurate knowledge of all the suggested phenomena, particularly in the case of those (such as nutrition and other criteria of welfare) in which distribution is as significant as totals or averages.

In interpreting these indicators of performance and status, due account must be taken of the environment in which the economy has been operating. It is clear that the nature of the external conjunc-

ture can have a material effect on the degree to which the policies pursued by a particular country succeed in achieving their intended objective. The developing countries are especially sensitive to events and policies in the rest of the world: export earnings and the inflow of capital—two critical determinants of resource availabilities—are both heavily dependent on the external environment. In appraising the state of balance of a developing economy, therefore, it is necessary to distinguish as far as possible between situations that reflect domestic events and policies and situations that have been induced from abroad.

Over and above the need to assess the impact of external changes when the course of development in individual countries is being reviewed, an examination of the working of the world economy is itself a necessary element in a progress appraisal conducted at the global level. Not only is a rational international division of labour a desirable objective for the sake of its favourable influence on global productivity and output, but in varying degree individual Governments undertake explicitly or implicitly to pursue policies designed to facilitate the flow of trade and finance in ways that will benefit countries that, for whatever reason, are tending to lag behind. On both scores the world economy needs regular evaluation.

In the present context special importance attaches to actions by the more advanced countries that affect the flow of resources to the less developed. Actions that expand the demand for the goods and services that developing countries can export enlarge their capacity to import and hence provide them with the development goods not available from their own relatively immature industry. Resource gaps can be filled more directly by loans or gifts. In both areas policies need to be kept under review and per-

formance assessed against international targets (such as the liberalization time-table agreed to in the Kennedy Round of tariff negotiations or those adopted in the United Nations General Assembly for the volume and terms of aid), against the commitments made by individual donor countries and against the need of developing countries for external resources to sustain designated rates of economic growth.

The chapters that follow are thus partly methodological in nature: under each of the suggested headings—production, levels of living, capacity creation, state of balance and external environment—there is a discussion of the available indicators and the problems of interpreting them. An empirical approach has been adopted with a view to illustrating the process of measurement in a realistic manner. An attempt has been made to assemble the relevant data for all countries that are Members of the United Nations and for as many non-Members as possible. The period covered is the most recent for which information on this global scale was available in 1970. For many of the variables this means 1968, though for data derived from a relatively infrequent census or sample survey the situation depicted is one obtaining earlier in the decade. In a number of cases, where the measurement of movement or change is desirable, comparisons of rates of growth over much of the decade—1960 to 1968, where possible—are presented. Countries have been included in the basic tables (presented in a statistical annex) whether or not they publish the indicator in question: the information gaps that thus appear constitute a challenge: it is hoped that they will be filled as the Second United Nations Development Decade advances and the practice of appraising economic and social progress in the sort of global framework here essayed becomes more widely accepted.



## Chapter I

### PRODUCTION AND SUPPLY

Whatever other objectives a country sets for itself it must make provision for the supply of the goods and services on which the attainment of those objectives necessarily depends. While a portion of that supply may come from abroad as a gift or on loan, the bulk must be produced by the country itself. An essential part of the economic and social development process is therefore the production of goods and services, and any attempt to measure economic and social progress must begin by appraising performance in the field of production.

The precise way of measuring production must be appropriate to the circumstances of the country concerned reflecting, in particular, the prevalence of the market mechanism, the complexity of the industrial structure and the nature and relative size of the export sector. The less effective the market the more difficult it is to price production and add it up in money terms. The more intricate the pattern of interindustry transactions the more necessary it is to measure output by the value added at successive stages. The greater the proportion of output produced specifically for export the more necessary it is to take external price changes—the terms of trade—into account in evaluating domestic production.

These economic characteristics differ widely among the developing countries which range all the way from simple subsistence economies to economies with an elaborate industrial and commercial superstructure, from export-oriented economies to those in which foreign trade plays a very minor role. No single system of measuring production is likely to be equally applicable. Nor, indeed, can a given method of appraising performance be applied mechanically to a given country year after year: as structural changes occur so the techniques of evaluating production must be continually adjusted.

Two distinct sets of problems thus have to be faced. Each country has to devise for itself a suitable battery of tests for appraising its production performance. And at the international level a more limited number of criteria must be selected to permit intercountry comparisons to be made and to enable countries to assess their position in relation to whatever international norms may have been established. It is clearly desirable that the international

criteria be selected from those most likely to be found useful at the country level.

#### THE MEASUREMENT OF TOTAL PRODUCTION

For an assessment of over-all production performance it is natural to turn first to the national accounts. A country's total output of final goods and services may be valued on a domestic (geographical) basis or on a national basis, at market prices or at factor cost, gross or net of capital depreciation.

For purposes of a short-term year-to-year survey any one of the aggregates will serve to measure the growth in total output: the differences between them are unlikely to be significant in relation to the uncertainty underlying the data going into some of the components. If measurements are to be made over longer periods, however—over the life of a plan, for example, or in comparing performance in two different plan periods—then due account must be taken of the differences in the composition of the various aggregates. As the components that distinguish these aggregates from one another are subject to different influences and may move along different time paths, it is necessary to make a conscious choice of aggregate in the light of the circumstances and needs.

The domestic product differs from the national product in respect of the treatment of the output of factors that are foreign-owned. The domestic product is the output of all the factors operating in the geographical area concerned, without reference to ownership. It is likely to be the most useful aggregate for economic planning purposes where the activity of all resident producers is at issue and the disposition of all local resources is of concern. Where distribution questions are involved, however, the national product is likely to be more relevant: it refers to the output actually accruing to the country's own citizens.

In most developing countries, the national product is the smaller aggregate as it is net of the output belonging to foreign owners, which usually exceeds by a large margin the external output of the country's own nationals. Whether the national product is expanding at a faster rate than the domestic product depends largely on developments in the

foreign direct investment sector: the two might be expected to move more or less together during a period of rapid capital inflow, but when the outflow of investment income is rising rapidly the national product will be increasing more slowly than the domestic product.

In general, it is likely to be a matter of indifference whether an appraisal of production performance is carried out at market prices or at factor cost. When government policies are changing, however, the result might be reflected in the relative size of the transfers effected by indirect taxes and subsidies. Market prices which include the consequences of such fiscal adjustments might then yield a somewhat different assessment from that conducted at factor cost (net of indirect taxes and subsidies).

Changes in fiscal arrangements may also affect the valuation of output on a net basis—after allowance has been made for the fixed capital consumed in the course of production—as against a gross basis reflecting the total volume of production. As a certain proportion of output has indeed to be used as replacement investment if the productive capacity of the economy is to be maintained, it is desirable to keep track of the course of the net product. While in principle the net product provides a realistic measure of the supply of goods and services available for consumption or the expansion of capacity, in practice it is often influenced rather arbitrarily by methods of depreciating fixed capital that are dictated by fiscal rules or applied mechanically by formula.

Nevertheless, the concept of net output is of particular importance to a developing country in which the capital intensity of the economy is increasing rapidly from a relatively low level. It must be expected in these circumstances that the proportion of new production set aside for maintaining capital equipment will need to rise. The net product would thus tend to increase at a somewhat slower pace than the gross product.

Whichever concept is used for assessing production performance, the constituent data have to be assembled in money terms preparatory to aggregation. At this stage the effects of price changes have to be eliminated. This requires the compilation of a series of price movement indicators appropriate to each of the sectoral components of the over-all product. This is a formidable task in most developing countries partly because market imperfections often interfere with price formation on a national scale, partly because the development process itself is likely to effect continual changes in the composition of the components, and partly because of the magnitude of possible price changes, reflecting both the exposure of the export sector to the sometimes violent swings in world primary product markets and the susceptibility of developing economies to

inflationary pressures. As changes in the price level may be very much greater than changes in real output, accurate deflation is a crucial matter in any measurement of production achievement.

The main purpose of such measurement is domestic: a Government needs to know what is happening to the country's total supply of goods and services in order to evaluate past objectives and policies and set new targets and formulate new policies. Even in the context of a single country's appraisal, however, it may be helpful to make international comparisons: one country may find it useful to judge its own production achievements in the light of those of other countries that are similarly placed in respect of size, resources, state of development, export composition or other relevant attribute.

Putting the results of one country's production appraisal on a basis that would permit comparison with others raises serious problems. While growth rates can be compared fairly readily—and meaningfully among countries with defined characteristics—productivity can be compared only if the data are converted to a common currency. To be realistic, such conversion should be done at a purchasing power parity, and this may differ considerably from the official exchange rate, especially in countries practising import and exchange control. Uncertainty about the appropriateness of the exchange rate consequently makes it necessary to treat intercountry comparisons of over-all productivity with special caution.

Taking all these factors into consideration, the most relevant of the national accounts aggregates for the study of production performance is probably the net domestic product at factor cost which, in principle, eliminates the potentially distorting effect of changes in indirect taxation and subsidies and makes appropriate allowance for the using up of capital—which may be expected to accelerate as development proceeds. This is not the most convenient aggregate in practice, however, partly because of the often arbitrary nature of the depreciation adjustment and partly because of the general absence of the price series that would be required for the deflation of data reported at current factor cost. For the present, therefore, international comparisons of production performance and of the growth of total output will probably have to be made on the basis of gross market price data.

#### MEASUREMENT OF THE KEY COMPONENTS OF TOTAL PRODUCTION

While it is difficult—at least in low-income countries—to visualize economic development without an adequate expansion in total production, the process of development also involves structural change, and to appraise production performance it is neces-

sary to examine not only the aggregate but also a number of strategic components. Concern about the output of particular sectors will differ from country to country and from time to time.<sup>1</sup> But there are three elements which are of special importance to all developing countries and need to be taken explicitly into account in any assessment of production: these are the output of the non-monetized or subsistence sector, the output of material goods and the output of export commodities.

There are many problems to solve in taking the subsistence sector into the national accounts: what activities and output should be measured? how to measure the output of things that are not traded but are consumed directly by the producer? how to evaluate that output, once defined, in money terms? There are a number of conventions governing the statistical aspects of these questions, though their application is far from uniform.<sup>2</sup> What is important in the present context is not the wisdom of these conventions or of the alternative procedures that may be followed by individual countries, but rather the need to keep both the methodology and the result in the open. The process of economic development—which depends on the extension and intensification of the division of labour—will encroach continuously on the subsistence sector, drawing off workers into the more specialized exchange economy and gradually monetizing it, swelling the inflow and outflow of traded goods. The effect of this process is to attach a market-determined economic value to a gradually increasing proportion of the goods and services produced in the subsistence sector. And unless this effect is kept explicit, it will tend to impart an illusory gain to the output of the exchange sector of the economy.<sup>3</sup> Apart from its effect on

the calculation of growth, failure to distinguish the contribution of the subsistence sector denies the economy one indicator of the diversification process which is an important aspect of economic development.

The desirability of separating from total production that portion representing physical goods stems partly from an interpretation of the structure and needs of the developing countries and partly from a search for a satisfactory link with the principal sectoral measurements of output. For this purpose physical output is best represented as the combined production of agriculture and industry, both sectors being defined in the broadest way—the former to include hunting, forestry and fishing and the latter to include mining and quarrying, construction and the production of electricity and gas and the reticulation of water.<sup>4</sup>

It is important for a developing country to know how it is progressing in the production of tangible goods. This follows from the relative scarcity of such goods in most developing countries. If levels of living are to be raised, supplies of basic consumer goods must be increased at a rate above that at which population is growing. And if the capacity of the economy to produce such goods is to be expanded, supplies of capital equipment and intermediate products must be similarly increased. Since one of the principal characteristics of the state of underdevelopment of most of these countries is the deficiency of capital and entrepreneurial and managerial skills relative to the supply of less differentiated labour, there is a strong tendency to absorb work-seekers in service occupations—in trade, households and public administration—rather than in employment in physical production. At a later stage of economic development when incomes have reached a certain height, the proportion of any additional income that is devoted to basic human requirements tends to diminish quite rapidly and the proportion of the total output of the economy taking the form of services tends to rise. Most developing countries are far from that stage, however, and the absorption of workers in domestic service and government offices is less a response to demand than a result of the pressure of the supply of workers

<sup>1</sup> One aspect of differential sectoral growth rates—when the state of balance is affected—is discussed in chapter IV.

<sup>2</sup> For the recommended treatment of the subsistence sector, see *A System of National Accounts and Supporting Tables* (United Nations publication, Sales No.: E.64.XVII.5, recently revised and published as Sales No.: E.69.XVII.3). The earlier method of evaluation excluded from measurement the non-primary output of the subsistence sector (see page 5 of the 1964 issue). The revised recommendation is more inclusive (see chapter IX, table 27 of the 1969 issue). Most countries now include a notional cash value of the agricultural output of their subsistence sectors (an estimate of physical output being priced as if it had been traded) but practice in regard to other forms of production (hut building, handicrafts, tool making, land clearing and improvement, food preparation and so on) still differs considerably. The method of arriving at physical output also varies. Where there is an active administrative or agricultural service, a direct estimate of each of the major crops is possible each season. In some cases, however, an indirect measure has to be adopted, based in the last resort upon whatever is known of the size of the population concerned, their diet, crops and the weather.

<sup>3</sup> The degree to which total output is underestimated through the omission of various economic activities in the non-monetized sector varies with the relative size of that sector. It has been estimated that the output of the farm sector may be understated by as much as one fourth by overlooking non-agricultural production carried on by

farmers, and that about a fifth of the total output of some developing countries may be omitted from the gross product calculation. See S. Kuznets, *Modern Economic Growth; Rate, Structure and Spread* (New Haven, Yale University Press, 1966).

<sup>4</sup> The suggested coverage is equivalent to economic activity categories 1-5 in *System of National Accounts* nomenclature. It is narrower than that of "commodity production" under the revised *System of National Accounts* (which includes all services intended for sale), and also narrower than that of the "material product" system elaborated in the centrally planned economies (which includes a selected group of services, relating to the production, transportation and distribution of goods).

entering a job market that is seriously deficient in complementary factors. The purpose it serves is essentially distributive rather than productive, even though their output—as measured by wages—adds to the goods and services summed up in the economy's total product.<sup>5</sup>

In these circumstances there is a strong case for keeping account of changes in physical production. This is not premised on any general argument that certain types of activity are inherently more “productive” or more desirable than others. Nor does it depend on the argument that many services—notably those carried out in government—are not “final” in the national accounting sense, thus adding to total satisfaction, but should more realistically be regarded as intermediate products or even as costs necessarily incurred in running the economy and therefore not to be added to final output. It is merely a recognition of the structural characteristics of developing countries and the need to measure production performance in a manner that gives due weight to those characteristics.

The practice of abstracting the tangible goods component from the total product will not only serve to direct attention to the crucial aspect of production performance but will also enable a link to be forged between the comprehensive measurement of output embraced in the national accounts and independent procedures worked out for obtaining information about production on a purely sectoral basis. In some cases the latter may be organized on the basis of a sample of the producers in the sector and hence provide data more quickly and in a more timely manner than is possible when the accounts for the whole economy have to be balanced.

Some developing countries compile index numbers of agricultural production and of industrial production which—being based on samples of gross output—are, or could be, made available for analytical purposes long before the national accounts have been assembled and reconciled. Though there are a number of problems associated with the relatively rapid and radical changes in composition accompanying development, other countries could doubtless be assisted to do the same. This would provide sectoral indicators which, once they are synchronized with the respective components of the national accounts, could be used for current appraisals in advance of the completion of the over-all measure of production. As both the agricultural and the industrial production indices can themselves be subdivided into key elements—food, exportables, manufacturing

<sup>5</sup> It is the service component of production that is the main source of difficulty in evaluating the contribution of the subsistence sector: services that go unpriced in the subsistence sector are taken into total production when the worker who performs them moves to the exchange economy and carries them out on a wage-receiving basis.

and so on—they can be made into useful tools in assessing the effectiveness of policies to maintain balance or correct imbalance.

Reconciliation of the industrial component of the national accounts and the industrial production index should not pose insuperable difficulties since in most cases both are essentially “value added” measures of activity in the sector. The main problem is likely to be caused by differences in coverage: small-scale industries tend to be under-represented in the index based on sampling, and the building industry is generally excluded.

Reconciliation may prove more difficult in the case of agriculture since in this case the production index is generally based on the gross value of output (other than that going back into agriculture, such as feed and seed) rather than value added. The latter is derived by deducting the estimated value of internal transactions (if output is measured from marketing and sales data) and of inputs used up in the production process. Where there are large annual crops, moreover, timing tends to pose a problem: the factor payments made in agriculture may sometimes have to be added to the country's production in the year before the crop is actually harvested and the output taken into the index.<sup>6</sup> If the anatomy of the two measures is known, however, there would seem to be no reason why the implications for the national accounts of changes in the agricultural production index should not be determinable.

For this purpose it would be helpful to divide agriculture into three segments according to data characteristics—the subsistence component whose output must be wholly imputed, a “commercial” component whose production can be valued from both the output and the input side and a “peasant” component whose production must, in the absence of adequate farm accounts and records, be measured on the basis of gross crop output. The input/output relationships revealed in the “commercial” component provide a basis for moving from the gross output values of the subsistence and peasant segments to the value-added figures required for the national accounts. And publication of such results would facilitate the interpretation of the gross output measure on which the agricultural production index is based.

In view of the relative volatility of agricultural prices and production, the price base used for expressing the value of annual output in real (constant price) terms is of critical importance. The same set of prices should be used for the computation of the index as is used for deflating the agricultural component of the national accounts. And as price relationships—and indeed, the structure of agri-

<sup>6</sup> To overcome this difficulty some countries (Malaysia, for example) take into the national accounts the average of each two successive crop years.



culture—may change considerably over time, both series need to be recalculated periodically with more recent price sets if they are to continue to reflect accurately the course of agricultural production.

For a realistic appraisal of production performance it is necessary to distinguish between commodities used domestically and those sold abroad. The importance of this distinction varies from country to country depending on the nature of the commodity and its world market and the extent to which it is produced for local consumption only. In many developing countries major export products have little or no internal demand; their value is determined by world market conditions. While, in general, the effect of price changes has to be eliminated before a country's production performance can be assessed, in the case of a commodity that is wholly exported its contribution to the economy is determined not only by the volume of production but also by the price it realizes relative to the prices of those goods which are in effect acquired in exchange. Thus a country's production performance is not independent of the price its exports realize. Adjustment to external market indicators by appropriate changes in composition becomes an integral factor in any judgement of production performance.

To appraise export production from the point of view of the development of the economy, therefore, two measurements need to be made: for appraising productivity the quantum of the goods concerned must be measured, for other purposes it is more useful to know the volume of imports into which the exports have been translated. For the latter, the export component of total production is best measured as the import equivalent of actual proceeds. Thereafter total output can itself be adjusted by an amount equal to the terms of trade effect, that is, the difference between actual export proceeds and what the import equivalent of those proceeds would have been had export and import prices remained constant. A deterioration in the terms of trade—through rising import prices or declining export prices—can in this way be converted into a reduction in effective output, and an improvement in the terms of trade into an increment in effective output.

#### AN APPRAISAL OF PRODUCTION PERFORMANCE IN THE 1960s<sup>7</sup>

The total output of goods and services (outside mainland China, for which data are lacking) rose

<sup>7</sup> This appraisal was made in April 1970 when the latest year for which data were available on a sufficiently broad basis to permit a global analysis was 1968. Individual country appraisals could be—and indeed, to be useful for policy purposes, would have to be—carried out with a much shorter time lag.

by 6 per cent between 1967 and 1968. Differences in regional performance were less than usual: the centrally planned economies of Eastern Europe registered an expansion of 7 per cent, the developing countries increased their total production by rather more than 6 per cent and the developed market economies by just under 6 per cent. In all three cases the increase in 1968 was above the average for the 1960s. The acceleration was widespread: among the subregions, only the developed market economies of North America, southern Europe and the southern hemisphere and the developing countries of the Central American Common Market recorded a 1968 advance that was below the decade average. For every country experiencing a significantly smaller gain in 1968 than in the period 1960-1967 there were two that maintained or improved their rate of growth (see table A.1 in the statistical annex).

When the 1960s were designated a "Development Decade", a goal was set for the average annual rate of increase in the total output of the developing countries: by the end of the Decade this average was to have reached 5 per cent. Data for ninety-six developing countries for the period 1960 to 1968 (or 1967 in some cases) suggest that though it had not yet been attained—chiefly because of lags in a few of the largest countries—this objective was within sight. About 47 per cent of the countries had exceeded the target rate of growth and a further 12 per cent were within 1 per cent of achieving it. At the other end of the scale, however, in about a fourth of the developing countries, the rate of growth in total output had failed to keep pace with the increase in population.

In the western hemisphere, about half the countries registered a growth rate in the middle range of 3-6 per cent a year, one fourth a lower rate and one fourth a higher rate. In the other regions, by contrast, the distribution of production performance was quite skew: in Asia almost half the countries were in the high-growth group and rather less than a fourth increased their production at less than 3 per cent a year; in Africa only 43 per cent of the countries were in the middle range and a third had growth rates of less than 3 per cent a year.

Most of the high-growth countries were relatively small. Of the twenty-nine countries achieving a rate of 6 per cent a year or more, only a fifth had a gross product of more than \$3 billion in 1967, and with the exception of Mexico, these were all in Asia: China (Taiwan), Iran, Israel, Republic of Korea, Saudi Arabia and Thailand. And of these only Mexico had an internal market of the same size order—\$25 billion—as such developed market economies as Australia, Belgium, Netherlands and Sweden. The largest high-growth country in Africa

was the Libyan Arab Republic, with a 1967 gross product of just over \$2 billion. The only larger countries in Africa were Algeria, Morocco, Nigeria and United Arab Republic, all belonging to the slow-growth category.

The smallness of the high-growth developing countries is revealed by a comparison of their population with that of the similar group of more advanced countries: whereas 45 per cent of the latter population was in countries whose output was rising at 6.6 per cent a year or more (the upper quartile of

growth rates), only 10 per cent of the population of developing countries was in the corresponding high-growth category. At the other end of the scale the proportion of population in the lowest-growth fourth of the countries was twice as high (18 per cent) among the developing countries as in the rest of the world (excluding mainland China). In the developing world the great bulk of the population (almost three fourths) lived in countries in the middle range of growth rates, between the lower quartile of 2.7 per cent a year and the upper quartile of 6.7 per cent (see table 1).

Table 1. Production: rate of increase, by country, 1960-1968

Region	Distribution of gross domestic product growth rates					
	First quartile (percentage per annum)	Population in countries at or below the first quartile (millions)	Median (percentage per annum)	Population in countries between first and third quartile (millions)	Third quartile (percentage per annum)	Population in countries at or above the third quartile (millions)
Developing countries	2.7	291.0	4.6	1,153.3	6.7	157.5
Western hemisphere <sup>a</sup>	3.1	12.7	4.9	186.3	5.8	55.8
Africa <sup>b</sup>	2.6	107.2	4.1	179.8	5.6	21.1
Asia <sup>c</sup>	2.7	166.4	5.9	813.1	8.2	59.5
Rest of world <sup>d</sup>	4.0	99.5	5.1	500.6	6.6	478.9

Source: See table A.1 in the statistical annex, and United Nations, *Monthly Bulletin of Statistics*.

<sup>a</sup> Twenty-five countries.

<sup>b</sup> Forty-four countries.

<sup>c</sup> Twenty-six countries.

<sup>d</sup> Thirty-six countries.

The proportion of population in the low-growth developing countries (at or below the first quartile) was 5 per cent in the western hemisphere, 16 per cent in Asia and as much as 36 per cent in Africa. Correspondingly, the proportion of population in the high-growth developing countries (at or above the third quartile) was over three times as great in the western hemisphere (22 per cent) as in Asia and Africa.

Except in the case of Mexico, where the expansionary force was largely internally generated, the countries achieving the highest growth rates in the 1960s received much of their impetus from external demand. In many instances this came through the exploitation of a mineral resource: petroleum mining or refining in Iran, Iraq, Kuwait, Libyan Arab Republic, Panama and Saudi Arabia, bauxite and alumina in Surinam, iron ore in Mauritania and Swaziland, phosphates (and hardwood lumber) in Togo, copper in Zambia. Timber exploitation and mining investment also played the major role in the People's Republic of the Congo. In some countries the main stimulus came from export-oriented manufacturing, as in China (Taiwan), Hong Kong, Israel, Republic of Korea and Singapore. In others there was a more general and diffused source of expansion, based on agricultural diversification and the beginning of industrial development, as in Ivory

Coast and Thailand. In Jordan, the expansion of tourism also played a part, while in Costa Rica and Nicaragua the broadening of demand through the Central American Common Market was an important stimulus.

Though the possession of a particular natural resource was the primary factor behind the expansion in almost half the countries achieving an annual growth rate of 6 per cent or more in the 1960s, it was by no means a sufficient condition for stimulating expansion in all cases. An active petroleum sector failed to generate any significant increase in total production in Algeria, Netherlands Antilles and Nigeria. Nor did the bauxite and alumina industry raise the over-all rate of growth in production in Guyana above that of population. And among the countries with a strong mineral export industry that achieved growth rates at or below the developing country average were Chile, Democratic Republic of the Congo, Jamaica, Liberia, Sierra Leone and Venezuela.

Military, civil and political disturbances took their toll in the 1960s, holding down the expansion in production to below 3 per cent a year in a number of countries, including Laos, Khmer Republic and Republic of Viet-Nam, Angola, Chad and Ghana, Dominican Republic and Indonesia. Output barely

kept up with population growth in several of the countries with predominant subsistence sectors—Afghanistan and Nepal, for example, and a number of African countries, including Burundi, Central African Republic, Dahomey, Madagascar, Malawi, Mali, Rwanda, Senegal and Upper Volta. There was virtually no growth in Haiti, where population pressed on resources, or in Uruguay, where effective management of agricultural resources constantly eluded the authorities.

Altogether, the proportion of countries in which output increased more slowly than population in the 1960s was about one fourth in Asia and the western hemisphere and one third in Africa. As implied above, the causes of this decline in productivity are varied and often complex, but two features characterizing the lagging countries during the period under review are political instability and a poor performance in the agricultural sector. In some cases these two factors were closely connected, especially where the political instability escalated into civil disturbance. In others the agricultural lag reflects the slowness of progress in increasing the degree of specialization in the subsistence sector, the often related inability of the rural economy, lacking reserves, to withstand unfavourable climatic conditions.

Agricultural difficulties were sometimes enhanced by the vagaries of the export sector. In the case of Uruguay, for example, there were unfavourable repercussions from fluctuations in the world market for coarse wool whose price rose sharply in the first half of the 1960s and then, under increasing competition, from acrylic and other synthetic fibres, declined to a 1969 average about a fifth below that obtaining at the beginning of the decade. A similar cycle in the free market price of sugar accentuated the difficulties of the Dominican Republic and Guyana. Senegal with its heavy dependence on ground-nut cultivation was adversely affected by the loss of privileges on the French market as the European Economic Community's common external tariff came to be implemented. To a less extent the need to switch part of its sugar exports exercised a similar inhibiting effect on Madagascar, aggravating the difficulties caused by the inroads of synthetic flavouring into the market for vanilla.

About one fourth of the developing countries managed to increase their output faster than population but at less than the over-all target rate of 5 per cent a year set for the First Development Decade. Half of these countries were in Africa where most of the larger economies were in this category, including the Democratic Republic of the Congo and Southern Rhodesia in the centre, Ethiopia, Kenya, Uganda and United Republic of Tanzania in the east, and Morocco, Sudan, Tunisia and

United Arab Republic in the north. Some of the major economies were also in this category in Latin America (Argentina, Chile, Colombia and Venezuela, for example) as well as in Asia (Burma, Ceylon, India and Philippines). In terms of the population of the developing regions, these rather slow-growing countries accounted for 60 per cent of the total in Asia, 50 per cent in Africa and 30 per cent in the western hemisphere.

Finally, there is the small group of countries (one sixth of the total) whose growth rate in 1960-1968 exceeded that set for the First Development Decade (5 per cent a year) but fell short of that set for the Second (6 per cent). This category was most important in the western hemisphere where it included Brazil and Peru and hence accounted for almost half the population of the region. In Asia it included Malaysia and Pakistan and accounted for about an eighth of the region's population. In Africa only a handful of small countries were in this growth group.

In the aggregate, the weighted average rate of increase in production for all developing countries in the period 1960-1968 was 4.9 per cent a year. This was the rate achieved in the western hemisphere; the African region grew at a fractionally lower rate (just over 4.7 per cent), and the Asian region at a fractionally higher rate (just over 5 per cent).

#### *Plan fulfilment*

Most developing countries have elaborated formal plans for speeding up their economic and social progress. These plans differ widely in their structure and comprehensiveness: some comprise little more than a programme of loosely connected investment projects, some involve only the public sector, some are intended only as an indicative longer-term framework within which year-to-year policies can be more consistently worked out. In the field of production, some of the plans are limited to a few physical targets but a large proportion specify over-all growth rates as well.

There were indeed eighty-nine developing countries with plans in operation in the period under review and sixty-five that had actually designated, implicitly if not explicitly, an over-all production growth target. Nine of these plans entered into effect only in 1968, so that very little can be done in the present report to compare achievements with intentions. Of the remaining fifty-six countries, a majority were aiming at growth rates of between 5 and 8 per cent a year. A fifth had set more modest objectives—Barbados and Uruguay in the western hemisphere, Afghanistan, Malaysia and Nepal in Asia, and Dahomey, Gambia, Madagascar, Morocco, Niger, Nigeria and Upper Volta in Africa. At the

other extreme, a handful—Burma, Iraq, Republic of Korea, Thailand and Zambia—were aiming to increase their output by 8 per cent a year or more.

Among the fourteen countries whose plans had run for four years or more by 1968, only four (Ivory Coast, Jamaica, Panama and People's Republic of the Congo) had realised an average rate of increase in total production equal to or higher than that specified as the target. Bolivia was within 1 per cent of attaining its rather high aim (7 per cent), as were Colombia and Trinidad and Tobago with somewhat lower objectives (5-6 per cent). The production performance of the other seven countries in this group all fell well short of plan intentions. In the case of Madagascar, Mali and Nigeria, achievements were less than half the designated target (see table 2).

Among the eighteen countries whose plans had run three years, performance measured up rather better to intentions. In six countries, recorded rates of increase in production were ahead of plan objectives—quite ambitious in the case of China (Taiwan) and Costa Rica, more modest in the case of Barbados, Malaysia, Morocco and Nepal. Four other countries—Guatemala, Honduras, Pakistan and Paraguay—were within sight of their planned growth rates, which were above 5 per cent a year in all cases. Most of the countries that were lagging well behind their designated targets had been aiming rather high—over 6 per cent a year in the case of El Salvador, Iraq, Nicaragua, Tunisia and Venezuela, and not much less in Argentina and Senegal. Relative to a rather modest target, the poorest three-year production performances was registered in Uruguay.

Among the twelve countries able to report on the first two years of their plans, only Dahomey and Singapore had achieved an increase in production greater than the average being aimed at. Syria was fractionally below its high target, but all the other countries in the group were lagging far behind. In most cases this reflects the ambitious nature of the target rather than a deterioration in performance: almost all the countries concerned were aiming at a significantly higher rate of growth in the second half of the 1960s (sometimes going beyond 1970) than had actually been achieved in the first half of the decade, though the recorded 1966-1968 growth in Chad, Guyana and Uganda was poor by any standard.

Among the twelve countries whose plans had run only one year, two thirds had started off with a growth rate below that designated over the plan period as a whole. The shortfall was marginal in the case of Thailand and, in relation to a more

modest goal, Afghanistan, but serious in the other countries, especially Chile and Peru and Lesotho and Niger, where drought exerted a strong negative influence on the economy in 1968, reducing the rate of expansion to well below the average achieved earlier in the decade. The countries with the highest rate of increase in production in 1968 were Kuwait and the Republic of Korea where the growth of mining and manufacturing, respectively, exceeded both the average achieved in the 1960s and the average intended for the new plan period.

#### *Alternative measurements of production*

In table A.1 in the statistical annex production is measured gross and at market prices and on a geographical basis irrespective of whether it accrues to nationals or to foreigners. In most countries around a tenth of the reported value of output is accounted for by indirect taxes embodied in the price structure; their abstraction leaves output valued in terms of the payments made to the factors involved in the process of production. In general, the relative burden of indirect taxes (net of subsidies) did not change very greatly in the course of the 1960s. Between 1960 and 1967 it declined by up to 2 per cent of the gross domestic product in some of the developing countries, including Malaysia (where it was relatively high), Morocco (where its incidence was in the normal range of 10 per cent) and Venezuela (where it was relatively low). But in most cases the movement was in the other direction—a small increase equivalent to 1 or 2 per cent of the gross domestic product. In Zambia, however, there was a major increase in indirect taxation in 1965: as a proportion of gross domestic product it rose from a low 5 per cent in 1960 to a high 16 per cent in 1967. Even higher ratios were recorded in Brazil and Ivory Coast.

The level of indirect taxation has to be borne in mind when productivity comparisons are made: output *per capita* tends to range from 5 to 15 per cent less when measured at factor cost than when measured at market prices. And when significant changes in the tax structure take place, the rate of growth of output, measured in current prices, will not be the same when measured at factor cost as when measured at market prices. Where the incidence of indirect taxation increases, the growth of production will appear higher at market prices than at factor cost. Appropriate allowance for price changes should iron out such differences, though difficulties in calculating constant factor costs tend to be rather greater than those commonly encountered in deflating market prices. This probably accounts for the disparities in the growth rates reported by Malaysia and Pakistan, two countries that publish their gross domestic product at constant factor costs (see table 3). For the other countries

Table 2. Developing countries: rates of increase in production, planned and achieved, period ending 1968  
(Percentage per annum)

Countries in which by 1968 the plan period had lasted											
4 years or more				3 years		2 years		1 year		Planned	Actual
	Planned	Actual		Planned	Actual		Planned	Actual		Planned	Actual
People's Republic of the Congo	7.2	9.1	China (Taiwan)	7.0	9.6	Singapore	5.0	22.0	Republic of Korea	10.0	15.7
Ivory Coast	7.5	7.5	Costa Rica	6.2	9.1	Syria	7.2	6.7	Kuwait	6.5	9.1
Panama	5.5	7.3	Pakistan	6.9	6.4	Kenya	6.3	4.9	Thailand	8.5	8.0
Jamaica	5.0	6.6	Barbados	4.0	6.0	Burma	8.0	4.8	Gambia	4.2	6.5
Bolivia	7.0	6.0	Honduras	6.6	6.0	Zambia	11.7	4.7	Upper Volta	4.0	5.0
Jordan	7.3	5.2	Guatemala	5.9	5.1	Dahomey	4.0	4.5	Central African Republic	7.0	4.1
Colombia	5.6	4.9	Malaysia	4.9	4.9	Gabon	7.5	4.4	Republic of Afghanistan	4.3	3.6
Ecuador	6.2	4.5	Iraq	8.0	4.9	Cameroon	5.8	4.0	Peru	6.0	3.4
Trinidad and Tobago	5.1	4.2	Nepal	3.6	4.8	Togo	5.6	3.7	Philippines	6.8	2.8
United Republic of Tanzania	6.7	3.8	El Salvador	6.5	4.7	Uganda	6.3	2.8	Chile	5.5	2.6
Sudan	5.0	3.1	Paraguay	5.2	4.4	Guyana	5.6	2.5	Niger	4.7	1.3
Madagascar	4.9	1.7	Nicaragua	7.0	4.3	Chad	5.9	0.2	Lesotho	5.0	-1.3
Mali	5.0	1.7	Morocco	3.7	4.2						
Nigeria	4.0	-0.5	Venezuela	7.0	4.0						
			Senegal	5.5	3.7						
			Argentina	5.9	2.4						
			Tunisia	6.5	2.1						
			Uruguay	4.8	-0.8						

Source: See table A.1 in the statistical annex.

<sup>a</sup> The countries are those with published plans containing explicit or implicit objectives for total production; they are listed in each category in descending

order of actual rate of increase in gross domestic product achieved in the indicated period.

Table 3. Selected developing countries:<sup>a</sup> alternative measures of production performance,<sup>b</sup> 1960-1967

Country	Index (gross domestic product at market price = 100)						Average annual rate of increase, <sup>c</sup> 1960-1967 in			
	Gross domestic product at factor cost		Net domestic product at factor cost		Gross national product at market prices		Gross domestic product		Net domestic product at factor cost	Gross national product at market prices
	1960	1967	1960	1967	1960	1967	At market prices	At factor cost		
Ceylon	94	92	89	87	99	99	3.9	3.5	3.4	3.9
Chile	91	89	76	80	98	97	4.9	4.7	5.8	4.7
China (Taiwan)	88	87	81	80	100	100	10.0	9.8	9.7	10.0
Colombia	94	93	82	84	99	97	4.7	4.6	4.8	4.6
Iran	94	93	88	87	94	92	7.8	7.7	7.8	7.6
Israel	80	80	72	70	99	98	7.3	7.3	6.9	7.3
Jamaica	92	90	85	83	97	96	5.2	5.0	4.9	5.1
Malaysia	85	86	81	82	96	97	6.0	6.2	6.4	6.2
Morocco	90	91	86	88	101	101	2.9	2.9	3.2	2.9
Pakistan	96	93	89	87	100	100	5.9	5.5	5.5	5.9
Republic of Korea	92	92	87	86	101	102	8.1	8.0	7.8	8.3
Venezuela	92	95	83	86	93	91	4.5	5.1	5.2	4.4
Zambia	95	84	90	79	88	94	7.1	5.2	5.1	8.1

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Yearbook of National Accounts Statistics, 1968* (United Nations publication, Sales Nos.: E.70.XVII.2 and 3); Economic Commission for Latin America, *Statistical Bulletin for Latin America*, vol. VI, No. 1.

<sup>a</sup> Selected for illustrative purposes from among the countries reporting the relevant data.

<sup>b</sup> Based on constant (1960) prices.

<sup>c</sup> Compound rate between terminal years.

listed in the table the factor cost product has been deflated in the same way as the market price product.

Similar considerations apply to interpreting the allowances made for depreciation: these differ from country to country and they may also vary over time. Hence, both productivity comparisons and rates of growth calculations need to be made cautiously, with due regard to the adjustments reflecting the amount of capital consumed in the course of producing the given output. In 1967 such adjustments ranged from a mere 3 per cent of gross domestic product (at factor cost) in Morocco to as much as 11 per cent in Panama, 12 per cent in Israel and Trinidad and Tobago, and 13 per cent in Liberia.

During the 1960s most developing countries maintained a more or less constant rate of depreciation, in the neighbourhood of 8 per cent of gross domestic product at factor cost. Thus average annual rates of increase in net output were not significantly different from those in gross output. In Chile, however, the allowance for depreciation varied rather more erratically: in 1960 it was 16 per cent of gross domestic product, in 1967 only 10 per cent. This decline imparted an upward thrust to the growth rate in net output: this averaged 5.8 per cent a year, as against 4.7 per cent in the case of gross output. There was a similar though smaller disparity in the case of Morocco. The opposite trend is observable in Israel, Liberia and Panama where the allowance for depreciation was raised during the 1960s and net output therefore registered a slower increase than did gross output.

These data all refer to the country's geographical output irrespective of ownership. A further adjustment is required to arrive at a measure of the output at the disposal of the country's own citizens. In most cases this is a much smaller adjustment than those discussed above, and in most developing countries it is a downward adjustment, reflecting the contribution of foreign-owned factors to the total output. In 1967 it exceeded 4 per cent of gross domestic product only in some of the mineral- or plantation-based economies among the developing countries—Philippines and Zambia (6 per cent), Trinidad and Tobago (7 per cent), Guyana, Iran and Venezuela (8 per cent), Libyan Arab Republic (16 per cent), Kuwait (24 per cent), Saudi Arabia (25 per cent) and Liberia (28 per cent). In a few cases, however, national earnings abroad exceed foreign earnings within the economy, especially where there are established patterns of labour migration. Thus in Jordan, Lebanon, Lesotho, Malawi, Morocco, Republic of Korea and Upper Volta the national product tends to exceed the domestic product.

In most countries the volume of factor income is too small for changes in it to have much effect on the average rate of growth of the national product. Where the foreign investment sector is relatively large, however, changes in income flows may make an appreciable difference. Thus, the 1965 tax modifications in Zambia significantly reduced the net outflow of factor income. As a result, the ratio of national output to domestic output was sharply increased: in 1960 the former was 12 per cent less than the latter; in 1967 the difference was

only 6 per cent. This means that the average annual rate of increase of the national product (8.1 per cent) was significantly greater than that of the domestic product (7.1 per cent), both measured at market prices. Contrariwise, a more rapid rise in factor payments by Liberia and the Philippines resulted in the national product increasing rather more slowly than the domestic product.

#### *Production in the subsistence sector*

Though most developing countries have a more or less identifiable traditional or subsistence sector in which monetary transactions play a negligible role, very few distinguish such a sector in their national accounts. In the ten countries that do—all in Africa—the contribution to total output attributed to the subsistence sector in the 1960s ranged from around 10 per cent in Liberia, Tunisia and Zambia to around 50 per cent in Ethiopia and Malawi. In all cases the relative importance of the sector has been declining (see table 4).

The rate of increase in subsistence output should in principle approximate the growth of the population concerned. As the traditional society is, by definition, not subject to notable technological change and since there is a general tendency for population to drift out of the sector, subsistence output might be expected to expand at a somewhat lower rate than the country's total population. That was so in the United Republic of Tanzania in the 1960s, and also in Liberia, Tunisia and Zambia where the output of the subsistence sector actually declined. In Ethiopia, Ivory Coast, Malawi and Uganda, however, and

even more in Cameroon and Kenya, subsistence production increased more rapidly than population. In Tunisia the reduction in the output of subsistence peasants between 1960 and 1967 was not as sharp as the decline that occurred in the market component of the agricultural sector in the wake of the withdrawal of European settlers. A similar factor was operating in Kenya where between 1964 and 1967 subsistence production increased appreciably more than the output of farms in the market sector. Elsewhere, the latter raised its output more rapidly than the subsistence component, particularly in Cameroon and the Ivory Coast where agricultural expansion was the dynamic factor in over-all economic growth.

While the subsistence sector is in one sense a stabilizing influence on the economy, where expansion in output is a key objective it clearly acts as a drag. Of the ten reporting countries cited above, only three—Cameroon, Ivory Coast and Zambia—exceeded the 5 per cent over-all growth rate target in the period 1960-1967 as a whole, though two others (Kenya and Malawi) did so during the period 1964-1967 for which subsistence data are available, and Ethiopia did so in respect of its marketed output.

Where there is a dual economy, it would seem to be desirable to recognize this both in target setting and in performance evaluation. A rapid breaking up of the traditional sector is neither likely to happen nor wise to recommend. On the contrary, optimal growth of the economy requires a balance between the release of factors from the subsistence sector and the opening up of employment oppor-

Table 4. Selected developing countries:<sup>a</sup> output contributed by the subsistence sector, 1960-1968

Country	Share of subsistence sector in gross domestic product		Average annual rate of growth, 1960-1967 <sup>b</sup> (percentage)				
	1960-1962 <sup>c</sup>	1966-1968 <sup>d</sup>	Popula- tion	Gross domes- tic product	Subsistence output	Marketed output	
						Agricultural	Total
Cameroon	17.3	16.9	2.6	5.3	4.3	7.8	5.5
Ethiopia	46.7	43.0	1.8	4.6	2.0	5.8	5.8
Ivory Coast	19.5	15.4	3.3	7.8	3.6	10.2	9.8
Kenya	23.5	22.2	3.0	6.3	5.9	4.1	6.6
Liberia	11.9	9.8	1.6	4.2	-1.5	0.8	4.9
Malawi	50.4	42.8	3.0	6.3	3.2	10.5	7.5
Tunisia	13.5	10.0	3.1	3.7	-2.1	-6.9	4.5
Uganda	27.3	25.2	2.5	3.7	2.7	3.2	4.1
United Republic of Tanzania	32.5	28.7	2.5	3.6	1.3	4.6	4.6
Zambia	6.3	5.0	3.1	8.7	-0.7	0.8	9.4

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Yearbook of National Accounts Statistics, 1969* (United Nations publication, Sales Nos.: E.71.XVII.2 and 3).

<sup>a</sup> Selected on the basis of the availability of data on subsistence production. The gross domestic product and its components are in constant factor cost. Growth rates are the averages of year-to-year changes with the higher of each pair of figures taken as denominator.

<sup>b</sup> 1961-1966 for Ethiopia, 1960-1966 for Ivory Coast, 1964-1967 for Cameroon, Kenya, Liberia, Malawi and Zambia.

<sup>c</sup> 1961-1962 for Ethiopia; 1964 for Cameroon, Kenya, Liberia, Malawi and Zambia.

<sup>d</sup> 1965-1966 for Ethiopia and Ivory Coast; 1966-1967 for Cameroon, Tunisia, Uganda and United Republic of Tanzania.



tunities in the market sector.<sup>8</sup> While the main hope for increased production lies in the market economy, which will continue to draw part of its new work force from the traditional society, the latter remains large enough in many countries to require separate attention if it is to make its proper contribution to national output and be saved from disintegrating in the face of technological change and the migration of its most vigorous workers. This is not a question of slowing down the pace of progress but rather one of maximizing the economic effectiveness of the subsistence sector, not merely in terms of physical output but also in terms of the over-all satisfaction and quality of life it provides for its participants. A separate appraisal of the production performance of the traditional economy would help towards this end.

#### *The effects of changes in the terms of trade*

The export sector plays a major role in furnishing the means by which most developing countries obtain crucial investment supplies, and its performance needs to be carefully evaluated if a realistic view is to be obtained of the output and productivity of the economy as a whole. Since in many cases the export sector disposes of very little of its product on the domestic market, its production performance needs to be measured both by the volume of output and by the volume of imports for which it can be exchanged. In this way exports can be brought into the production account as their import equivalent. When this is done by making due allowance for changes in export prices and import prices, the value of total output can be adjusted by the amount by which the purchasing power of exports has changed.

In contrast to the 1950s when the distortions to the price structure left over from the war were being eliminated rather rapidly, the 1960s constituted a period of relative over-all price stability for goods moving in international trade. Though the unit value of manufactures inched up steadily and the prices of individual commodities—such as sugar and rubber and copper—fluctuated very widely, the over-all movement of relative prices was not very great. The average terms of trade of the developing countries remained virtually constant in the second half of the decade, and in 1969 stood at the same level as in 1960.

Individual countries, often exporting a narrow range of products, did not enjoy similar stability in their external price relationships. But even here the changes were not as great as they had been in the previous decade. Over the period 1960-1967 there were almost as many countries whose exports had

increased in purchasing power as there were countries in which the terms of trade had deteriorated. The former included chiefly the exporters of rice, meat, jute and non-ferrous metals, and some special cases such as the Dominican Republic which was receiving much more for its sugar at the end of the decade than at the beginning. The latter were chiefly the exporters of the beverage crops, copra, wool and petroleum, again plus the special cases such as the Sudan, whose cotton prices were sharply lower. In between were the countries exporting a more diverse range of commodities—China (Taiwan), India, Israel and Paraguay—whose terms of trade were much the same in 1967 as in 1960.

When the gross domestic product is adjusted for the change in the purchasing power of its export component, the rate of growth of a number of Latin American countries works out appreciably higher than the corresponding increase in the quantum of production: between 1960 and 1967, for example, the average annual rate of expansion in production in Bolivia rises from a nominal 5.5 per cent in quantum to an adjusted 6.8 per cent, in Chile from 4.9 to 5.3 per cent, in the Dominican Republic from 2.8 to 3.2 per cent and in Peru from 6.0 to 6.9 per cent. Correspondingly, at the other end of the scale, allowance for a reduction in the import equivalent of exports would serve to lower the growth rate of Ceylon from a nominal 3.9 per cent in a year in quantum to an adjusted 3.0 per cent, that of Ghana from 2.4 per cent to 1.1 per cent, that of the Sudan from 4.1 per cent to 3.7 per cent, and that of Venezuela from 4.7 per cent to 4.4 per cent (see table 5).

Year-to-year changes in prices on the world market can also have a considerable impact on the effective value of output. In 1968, for example, when buoyant demand in the developed market economies induced a firming tendency in a number of primary commodity markets, about half the developing countries for which data are available gained from the resultant movement in their terms of trade and about a third experienced a loss. Allowing for the improved purchasing power of their exports, the effective increase in output was significantly above the nominal increase in such countries as Ghana, Peru and Sudan, and to a less extent in Chile, Israel, Panama, Philippines and a number of other countries.

At the other extreme were the countries whose exports commanded substantially less per unit in 1968 than in 1967. Measured on a quantum or constant price basis the total output of Ceylon, for example, increased by over 11 per cent between 1967 and 1968; allowing for the sharp decline that occurred in the external purchasing power of tea, the real value of output increased by only half as much. Similar, but smaller, downward adjustments would need to be made in assessing the increase in

<sup>8</sup> The absence of this balance is discussed in chapter IV below and the consequences for incomes and housing are examined in chapter II.



Table 5. Selected developing countries:<sup>a</sup> effect of terms of trade on growth of gross domestic product, 1960-1968

Country	Gross domestic product			Exports		Terms of trade <sup>b</sup>		Adjusted gross domestic product <sup>c</sup>		Gross domestic product growth rate <sup>d</sup>	
	1960	1967	1968	1960	1967	1967 (1960 = 100)	1968 (1967 = 100)	1967	1968	1960-1967	1967-1968
	(millions of 1960 dollars)									Nominal	Adjusted
<i>Latin America</i>											
Argentina .....	11,631	14,282	14,957	1,081	1,491	105	95	14,358	14,895	3.0	4.7
Bolivia .....	377	548	579	59	100	150	102	599	581	5.5	5.7
Brazil .....	21,606	29,517	32,106	1,139	1,424	87	102	29,325	32,138	4.6	8.8
Chile .....	3,951	5,529	5,673	475	708	121	107	5,679	5,719	4.9	2.6
Colombia .....	4,012	5,561	5,913	525	581	91	100	5,511	5,913	4.8	6.3
Costa Rica .....	418	649	702	77	159	93	97	637	696	6.5	8.1
Dominican Republic .....	724	877	902	157	132	117	102	900	905	2.8	3.1
Ecuador .....	922	1,251	1,305	156	186	93	101	1,238	1,307	4.5	4.3
El Salvador .....	568	861	893	101	196	91	99	843	891	6.1	3.7
Guatemala .....	1,044	1,473	1,551	116	211	82	99	1,435	1,549	5.0	5.4
Honduras .....	376	553	582	61	138	106	100	561	581	5.7	5.2
Mexico .....	12,472	19,153	20,513	763	989	91	100	19,066	20,516	6.3	7.1
Nicaragua .....	376	627	664	62	140	108	102	639	667	7.6	5.9
Panama .....	416	721	771	41	100	104	104	725	775	8.2	7.0
Paraguay .....	273	371	391	41	38	101	103	372	392	4.5	5.3
Peru .....	2,077	3,131	3,238	442	553	112	104	3,197	3,263	6.0	3.4
Uruguay .....	1,232	1,241	1,258	134	148	96	97	1,235	1,254	0.1	1.5
Venezuela .....	7,648	10,517	11,160	2,296	2,788	93	98	10,336	11,116	4.7	6.1
<i>Africa</i>											
Ethiopia .....	939	1,290	1,328	78	99	97	102	1,287	1,329	4.6	2.9
Ghana .....	1,338	1,586	1,616	327	368	62	116	1,447	1,674	2.4	1.9
Morocco .....	1,796	2,195	2,480	357	358	109	93	2,227	2,441	2.9	13.0
Sudan .....	1,113	1,472	1,601	172	230	83	108	1,432	1,619	4.1	8.8
<i>Asia</i>											
Ceylon .....	1,404	1,831	2,042	377	424	76	74	1,728	1,931	3.9	11.5
China (Taiwan) .....	1,579	3,036	3,322	150	510	102	101	3,044	3,328	9.8	9.4
India .....	31,939	39,860	41,521	1,274	1,524	99	102	39,849	41,554	3.2	4.2
Iran .....	4,445	7,478	8,286	827	1,697	94	100	7,374	8,286	7.7	10.8
Israel .....	2,543	4,163	4,794	210	447	101	112	4,167	4,860	7.3	15.2
Pakistan .....	7,711	11,528	12,219	370	670	108	92	11,581	12,160	5.9	6.0
Philippines .....	6,159	8,294	8,475	644	923	87	106	8,172	8,525	4.3	2.2
Thailand .....	2,584	4,450	4,806	400	647	107	100	4,492	4,807	8.1	8.0

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics* and *Monthly Bulletin of Statistics*; International Monetary Fund, *International Financial Statistics* and *Balance of Payments Yearbook* (Washington, D.C.); supplemented by estimates of the United Nations regional commissions, official national sources, International Bank for Reconstruction and Development, Organisation for Economic Co-operation and Development, United States Agency for International Development, and unofficial sources.

<sup>a</sup> Selected on the basis of the availability of suitable export and import price indices.

<sup>b</sup> Change in export unit values divided by change in import unit values, in dollar prices.

<sup>c</sup> Gross domestic product in 1960 dollars plus the dollar value of the change in the purchasing power of exports (i.e., exports multiplied by the terms of trade index).

<sup>d</sup> Compound rate of increase between terminal years.

<sup>e</sup> Allowing for the terms of trade effect.

output of Argentina, Costa Rica, Morocco, Pakistan, Uruguay and Venezuela, in all of which the import equivalent of exports was lower in 1968 than in 1967.

In appraising their own production performance, developing countries would do well to bring such price changes explicitly into the record. The year to year movements in the adjusted gross product help to interpret short-term achievements more realistically, while over the longer term a review of the impact of external price changes provides a guide to policies affecting the export sector—diversification, quality improvement, marketing strategy and so on.

#### *The course of physical production*

Whatever else development means for the developing countries, it has as one important aspect the enlargement of the supply of material things available to all citizens. The poorer the country the more urgent is the need to increase the output of the physical necessities of life—food, clothing, shelter and household appurtenances. One dimension of the economy that needs to be kept under observation is therefore the net output of those sectors that produce the material goods on which the level of physical consumption initially depends, namely, agriculture and industry.

The contribution of agriculture to total production varies widely among the developing countries: from less than 10 per cent in economies that have major mining or manufacturing sectors (such as Chile, Israel, Libyan Arab Republic and Venezuela) to around 60 per cent in economies in which subsistence life still bulks large (such as Ethiopia, Uganda and United Republic of Tanzania). These figures compare with 13 per cent in Italy, 6 per cent in Canada, 5 per cent in the Federal Republic of Germany and a mere 3 per cent in the United States of America.

The process of development involves the raising of productivity in agriculture, the release of resources and the increased division of labour in other sectors, leading—at least in the early stages—to a relative expansion in manufacturing. In very few developing countries did agriculture contribute a higher proportion of total output late in the 1960s than at the beginning of the decade. Of the forty-three developing countries for which data are available, only in Indonesia, Iraq, Khmer Republic, Morocco, Uruguay and Venezuela did agriculture increase its relative importance. In most of these cases this reflects the very low rate of over-all growth that characterized the 1960s, but in Iraq and Morocco it reflects the recovery of agriculture from a particularly poor performance during the drought that occurred at the beginning of the decade, while in Venezuela there was a deliberate effort to expand the small agri-

cultural sector in line with the country's growing needs in food and raw materials.<sup>9</sup>

There were particularly large reductions in the relative contribution of agriculture (over 6 per cent of gross domestic product between 1960-1962 and 1966-1968) in Ceylon, El Salvador, Ethiopia, Honduras, Nigeria, Republic of Korea, Syria, Thailand and Tunisia, and only slightly smaller reductions (between 5 and 6 per cent of gross domestic product) in Bolivia, China (Taiwan), India, Iran, Ivory Coast, Libyan Arab Republic and Pakistan. In most of these countries the resources moved mainly into industry—manufacturing, mining and construction—whose contribution to total production increased by more than 4 percentage points. The exceptions were Ceylon, Ethiopia, India, Ivory Coast and Syria, where more of the resources moved into the service sectors than into industry. Another exception was Chile where there was a notable expansion (5.4 per cent of gross domestic product) in the contribution of industry with only a minor decline in the small agricultural sector (see table 6).

In Chile the physical product of the economy (that is, the output of agriculture and industry) grew appreciably faster (over 7 per cent a year) than total output (just under 5 per cent) during the 1960s. Altogether this was the case in only a fourth of the countries with appropriate data, most notably in Argentina (where physical production increased at 4 per cent a year and total output at only 3 per cent) and the Libyan Arab Republic (40 per cent against 36 per cent) and to a less extent in Bolivia, Iran, Panama and Republic of Korea. In more than half the countries, the service sectors grew significantly more rapidly than those producing physical goods. This occurred not only in Ceylon, Ethiopia, India, Ivory Coast and Syria, as implied above, but also in the Dominican Republic (where total output rose at 2.9 per cent a year and physical output at 1.9 per cent), Israel (7.3 per cent against 5.4 per cent), Kenya (6.1 per cent against 4.6 per cent), Thailand (7.1 per cent against 6.2 per cent) and Tunisia (3.7 per cent against 2.4 per cent). In these ten countries the material sectors were contributing 2-5 per cent of the gross domestic product less at the end of the period than at the beginning. Other countries in which physical production expanded at a markedly slower pace than that of the service sectors included Brazil, China (Taiwan), Colombia, Iraq, Pakistan, Paraguay, Peru and Uganda.

The year-to-year change between 1967 and 1968 shows the countries more equally divided; indeed a majority—fourteen out of the twenty-seven countries

<sup>9</sup> Over the period 1950-1968 the average rate of increase in agricultural production in Venezuela exceeded 5 per cent a year—one of the highest rates achieved in the developing countries.

Table 6. Selected developing countries: growth in physical production,<sup>a</sup> 1960-1968

Country	Percentage contribution to gross domestic product						Average annual rate of growth			
	Agriculture <sup>b</sup>		Industry <sup>c</sup>		Physical production <sup>d</sup>		1960-1967 <sup>a</sup>		1967-1968	
	1960-1962 <sup>e</sup>	1966-1968 <sup>e</sup>	1960-1962 <sup>e</sup>	1966-1968 <sup>e</sup>	1960-1962 <sup>e</sup>	1966-1968 <sup>e</sup>	Gross domestic product	Physical production	Gross domestic product	Physical production
<i>Latin America</i>										
Argentina	16.9	16.4	39.2	42.3	56.0	58.7	3.0	4.0	4.7	5.0
Barbados	26.5	25.4	25.3	24.4	51.8	49.8	5.0	4.7	...	...
Bolivia	28.8	23.1	28.1	35.4	56.9	58.4	5.2	5.6	7.2	7.0
Brazil	22.3	20.7	25.1	25.8	47.4	46.4	4.3	3.7	...	...
Chile	11.2	9.4	40.0	45.4	51.2	54.9	6.8	7.1	1.6	3.5
Colombia	33.7	30.8	25.0	25.8	59.8	57.5	4.7	4.1	6.3	6.4
Costa Rica	27.8	25.1	22.5	24.0	50.3	49.2	6.6	5.7	8.1	12.4
Dominican Republic	25.9	22.5	22.8	24.0	48.6	46.6	2.9	1.9	3.1	0.3
Ecuador	37.4	33.9	22.9	22.5	60.3	56.4	4.6	4.4	...	...
El Salvador	32.8	26.2	19.5	23.8	52.3	50.0	6.7	6.5	...	...
Guatemala	27.7	26.1	15.9	18.2	43.6	44.3	5.1	5.1	5.6	5.3
Honduras	44.1	36.6	18.1	23.5	62.2	60.1	5.7	5.2	4.9	7.0
Jamaica	11.8	10.9	36.1	37.4	47.8	48.4	4.2	4.0	...	...
Mexico	18.8	16.2	32.5	36.1	51.3	52.3	6.3	6.5	...	...
Panama	24.3	22.0	22.5	25.7	46.8	47.8	8.2	8.7	7.3	8.0
Paraguay	36.1	32.9	19.0	20.0	55.1	52.9	4.1	3.4	5.1	2.6
Peru	21.9	17.7	28.9	30.7	50.8	48.5	6.0	5.3	3.4	...
Uruguay	20.0	20.6	26.7	27.2	46.7	47.8	0.1	0.1	1.2	2.0
Venezuela	7.2	7.8	43.5	42.4	50.7	50.2	4.5	4.5	5.8	4.9
<i>Africa</i>										
Ethiopia	63.9	56.1	12.6	16.2	76.5	72.3	4.8	3.7	...	...
Ivory Coast	46.2	41.4	16.4	17.5	62.6	58.9	9.5	6.0	...	...
Kenya	39.3	37.3	16.5	16.2	55.8	53.4	6.1	4.6	6.6	5.4
Libyan Arab Republic	9.3	3.4	36.1	67.0	45.4	70.1	36.0	40.0	35.7	43.3
Morocco	31.0	31.6	27.2	27.7	58.1	59.3	3.0	3.1	12.7	16.7
Nigeria	61.5	55.0	11.7	17.5	73.2	72.5	4.0	3.7	...	...
Sierra Leone	34.5	34.1	28.2	27.9	62.7	62.0	2.9	2.6	7.0	8.5
Tunisia	24.2	15.9	26.0	30.9	50.2	46.8	3.7	2.4	8.2	11.1
Uganda	60.4	58.3	12.3	13.1	72.7	71.4	3.7	3.4	...	...
United Republic of Tanzania	58.0	57.2	8.2	9.3	66.2	66.5	3.6	3.4	...	...
<i>Asia</i>										
Ceylon	48.0	41.8	12.8	15.9	61.2	57.7	3.7	3.0	7.6	8.8
China (Taiwan)	29.9	23.9	25.8	30.4	55.7	54.3	9.8	9.0	8.7	9.1
India	49.4	43.6	20.9	23.0	70.2	66.6	3.2	2.4	...	...
Indonesia	52.5	52.6	14.7	15.3	67.2	67.9	2.1	2.1	6.7	6.7
Iran	28.1	22.4	31.2	39.4	59.3	61.8	7.8	8.4	...	...
Iraq	19.2	19.9	48.7	46.1	67.9	66.0	5.8	5.0	13.8	15.7
Israel	10.3	8.3	32.3	31.4	42.6	39.7	7.3	5.4	14.9	20.9
Khmer Republic	41.5	41.9	16.6	16.1	58.1	58.0	3.7	3.5	...	...
Malaysia	37.9	35.2	19.6	22.6	57.4	57.8	5.0	6.3	...	...
Pakistan	52.3	46.3	13.3	17.1	65.6	63.4	5.6	5.3	5.2	4.8
Philippines	31.3	30.8	27.8	27.8	59.2	58.8	5.2	4.9	6.0	6.9
Republic of Korea	40.1	32.7	19.4	28.6	59.5	61.3	7.5	8.0	13.0	13.4
Syria	32.8	25.7	14.5	16.8	47.3	42.5	4.9	2.7	8.6	6.0
Thailand	38.5	31.2	16.1	21.2	54.7	52.4	7.1	6.2	8.0	7.9

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on the Statistical Office of the United Nations, *Yearbook of National Accounts Statistics*.

<sup>a</sup> The countries included are those for which data are available on production by industrial origin. Both gross domestic product and physical product are at constant factor cost of 1960; at 1960 market prices in the case of the Dominican Republic, Guatemala, Mexico, Morocco and Thailand. For Brazil, Chile, India and Philippines, data refer to net domestic product and net physical product

in constant (1960) factor costs. For Barbados, China (Taiwan), Ivory Coast and Mauritius, sectoral data were available only at current prices and the implicit gross domestic product deflator was used to convert them to 1960 prices.

<sup>b</sup> Including forestry, hunting and fishing.

<sup>c</sup> Including manufacturing, mining, construction, electricity, gas and water.

<sup>d</sup> Agriculture plus industry.

[Footnotes continued on page 20]

with the necessary data—registered a greater expansion in physical output than in the output of the service sectors, reflecting the generally better harvests of 1968 and the widespread recovery in industry.

A structural indicator of this nature is of more analytical significance over the long term. Its use needs to be adjusted in accordance with the nature of the economy. Clearly, a country—such as Jamaica, Kenya, Morocco and Tunisia—that is actively fostering its tourist activities will expect a corresponding rate of expansion in the service sectors; so will a country that is developing *entrepôt* or transit trade, and one with a relatively high *per capita* income.

The existing structure will also be reflected in relative rates of expansion. In some countries the physical production sectors predominate: the service sectors contribute less than a third of the total output of such countries as India, Indonesia and Iraq, and Ethiopia, Libyan Arab Republic, Nigeria, Uganda and United Republic of Tanzania. But in Israel, Syria and Tunisia, in Brazil, Peru and Uruguay and most of the countries in the Caribbean area, the service sectors account for over half the total output, as they tend to do in the high-income group among the more advanced countries. In general, physical production accounts for a higher proportion of total output in the developing countries than in the developed market economies: well over half in 60 per cent of the former compared with about 40 per cent of the latter, among which are Austria, Portugal and Turkey—the only developed market economies in which physical production contributed over 60 per cent of total output in the 1960s.

As incomes rise the proportion spent on services tends to increase. Thus the domestic demand for services will be added progressively to the foreign demand as levels of living rise. This is also a factor in the contrast between the high- and low-service categories: few countries in the high-services group (over 50 per cent of gross domestic product) have *per capita* incomes of less than \$300, whereas in the low-services group (less than 33 per cent of

gross domestic product) few countries have *per capita* incomes of over \$100.

This influence from the demand pattern is offset in varying degree by influences emanating from the side of production. Both technology and capital intensity tend to lead work-seekers to the services sector as a source of employment, and the poorer the country the more difficulty it experiences in absorbing the increment in its labour force into agriculture or industry on a fully productive basis. The special skills and equipment required for full-time employment in the physical production sectors are usually in short supply, and the social pressures for participation in the exchange economy are often met by an expansion in public administration and domestic and personal service far beyond economic needs. Slow growth in the share of the physical product may therefore be less a sign of rising affluence and the swing of demand towards services than a result of acute skill and capital shortage. Where physical living conditions—nutrition, clothing, housing and so on—are inadequate, a lagging physical product sector may well be symptomatic of a serious development bottle-neck.<sup>10</sup>

#### *Indices of sector output*

Compilation of a full set of articulated national accounts is a lengthy process: in many countries two years or more may elapse before the estimates made from the side of production are adequately reconciled with those made from the side of expenditure and with the balance of payments and trade returns. In the case of developing countries, as is evidenced in table 6 above, only a minority are at present able to prepare national accounts from the production side. Yet changes in the industrial structure of total output provide an important indicator of the course of development. For this reason and for the information of policy-makers in the shorter term, it is desirable to have supplementary methods of evaluating the production performance of the economy. This role is played by sectoral production index numbers.

Such indices tend to be based on output data for a selected group of commodities<sup>11</sup> without reference to the inputs that have actually gone into the sector and have to be allowed for in calculating the “value added” for purposes of the national accounts with which this chapter has so far been largely concerned. Where the output is measured in physical terms, such as tons of rice or bags of coffee—as is usually the case in agriculture where the producers are

[Footnotes continued from page 19]

<sup>e</sup> Annual compound rate of increase between terminal years. 1960-1966 for Brazil, Ivory Coast, Jamaica, Malaysia and Nigeria; 1961-1967 for Ethiopia and Turkey; 1962-1966 for Khmer Republic; 1962-1967 for Libyan Arab Republic and Paraguay; 1963-1967 for Sierra Leone and Syria; 1964-1967 for Kenya.

<sup>f</sup> 1961-1962 for Ethiopia and Turkey; 1962 for Khmer Republic, Libyan Arab Republic and Paraguay; 1963 for Sierra Leone and Syria; 1964 for Kenya.

<sup>g</sup> 1965-1966 for Brazil, Ivory Coast, Khmer Republic, Jamaica, Nigeria; 1966-1967 for Barbados, Ecuador, El Salvador, Ethiopia, India, Iran, Mexico, Uganda and United Republic of Tanzania.

<sup>10</sup> This problem is pursued further in chapter IV.

<sup>11</sup> The number of commodities taken into the United States Department of Agriculture index ranges between fifteen and twenty in most countries though it is below ten in Guyana, Mali, Trinidad and Tobago and Zambia, and over thirty in Argentina, Brazil, Mexico, Turkey, United Republic of Tanzania and United States.

rarely in a position to provide an adequate financial accounting—it has to be priced or weighted in order to allow it to be absorbed into a sectoral production index. And when output is seasonal, decisions have to be made on how best to take it into an index purporting to measure the product of a calendar year. Where a harvest straddles two calendar years, whether the output is taken into the first or the second year often depends on the historical reliability of forecasts of that portion of the crop garnered only in the opening months of the second year. The solution in some countries is to take into the national accounts the average output of two successive crop years, thus smoothing out annual fluctuations.

The room for differences in compilation and weighting practices is obvious. So is the likelihood that such indices may yield a different result from that which finally emerges from the national accounts calculation. That this is the case not only in respect to year-to-year changes but also in the calculation of longer-term growth rates is illustrated in table A.2 in the statistical annex. Among the thirty-three developing countries for which a national accounts measure of agricultural production exists for the period 1960-1968 along with parallel measures computed by the Food and Agriculture Organization of the United Nations (FAO) and the United States Department of Agriculture (USDA) on the basis of the gross output of selected crops, the former was less than either of the latter in half the cases and greater than either of the latter in almost a third of the cases.<sup>12</sup> Among the countries with all three indicators of agricultural growth, the spread between the highest and lowest measure was less than 1 per cent in half the cases and between 1 and 2 per cent in a third. In some countries—Honduras, Iran and Israel, for example—the gross measure of output gave almost twice the rate of agricultural growth recorded in the national accounts, and there were similar wide differences between the indicators in Peru and Tunisia where value added increased faster than gross output.<sup>13</sup>

<sup>12</sup> The growth rates cited in this section reflect the arithmetic average of the eight year-to-year changes occurring during the period 1960-1968. Because of the relatively wide fluctuations that characterize agricultural production in developing countries the compound rate of increase between terminal years tends to yield a much less realistic figure. The growth rate is further stabilized by calculating the year-to-year change as a percentage of the larger of the two figures. Thus, the movement of the annual production index from 100 to 75 to 100 over a three-year cycle would imply changes of minus and plus 25 per cent rather than minus 25 per cent plus 33 per cent.

<sup>13</sup> Such differences are not confined to the developing countries. Among the developed market economies there were comparable disparities between the national accounts measure and the gross production indices: in most cases the latter showed higher rates of growth than the former, while in Belgium, France, Ireland, Norway and Sweden the rise in gross output in the 1960s was more than twice that recorded in value added.

These wide disparities tend to get hidden as country results are combined into regional averages. For developing countries in the western hemisphere, for example, the average annual rate of increase in agricultural production between 1960 and 1968 was 2.8 per cent according to the national accounts indicators (15 countries), 3.0 per cent according to the USDA index (22 countries) and 3.1 per cent according to the FAO index (17 countries). The corresponding growth rates for the Asian region were 2.5 per cent according to the national accounts (13 countries) and USDA (18 countries) indicators and 2.8 per cent according to the FAO index (14 countries). In Africa, only six developing countries have national accounts indicators and the average works out at 1.9 per cent a year for the 1960-1968 period. The gross production indices straddle this figure: the FAO index (7 countries) gives 3.0 per cent and the USDA index (30 countries) gives 1.6 per cent. When the regions are combined, the differences are reduced still further: thus, for the developing countries as a group,<sup>14</sup> the average rate of increase in agricultural production was about 2.3 per cent a year, whichever indicator is used.

The poor relationship between presently available measures of gross agricultural output and the movement recorded in the national accounts greatly reduces the usefulness of the former as an early indicator of year-by-year developments in the agricultural sector. Over the period 1960-1968, year-to-year changes in the output index were very seldom an accurate reflection of what was subsequently measured as the increase in the value added in the agricultural sector. The difference often exceeded 10 percentage points—that is, about four times the average annual rate of growth in agriculture—and even on the average over the eight years the disparity exceed 5 percentage points in a third of the developing countries for which the national accounts indicator is available (see table 7).

The closest relationship between the gross output index and the change in the value added in agriculture was shown by Ceylon, China (Taiwan), Ethiopia, Malaysia, Pakistan, Panama, Republic of Korea and Venezuela, where the difference between the indicators was less than the average rate of increase in agricultural production in less than a fourth of the years under review. Even in these cases, however, the average difference over the eight years ranged between 1 and 3 percentage points, that is, about half of the rate of agricultural growth registered by the countries in question.

Apart from Brazil, only a few Asian countries—China (Taiwan), India, Pakistan, Philippines, Syria and Thailand—now produce their own index of

<sup>14</sup> Thirty-four countries in the national accounts group, thirty-eight in the FAO index group and seventy countries in the USDA group.

Table 7. Agricultural production: measurement of year-to-year movement,<sup>a</sup> 1960-1968

Country <sup>b</sup>	Percentage points difference in year-to-year change between						Number of occasions (out of 8) on which the differ- ence between the national accounts and gross output indicators exceeded the average annual rate of increase in agricultural production	
	National accounts and				FAO and USDA indices			
	USDA index		FAO index		Maxi- mum	Aver- age		
	Maxi- mum	Aver- age	Maxi- mum	Aver- age				
<i>Western hemisphere</i>								
Argentina	15.4	7.3	16.3	7.4	2.6	1.1	5	7
Bolivia	3.0	1.2	7.0	2.9	6.5	2.6	3	6
Chile	10.7	4.9	12.9	6.4	5.1	2.7	5 <sup>c</sup>	5 <sup>c</sup>
Colombia	4.2	2.5	4.1	2.0	3.1	1.9	5	3
Ecuador	7.9	3.5	12.0	6.0	9.4	4.4	5 <sup>c</sup>	6 <sup>c</sup>
El Salvador	14.5	7.8					5 <sup>c</sup>	
Guatemala	13.8	6.7	15.0	7.5	7.6	3.5	5	5
Guyana	7.5	3.0					4 <sup>d</sup>	
Honduras	17.0	4.9	12.7	7.6	13.8	8.2	2	7
Panama	5.1	2.4	4.6	1.6	5.8	2.1	—	—
Paraguay	5.4	2.8	3.6	2.1	7.4	3.6	5	3
Peru	15.3	4.1	14.8	5.5	7.0	3.7	6	8
Uruguay	16.8	11.1	22.2	12.6	8.0	4.3	8	8
Venezuela	7.7	2.4	4.1	1.7	9.5	2.8	1	—
<i>Africa</i>								
Ethiopia	3.2	1.3	3.7	2.2	2.9	2.1	1 <sup>e</sup>	2 <sup>e</sup>
Morocco	10.3	4.1	7.0	3.1	3.3	1.6	3	3
Nigeria	6.7	4.2					4 <sup>e</sup>	
Tunisia	46.2	16.9	43.1	17.2	6.6	3.5	8	8
Uganda	11.5	5.1					5 <sup>c</sup>	
United Republic of Tanzania	6.9	2.6					4 <sup>c</sup>	
<i>Asia</i>								
Burma	17.5	8.6	16.1	9.4	4.2	2.1	6 <sup>a</sup>	7 <sup>e</sup>
Ceylon	4.8	2.3	7.5	2.8	6.2	2.7	1	1
China (Taiwan)	5.9	2.8	7.7	1.9	6.5	2.0	2	1
India	6.6	3.8	9.2	4.2	4.4	2.3	5 <sup>c</sup>	5 <sup>c</sup>
Indonesia	9.2	3.7	5.8	2.7	7.9	2.9	6	4
Iran	12.5	6.5	8.8	5.7	4.9	2.6	5 <sup>c</sup>	4 <sup>c</sup>
Israel	12.1	5.7	13.4	5.0	5.5	1.7	2	3
Malaysia (West)	4.3	2.7	3.4	1.9	1.6	0.8	— <sup>d</sup>	— <sup>d</sup>
Philippines	8.3	5.1	5.4	2.3	6.3	3.6	7	2
Pakistan	4.2	2.5	1.9	1.3	3.4	1.9	2	—
Republic of Korea	2.8	1.2	7.2	3.1	4.4	2.1	—	2
Syria	20.5	7.5	21.7	8.2	10.7	4.3	5	5
Thailand	6.2	2.8	5.9	2.7	6.8	2.5	3	2

Source: See table A.2 in the statistical annex.

<sup>a</sup> Annual change measured as a percentage of the larger of each pair of figures.

<sup>b</sup> The countries are those for which there is a measure of

agricultural production in the national accounts.

<sup>c</sup> Out of seven occasions.

<sup>d</sup> Out of five occasions.

<sup>e</sup> Out of six occasions.

gross agricultural output, and even these are not constructed to conform with the national accounts. It would be helpful if during the 1970s the developing countries equipped themselves with an index measuring agricultural output in a manner that combines the timeliness of sampling with consistency with the comprehensive calculation of value added for incorporation in the national accounts.

Apart from this desirable link with the national accounts, an agricultural production index is in itself a useful instrument for measuring performance.

Where goods are in generally short supply, the output of particular crops is a matter of considerable importance from the point of view of both farm policy and over-all economic management. As performance indicators, developing countries might seek to compile not only an index of total agricultural output—based on the output of as many crops as can be evaluated with reasonable accuracy and speed—but also a series of subindices to measure, for example, the output of basic food-stuffs, of major calorie sources and of export commodities.

The most comprehensive index of food production currently available is that compiled by USDA. This reveals the wide spectrum of performance among the developing countries in the 1960s: one fourth increased their output of food by less than 0.7 per cent a year and another fourth achieved over 4.2 per cent a year (see table 8). The corresponding range among the more advanced countries was 1.7-2.8 per cent: over 60 per cent of the population were in the middle group of countries.

Among the developing countries the best performance was registered in the western hemisphere where 60 per cent of the population lived in countries achieving a growth of food production of over 4.3 per cent a year. In Asia only 4 per cent of the population were in the corresponding quarter of countries and almost 70 per cent were in the lowest quarter—in countries in which food production had been increasing at less than 1.8 per cent a year. This growth rate was the median in Africa, and 40 per cent of the population lived in countries in which food production had been declining or rising at less than 0.9 per cent a year.

Whereas there were hardly any among the more advanced countries in which food production had been increasing less rapidly than population, this was the case in a third of the developing countries of Asia, half of those in the western hemisphere and over two thirds of those in Africa. Since incomes were rising quite steeply in this period, the lag in domestic food supplies was even more marked than implied in the simple *per capita* figures.<sup>15</sup> The lag may also be illustrated by comparing the actual expansion with the target rate of growth of agriculture set for the 1970s: at 4 per cent a year, this approximates the third quartile among the growth rates achieved in the 1960s. Indeed only 16 per cent of the population of developing countries lived in countries in which food production had been increasing at more than 4 per cent a year.

<sup>15</sup> The problem is discussed further in chapter II below, in the context of its international implications.

The International Strategy for the Second United Nations Development Decade also includes a target rate of growth for the manufacturing component of material output—namely, 8 per cent a year for the developing countries as a group. The problems of measuring this parallel those of measuring agriculture: only thirty-four developing countries currently prepare national accounts by industrial origin of production, while a further handful of countries produce some kind of index of manufacturing production. Because of the relative heterogeneity of manufacturing output most indices are based not on gross production, as is possible in the case of the more limited range of agricultural products, but on the value added in selected establishments. In general, the latter are among the larger units whose records are likely to be more comprehensive, accurate and up to date.

On the whole, therefore, the degree of conformity between the production index and the national accounts component is appreciably greater in the case of manufacturing than in the case of agriculture. The disparities arise mainly from differences in coverage: it is difficult to document the production of small-scale plants and handicrafts on a current (often monthly) basis and to adjust the composition of the index to changes brought about by the industrial diversification that is one of the essential features of the process of economic development. In general the index, being based on a census of the better-organized segment of industry, yields a higher rate of increase in production than the national accounts measure, which includes the generally less dynamic handicraft and traditional workshop segment.<sup>16</sup>

As in the case of agriculture, therefore, there is a twofold challenge to improve the means of measuring performance in industry. The first lies in the compilation of national accounts from the production

<sup>16</sup> Another, purely technical, difference between the two measures lies in the fact that the industrial production index includes and the national accounts exclude services purchased by industry from other sectors.

Table 8. Food production: rate of increase, by region, 1960-1968

Region	Distribution					
	First quartile (percent- age per annum)	Population in countries at or below the first quartile (millions)	Median (percent- age per annum)	Population in countries between first and third quartile (millions)	Third quartile (percent- age per annum)	Population in countries at or above the third quartile (millions)
Developing countries	0.7	171	2.1	1,113	4.2	244
Western hemisphere <sup>a</sup>	0.3	32	2.7	74	4.3	156
Africa <sup>b</sup>	0.9	112	1.8	125	2.7	57
Asia <sup>c</sup>	1.8	687	3.3	250	4.9	35
Rest of world <sup>d</sup>	1.7	115	2.2	622	2.8	344

Source: See table A 2 in the statistical annex.

<sup>a</sup> Twenty-three countries, as listed in source.

<sup>b</sup> Thirty-one countries, as listed in source.

<sup>c</sup> Seventeen countries, as listed in source.

<sup>d</sup> Thirty-two countries, as listed in source.

side, by the sector of origin. Countries that do not now make this calculation should seek to do so as part of their effort to monitor the course of economic development during the 1970s. The second lies in the construction of an industrial production index that is as compatible as possible with the national accounts system, permitting a more up-to-date measure of output for use in short-term planning yet fully reconcilable with the long-term series of national accounts indicators.

The data currently available suggest that in the 1960s the average growth in manufacturing production was higher in the developing countries (about 7 per cent a year) than in the more advanced countries (about 6 per cent). Led by petroleum, mining production also increased more rapidly in the developing countries (about 6 per cent a year). Expansion in the output of electricity, gas and water was also more vigorous in the developing countries (about 11 per cent a year) than in the rest of the world. Though the data are fewer and more erratic, they point to a similar difference in the case of the construction industry. Altogether, physical production in the non-agricultural sectors expanded at an average of between 7 and 8 per cent a year in the developing countries (see table A.3 in the statistical annex).

The range of performance was appreciably wider among the developing countries than in the rest of the world. One half of the more advanced countries recorded 1960-1968 growth rates in manufacturing between 5.3 and 8.3 per cent. The corresponding spread among the developing countries was from 4.6 per cent to 11.2 per cent. The countries outside the range were rather small, however, accounting for less than a fourth of the total developing country population. In the case of the rest of the world, by contrast, half the population lived in countries in which manufacturing output had been expanding at more than 8.3 per cent a year (see table 9).

In the western hemisphere, the highest rates of industrial growth were registered by Bolivia, El Salvador (notwithstanding stagnation in the mining sector), Honduras, Mexico (also in the face of a poor performance in mining), Panama and Peru. In Argentina and Brazil, the construction sector was something of a drag on industrial performance, but manufacturing output rose at less than 5 per cent a year. In Colombia, the industrial growth rate was only fractionally higher, but mining was the lagging sector. Much the same was true of Venezuela though in this case construction activity also exerted a downward influence on the industrial average.

Only a minority of the countries in Africa measure their industrial output. The highest rates of growth were recorded in Ethiopia, Libyan Arab Republic, Nigeria (up till the civil war) and United Arab Republic. Ghana and the United Republic of Tanzania increased their manufacturing production at a rapid pace in the face of a poor performance in the mining sector. Mining also had a negative influence in Kenya and Morocco where manufacturing growth was quite modest. In Tunisia, on the other hand, a vigorous expansion in mining helped to raise the industrial average.

In Asia the highest rates of industrial growth were recorded in China (Taiwan), Iran, Israel, Pakistan, Republic of Korea and Thailand. Malaysia and Syria also experienced a rapid expansion in most components of the industrial sector. In Ceylon, India and Iraq, slow growth in construction held down the industrial average. A more balanced but rather modest rate of increase was registered in the Philippines.

The median rate of increase in manufacturing production in the period 1960-1968 was 7.3 per cent a year in the western hemisphere, 8.8 per cent in Africa and a high 10.1 per cent in Asia. In Africa and the western hemisphere about one half of the countries for which data are available achieved a

Table 9. Manufacturing production: rate of increase, by region, 1960-1968

Region	Distribution					
	First quartile (percentage per annum)	Population in countries at or below the first quartile (millions)	Median (percentage per annum)	Population in countries between first and third quartile (millions)	Third quartile (percentage per annum)	Population in countries at or above the third quartile (millions)
Developing countries	4.6	86.5	7.6	987.3	11.2	215.0
Western hemisphere <sup>a</sup>	4.7	123.5	7.3	110.3	11.5	12.7
Africa <sup>b</sup>	3.8	20.7	8.8	119.4	11.4	46.1
Asia <sup>c</sup>	5.9	571.3	10.1	128.6	11.2	156.2
Rest of world <sup>d</sup>	5.3	197.5	6.3	378.3	8.3	496.4

Source: See table A.3 in the statistical annex.

<sup>a</sup> Nineteen countries, as listed in source.

<sup>b</sup> Thirteen countries, as listed in source.

<sup>c</sup> Fourteen countries, as listed in source.

<sup>d</sup> Thirty-two countries, as listed in source.



rate of manufacturing growth above the target average of 8 per cent set for the 1970s. In Asia two thirds of the countries exceeded this target rate. Experience suggests that as the industrial base broadens the rate at which output increases tends to moderate. Hence it is not unlikely that in the countries for which there are no published data—most being at an early stage of industrialization—growth rates have been quite high.

That this relatively vigorous expansion in manufacturing has been associated with rather modest rates of growth in total production is a reflection of the smallness of the industrial sector in most of the

developing countries. In evaluating progress in industry, therefore, it is desirable to monitor not only total production but also the changing structure and the cost and employment characteristics of the manufacturing sector. In the development process special importance attaches to the ability of an industrial enterprise to produce at internationally competitive prices and to create employment opportunities for a rapidly expanding labour force. This suggests the need for a regular census of manufacturing establishments, as frequent and as comprehensive as practicable, to measure not only output but also the various inputs, including, in particular, workers and the wage bill.

## Chapter II

### LEVELS OF LIVING

Subject to the constraints implicit in relations with the rest of the world, a country's output can be used for consumption or for investment. Over a short period these uses are competitive alternatives; over a longer period, however, they are mutually dependent: levels of consumption can be sustained only if the productive fabric of the economy is maintained and renewed by adequate investment, while the viability of the economy is itself determined in large measure by the participation and productivity—and hence the health, skill and motivation—of its workers. A critical decision in development policy is thus the allocation of resources between present satisfaction and the building up of a capacity to ensure greater future satisfaction. Such a decision can be made only in the context of individual countries and in the light not merely of the current volume and trend of production but of the whole historical background and the distribution of wealth that has emerged.

While in each country the allocation of resources between consumption and investment lies at the heart of development policy, in appraising actual performance, the decision has to be accepted as given. What are to be evaluated are the various results of that and other earlier decisions, not the decisions themselves. The appraisal will doubtless influence future decisions about resource allocation but it is concerned essentially with performance, not the circumstances and merits of the earlier decisions. However interrelated they are in terms of allocation problems *ex ante*, consumption and investment can quite properly be examined separately in the course of measuring economic and social progress *ex post*. In carrying out such a separate examination—as is done in this chapter and the next—the interrelations must, nevertheless, be borne constantly in mind. Clearly, a country's development performance in any single period of time cannot be measured by either improvement in levels of consumption or in increase in investment rate, regarded separately. Achievements in raising levels of living can be bought for a period of time by the neglect of the economy's productive capacity, and *vice versa*. In appraising them separately, no judgement can be made on the functioning of the economy as a whole.

As the ultimate purpose of economic development is the raising of levels of living, an evaluation of the existing level and of recent changes is a major re-

quirement for assessing economic and social policies and performance. The most obvious over-all indicator of levels of living—corresponding to the over-all measure of production discussed in the previous chapter—is the consumption component of the expenditure side of the national accounts. Adjusted for changes in population—that is, expressed in *per capita* terms—consumption gives a first approximation of the level of living. And, due allowance being made for price changes, a *per capita* consumption series provides a rough measure of movements in the level of living.

Such a measure has two principal defects. On the one hand it is too broad an aggregate and includes components that have little or no relevance to human welfare. On the other hand, as a simple average it ignores the question of distribution which is fundamental to the concept of level of living of the population as a whole.

As a refinement, attention might be focused on private consumption rather than the total consumption of the economy as a whole. While this would provide a useful supplementary indicator, it suffers from the opposite disadvantage of being too narrow. Public consumption, far from being of no consequence to the level of living, contains a number of elements that are important determinants of private welfare. These include many of the health and education services, maintenance and protection of the natural environment and various other activities that need to be socially pursued but yield personal satisfaction.

Among the developing countries the reported subdivision of general government consumption has so far been insufficient to permit the separation of those activities that might be regarded as adding to human well-being from those that are essentially of an overhead nature arising from the administrative and security needs of the economy. In the course of the Second Development Decade, it should be possible for an increasing number of developing countries to separate from current public expenditure those items which clearly contribute to consumer satisfaction.<sup>1</sup> By adding these to total private consumption,

<sup>1</sup> Reporting on statistics of the distribution of income, consumption and wealth, an Expert Group of the United Nations Statistical Commission has recently recommended (E/CN.3/415, para. 54) that separate records be kept in

an over-all indicator of expenditure on current well-being could be compiled. On a *per capita* basis this could be used for measuring changes in the average level of living.

The conversion of such an average into a measure that takes account of the distribution of incomes is a formidable task, especially in the developing countries where the reporting of incomes for tax purposes is generally confined to a very small fraction of the population. Because this dimension of progress is so critical, devising ways of measuring it will be a major challenge to those charged with appraising the course of economic and social development in the 1970s.

Given the dual nature of many developing countries—with profound differences between the exchange and subsistence sectors and the modern and traditional forms of organization—it is probably unrealistic to seek a unitary measure of levels of living such as *per capita* average or a single frequency distribution of incomes around a poverty datum line. In the immediate future it may be wiser to follow a series of key indicators that will throw light on specific components of the level of living, avoiding for the time being the problem of combining such indicators into a single internationally applicable measure. Since many of these individual components may well be the object of official policy measures, this may have the incidental advantage of providing material for evaluating the policies and the steps taken to implement the measures concerned.

The aspects of the economy that have most bearing on the well-being of the population include employment and wages, unemployment, land ownership and rent, nutrition, morbidity and mortality experience, housing and education. The initial task in assessing the state of well-being and changes that are taking place in that state is to quantify these dimensions of the economy and select measurable indicators of the process of change. For each variable it would be desirable to gather the maximum of information from regular administrative sources, supplement it by periodic sample surveys and devise an indicator appropriate to the circumstances of the country concerned that would measure the progress that is being achieved in respect of that particular element of the level of living. Each country could aggregate such component indicators if it wished to, giving them weights regarded as most in accordance with its own need and priorities.

While the great diversity prevailing among the developing countries militates against the setting of

the national accounts of outlays by Government, private non-profit institutions and enterprises that could be assigned to households as part of the latter's final consumption expenditure. The items suggested include education, medical and other health services, welfare services, housing subsidies, recreation and related cultural services.

international norms, it would clearly be advantageous if among the various criteria used for assessing performance in each of the key areas, one or two common bench-marks were adopted. Lack of data sets severe limit on such a procedure in the immediate future, but it should be possible to work towards a series of such uniform measuring devices in the course of the Second Development Decade. For certain of these welfare elements—nutrition and literacy, for example—objective standards can be established, and it would be desirable for each country to institute a regular check on progress towards such standards.

#### MEASURING KEY DETERMINANTS OF THE LEVEL OF LIVING

One of the changes likely to occur as economic development proceeds is a relative rise in the proportion of the national income distributed as wages and a relative decline in the proportion accruing as the rent of land. This tendency does not itself furnish an index of level of living but it does point to an area that will become increasingly important as the economy becomes more diversified and workers more specialized. As the division of labour extends, employment and wage ratios will determine the level of living of an increasing segment of the population. In order to keep track of progress in this field it will be necessary to set up the means to record and analyse *wage rates* and *employment patterns*. By the same token, the concept of unemployment will need to be defined in a way that is realistic in local circumstances, taking into account traditional organization in the agrarian sector and self-employment in the urban community.

With the extension of the exchange economy, *unemployment* tends to become the principal immediate cause not only of poverty but also of social alienation, and an adequate rate of job creation becomes one of the main objectives of economic policy. In order to appraise performance, accurate information is needed on the number of job seekers, their qualifications and the duration of their unemployment. Where there is a social security system, such data are likely to be a by-product of its administration; elsewhere the labour exchange or employment service, designed to impart a greater mobility and flexibility in the deployment of workers, might elaborate a reliable indicator of unemployment trends, using sample surveys as well as registration of vacancies and job seekers.

In most developing countries, the *ownership of land* has a direct and important influence on the distribution of income. In an agrarian society, indeed, the distribution of land, of wealth and of current income tend to parallel one another. Changes in ownership, which are likely to be accurately docu-

mented under tax and tenure laws, should be monitored for the light they may cast on related changes in income. Some of these changes take place in response to land reforms specifically aimed at lessening the inequalities in income between the original landholder and tenant farmers who may cultivate much of the land on a rent-paying or crop-sharing arrangement.

One of the basic components of the level of living is the *intake of food-stuffs*. Since there is generally an inverse relationship between income level and the relative importance of food in total expenditure, the food component is particularly significant in the developing countries. Two elements in the food supply need to be kept under observation—the energy (calorie) content and the protein content. Where diets are especially poor, other elements—iodine and the major vitamins and minerals, lack of which may induce certain “deficiency” diseases—also need to be monitored.

A first approximation to the available food supply may be derived from production and trade data. If due allowance is made for change in inventories, wastage and spoilage, and the use of supplies for feed and seed, an estimate may be obtained for total apparent consumption, and this can be specified in terms of calorie and protein content and divided by population to give an average annual *per capita* intake. If appropriate conversion factors are applied to the various food-stuffs making up the total supply, the apparent *per capita* intake of specific items—grains, pulses, legumes, tubers, carbohydrates, animal and vegetable protein and calories and so on—may be calculated.<sup>2</sup>

To some extent such an annual average intake suffers from the same defects as average consumption of goods and services or average income: it provides no information on the distribution. However, the risk of a marked skewing is probably much less in the case of food intake than in the case of income or total consumption: the income elasticity of demand for food declines fairly sharply as incomes

rise, particularly for the lower-quality food-stuffs. If a country's food supplies increase, more of the increment is likely to go to the poorly fed than to the well fed, especially in the case of the staple calorie sources.

More detailed information on food consumption can be obtained from actual surveys of diets and methods of preparing food. Such surveys, if carried out periodically on a sample basis, would provide a valuable check on the rough aggregate and average figures and, if supported by the necessary chemical analysis, they would furnish more accurate conversion factors for ascertaining the nutritional values of locally consumed food-stuffs. They might also be supported by clinical observations of the families whose diets were being evaluated. More generally, clinical reports on the incidence of deficiency diseases—kwashiorkor, beri-beri, rickets and so on—would be a useful secondary indicator of the nutritional status of the population.

Closely allied to nutrition as a determinant of the level of living is the health of the population. Improvement in health is a major objective of economic development in most countries and progress towards this goal needs to be assessed regularly as a test of the policies being pursued in preventive and curative medicine. There are many possible indicators of changes in the general health of the community—morbidity rates, incidence of specific diseases, causes of death, endurance or stamina tests of samples from various age groups and localities and so on—and each country should devise its own criteria and bench-marks. Perhaps the most generally applicable, bearing in mind the data problem in developing countries, relate to mortality experience and hence only indirectly to health: these are the observed rate of child deaths in the first year of life and the actuarially calculated expectation of life at various age levels.

In the absence of a complete and accurate system of registering births and deaths, even these broad indicators are very fragile and need to be used with caution. If they were adopted as a means of making international comparisons of changes in health conditions, this might act as an additional incentive to the authorities to improve their quality in the course of the 1970s.

Another set of variables that may be used in a country appraisal of the health of the population relates to *medical facilities*. The expansion of such facilities reflects the effort being put into the task of raising levels of health, and if viewed internationally this might be inversely related to actual health status: disease-ridden communities and unhealthy localities may have to devote relatively more to creating medical facilities than healthy groups and

<sup>2</sup> Not all the food-stuffs are equally well documented and many locally available items—especially fruits and berries and various types of spinach—may be left out of the reckoning. The computed figures would then tend to err on the safe side, understating the available supply. As the nutritive content of the various food-stuffs may differ from one locality to another and may in some cases depend on the freshness or degree of preparation or other attribute of the item when actually consumed, the conversion cannot but be very approximate. The year-to-year changes in the figure, when averaged over a period, may be a more significant guide than the calculated total for a single year. Whatever the inadequacies of the data, however, there is no choice but to try to make accurate measurements of food intake. Nutrition is a fundamental component of the level of living and the need to improve it underlies much of the development effort being made both nationally and internationally.

places.<sup>3</sup> Nevertheless, as a component of the level of living in a given area the availability of a trained physician or a hospital or clinic must be counted as a gain and, by the same token, an improvement in medical services may be expected to exert a positive influence on local welfare.

In assessing the progress a developing country has made in raising levels of living, therefore, it would be relevant to take into account changes in the number of nurses, physicians, pharmacists, dentists and hospital beds per 1,000 of the population. Like so many others, this indicator also raises a distribution problem: as far as possible national averages need to be broken down geographically to show the degree of dispersion of the medical facilities concerned. Accessibility is often as much a physical question as an economic one, and the common tendency for facilities to be unduly concentrated in the larger cities is a feature that needs to be kept under observation in any periodic assessment of achievements and policies.

Closely allied to the availability of health services as a component of the level of living is the adequacy of ordinary *housing*. Shelter from the elements is a basic human need and as people congregate in larger communities the standards for that shelter have to be raised in the interest of health, safety and convenience. Arrangements for the supply of pure water and electricity and for the removal of sewage and other waste products thus become an integral part of the concept of housing. Measuring changes in this complex of facilities is extremely difficult to accomplish accurately and realistically, yet it is clearly something that has to be attempted in any serious appraisal of social and economic progress and performance.

Because of the wide differences in climate and topography, in related cultural characteristics of the community—family and household size, methods of preparing food, types of dress and furniture and so on—and in the extent to which population is concentrated in village, town and city communities, housing standards and achievements are even more difficult to compare across national boundaries than are health service facilities. If progress is to be appraised it will have to be done within individual countries, and perhaps in the first instance within particular types of community, such as urban areas of a certain size.

In recent years the main focus of concern in respect of housing conditions in developing countries

<sup>3</sup> International comparisons of available medical facilities or of expansion of such facilities are thus a very poor reflection of differences in levels of living, quite apart from the difficulties caused by lack of standardization of their quality. The training required for a nurse, pharmacist, doctor, dentist and other health service personnel may differ widely from country to country, and what constitutes an effective "hospital bed" has no generally accepted definition.

has been the peri-urban area and especially the periphery of the large city. This has received waves of rural-urban migration beyond its capacity to accommodate in a manner appropriate to the health and safety of population concentrations of that magnitude and density. As the policies adopted to meet this movement are often tentative and experimental, ranging all the way from cost cutting in construction to the dispersion of industry and the raising of farm price supports, careful assessment of the resultant changes in the housing situation is particularly important.

The consumer satisfaction deriving from a dwelling unit—which is the point of departure when this problem is approached as a component of the level of living—depends on many factors, some of them quite subjective and imponderable (such as the location and the view) or fortuitous (such as the impact of neighbours), but others capable of measurement and hence usable as criteria of progress. Among such criteria the most obvious are the physical attributes of the dwelling unit itself: the sturdiness of the structure, its ability to insulate its occupants from the weather, the volume of space available per occupant, the availability of reticulated water and power, the means of disposing of waste materials and the convenience and safety of access to neighbourhood facilities and amenities. This sort of information may be compiled in part by the planning and administrative authorities for the area concerned, but the state of repair and all the various occupancy characteristics may require special surveys and in some cases—especially where squatting and shanty building have occurred—even structural details may not be known without *in situ* inspection.

In many countries, housing statistics have been gathered very largely as part of the general population census. If progress and policies are to be adequately assessed in the 1970s, such basic sources will have to be supplemented by more frequent surveys, at least for those areas that are subject to the most rapid change. Where improvement in housing is an important objective of the development plan, some means will need to be set up for systematic appraisal of performance.

Another component of the level of living is covered under the broad heading of *education*. As standards rise, indeed the ability to read and write—and a concomitant access to books—tends to become an increasingly important consumer satisfaction. In principle this is readily measurable; in practice, however, the data are very deficient and often difficult to interpret.

Two types of indicator are conceivable, one based on changes in the educational status of the population and the other based on the proportion of the

population actually involved in different phases of the education process at the time of the inquiry.

The educational status of the population is usually determined as part of the regular census—in most countries at decennial intervals. It is generally expressed in terms of the proportion of particular age groups having had specified periods of formal schooling. Changes in the proportion of those over twenty-five years of age who have attended school for more than four years, eight years or twelve years, for example, provide a convenient measure of the pace at which educational attainments are increasing. A similar purpose is served by a literacy rate, that is, the proportion of the population able to read and write at least one language.<sup>4</sup>

The practical deficiencies in this indicator arise in part from its infrequency and in part from the inaccuracies which often seem to creep into the reporting. If a more frequent measure is required, a sample survey will be necessary. Experience suggests that some form of check or test is desirable to ensure as accurate as possible a response to questions about educational attainments. Even the denominator—the age groups in the population—is subject to a large measure of uncertainty, especially in countries which still lack formal birth registration procedures.

The second measure of progress in the educational field is derived from the current enrolment data, that is, the proportion of the various age groups actually attending school. The crude ratio may be refined by distinguishing among the various types of schooling—primary, secondary, higher, vocational and technical and so on. If enrolment statistics are compiled in adequate detail it should be possible to allow for those who are repeating a particular course and to arrive at the proportion who have attended school for a long enough period—estimated at four or five years in some countries—to acquire full literacy. A comparison of such enrolment ratios over time furnishes a useful indicator of educational progress.

Comparison between countries is also feasible, if precautions are taken to standardize the essential definitions: the first six years of schooling may be regarded as “primary”, for example, the next four years as “secondary” and the next four as “higher”.

Enrolment ratios make no allowance for differences in the quality of education. This might be done by means of two supplementary indicators, the first relating to the qualifications of teachers and the second relating the number of enrolled pupils to the number of qualified teachers. This assumes that the quality of the education being provided rises with the proportion of teachers who have passed through sec-

<sup>4</sup> Semi-literacy—that is, the ability to read, but not to write—may be designated in the same way.

ondary school (or normal training or higher, when this becomes appropriate) and with the decline in the pupil/teacher ratio.

Literacy is not a permanent attribute: unless there is reading material available and occasions to write, it cannot be maintained. It is desirable, therefore, to measure the progress that has been made in providing such opportunities. Perhaps the simplest indicator—and one that tends to be reported fairly systematically for unrelated reasons—is the circulation of newspapers per 1,000 of the population per day. Even though they may differ widely in size and content, their mere availability serves a useful purpose in the present context. So, too, does the existence of libraries, and an indicator based on the number of volumes in the possession of lending and reference libraries would furnish another measure of what has been achieved to meet this human need.

#### AN APPRAISAL OF RECENT PERFORMANCE

An empirical appraisal faces two immediate constraints—the absence of information about features of the situation that the methodological discussion shows to be important and the tremendous complexity of the concepts and problems, as abstractions and generalizations give way to the realities of the actual life of millions of people. Both constraints limit what can be accomplished even at the level of a single country; they are correspondingly more restrictive at the international level.

Drawing on the data that *are* available, the following review examines some of the principal elements that combine to determine the level of living of people in the developing countries. It starts with the most comprehensive measure, namely the consumption components of the national accounts, and proceeds to discuss certain aspects of the income earning process (particularly as it relates to the way the gross product is distributed) and some of the major determinants of welfare—nutrition and health, housing and education. The choice of the latter reflects in part a subjective judgement of what contributes most basically and generally to personal well-being and in part the fact that certain components of the level of living are social rather than wholly private in their nature and hence strongly influenced by government policies and actions. In an appraisal of country performance, such social components of the level of living seem to merit prior examination, leaving the more personal aspects of well-being—how individuals dress or furnish their homes or spend their leisure—to later review.

#### *Consumption*

Without attaching too much importance to the precise figures, it is as well to recognize at the outset the wide disparity in average *per capita* consumption that exists among countries. At the one extreme

are countries in which the division of labour has not been pushed very far—as in Burundi, Ethiopia, Rwanda and Upper Volta—where the producer and consumer are usually the same person and in 1967 average annual consumption was valued at around \$50 *per capita*. At the other extreme lies the economically and technologically complex society of the United States of America in which *per capita* consumption was in excess of \$3,300 (see table A.4 in the statistical annex). Since, as development proceeds, an increasing proportion of income has had to be devoted to merely removing or offsetting the disutilities and nuisances generated by industrialization and urbanization, such disparities are no measure of differences in human welfare, but they do illustrate the spread between countries in which consumer expenditure conforms to a simple traditional pattern and those in which it is characterized by diversity and change.

Even among the developing countries there are considerable disparities. The spectrum stretches from the small subsistence economies of Africa to countries whose *per capita* income is ten times as great—the sophisticated *entrepôt* economies of Hong Kong and Singapore and those (such as Argentina, Chile, Libyan Arab Republic, Namibia, Trinidad and Tobago, Uruguay and Venezuela) whose consumption standards reflect favourable resource endowment, vigorous export industries or a greater degree of economic diversification. And beyond even this wide range are the small economies such as Israel, Kuwait and Netherlands Antilles where human and physical capital have been combined to yield incomes of the same order as those prevailing in the developed market economies.

The low-consumption countries predominate in Africa: less than one in six had a *per capita* consumption in excess of \$200 in 1967, whereas almost half the developing countries of Asia were in this category and all but a tenth in the western hemisphere. Only one western hemisphere country (Haiti) had a *per capita* consumption of less than \$100 in 1967; among the developing countries of Asia almost a fourth were in this low-consumption group and in Africa over 40 per cent.

Though some of the largest countries in Africa belong in the lowest-consumption group—Democratic Republic of the Congo, Ethiopia, Nigeria and Sudan all had a *per capita* consumption of below \$100 in 1967—it is in the Asian area that the weight of the implied poverty impinges most heavily on the global picture. For almost 700 million people—two thirds of the total of the “developing” component of the region<sup>5</sup>—live in the countries in which *per capita*

consumption is under the first quartile figure of \$94 a year (see table 10). Though the upper quartile of *per capita* consumption was much higher (over \$300) in Asia than in Africa (less than \$200), the countries concerned were much smaller in the former than in the latter: in Asia they accounted for only 1 per cent of the region's population, in Africa for about 14 per cent. As a result of this distribution, the average level of consumption per person was virtually the same in the two regions. In the western hemisphere, the average consumption figure was more than three times as high (\$360 in 1967) and the countries show a much more symmetrical distribution: over two thirds of the population of the region lived in countries with average *per capita* consumption between the lower (\$245) and upper (\$509) quartiles.

Nor was there any marked tendency for the low-consumption countries to catch up during the 1960s. In Asia, indeed, in almost all of them the average annual rate of increase in consumption between 1960 and 1968 was significantly below the regional figure. India achieved an expansion of 3.2 per cent a year, compared with a regional average of 4.4 per cent. In the western hemisphere the countries in which *per capita* consumption was below the regional average in 1967 were more evenly divided between those that exceeded and those that fell short of the regional average rate of increase. The low-consumption countries with low rates of increase were mostly small, however—British Honduras, Dominican Republic, Guatemala, Guyana, Haiti, for example—while among those that did catch up slightly during the decade were several of the larger ones, including Brazil, Colombia and Peru.

Among the countries of Africa in which *per capita* consumption was below the regional average, those with over-average rates of increase in the period 1960-1968 were twice as many as those with under-average increase. A particularly rapid rise—over twice the regional average—was recorded by some of the smaller countries, including Botswana and Lesotho, and also by Kenya and the Democratic Republic of the Congo which, recovering slowly from the civil disturbances that marked its early years as an independent State at the turn of the decade, registered an increase of 5.4 per cent a year in consumption. A few of the other low-consumption countries in Africa—Ethiopia, Guinea, Malawi, Niger, Rwanda, Somalia, Sudan and Uganda—recorded a rise in consumption of between 3 and 4 per cent a year.

Most disconcerting of all are the cases in which the growth in consumption lagged behind the rate of growth in population. These included Burundi, Dahomey, Haiti, Indonesia, Madagascar, Nepal, Nigeria, United Republic of Tanzania and Upper

<sup>5</sup> That is excluding the centrally planned component (mainland China, the Democratic People's Republic of Korea and the Democratic Republic of Viet-Nam), and Japan and the Ryukyu Islands.



Table 10. Consumption: *per capita* level, 1967, and rate of increase, 1960-1968

Item and region	Distribution						
	First quartile		Median		Third quartile		
	Average (dollars)	Dollars	Population in countries below this level (millions)	Dollars	Population in countries between the first and third quartiles (millions)	Population in countries above this level (millions)	Dollars
Per capita, 1967							
Developing countries . . . . .	152	98	853	186	503	304	199
Western hemisphere <sup>a</sup> . . . . .	360	245	30	335	167	509	46
Africa <sup>b</sup> . . . . .	114	78	143	115	123	188	42
Asia <sup>c</sup> . . . . .	112	94	676	185	312	304	12
Rest of the world <sup>d</sup> . . . . .	1,425	662	142	1,084	627	1,702	303
	Average (percentage per annum)	Percent-age per annum		Percent-age per annum		Percent-age per annum	
Rate of increase in total consumption, 1960-1968							
Developing countries . . . . .	4.4	2.9	309	4.5	1,058	5.6	181
Western hemisphere <sup>a</sup> . . . . .	4.9	3.2	32	5.0	152	5.5	64
Africa <sup>b</sup> . . . . .	2.6	2.6	150	3.4	135	4.8	29
Asia <sup>c</sup> . . . . .	4.5	2.8	159	5.1	739	6.6	88
Rest of the world <sup>d</sup> . . . . .	5.2	4.3	128	4.7	497	5.8	424

Source: See table A.4 in the statistical annex.

<sup>a</sup> Twenty-seven countries, as listed in source.<sup>b</sup> Forty-four countries, as listed in source.<sup>c</sup> Twenty-six countries, as listed in source.<sup>d</sup> Thirty-five countries, as listed in source.

Volta. In these countries *per capita* consumption was not only below the regional average but also probably lower at the end of the decade than at the beginning.

At the other end of the scale, the high-consumption countries (above the *per capita* regional average in 1967) tended to achieve over-average rates of increase in consumption. This was most notable in the Asian region where in almost half the countries—including China (Taiwan), Hong Kong, Iran, Iraq, Israel, Jordan, Republic of Korea, Saudi Arabia, Singapore, Syria and Thailand—consumption expanded at over 6 per cent a year. In Africa the high-consumption, high-growth countries included Gambia, Ivory Coast, Libyan Arab Republic, Namibia, Swaziland and Zambia, while in the western hemisphere consumption rose at more than 6 per cent a year in Mexico, Panama and Surinam.

Increases fractionally above the regional average were recorded in Chile, Costa Rica, Jamaica, Trinidad and Tobago and Venezuela in the western hemisphere, and in Malaysia, Pakistan and Philippines in Asia. In Africa where the "high-consumption" countries are those with a *per capita* figure of over \$114 in 1967, the list of countries that increased their consumption faster than the regional average of 2.6 per cent a year included Cameroon, Gabon, Liberia, Mauritania, Mauritius, Morocco, Mozambique, People's Republic of the Congo, Sierra Leone,

Southern Rhodesia, Togo, Tunisia and United Arab Republic.

The remaining high-consumption countries had poorer performances. In Argentina consumption registered an average rate of increase of 3.2 per cent a year, which was above the rate at which population was increasing, but this was not the case in Barbados, Netherlands Antilles and Uruguay. In Africa, consumption just kept pace with population in Angola and Ghana, but it fell behind in Senegal, while in Algeria consumption in 1968 was below the 1960 level in absolute as well as *per capita* terms. In Asia, consumption increased more rapidly than population in Fiji and Lebanon but at less than the regional average; it paralleled population growth in Ceylon and fell well behind in the Khmer Republic, Kuwait and Republic of Viet-Nam.

If countries are ranked by performance with respect to change in consumption between 1960 and 1968—without reference to their *per capita* consumption status—a fairly normal distribution is revealed in the western hemisphere and Asia, but a rather skewed one in Africa. In the western hemisphere, 60 per cent of the population lived in countries registering a consumption growth rate between the lower (3.2 per cent a year) and upper (5.5 per cent a year) quartiles and outside this range the population in countries with higher rates was almost twice as large as that in countries with lower



rates. In Asia, the skewness was slighter and in the other direction: three fourths of the population were in the central half of the countries—with consumption growth rates between 2.8 and 6.6 per cent a year—while the population below the lower quartile was almost twice that above the upper quartile. In Africa almost half of the population lived in countries that failed to attain a 2.6 per cent a year increase in consumption—a figure that approximates the population growth—and less than 10 per cent were in the high-increase countries with consumption rising faster than the 4.8 per cent figure of the upper quartile.

Most countries had development plans under execution in 1968, some just beginning, others reaching their final phase. Some of these plans specified quantitative targets for consumption; in others, consumption objectives were implicit. A comparison of actual achievement from the first year of the plan until 1968 shows that among the thirty-nine developing countries with relevant data there were three cases of lag for every two cases in which performance was up to or ahead of intention.

Of the sixteen countries in which consumption was increasing faster than planned, six had set relatively modest goals of under 5 per cent a year. These countries included Chile, Colombia and Jordan whose plans had already run four years or longer, and Honduras, Morocco and Paraguay whose plans had run three years. Most of the remainder of this group were aiming for an expansion in consumption of between 5 and 6 per cent a year, or between 2 and 3 per cent on a *per capita* basis. These included Bolivia whose ten-year plan had run six years, Jamaica whose five-year plan ended in 1968, and Panama which was in the fourth year of its six-year plan, as well as China (Taiwan) and Costa Rica whose plans had run three years, Kenya (two years) and the Central African Republic and Republic of Korea whose plan period had begun with a year of exceptionally rapid expansion in consumption. Kuwait and Thailand, with much higher targets, had also begun their current plan period with a major increase in consumption.

In contrast to these instances of plan fulfilment and over-fulfilment, are a much larger number of cases of shortfall. In several countries the beginning of the plan period was marked by a reduction in the *per capita* level of consumption. This was the situation in Nigeria where the 1962-1968 plan had called for a consumption increase of 3.7 per cent a year, as well as in Madagascar and the United Republic of Tanzania whose current plans had begun in 1964, Iraq and Uruguay (1965), Chad, Gabon and Uganda (1966) and in the first year of the 1967-1970 plan in Peru. Several of the western hemisphere countries—Ecuador, El Salvador, Nica-

ragua, Trinidad and Tobago and Venezuela, for example—that in the mid-1960s had set goals of 5-6 per cent as the growth rate in consumption, were lagging by as much as 2 points in 1968 and in Argentina the shortfall was almost 4 points. There were similar lags of 1-2 points in Mauritania and the United Arab Republic whose first plans for the 1960s had terminated just before 1968 and also in the Sudan where the ten-year 1961-1970 plan was also aiming at an increase in consumption of just under 5 per cent a year. Pakistan fell only fractionally short of the relatively ambitious goal set in 1965. Halfway through their 1966-1970 plans Syria and Zambia were lagging behind even higher targets. In the initial period of its 1967-1970 plan, Ivory Coast was also slightly behind its ambitious target of a 7 per cent annual increase in consumption.

More directly relevant to the level of living than total consumption is private consumption. Typically, the private component accounts for 85-90 per cent of total consumption and absorbs 70-75 per cent of the gross domestic product in most developing countries. Only in countries in which foreign-owned concerns account for a sizable proportion of total output does the share of private consumption drop below 60 per cent: this was the case in most of the petroleum-based economies in 1966-1968 (Algeria, Iraq, Kuwait, Libyan Arab Republic, Saudi Arabia and Venezuela) as well as in some of the other countries in which mining or plantation enterprises predominate (Gabon, Liberia, Malaysia, Mauritania, People's Republic of the Congo, Surinam, Swaziland and Zambia) and also in China (Taiwan) and Hong Kong where the investment ratio rose sharply in the 1960s and both public and private consumption absorbed less of the gross product. At the other end of the scale many countries with a predominantly agrarian structure devote over 80 per cent of their total output to private consumption. In most of these countries private consumption is in fact very low when measured on a *per capita* basis—less than \$90 a year in 1967 in Afghanistan, Burundi, Chad, Haiti, India, Indonesia, Laos, Lesotho, Malawi, Nepal, Nigeria, United Republic of Tanzania and Upper Volta. Some of the basically agrarian countries with rather higher income levels also devoted more than 80 per cent of their output to private consumption in 1966-1968—Barbados, Gambia, Guatemala, Jordan, Pakistan and Sierra Leone, for example (see table A.5 in the statistical annex).

There was a widespread tendency for the proportion of resources devoted to private consumption to decline in the 1960s. This was particularly the case in Asia where there were three countries registering such a decline for every one registering an increase. In Africa there was a greater stability but even here there were almost twice as many coun-

tries with lower private consumption ratios as with higher ratios. The reductions outnumbered the increases in the western hemisphere also.

The reduction in the proportion of output devoted to private consumption was most marked among the countries that were already devoting less than the regional average proportion of output to this end. In Asia, of the fifteen countries in which less than 75 per cent of gross domestic product went into private consumption in 1966-1968, all but three—Burma, Ceylon and Kuwait—had reduced the proportion in the course of the decade. These included most of the high-income countries of the region—petroleum exporters (Iran, Iraq and Saudi Arabia) and entrepôt and industrial countries (China (Taiwan), Hong Kong, Israel and Singapore) as well as the Khmer Republic, Malaysia, Philippines, Syria and Thailand. In Africa there were seventeen countries with less than the regional average of 69 per cent of total output going into private consumption and all except four of these (Algeria, Democratic Republic of the Congo, Gabon and Swaziland) were using less of these resources for private consumption in 1966-1968 than at the beginning of the decade. As in Asia, most of these countries belonged to the categories of above-average income or higher-than-average growth rate. They also tended to be countries in which investment ratios were rising under the spur of external capital—as in the Libyan Arab Republic, Mauritania and People's Republic of the Congo—though a swing to public consumption also played a part in most cases, particularly in Angola and Guinea.

It is perhaps surprising that there were relatively fewer reductions in the share of private consumption in the western hemisphere than in the lower-income regions of Africa and Asia. One explanation of this is that in the western hemisphere there was less of a tendency for resources to be switched from the private to the public sector. Of the fourteen countries in the region in which the proportion of output devoted to private consumption declined in the course of the decade, in only one (Guyana) did the share of public consumption increase by more than 2 percentage points. And correspondingly, of the twelve countries in which relatively more was devoted to private consumption, only in Brazil, Cuba, El Salvador and Venezuela was this at the expense of a decline in the share of public consumption—again of only 1 or at most 2 percentage points. In the other regions the swings were generally much greater: there were reductions of 7 percentage points or more in the share of total output devoted to private consumption in quite a number of countries, including Botswana, China (Taiwan), Guinea, Hong Kong, Laos, Lebanon, Liberia, Libyan Arab Republic, Malaysia, Mauritania, Mauritius, Nepal,

People's Republic of the Congo, Republic of Korea, Saudi Arabia, Singapore, Thailand and Tunisia.

This does not necessarily mean that there was a widespread reduction in the absolute level of private consumption. As indicated in chapter I, the volume of available resources was growing fairly vigorously in most countries during the 1960s so that even if a higher production of output was devoted to investment or to public consumption, a rise in private consumption was not precluded. In fact, however, when the growth of population is taken into account the results are seen to be very mixed. In almost a third of the developing countries for which measurements can be made, the increase in private consumption between 1960 and 1967 did not keep pace with the expansion in population; while at the other end of the scale, in rather more than one fourth of the countries, the rise in private consumption was at least twice as fast as the growth in population.

The incidence of declining *per capita* private consumption was heaviest in Africa where almost half the countries were in this category. In Asia *per capita* private consumption declined in about one fourth of the developing countries while in the western hemisphere the proportion was about one fifth. The relatively rapid rise in this indicator of living levels in the western hemisphere resulted in almost half the developing countries in the region having an average private consumption in excess of \$300 *per capita* in 1967. Only a fifth of the developing countries of Asia were in this position, while in Africa only the Libyan Arab Republic and Namibia had reached this level and Gabon was the only other country in which private consumption exceeded \$200 per person.

The western hemisphere was the only region in which population was distributed more or less normally in respect of national *per capita* income: two thirds of the region's population lived in countries with average 1967 *per capita* private consumption between the lower (\$205) and upper (\$436) quartiles, with the rest being divided fairly equally between the two extremes (see table 11). In Africa, by contrast, 45 per cent of the population were in countries in which private consumption was below the first quartile (\$60 *per capita* in 1967) and only 10 per cent lived in countries in which the average was above the third quartile (\$143). In Asia, the distribution was skewed even more: two thirds of the population lived in countries where private consumption averaged less than the lower quartile figure of \$87 *per capita* in 1967 and only 5 per cent were in countries above the upper quartile (\$220).

The region with the lowest level of *per capita* private consumption (Africa, with an average of \$93 in 1967) was also the region in which private con-

Table 11. Private consumption in developing countries, 1960-1968

Item and region	Distribution						
	First quartile		Median		Third quartile		
	Average (dollars)	Dollars	Population in countries below this level (millions)	Dollars	Population in countries between the first and third quartiles (millions)	Dollars	Population in countries above this level (millions)
<i>Per capita level of private consumption, 1967</i>							
Developing countries .....	131	85	753	143	599	252	204
Western hemisphere <sup>a</sup> .....	315	205	32	282	170	436	46
Africa <sup>b</sup> .....	93	60	139	90	139	143	30
Asia <sup>c</sup> .....	97	87	676	139	278	220	47
<i>Average annual rate of increase</i>							
Developing countries .....	4.3	2.7	211	4.2	1,023	5.4	308
Western hemisphere <sup>a</sup> .....	5.0	3.9	32	5.0	135	5.5	81
Africa <sup>b</sup> .....	2.3	2.2	147	3.1	124	4.6	37
Asia <sup>c</sup> .....	4.3	3.0	55	4.3	865	6.6	67

Source: See table A.5 in the statistical annex.

<sup>a</sup> Twenty-six countries, as listed in source.<sup>b</sup> Forty-four countries, as listed in source.<sup>c</sup> Twenty-six countries, as listed in source.

sumption was rising most slowly—an average of 2.3 per cent a year in the period 1960-1968. This means that on the average there was no gain in *per capita* private consumption during the decade: the increment in output went into higher investment and a rise in public consumption. In Asia the increase in private consumption was almost twice as fast, and seven out of eight people in the region were living in countries in which the rate of increase lay between 3.0 per cent and 6.6 per cent a year. The most rapid expansion—an average of 5 per cent a year—was registered in the developing countries of the western hemisphere where *per capita* consumption in 1967 was three times the Asian average. Only about an eighth of the population of the western hemisphere lived in countries in which private consumption was rising at less than 3.9 per cent a year.

Too much should not be read into these regional and country contrasts. What a high country average means in terms of human well-being depends on how incomes are distributed within the country. An assessment of changes in the level of living has to start with such country averages and comparisons among countries, but it cannot end there: it must proceed to an examination of the pattern of incomes within individual countries. This requires a new and generally poorly developed set of measuring instruments.

#### *Sources and distribution of income*

The factors that lie behind the wide divergence in consumption levels among countries also operate

within countries. Incomes generated in areas where specialization is practised, skills are developed and savings accumulated tend to be significantly greater than those accruing in subsistence areas where a more or less hand-to-mouth arrangement tends to prevail. And within the more specialized sector the possibilities of wide differences in income are much greater than in the relatively undifferentiated traditional society. Not only does the remuneration of various types of worker tend to differ widely in most developing countries—reflecting the general plenitude of unskilled labour and the scarcity of many of the required skills—but income depends very largely on employment which, because of lack of complementary factors, is not always available. Moreover, given the state of rapid transformation and its accompanying scarcity of particular types of resource so characteristic of the exchange sector in a developing country, income differences tend to cumulate rather rapidly: for those who can acquire financial or physical resources for which the demand is likely to increase obtain also a source of income that may yield much more than they can earn through employment. In some developing countries, indeed, property incomes—generated through ownership of the land—give even the traditional society a wide spread in levels of living.

The process of economic development, dependent on the pooling of resources in productive enterprises, generally results in a diminution in the relative importance of earnings from self-employment and a corresponding increase in the proportion of income

accruing in the form of wages and salaries. Though only a few developing countries compile data on the form in which the national income is distributed, what evidence is available shows that this tendency was under way in the 1960s (see table 12).

In only two out of twenty countries—Ceylon and Venezuela—did wage payments constitute a smaller proportion of the national income in 1966-1968 than in 1960-1962, and earnings from self-employment or property income a larger proportion. In these two countries the rise in self-employment was connected in part with large-scale land resettlement programmes; in Ceylon dry zone colonization and other settlement schemes are estimated to have benefited more than a fifth of the total population.

It would appear from these countries that around half of the national income is distributed as wages. The proportion is lower—about a third—in countries in which traditional peasant society bulks larger,

such as the Republic of Korea and the United Republic of Tanzania and, probably, many of the developing countries in Africa. It is higher—around two thirds—in places where mining or plantation enterprises or other special activities play a major role in the economy, such as Guyana, Jamaica, Panama and Venezuela. In very few developing countries does wage income reach the proportions registered in the economically more advanced countries—over 70 per cent of the total in Sweden, United Kingdom and United States, for example.

In very few of the more advanced countries do earnings from self-employment exceed a fourth of total income and in some of the most industrialized the proportion is less than 10 per cent. In the developing countries with their large peasant sectors, by contrast, the self-employed income ratio is generally higher than one fourth, and twice that figure in some cases.

Table 12. Selected developing countries:<sup>a</sup> changes in income structure, 1960-1968  
(Percentage)

Country	Proportion of national income distributed as					
	Salaries and wages		Earnings from self-employment		Income from property <sup>b</sup>	
	1960-1962 <sup>c</sup>	1966-1968 <sup>d</sup>	1960-1962 <sup>c</sup>	1966-1968 <sup>d</sup>	1960-1962 <sup>c</sup>	1966-1968 <sup>d</sup>
Bolivia	43.0	43.4	35.2	32.8	20.9	16.2
Ceylon	47.9	47.0	43.7	46.7	4.4	3.6
China (Taiwan)	46.1	49.1	25.7	20.6	21.7	22.2
Colombia	42.9	44.3	50.9 <sup>e</sup>	49.7 <sup>e</sup>	50.9 <sup>e</sup>	49.7 <sup>e</sup>
Costa Rica	50.0	52.7	36.5	34.6	12.0	10.8
Ecuador	50.9	52.3	40.6 <sup>e</sup>	36.7 <sup>e</sup>	40.6 <sup>e</sup>	36.7 <sup>e</sup>
Guatemala	47.0	50.0	51.8 <sup>e</sup>	49.2 <sup>e</sup>	51.8 <sup>e</sup>	49.2 <sup>e</sup>
Guyana	56.8	64.6	28.5	24.5	6.0	4.6
Honduras	49.8	50.7	38.6	32.4	8.3	10.2
Jamaica	59.7	61.3	21.4	18.5	8.5	8.5
Malaysia	46.4	47.5	46.5 <sup>e</sup>	45.3 <sup>e</sup>	46.5 <sup>e</sup>	45.3 <sup>e</sup>
Netherlands Antilles	74.4 <sup>f</sup>	71.7 <sup>f</sup>	74.4 <sup>f</sup>	71.7 <sup>f</sup>	19.4	20.7
Panama	79.6	80.9	6.3 <sup>e</sup>	4.4 <sup>e</sup>	6.3 <sup>e</sup>	4.4 <sup>e</sup>
Paraguay	40.2	43.5	58.9 <sup>e</sup>	55.3 <sup>e</sup>	58.9 <sup>e</sup>	55.3 <sup>e</sup>
Peru	46.6	47.7	29.4	27.5	13.3	
Republic of Korea	36.0	35.8	48.8	44.9	10.1	12.8
Southern Rhodesia	58.8	59.9	17.5	17.0		6.9
United Republic of Tanzania	28.9	30.6	53.4	48.1	1.4	4.4
Uruguay	52.4	54.5	45.4 <sup>e</sup>	45.1 <sup>e</sup>	45.4 <sup>e</sup>	45.1 <sup>e</sup>
Venezuela	60.9	57.5	20.8 <sup>e</sup>	22.2 <sup>e</sup>	20.8 <sup>e</sup>	22.2 <sup>e</sup>

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics*.

<sup>a</sup> Selected on the basis of availability of relevant data. The twenty countries listed accounted for about 15 per cent of the combined gross domestic product of the developing countries in 1967—5 per cent in the case of African countries, 10 per cent in the case of Asian countries and 26 per cent in the case of countries in the western hemisphere.

<sup>b</sup> Including corporate transfer payments in most cases; including undistributed profits in the case of Ecuador, Guatemala and Uruguay.

<sup>c</sup> 1960-1961 in the case of China (Taiwan); 1962 in the case of Malaysia and Paraguay.

<sup>d</sup> 1966-1967 in the case of Colombia, Ecuador, Guyana, Jamaica, United Republic of Tanzania and Uruguay; 1966 in the case of Guatemala and Peru.

<sup>e</sup> Income from self-employment is not distinguished from income from property.

<sup>f</sup> Income from self-employment is not distinguished from wages and salaries.

Income from property is relatively small in most developing countries—less than the 10 per cent that tends to be the typical ratio in more advanced countries. Where corporate forms of organization account for much of the output, however, the ratio is appreciably higher—as in Bolivia, China (Taiwan) and Netherlands Antilles. As such income usually accrues to a minute fraction of the population, its effect on the over-all pattern of income distribution may be much greater than the ratio would suggest.

As direct taxation is not very extensive in developing countries, there is no ready means of bringing together information about income distribution. Most of what is known is derived from *ad hoc* household budget surveys which are often confined to samples of the urban population.<sup>6</sup> More general estimates made for Latin America suggest a very skew distribution in most of the countries of the region. For the three largest countries, 40 per cent of total income accrued to the richest 10 per cent of the population in 1967 and not much more than 10 per cent of the income accrued to the poorest 40 per cent of the population. A similar pattern is reported elsewhere: In Chile, Colombia, Costa Rica, El Salvador, Panama, Peru and Venezuela, the poorest half of the population received less than one sixth of total income.<sup>7</sup> Though there are no comparable earlier estimates, competent observers report “that these basic proportions have changed little since the early 1960s”.<sup>8</sup> For the region as a whole, it is estimated that in 1965 the average income of the poorest 20 per cent of the population was about one sixth of the regional average while that of the richest 5 per cent of the population was over six times the regional average.<sup>9</sup>

Much the same conclusion appears to hold for most of the Asian region. A survey of income-tax returns in India (affecting less than 1 per cent of the population) suggests that at the beginning of the 1960s, the richest 10 per cent among taxpaying households received about 40 per cent of all income (42 per cent in the urban areas, 34 per cent in the rural areas), while at the other end of the scale half of the households accounted for about a fifth of the income (18 per cent in urban areas, 21 per cent in rural areas). In 1966 it was estimated that

at least a third of the rural population lived below the poverty line of Rs 40 per person per month (about \$60 a year).<sup>10</sup> In the Philippines, a survey early in the 1960s indicated that, as in India, the richest 10 per cent of the population received about 40 per cent of all income and that only a fifth of total income accrued to the poorer half of the population. In China (Taiwan) disparities were much less: in 1964 approximately the same proportion of income—just over one fourth—accrued to the top tenth and the lower half of the population.

In Africa there are extremely wide differences between the income accruing to those with scarce skills—often based on the cost of obtaining expatriate personnel to perform the functions in question—and the broad mass of untrained labour which is often far more numerous than the opportunities for gainful wage employment. And in the rural areas are the even lower imputed incomes that characterize the subsistence sector.

Wide geographical disparities are found in all three developing regions and it is clear that one of the principal causes of the skew distribution of income lies in the agrarian economy. In many cases it is merely a reflection of the low productivity of undifferentiated subsistence effort and lack of capital and skills and other inputs. But in other cases this is compounded by the local tenure system and shortage of suitable land. This is the situation in some of the Asian countries in which population density is very high. It is also a problem in parts of Latin America where an estimated 90 per cent of the arable land is owned by 10 per cent of the population. About 40 per cent of all farms in Argentina and Chile are considered too small to provide a reasonable living for a family, as are two thirds of the farms in Colombia and about 90 per cent of those in Ecuador and Peru. There is also a high proportion of sub-family farms in Guatemala and to a less extent in Brazil, though in these countries the constraint is not land but the other necessary inputs.

A sizable amount of land redistribution has been effected in Latin America in recent years, notably in Mexico and to a smaller extent in Bolivia, Chile, Colombia and Venezuela. In Chile between 1965 and 1968, in implementation of comprehensive land reform legislation, 1.2 million hectares of dry land and 136,000 hectares of irrigated land were allotted to about 14,000 families. In Mexico, 17.5 million acres of land were redistributed to 190,000 farmers between 1964 and 1967 and further allotments—drawn from holdings that exceeded the upper limit

<sup>6</sup> For a review of such surveys, see “National practices in statistics of the distribution of income, expenditure and wealth” (E/CN.3/399 and Add 1, June 1969 and February 1970); see also “Review of the social situation in the ECAFE region” (E/CN.11/L.250, February 1970).

<sup>7</sup> For a discussion of these estimates and how they were made, see *Economic Bulletin for Latin America*, vol. XII, No. 2, October 1967 (United Nations publication, Sales No.: 68.II.G.5).

<sup>8</sup> United States Agency for International Development, *A Review of Alliance for Progress Goals* (Washington, D.C., March 1969), p. 16.

<sup>9</sup> *Economic Survey of Latin America, 1968* (United Nations publication, Sales No.: E.70.II.G.1), p. 11.

<sup>10</sup> Government of India, Planning Commission, *Regional Variations in Social Development and Levels of Living, A Study of the Impact of Plan Programmes* (New Delhi, 1967), two volumes.

laid down in the agrarian code—were being arranged. In Venezuela, where at the end of the 1950s 80 per cent of the productive land was owned by 2 per cent of the population, about 3.6 million hectares were redistributed among 145,000 families. Altogether, between 1960 and 1967 almost a million Latin American families were resettled and 40 million hectares of land distributed. The number of families requiring attention is estimated at up to fourteen times this figure, however, and it is increasing faster than the rate of resettlement.<sup>11</sup>

Though in most Asian countries the opportunities for resettlement are much more limited, a good deal of reform of tenure and consolidation of holdings has supplemented the breaking up of large estates and the opening up of new land. Greater certainty about ownership, rights of occupancy and rent obligations has had favourable effects on peasant income in many cases. But where population pressure is increasing, the problems of the small-scale peasant farmer are much the same whether he is a landowner or a tenant and they tend to merge with those of the landless agricultural labourer. Except where there has been a significant increase in productivity,<sup>12</sup> the great mass of rural poverty continues to act as a drag on the whole economy.

Nor has a ready answer to this problem come from the urban areas. Indeed almost everywhere the townward migration exceeds the absorptive capacity of the urban economy. And since, in an urban environment, life and employment require more inputs and complementary factors than they do in the agrarian economy, the relative burden of poverty is often increased by the move. In or on the fringe of the town the family is effectively cut off from the means of subsistence afforded by the countryside and it tends to become more dependent.

Where employment is obtained, however, it usually assures the incumbent of a regular income, rising in money terms and in a majority of cases in real terms also. Real wage earnings in manufacturing, for example, registered an increase in the 1960s in over 60 per cent of the developing countries for which relevant information is available (see table 13). In just under a fifth of the countries—including Brazil, Burma, Ceylon, Ecuador, Ghana, Philippines and Senegal—wages remained more or less static in real terms and in a similar proportion there was a reduction in real wages. In Costa Rica, Mauritius and Sierra Leone, the data refer only to a short period of two or three years, but in the case of India, Morocco, Syria and Thailand, the decline applies to all or most of the decade, up to 1968, and it

<sup>11</sup> United States Agency for International Development, *A Review of Alliance for Progress Goals*, pp. 30-32.

<sup>12</sup> This aspect of the problem is discussed in chapter III below.

Table 13. Selected developing countries: employment and wages in manufacturing,<sup>a</sup> 1960-1968

Country	Percentage of labour force employed in manufacturing (around 1960)	Average annual change in real wages <sup>b</sup>	
		Period	Percentage
<i>Western hemisphere<sup>c</sup></i>	13		
Argentina	25	1960-1966	5.2
Barbados	14	1960-1964	1.9
Brazil	9	1966-1968	0.7
Colombia	13	1960-1968	3.4
Costa Rica	12	1960-1963	-2.1
Chile	18	1960-1968	5.6
Dominican Republic	8	1960-1967	9.0
Ecuador	15	1960-1965	0.8
El Salvador	13	1961-1967	1.4
Guatemala	11	1960-1968	2.2
Honduras	8	1960-1966	3.3
Jamaica	14	1960-1965	8.2
Mexico	14	1964-1967	2.0
Nicaragua	12	1960-1967	6.3
Panama	8	1962-1967	4.3
Peru	13	1960-1966	1.3
Trinidad and Tobago	15	1960-1964	9.0
Venezuela	12	1964-1968	2.5
<i>Africa<sup>c</sup></i>	9		
Ghana	9	1960-1967	-0.5
Kenya	8	1960-1966	6.3
Malawi	8	1960-1962	8.7
Morocco	8	1960-1968	-1.7
Mauritius	15	1966-1968	-9.0
Senegal		1960-1965	-0.1
Sierra Leone	4	1966-1968	-4.5
Southern Rhodesia	15	1960-1964	1.3
United Arab Republic	9	1960-1966	3.2
United Republic of Tanzania	7	1965-1968	4.8
Zambia	7	1960-1967	11.6
<i>Asia<sup>c</sup></i>	9		
Burma	7	1960-1964	0.5
Ceylon	9	1960-1968	-0.1
China (Taiwan)	11	1960-1967	5.9
India	10	1961-1967	-2.2
Israel	22	1963-1968	4.4
Pakistan	8	1960-1966	2.0
Philippines	10	1964-1968	0.3
Republic of Korea	16	1966-1968	12.8
Singapore	14	1960-1968	—
Syria	11	1962-1966	-1.5
Thailand	3	1961-1967	-1.5

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on International Labour Organisation, *Yearbook of Labour Statistics, 1969* (Geneva), and national sources.

<sup>a</sup> Countries are selected on the basis of availability of data. Data refer to non-Africans in the case of Southern Rhodesia.

<sup>b</sup> Nominal wages deflated by the change in the consumer price index.

<sup>c</sup> Regional averages refer to the countries listed.

reflects the fact that nominal wages did not rise fast enough to offset the effects of rising consumer prices.

The impact of rising industrial wages on the general level of living varies from one country to another. Among the forty countries listed in table 13, the proportion of the labour force engaged in manufacturing averaged only 10 per cent in 1960: though it exceeded 20 per cent in Argentina and Israel, it was below 5 per cent in Sierra Leone and Thailand and it is probable that the figure was even lower among countries for which data are not available. Hence, while changes in industrial wages are the major determinant of the level of living of those employed in that sector, their impact on the country as a whole may be quite limited.

The level of living is also affected by the conditions of employment, both the physical situation on the job and the availability of non-wage "fringe" benefits relating to housing, medical care, pensions and so on. And outside of employment are the transfers effected through government mechanisms—social security-type income supplements on the one hand and various forms of subsidy on the other. While in principle these can be, and indeed are, used to lessen the disparities in income, their impact is limited by various practical considerations. In so far as they operate through the wage-employment system, they tend to be directed to the middle-income group, and in some countries this is still a relatively small part of the economy. In so far as they are budget-based, they often have to yield to more urgent claims on what are in most developing countries severely circumscribed resources. In these circumstances, equalization is likely to be served better by the improvement of skills and the opening of job opportunities than by the payment of subventions.

#### *Mortality and morbidity experience*

In principle, as indicated above, the well-being of a population may be directly gauged from the changing incidence of disease and sickness and the prolongation of life. To evaluate the policies that have been pursued in the effort to raise health standards, each country needs to set up a monitoring system for keeping under surveillance at least those diseases that are locally most troublesome including, in particular, the communicable and debilitating diseases that tend to be most detrimental both to levels of living and to the whole development process. Before meaningful international comparisons can be made of the relative success of countries in lowering the incidence of such diseases, systems of record-keeping will have to be greatly improved. To a large extent this will depend on the reporting to a central authority of individual cases of all diseases designated notifiable and on a comprehensive

system for registering deaths and the basic and proximate causes of them. Such reporting obviously depends on the availability of the requisite expertise, and countries that are poorly supplied with medical personnel will find it difficult to keep a statistical watch over the changing incidence of specific diseases. Many developing countries will have to rely heavily on sample surveys and the judicious interpretation of the results flowing from medical examinations conducted in connexion with unrelated administrative procedures such as military or police recruitment or the admission to insurance or pension plans. Where a medical service is attached to the education department, it should be possible to obtain a valuable systematic accounting of the incidence of particular diseases—perhaps even of the state of health—among the school-going segment of the population.

In the absence of suitable morbidity data, the death rate and changes in the death rate may be used as a rough initial guide to the state of health. Such an indicator is the most generally available but its quality tends to differ widely from country to country depending on the effectiveness of the local system of registration or, where there is none, on the care, completeness and frequency with which surveys have been conducted on which estimates can be based. Allowing for their statistical weakness and for what is known about the age composition of the populations concerned, a compilation of such data serves to dramatize two features of the situation: the wide spread in reported or estimated rates and the decline in rates in developing regions and the increase in the more advanced countries in the course of the 1960s (see table A.6 in the statistical annex).

Because of the disparity in age structure, inter-country comparisons of crude death rates cannot be used as an indicator of health status for ranking purposes. Among the more advanced countries, however, death rates tend to diverge relatively little from an average of about 10 per 1,000 *per annum*: only a third of the total reported rates lay outside the range of 8-12 in 1968, half below (Canada, Cyprus, Iceland, Japan, Puerto Rico, Ryukyu Islands and the Soviet Union) and half above (Austria, Channel Islands, East and West Berlin, German Democratic Republic and Turkey). In the developing countries, by contrast, rates range from under 6 to over 30. Even in the western hemisphere, the best-documented region, where rapid growth has resulted in a very young population, rates range from around 6 (Bahamas and Surinam) to over 20 (Bolivia and Haiti). In Asia they also range from around 6 (Brunei, China (Taiwan), Fiji, Hong Kong, Kuwait and Singapore) to over 20 (Burma, India, Indonesia, Iran, Laos, Maldives and Nepal), while in Africa, where the data are weakest, Mauritius and



Réunion report death rates of under 10 per 1,000 at one end of the scale and Chad, Guinea, Ivory Coast and Upper Volta, rates in excess of 30 per 1,000 at the other.

Altogether, rather more than a third of the population of the developing regions lived in countries reporting death rates above the upper quartile of 23 per 1,000 (see table 14). In the rest of the world, the upper quartile was 11 deaths per 1,000 and only a sixth of the population lived in countries with an average above this. The highest concentration of population (40 per cent) in countries with death rates above the upper quartile (20 per 1,000) was in the Asian region. The corresponding proportion in Africa and the western hemisphere was only about 10 per cent. In other respects, however, these two regions differed sharply: the lower quartile

of death rates in Africa (19 per 1,000) was higher than the upper quartile in the western hemisphere (14).

The highest death rate among the countries of Europe was 16 per thousand (in Turkey). The proportion of the population living in developing countries reporting higher rates than that was 5 per cent in the western hemisphere, 50 per cent in Asia and 75 per cent in Africa.

Of the forty developing countries for which two figures are available for the 1960s—one at the beginning of the decade and one in 1967 or 1968—only a fourth report an increase in the death rate. Most of these are in Latin America, among the northern tier of States, though they also included the low-mortality countries of Israel and Thailand. This generally downward drift of crude death rates

Table 14. Mortality experience, life expectancy and rate of natural population increase, around 1968<sup>a</sup>

Item and region <sup>b</sup>	Average	Distribution					
		First quartile		Median		Third quartile	
		Rate	Population in countries below this level (millions)	Rate	Population in countries between the first and third quartiles (millions)	Rate	Population in countries above this level (millions)
<b>Crude death rate (per 1,000 population)</b>							
Developing countries, total	17	8.1	103	15	1,522	23	663
Western hemisphere . . .	11	8.0	14	9	234	14	26
Africa . . . . .	21	19	62	24	151	28	25
Asia . . . . .	17	6.9	24	12	1,030	20	722
Rest of the world <sup>c</sup> . . . .	9.4	8.3	409	9.6	501	11	185
<b>Infant mortality rate (per 1,000 live births)</b>							
Developing countries, total	118	46	196	87	566	139	720
Western hemisphere . . .	81	40	15	53	107	77	148
Africa . . . . .	123	102	69	137	151	174	21
Asia . . . . .	122	35	24	47	175	120	772
Rest of the world <sup>c</sup> . . . .	29	17	194	23	708	30	191
<b>Life expectancy at birth (years)</b>							
Developing countries, total	45	38	206	47	1,139	62	136
Western hemisphere . . .	61	56	20	62	208	65	38
Africa . . . . .	40	35	62	38	159	43	75
Asia . . . . .	44	41	56	52	895	64	32
Rest of the world <sup>c</sup> . . . .	70	68	109	70	877	71	109
<b>Rate of natural increase of population (percentage)</b>							
Developing countries, total	2.3	1.9	142	2.4	1,835	3.1	355
Western hemisphere . . .	2.9	2.2	31	3.0	175	3.3	69
Africa . . . . .	2.3	1.8	24	2.3	249	2.9	60
Asia . . . . .	2.2	1.7	44	2.3	1,569	3.0	171
Rest of the world <sup>c</sup> . . . .	0.9	0.4	128	0.9	807	1.4	160

Source: See table A.6 in the statistical annex.

<sup>a</sup> Where 1968 data are not available, figures relating to an earlier year in the decade have been used.

<sup>b</sup> The countries and territories covered are those listed in table A.6.

<sup>c</sup> Including developed market economies and centrally planned economies as indicated in the source.



in the developing countries stands in sharp contrast with the trend in the more advanced countries: in less than a fourth of these was the rate lower in 1968 than at the beginning of the decade.

At low levels of natural increase (less than 1 per cent a year in most of these countries) the aging of the population is itself a cause of higher death rates. In these circumstances, the crude death rate is obviously a poor indicator of changes in health and well-being; age specific rates are required for this purpose.

In the developing countries a decline in crude death rates is much more likely to be associated with an improvement in health or at least with the reduction in the incidence of particular diseases, especially among populations in which mortality rates are relatively high. While arrangements are being made to improve the reporting of mortality by means of information on the cause of death and the age and other characteristics of the deceased, crude death rates will therefore have to be kept under review as one indicator of human well-being.

Among the age specific death rates, that of infants within a year of birth is probably the most sensitive measure of changes in community health. For the 1960s this indicator shows the same features as the over-all death rate: the wide spread among the developing countries and the general tendency for the rate to decline in the course of the decade.

In the more advanced countries the infant mortality rate ranges from under 15 per 1,000 live births *per annum* in northern Europe to over 50 in parts of southern Europe. There are developing countries with rates within this range, but in many cases estimates run much higher—over 100 in most African countries and as high as 200 in some instances. All but one seventh of the more advanced countries reported infant death rates of less than 40 in 1967. The corresponding ratio among the developing countries was about one third in Asia, one fourth in the western hemisphere and zero in Africa. At the other end of the scale, only two countries in Europe (Albania and Turkey) had an infant death rate of over 80; among the developing countries of the western hemisphere about one fifth of the countries were in this category, in Asia almost a third and in Africa over 90 per cent.

In the western hemisphere and Asia, the larger countries were among those with relatively high infant mortality. In the western hemisphere, well over half the population lived in countries in which the infant mortality rate was above the third quartile figure of 77 per 1,000 live births. In Asia both figures were much higher; the upper quartile was 120 deaths per 1,000 live births and 80 per cent of the population lived in countries with mortality

experience even less favourable. In Africa, where the first quartile was approximately half way between the third quartile figures for the other two regions, two thirds of the population lived in the countries in the middle range.

The 1960s saw an almost universal reduction in infant mortality rates. Though the estimates are often too weak to warrant an attempt at measuring the full extent of the decline—and to see whether the World Health Organization target of a 25-50 per cent reduction in the decade was achieved—the direction of movement is quite unambiguous. About 90 per cent of the thirty-seven developing countries for which two estimates are available, and an even higher proportion of the rest of the world, recorded a decline. Some of the most notable reductions occurred where high rates had prevailed in the 1950s: in Chile, for example, the rate declined from 125 per 1,000 live births in 1960 to 92 in 1968, in Burma from 200 to 114, in the Philippines from 99 to 72, in St. Lucia from 102 to 42, in the People's Democratic Republic of Yemen from 120 to 80, and in the Dominican Republic from 102 in 1961 to 73 in 1968. But even in countries with more moderate infantile losses, substantial reductions were achieved: in Jamaica the rate fell from 51 to 35, for example, in China (Taiwan) from 30 to 19, in Singapore from 35 to 21 and in Thailand from 51 to 28. Comparable reductions were recorded among the more advanced countries.

This widespread increase in the survival rate of infants was the principal factor in the decline in over-all death rates in the developing countries, in a general extension in life expectancy and in a rise in the rate of natural increase. The differences in expectation of life at birth remained considerable, however: in Africa, average expectancy towards the end of the decade was still below forty years, in Asia about forty-five, in the western hemisphere about sixty and in the more advanced countries about seventy. Among the more advanced countries there was only one (Turkey) with an average life expectancy of less than 60 years; over 70 per cent of the developing countries were in this category, over 40 per cent in the western hemisphere, over 60 per cent of the Asian countries, and all the African countries except Mauritius. The distribution of population in respect of this variable is much more symmetrical than in the case of mortality experience. In each of the regions the bulk of the population lived in countries in which life expectancy at birth was in the middle range between the lower and upper quartiles, 35-43 years in Africa, 41-64 years in Asia, 56-65 in the western hemisphere and 68-71 in the rest of the world.

Notwithstanding the high mortality rates in the developing countries, even higher birth rates ensured

that there were also marked differences in the rates of natural increase: in most of the more advanced countries these had declined below 1 per cent a year by 1968, but in most developing countries they were still rising, and in Latin America they were generally over 3 per cent a year. The proportion of countries with a rate of natural increase in excess of 2.5 per cent a year was about 9 per cent among the more advanced and 50 per cent among the developing: well over a third of Asian countries, almost half the countries of Africa and two thirds of those in the western hemisphere.

The demographic evidence thus points in two directions. On the one hand, the decline in mortality and the extension in life expectancy are indicative of improvement in health and sanitation and hence in a basic component of the level of living. Though the data are often too rough to allow precise quantification, they are sufficiently revealing to suggest that more accurate and systematic registration of births and deaths would provide a useful measure of progress. For on such improved record-keeping it would be possible to build up the more refined indicators such as age specific death rates, life expectancy and causes of death.<sup>13</sup>

On the other hand, while the evidence thus suggests appreciable progress, it also contains a warning of impending problems. The very success in reducing mortality rates, by raising the rate of natural increase, has made the process of economic development more difficult for many developing countries. The increasing number and proportion of surviving children have raised the dependency ratio—the number of economic dependants per productive worker—and hence made it harder to set aside resources for better equipping the producers. Nor has this phase yet run its course: notwithstanding the progress, there is still a wide disparity in mortality rates between the developing countries and the more advanced countries. If the trend of the 1960s continues, a further and perhaps considerable reduction in mortality rates can be expected in the developing countries in the 1970s. This must be viewed as a most desirable sign of rising levels of health and living. Unless it is accompanied to a greater extent than in the past by a reduction in fertility, however, the improvement in mortality experience will result in a further rise in the rate of natural increase, in the dependency rates and in the burden of creating economies that are viable and capable of assuring continuing steady gains in levels of living to their members.

<sup>13</sup> The number of deaths caused by infectious and parasitic diseases, for example—a potentially useful indicator of levels of living—is reported by only twelve developing countries at present.

### *Medical facilities*

While improvement in health should be reflected in a decline in the *use* of medical facilities, it is realistic to regard an increase in the *availability* of such facilities as evidence of a rise in the level of living. The facilities that count most in this context are those to which the ordinary citizen can resort in case of need—the trained doctor, the trained nurse and the equipped hospital. A first approximate measure of progress in this field is change in the average density of such facilities.

Various definitional ambiguities need to be kept in mind in using such indicators. The training, quality and assiduity of medical and nursing personnel may differ quite widely, and what constitutes an adequately equipped hospital bed may be affected not only by local conditions but also by changes in technology impinging from abroad. Moreover, even if definitions were satisfactorily standardized, the problem of measuring accessibility would remain: this depends to a large extent on geographical dispersion and related transport facilities, but it also involves more subtle potential barriers such as language and income and cost and accepted patterns of social behaviour.

When a country appraises its own progress in providing medical facilities, every effort should be made to take due account of these definitional, spatial and institutional considerations. In the present context, no more than a superficial review of available information can be attempted. And, as in the case of mortality experience, this shows two main features: a good deal of improvement in the average density of the three basic facilities, and also an extremely wide disparity among countries.

In the case of physicians per 1,000 of the population, for example, a rough comparison can be made for eighty-five developing countries between the situation at the beginning of the 1960s and that obtaining in 1966. Almost two thirds of these countries achieved an increase in average density, that is, a decline in the ratio of potential patients to registered medical practitioners. Assuming there was no significant reduction in the activity of such practitioners<sup>14</sup> and no significant increase in the extent to which they were concentrated in urban nodes or central hospitals, this increase in density represents a corresponding gain in levels of living.

<sup>14</sup> It is not always certain that medical registers are kept up to date by appropriate changes in the classification of doctors who withdraw, abruptly or gradually, from active practice. Where qualified but non-practising physicians are kept on the register, the latter will tend to overstate the real amount of professional skill available to the population. Intercountry comparisons are further vitiated by the fact that in some cases—notably in Asian countries—the registers refer only to personnel connected with government establishments.

Most of the countries reporting the largest increases in density were among the smallest in population: here the entry of a few additional doctors greatly reduced the average number of potential patients per doctor. Even so, many were left with population/physician ratios of over 20,000, as in the case of Afghanistan, Cameroon, Democratic Republic of the Congo, Dahomey, Ethiopia, Guinea, Laos, Mali, Nepal, Niger, Nigeria, Sudan, Togo and Upper Volta. On the other hand, some of the smaller countries registered gains that brought their population/physician ratios down to 3,000 or less, as in the case of Hong Kong, Libyan Arab Republic (with the lowest ratio in developing Africa), Republic of Korea and Singapore as well as Costa Rica, Jamaica, Panama and Peru. Somewhat smaller gains achieved a similar end in China (Taiwan), Kuwait and People's Democratic Republic of Yemen, in the United Arab Republic and in Barbados, Bolivia, Brazil, Nicaragua and Venezuela. There was a notable expansion in the supply of doctors in Uganda and even more so in Pakistan, Senegal and Sierra Leone, more or less doubling the density between 1960 and 1966, and a fourfold increase in the number of doctors in the Khmer Republic (see table A.7 in the statistical annex).

Among the countries in which there was little change in the population/physician ratio were some at either end of the spectrum: Argentina, Colombia and Israel with less than 3,000 and Burundi and Central African Republic with over 30,000; and in between were Burma, Lesotho and United Republic of Tanzania where the ratio remained between 10,000 and 20,000 persons per doctor.

In almost a third of the developing countries the situation deteriorated. This happened in Chile, China (Taiwan), Cuba, Jordan, Lebanon, Mexico, Paraguay and Syria among those relatively well provided with doctors and, at the other end of the scale, in Haiti, Republic of Viet-Nam and Thailand, and in a number of African countries, including Botswana, Chad, Malawi and Mauritania among the low-density countries, and Algeria, Angola, Gambia, Kenya, Morocco and Zambia among those with fewer than 20,000 persons per doctor.

Among the more advanced countries there was none in which there were more than 3,000 persons per doctor. Among the developing countries, by contrast, this density was exceeded in about a third of those in the western hemisphere, almost two thirds in Asia and all but three (Réunion, Spanish North Africa and United Arab Republic) in Africa. In more than 40 per cent of the developing countries, indeed, there was an average of over 10,000 persons per doctor, which was the maximum set by the World Health Organization as a target for the First Development Decade.

In very few of the more advanced countries does the population/physician ratio approach 1,000 and less than 10 per cent of the population live in countries with more than 1,000 persons per doctor (see table 15). Only a handful of the developing countries are relatively as well placed in respect of medical attention: less than 2 per cent of the population live in countries with less than 1,000 persons per doctor, while a fourth live in countries in which each doctor has over 14,500 potential patients and in a number of African countries there are over 50,000 persons per doctor. Moreover, in many cases these simple ratios understate the problem: the high concentration of doctors in the major towns often means an even greater lack of medical help among the rural population.

As definitions and registration are more lax in the case of nurses, it is more difficult to interpret the available data. Of the 100 developing countries for which some sort of figures are reported early in the 1960s and later in the decade, about a third show retrogression, that is, an increase in the ratio of population to nurses. This is about the same proportion as showed a deterioration in doctor density, though for the most part different countries were involved.

The disparity between the developing countries and the more advanced countries, though large, was much smaller than in the case of doctors. In the more advanced countries, the number of nurses tends to be of the same order as the number of doctors; in the developing countries there are relatively far more nurses. In a number of developing countries the population/nurse ratio approximates that obtaining in the more advanced countries: this was true in Cuba, People's Republic of the Congo, Réunion, Singapore and Venezuela where there was a significant improvement between 1960 and 1966, in Barbados, Brunei, Gabon, Israel and Jamaica where there was a smaller improvement, in Fiji, Grenada, Guyana, Kuwait, Netherlands Antilles and Trinidad and Tobago where the population/nurse ratio rose, and in Argentina, Bahamas, Bahrain, Guam and Martinique where the number of nurses expanded in line with the population.

Outside this group of countries—about a third of the 114 countries and territories with relevant data but accounting for only 7 per cent of the population—nursing care was much scarcer. Even among the developing countries in which there was a significant improvement in the 1960s there were more than 5,000 potential patients for every nurse—the target set by the World Health Organization for the decade—in Guatemala and Mexico, in Cameroon, Malawi, Niger, Nigeria and Zambia and in China (Taiwan), India, Iraq, Laos, Nepal, Pakistan, Saudi Arabia and Yemen. There was only one country (Turkey) in

Table 15. Distribution of countries and population, according to density of medical facilities, 1966

Item	Developing countries								Rest of world	
	Total		Western hemisphere		Africa		Asia		Countries	Population (millions)
	Number	Population (millions)	Number	Population (millions)	Number	Population (millions)	Number	Population (millions)		
<i>Number of countries in which the number of persons per Physician was:</i>										
Less than 1,000	6	32	2	27	1	—	3	5	31	1,006
1,000-4,499	47	410	24	229	4	36	19	145	10	93
4,500-9,499	19	744	5	11	8	34	6	699	—	—
9,500-14,499	9	77	1	5	6	38	2	34	—	—
14,500 and over	41	393	—	—	30	218	11	175	—	—
Total	122	1,656	32	272	49	326	41	1,058	41	1,099
<i>Nurse was:</i>										
Less than 500	4	6	2	2	—	—	2	4	21	790
500-1,499	32	104	13	49	7	9	12	46	13	162
1,500-2,999	15	98	3	4	7	49	5	45	—	—
3,000-4,499	22	241	3	98	15	61	4	82	—	—
4,500 and over	40	1,148	8	83	16	185	16	880	1	34
Total	113	1,597	29	236	45	304	39	1,057	35	986
<i>Hospital bed was:</i>										
Less than 150	10	9	3	1	1	1	6	7	30	954
150-299	34	200	15	142	8	38	11	20	9	78
300-449	20	112	10	70	9	30	1	12	1	33
450-599	12	137	2	51	7	57	3	29	1	34
600 and over	45	1,196	2	7	24	200	19	989	—	—
Total	121	1,654	32	271	49	326	40	1,057	41	1,099

Source: See table A.7 in the statistical annex.

the more advanced group in which the population/nurse ratio was over 3,000. By contrast, this ratio was exceeded in over a third of the developing countries of the western hemisphere, half of those in Asia and two thirds of those in Africa. As most of the large countries were in this low nurse density group, moreover, the proportion of total population affected was around 80 per cent in the western hemisphere and Africa and over 90 per cent in Asia.

In most countries the nursing function is closely linked to medical establishments such as hospitals and clinics,<sup>15</sup> the accessibility of which also helps to determine the level of living. A rough measure of this is the number of available hospital beds. In the aggregate, this has increased more or less in line with population: among the 117 developing countries for which data were reported early in the 1960s and then again in 1966 about one half registered a decline in the population/bed ratio and the other half either an increase or little or no change.

Measured by this ratio, there was an improvement in hospital facilities in about half the African countries (including, in particular, Chad, Ghana,

Guinea, Niger and Senegal among the low-density countries, and Algeria, Equatorial Guinea, Gabon, Libyan Arab Republic and People's Republic of the Congo among those whose bed/population ratio was of the same order as that characterizing the more advanced countries). In the Asian region the number of beds increased faster than population in about 60 per cent of the countries, including Afghanistan, China (Taiwan), India, Laos, Nepal, Pakistan, Philippines, Republic of Korea and Saudi Arabia among the low-density countries, and Kuwait, Japan and People's Democratic Republic of Yemen, where in 1966 there were less than 250 people per bed. In the western hemisphere where the bed density is above the developing country average, the improvement was most notable in Bolivia, Brazil and Ecuador.

At the other end of the spectrum were a number of countries—relatively more in Africa and Latin America than in Asia—in which hospital expansion failed to keep pace with the growth of population. These included some that were relatively well supplied with hospital beds (such as Barbados, Brunei, Chile, Democratic Republic of the Congo, Costa Rica, Fiji, Lebanon, Mauritius, Panama, Trinidad and Tobago and Venezuela, in which there were less

<sup>15</sup> In some countries, indeed, the figures cited in table A.7 refer to hospital nurses only.

than 350 persons per bed) and others that ranked among the least well equipped—Haiti, Indonesia, Khmer Republic and Mauritania, for example, with over 1,000 persons per bed.

The wide disparities that characterized the other medical service indicators were also in evidence in the case of hospital facilities. Among the more advanced countries, the average population/bed ratio was around 100 in 1967. Very few of the developing countries approached this figure and most of them were small and atypical in their economic and social structure. Apart from Argentina, the countries that had a hospital bed for less than 200 persons in 1966, for example, comprised Barbados, Cuba, Equatorial Guinea, Gabon, Guyana, Israel, Kuwait and People's Republic of the Congo, plus a sizable number of dependencies in the Caribbean area and the Pacific. In only one of the more advanced countries (Turkey) were there more than 600 persons per hospital bed; there were only two developing countries with such ratios in the western hemisphere (Haiti and Honduras), but in Africa and Asia half the countries fell into this category, and their population represented over 60 per cent and 90 per cent of the respective regional totals. Altogether, there were almost as many developing countries with ratios of over 450 persons per bed as there were below that figure, and in about a fourth there were over 1,000 persons per bed.

These over-all data probably overstate the hospital facilities actually available to the population: they do not take accessibility into account and it has been a matter of frequent comment that the geographical distribution of hospital beds tends to differ very considerably from the geographical distribution of population. Though there is no way of documenting this on a global basis, it is probable that the average ratios discussed above are compounded of a relatively high bed density in the major urban areas and a much lower bed density in the rest of the country.

This is another of the distribution aspects that complicate all data relating to the level of living. For a realistic appraisal of status and progress it is not sufficient to consider country averages and changes in those averages. While an analysis of the situation must begin with totals and averages, it must proceed with a review of how those averages are distributed among the people at large.

In countries that cover only a small geographical area, the average bed density may provide a fair indicator of the availability of hospital facilities. The larger the country, however, the weaker does the average become and the greater the need to examine also the location of the facilities in relation to the population. In human terms that are most

relevant to the level of living concept, improving facilities in areas where they are poorest may contribute much more to welfare than a comparable effort in an area already better provided for. This is the rationale behind the health service strategy of spreading clinics and dispensaries into the remoter population groups rather than investing in larger hospitals in the main towns.

While there are various technical reasons why the supply of hospital beds, physicians and nurses can be expected to move more or less in line, other forces have also been at work, with an impact on each of the components of the health service that has often differed from country to country. Some countries have tried to move away from the curative emphasis of central hospitals to a less capital-intensive system of clinics and preventive medicine. Some have experienced a drain of their doctor strength either through the departure of expatriates or through the migration of indigenous interns to hospitals in the more advanced countries. Some have been able to increase their supply of nurses as a result of the rise of professionalism and career development among women. Some have sought more strenuously than others to extend their health service through the increased use of para-professionals whose preparatory training is shorter and less rigorous than that of the doctors and nurses on whose numbers this appraisal has been based.

Thus in only a minority of countries did all three elements move together. In a few cases, including the Dominican Republic, Grenada, Jordan, Malawi, Mauritania, Netherlands Antilles, Paraguay, Syria and Trinidad and Tobago, the density of doctors, nurses and hospital beds declined between 1960 and 1966. In rather more cases was there general improvement in health facilities—in Bolivia and El Salvador, in Equatorial Guinea, Gabon, Ghana, Libyan Arab Republic, Mali, Mozambique, Niger, Nigeria, People's Republic of the Congo, Senegal, Swaziland and Upper Volta and in Afghanistan, Ceylon, Hong Kong, India, Iran, Laos, Malaysia, Pakistan, Papua, Philippines and Saudi Arabia.

An improvement in health facilities is by no means tantamount to an improvement in health. The latter is a far more subtle variable for which there is no ready means of measurement even in the most advanced countries. Though good health cannot be equated merely with the absence of disease, this negative measure is the only one that is likely to be quantifiable on a wide enough scale in the immediately foreseeable future to be usable to measure and compare progress. Even in this case, however, little can be said about the developing countries.

As indicated above, no precise accounting can be given of changes in the incidence of specific diseases,

though some broad estimates have been made of the effect of campaigns that have been waged against particular vectors. Thus it is thought that during the 1960s the efforts made to eliminate the anopheles mosquito have appreciably reduced the risk of malaria: at the beginning of the decade about 1.7 billion people were at risk in malarious areas; by 1968 the number at risk was about one fourth less. In Latin America (excluding Brazil) the number of people at risk (over 140 million in 1960) was almost halved, and known deaths from malaria (about 11,000 in 1960) were about a fifth less.

Similarly, in the wake of extensive vaccination campaigns, reported cases of smallpox were more than halved in Latin America in the course of the decade. And there seems to have been a comparable reduction in other regions, for on a global basis new cases declined from 120,000 in 1960 to less than 60,000 in 1969 and an estimated 30,000 (in twenty-three countries) in 1970.

Less striking but equally significant gains have been made against tuberculosis in some areas. The estimated number of deaths from this cause in Latin America, for example, was about one sixth lower in 1966 than at the beginning of the decade.

Such reductions in the incidence of and mortality from major communicable and debilitating diseases should be taken into account in each country as it assesses its economic and social progress. Even though their impact on the level of living is difficult to quantify, it is clearly beneficial.

### Nutrition

The diet is a basic determinant of the level of living, especially in the developing countries, where the great bulk of income is spent on food-stuffs. The intake of food not only provides satisfaction in itself but also contributes very largely to the state of health. Indeed, of the various measurements that might and should be used to assess progress in this field, the link between nutrition and health suggests one of the most important, namely, the collection and interpretation of clinical evidence of dietary deficiencies. This could be achieved not only through sample surveys but also through the organization of an appropriate reporting system at all points at which medical examinations are conducted—hospital admissions, school health inspection, military and police recruiting and so on. A continuous flow of such reports would provide a useful indicator of the incidence of hunger and malnutrition.

The immediate purpose of such evidence would be as guidance for specific aspects of national health and nutritional policies. In the longer run such indicators might be standardized to provide both an indicator of over-all nutritional status and change

in individual countries and a means of making international comparisons of the incidence of diseases—such as kwashiorkor, pellagra, rickets or beri-beri—that are the direct result of poor diets. In the meantime an international discussion of the nutrition component of the level of living must draw chiefly on the evidence furnished by data of apparent consumption of the main dietary elements. This is achieved by converting the data for apparent consumption of specific commodities into calorie equivalent on the one hand and by estimating the protein content on the other. In varying degree, calculations of apparent consumption—production plus imports minus exports, with due allowance for wastage and changes in inventories—can be checked against the conclusions derived from direct surveys of nutrition in which measurements of actual food intake of family groups are attempted.

The end result of this type of calculation is an estimate of the average daily consumption per person of calories and of protein (and, where sufficient data are available, of so-called first-class protein, derived from animals). These consumption estimates can be compared with reference standards established as the minimum daily requirement for the maintenance of health. In principle, these standards take into account the major factors determining the average need for food elements in particular areas—climate, population structure (to take into account regional variations of body weight with sex and age) and the nature of employment (particularly the need for physical effort).<sup>16</sup>

As in the case of the other components of the level of living, caution must be exercised in interpreting such national averages: they may conceal a wide spectrum of actual experience. However, the risk of great deviation from the average is probably less for food-stuffs than for most other items of consumption. The extent to which food consumption tends to increase as income rises, though quite considerable at low levels of income, generally declines quite rapidly. At higher levels of income, the demand for other forms of satisfaction increases more rapidly than the demand for food. To that extent a rise in the average intake of calories and even, though to a less degree, of protein is probably more likely to stem from an improvement on the low consumption end of the spectrum than from a further increase at the high consumption end.<sup>17</sup>

<sup>16</sup> See the report of a Joint FAO/WHO Expert Group, published in 1965 as Food and Agriculture Organization of the United Nations, *Nutrition Meetings Report Series, No. 37, Protein Requirements* (Rome).

<sup>17</sup> In order to ensure an adequate intake by those at the low end of the consumption spectrum, some authorities have raised the average reference requirements by a factor of 15 per cent. See, for example, *International Action to Avert the Impending Protein Crisis* (United Nations publication, Sales No.: E 68.XIII.2).



Estimates of the calorie value of the apparent consumption of food in or around 1967 suggest that rather more than half the developing countries had an average intake equal to or above the figure designated as standard requirements (see table A.5 in the statistical annex). The proportion of countries with an inadequate calorie supply was rather less than half in Latin America (including, in particular, Bolivia, Dominican Republic, Ecuador, El Salvador and Honduras) and about two thirds in Asia (including, in particular, India, Indonesia, Iran, Iraq and Saudi Arabia). In Africa, where the data are weakest, the evidence suggests that undernutrition tends to be concentrated around the Saharan periphery: Mali, Mauritania and Upper Volta on the west and south, Ethiopia, Rwanda, Somalia, Sudan and Uganda on the east and Algeria, Morocco and Tunisia on the north. Assuming average requirements of around 2,250 calories per person per day, less than a third of the countries in Africa have an adequate supply of energy-sustaining food-stuffs. In the western hemisphere, the countries with the highest calorie intake were Argentina, Chile, Mexico and Uruguay; in Asia they were China (Taiwan), Israel, Jordan and Lebanon; in Africa, Libyan Arab Republic and United Arab Republic. In these countries supplies approached the daily level of 3,000 calories, characteristic of the more advanced countries.

Among the forty-seven developing countries in which more than one estimate was made during the 1960s, a comparison suggests that there was a widespread improvement in the intake of food in the course of the decade: indeed, for every country registering a reduction in average daily *per capita* calorie consumption, there were three in which consumption increased. Many of the countries that were below standard in 1967 experienced a deterioration during the decade. This was the case in Algeria and Ghana as well as in a number of Latin American countries (Colombia, El Salvador and Honduras) and Asian countries (Afghanistan, India and Iran). But in the other cases of substandard calorie supply, the 1967 level of consumption represented an improvement on that estimated at the beginning of the decade. This was true not only of Bolivia, Dominican Republic, Ecuador, Mali, Morocco, Tunisia and Uganda (mentioned above) but also of Guatemala and Peru, Gabon, Kenya and United Republic of Tanzania, and Ceylon, Pakistan and the Philippines.

Altogether, about a fourth of the population of the developing countries of the western hemisphere lived in countries in which the *per capita* supply of calorie sources was below reference standard in 1967. The corresponding proportion in Africa was about 80 per cent, while in Asia all but 6 per cent of the population lived in substandard countries in

calorie terms. By way of contrast, only one European country (Albania) had a calorie supply below reference standard in 1967, and over 80 per cent of the population of the more advanced regions lived in countries in which calorie supplies were 10 per cent or more above the standard (see table 16). While the availability of a calorie supply up to reference standard does not guarantee an adequate intake for everyone in the country in question, the further below standard requirements is the total supply, the greater is the probable incidence of undernourishment.

In one respect, the available estimates regarding protein supplies is similar to that on calories: the developing countries registering an improvement during the period 1960-1967 outnumbered those in which there was some deterioration by three to one. But the latest information suggests that the great majority of developing countries consume far less protein than that designated as standard physiological requirements. Indeed, in 1967, less than a third of the fifty-seven developing countries for which estimates are available had protein supplies equal to or in excess of requirements: Gabon, Kenya, Mali and the United Arab Republic in Africa, Argentina, Brazil, Chile, Mexico, Panama, Uruguay and Venezuela in Latin America, and China (Taiwan), Israel, Jordan, Lebanon, Republic of Korea and Syria in Asia.

A significant increase in the 1960s still left the Ivory Coast, Libyan Arab Republic, Surinam, Tunisia and Uganda short of the standard. To a smaller extent this was also true of Madagascar and Morocco, as well as Bolivia, Dominican Republic, Ecuador and Jamaica, where protein supplies remained far below requirements. There was some improvement in Costa Rica, Guatemala, Nicaragua and Paraguay, in Gambia, Nigeria and United Republic of Tanzania, and also in Ceylon, Pakistan, Philippines and Saudi Arabia, but not enough to bring these countries up to the relevant nutritional standard. Elsewhere *per capita* protein consumption appears to have declined, most notably in Algeria, El Salvador, Honduras and Iran and, to a less degree, in Afghanistan, Colombia, Ghana, India and Mauritius.

In 1967, about 70 per cent of the population of Latin America and the Caribbean area lived in countries in which average *per capita* supply of protein was above the reference standard. The corresponding proportion in Africa was only 20 per cent and in Asia a mere 6 per cent. In contrast, in Europe, only Albania reported a supply of less than the continental requirement of 74 grammes per day per person; in Japan the supply was about 76 grammes, and in the developed countries of North America and Oceania over 90 grammes.

The proportion of first-class protein<sup>18</sup> in the total supply varied widely from one country to another: it furnished over two thirds of total protein requirements in many of the more advanced countries, but less than one eighth in some of the developing countries. On the whole, it was much higher in Latin America than in the other developing regions. Animal products provided more than a fourth of total protein intake in almost all Latin American countries—with the notable exception of Bolivia, El Salvador, Guatemala and Haiti—and over three fourths in Argentina and Uruguay. In Asia, animal products accounted for less than a fourth of protein supplies in most countries; the exceptions were China (Taiwan), Israel, Lebanon, Malaysia and the Philippines, where the consumption of meat had been rising significantly. And in Africa, only in Gabon, Somalia and Sudan did animal products provide more than a fourth of all protein. Whereas in the more advanced areas of the world over 90 per

<sup>18</sup> Protein containing all eight of the nutritionally essential amino-acids. By the process of fortification, the quality of protein can be improved, but in nature the only sources combining all the required elements are animal products—meat, eggs, milk and fish.

cent of the population lived in countries in which more than 40 per cent of the supply of protein was derived from animal products, in the developing regions the corresponding proportion was barely 3 per cent, and almost three fourths were in countries in which less than a fifth of available protein was of animal origin.

If the developing countries are arrayed in broad groups according to the protein quality of their typical diet, it is seen that only the River Plate area falls into the same category as the more advanced countries in deriving most of its protein intake from animal products. A band of temperate zone countries stretching across North Africa and West Asia, obtaining their protein primarily from wheat, come second on the scale. Just below this band is the northern tier of sub-Saharan African countries that rely on millet and sorghum for most of their protein. Fourth come the maize-eating countries of Central America and eastern Africa. Fifth is the group of countries in the northern portion of South America in which rice, as well as maize and wheat, constitutes the staple diet. Then come the rice-eating countries of southern and south-eastern Asia. And

Table 16. Distribution of countries and population according to the ratio of food supplies to requirements, around 1967

Proportion of dietary requirements	Developing countries								Rest of world	
	Total		Western hemisphere		Africa		Asia		Countries	Population (millions)
	Number	Population (millions)	Number	Population (millions)	Number	Population (millions)	Number	Population (millions)		
<b>Calories</b>										
Less than 80 per cent	3	13	1	3	1	3	1	7	—	—
80-89 per cent	11	739	4	7	3	32	4	690	—	—
90-99 per cent	19	369	3	39	11	144	5	187	1	2
100-109 per cent	13	40	6	18	5	14	2	9	7	195
110 per cent and over	11	260	6	178	1	33	4	50	25	893
Total	57	1,422	20	255	21	225	16	942	33	1,090
<b>Protein</b>										
Less than 80 per cent	9	164	4	18	4	30	1	116	—	—
80-99 per cent	32	973	10	60	13	146	9	767	—	—
100-119 per cent	11	218	4	151	4	48	3	19	15	400
120 per cent and over	5	67	2	27	—	—	3	40	10	346
Total	57	1,422	20	255	21	225	16	942	25	746
<b>Protein of animal origin</b>										
Less than 20 per cent of total protein	24	1,055	3	13	11	174	10	868	—	—
20-39 per cent	26	323	13	204	9	50	4	69	2	55
40-59 per cent	4	15	2	11	1	1	1	3	6	226
60-79 per cent	2	27	1	24	—	—	1	3	11	170
80 per cent and over	1	3	1	3	—	—	—	—	6	295
Total	57	1,422	20	255	21	225	16	943	25	746

Source: See table A.8 in the statistical annex.



finally, on this diet quality scale are the Central African countries in which roots, tubers and plantains predominate.

Descending this ladder, the nutrition problem becomes progressively more pervasive. At the upper end it is confined very largely to special groups with low income or exceptional environment. At the lower end, poor diets are a general feature, though even here certain groups—notably mothers and infants—tend to suffer the most from nutritional deficiencies.

The foregoing appraisal is based largely on the situation in the period 1960-1967 for which data were available on a more or less global scale. The better harvests that were reaped in 1968 in many of the developing areas—notably North Africa and South Asia—brought some relief, particularly to some of the countries that had been exceptionally short of calories in the period immediately before.<sup>19</sup> While local food crops obviously play a crucial role in determining what there is to eat—particularly in the subsistence sector of the economy—nutritional problems transcend the question of physical production and tend to become increasingly complicated as economic development proceeds and individuals are separated from the means of subsistence and become more dependent on income earning and the smooth functioning of the distribution system.

As the environment changes so diets tend to change, and there is no automatic relation between income and the quality of food intake. Indeed the evidence from many countries shows that the shift from simple farm prepared food to the more sophisticated denatured convenience foods that tends to accompany urbanization often entails a poorer diet, notwithstanding the higher income. Polished rice, refined sugar, high-extraction flour, potatoes, white bread and carbonated drinks often tend to replace the untreated grain sorghum, pulses and home-pounded cereals that constitute the traditional diet.<sup>20</sup>

This suggests that quite apart from their statistical shortcomings, national averages will provide only the initial measure of what is happening to food consumption. Such an over-all indicator must be supplemented by more detailed surveys in critical areas and among population groups that are at special risk because of age or change in socio-economic environment. This is particularly important where the Government itself is seeking to raise nutritional levels by specific policies such as the fortification of staples or the marketing of special

protein-rich products, as in the case of a number of countries—Algeria, China (Taiwan), India, Indonesia and Mexico, for example—that are experimenting with oil-seed and legume concentrates and dried milk.

Nutritional policies have been incorporated into the development plans of Ethiopia and India and, as this practice spreads, more detailed and comprehensive surveys of performance will doubtless be undertaken. It may then become possible to report internationally on the proportion of each country's population that falls below each of the agreed physiological standards for an adequate diet.

### *Housing*

Because of the great diversity in needs and standards, in climate and materials, and in household size, customs and practices, it is extremely difficult to measure and compare the housing situation on an international basis. Perhaps the most that can be done at this stage is to suggest a framework within which analysis may in future become feasible.

The first distinction that seems necessary is between permanent and temporary dwellings. The latter are the homes of the nomads and shifting cultivators and small rural communities in countries in which there is no intense population pressure keeping such villages geographically static. The permanent dwellings are those that in response to private or social needs have been built in a durable fashion, to last at least a generation. As economic development proceeds there is a continuous movement from temporary to permanent dwellings, partly in response to increasing population and exploitation of the land and the consequent growth of settled communities, partly to take advantage of technological progress that permits the rapid movement of things to and from any given site and partly because rising incomes permit greater investment in consumer durables and more elaborate communal amenities. As communities grow larger the need for permanent structures increases, for without such permanence functional roads could hardly be built or water or electricity reticulated or arrangements made for the mass disposal of sewage and waste. Indeed, in a closely settled community, health and safety needs tend to dictate minimum housing standards.

In any given period, therefore, a country's housing needs comprise the sum of a number of distinguishable components: the maintenance and renovation of existing permanent structures, new dwellings required to accommodate the overflow resulting from any effort to improve occupancy levels in existing permanent structures, new dwellings to accommodate the new family formation stemming from the occupants of existing permanent structures, new permanent dwellings to accommodate people living in

<sup>19</sup> The problems occasioned by lagging food production are examined further in chapter IV below.

<sup>20</sup> The incidence of food taboos and the influence of changes in environment on household size and methods of preparing food-stuffs also affect the quality of the diet and complicate the relationship between income and nutrition.

temporary dwellings that are inappropriate in the current circumstances (because of the density of settlement, for example), and new permanent dwellings to accommodate people migrating from places where temporary structures are appropriate (such as small rural communities practising shifting cultivation) to places where they are inappropriate. Though quantitative information is grossly deficient, there is a good deal of qualitative and indirect evidence that in most developing countries all five of these elements in the need for housing are active and urgent.

The most obvious cause of housing difficulties is the rapid growth of population: as noted earlier in this chapter, the developing countries have rates of natural increase two to four times as high as those prevailing in the more advanced countries. And in most developing countries, the rate of growth of urban communities—where temporary structures tend to be least appropriate—is two to three times as fast as that of the total population. Table 17 illustrates the demographic basis of the problem from the data provided by the two most recent census enumerations. Almost half of the sixty-four developing countries with appropriate data registered an urban population growth rate of over 6 per cent a year in the 1950s, and over 40 per cent of the 1.2 billion people concerned lived in countries in which the urban population was increasing at more than 5 per cent a year. And, at the other end of the scale, a mere 4 per cent of the population lived in

Table 17. Developing countries: average annual rate of growth of population, total and urban, 1950-1960

(Percentage per annum compound)

Country <sup>a</sup>	Total population	Urban population <sup>b</sup>		
		Locations of over 20,000	Towns of over 100,000	Cities of over 500,000
Congo (Democratic Republic of)	2.3	11.6	7.2	
Dominican Republic	3.6	11.6	7.2	
Ghana	2.7	10.3	9.6	
Zambia	2.8	9.6		
Nigeria	1.9	7.7	12.3	
Algeria	2.1	7.6	6.5	3.4
Afghanistan		7.2	9.6	
Angola	1.5	7.2	7.2	
Cameroon	2.2	7.2		
El Salvador	2.8	7.2		
Guatemala	3.1	7.2	2.9	
Honduras	3.0	7.2		
Ivory Coast	2.2	7.2		
Kenya	3.0	7.2	14.9	
Lebanon	1.2	7.2	7.2	
Mauritius	3.3	7.2		
Mexico	3.2	7.2	8.1	7.5
Panama	7.1	7.2	4.1	
Paraguay	2.3	7.2	7.2	
Saudi Arabia	1.7	7.2	11.6	

Table 17 (continued)

Country <sup>a</sup>	Total population	Urban population <sup>b</sup>		
		Locations of over 20,000	Towns of over 100,000	Cities of over 500,000
United Republic of Tanzania <sup>c</sup>	2.3	7.2		
Thailand	3.0	7.2	5.4	5.0
Venezuela	4.0	6.9	8.2	6.4
Colombia	3.1	6.7	7.8	9.9
Republic of Viet-Nam	3.9	6.7	6.5	5.2
Brazil	3.0	6.5	6.0	7.0
Israel	5.3	6.4	1.6	
Peru	2.3	6.4	5.4	4.8
Ecuador	3.1	6.3	4.0	
Iraq	3.0	6.3	7.2	
Ethiopia	1.6	5.8	11.6	
Senegal	1.8	5.8	7.2	
China (Taiwan)	3.4	5.6	7.6	
Malaysia (West)	2.9	5.4	7.2	
Khmer Republic	2.9	5.2	2.9	
Jordan	2.8	5.2		
Southern Rhodesia	3.3	5.2	5.2	
Republic of Korea	2.0	5.1	5.2	12.3
Pakistan	2.1	5.0	6.0	7.8
Chile	2.4	4.8	4.1	5.2
Iran	2.4	4.4	4.4	6.1
United Arab Republic	2.4	4.2	5.0	3.5
Costa Rica	4.6	4.1		
Haiti	2.0	4.1	7.2	
Libyan Arab Republic	2.7	4.1	11.6	
Nicaragua	2.9	4.1	7.2	
Sudan	2.9	4.1	4.1	
Syria	3.4	4.1	4.1	
Indonesia	2.1	4.0	5.0	4.8
Morocco	2.7	4.0	5.4	5.2
Philippines	3.1	4.0	4.1	3.9
Burma	1.9	3.7	4.1	2.5
Cuba	2.2	3.6	4.1	3.4
India	1.8	3.6	3.9	4.1
Uruguay	1.5	3.4	2.3	2.3
Kuwait	3.3		7.2	
Hong Kong	2.7	3.2	3.2	3.2
Bolivia	1.4	2.9	7.2	
Ceylon	2.6	2.9	2.9	2.9
Jamaica	1.7	2.9	2.9	
Madagascar	2.4	2.9		
Singapore	4.8	2.9	2.9	2.9
Argentina	2.0	2.7	3.2	4.4
Tunisia	0.9	2.5	2.3	

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Monthly Bulletin of Statistics and Growth of the World's Urban and Rural Population, 1920-2000* (United Nations publication, Sales No.: E.69.XIII.3).

<sup>a</sup> Countries are arranged in decreasing order of the growth rate of localities with population greater than 20,000.

<sup>b</sup> Urban population is defined here as localities with population of 20,000 or more.

<sup>c</sup> Tanganyika only.

the handful of countries with urban expansion of less than 3 per cent a year. The course of total and urban growth in the 1960s will not be known precisely until the results of the 1970 census are tabulated and analysed but there is no reason to suppose that the rate of increase in urban populations has slackened; indeed, such surveys as have been made during the decade point to an acceleration in growth, especially in the larger communities.

Another indirect source of evidence of the nature and magnitude of the housing problem lies on the production side. Low incomes and low savings rates and the urgent need to deploy as much capital as possible in new productive enterprises combine to magnify the difficulty of investing adequate amounts in an essentially consumer-oriented activity. During the 1960s, notwithstanding the fact that in most developing countries urban population was growing more rapidly than total production, there was no great tendency to devote a higher proportion of available resources to the construction of dwellings. Before an attempt is made to quantify this generalization, however, it is instructive to review the available evidence of the housing situation at the beginning of the decade. From a statistical point of view this evidence is inadequate in the extreme, even in the best documented countries. In order to make optimum use of it, the rural component of the problem must be set aside so that attention can be focused on the urban areas where there are more elements in common, and basic accommodation needs have a degree of uniformity among countries that is absent in the case of the rural scene.

A rough picture of the state of urban housing in the 1960s is contained in table A.9 in the statistical annex, which reflects the results of censuses and surveys conducted early in the decade. (Until the round of housing censuses planned in conjunction with 1970-1971 demographic enumerations is complete these data are the latest available.)<sup>21</sup> Definitions in this field are often very vague, coverage is often far from complete and comparability often doubtful. Nevertheless some broad features are discernible which tend to confirm the comments made in qualitative terms by many observers.

One such feature is the average size of dwellings. In none of the more advanced countries did more than 60 per cent of the urban dwellings consist of two rooms or less; and in only four—Finland,

<sup>21</sup> Altogether, 137 countries are reported to have taken at least one housing census in the period 1955-1964 and 139 countries are reported to have taken (45) or intend to take (94) such a census in the period 1965-1974. This leaves eighty-seven countries without plans for a census or about whose plans there is some doubt. (See "Demographic and housing statistics; a progress report of the Secretary-General" (E/CN.3/413/Add 1), page 3.)

Greece, Poland and Yugoslavia—of the twenty-one for which data are available were more than half the dwellings as small as that. Among the developing countries, by contrast, almost half are characterized by having over 60 per cent of their urban dwellings of one or two rooms (see table 18). Only in Latin America were there countries in which less than a fifth of urban dwellings comprised two rooms or less—and there were only two such countries (Costa Rica and Uruguay) out of the fifteen for which information is reported. In Africa, the United Arab Republic and Zambia had the lowest proportion of small houses—24 per cent and 31 per cent, respectively—and in Asia there was only one country (Nepal) in which less than 40 per cent of the dwellings in the main urban areas contained only one or two rooms.

Corresponding to this predominance of small structures in the developing countries is a much higher density of occupation than in the more advanced countries. None of the latter had an average urban density of more than two persons per room whereas in the developing regions almost two thirds of the reporting countries had such densities. Among the more advanced countries, half had less than one person per urban room, but none of the developing countries could report so light an occupancy ratio. The lowest density—an average of 1.3 persons per room—was reported in Argentina and Costa Rica. There were comparable densities in Barbados and Brazil, if all houses—rural as well as urban—are brought into the picture.

Another, and more revealing measure of the extent of overcrowding is the proportion of dwellings with more than three persons per room. In Europe the highest figures—about one eighth of all urban houses—were recorded in Cyprus, Greece and Poland; in half the more advanced countries the ratio was less than 5 per cent. There were no developing countries with so low a proportion of overcrowded houses; in half the countries, indeed, more than a third of all dwellings had an average room occupancy of over three persons. In Asia, three out of the six reporting countries—Malaysia, Pakistan and the Republic of Korea—counted more than three persons per room in half their urban dwellings.

Not only are the houses more crowded but their facilities are significantly poorer in the developing countries. Among the more advanced countries Bulgaria, Turkey and Yugoslavia were the only ones reporting less than 60 per cent of their urban houses with piped water. In the developing regions more than a third of the countries reported that over 40 per cent of their urban houses lacked piped water. The proportion of dwellings with piped water was lowest in British Honduras, Paraguay and Saigon.

Table 18. Distribution of countries in accordance with the characteristics of urban dwellings, early 1960s

Region	Number of countries in which urban dwellings					
	A. With 2 rooms or less constitute					Total
	Less than 20 per cent	20-39 per cent	40-59 per cent	60-79 per cent	80 per cent and over	
Developing countries	2	6	9	12	4	33
Western hemisphere	2	3	4	5	1	15
Africa	—	2	1	3	1	7
Asia	—	1	4	4	2	11
Rest of world	9	6	6	—	—	21
Region	B. Have an average occupational density of					Total
	Less than one person	1.0-1.4	1.5-1.9	2.0-2.4	2.5 and over	
	Less than one person	1.0-1.4	1.5-1.9	2.0-2.4	2.5 and over	
Developing countries	—	2	10	10	10	32
Western hemisphere	—	2	6	5	1	14
Africa	—	—	3	1	4	8
Asia	—	—	1	4	5	10
Rest of world	11	8	2	—	—	21
Region	C. With more than 3 persons per room constitute					Total
	Less than 5 per cent	5-19 per cent	20-34 per cent	35-49 per cent	50 per cent and over	
	Less than 5 per cent	5-19 per cent	20-34 per cent	35-49 per cent	50 per cent and over	
Developing countries	—	5	5	7	3	20
Western hemisphere	—	3	3	4	—	10
Africa	—	1	1	2	—	4
Asia	—	1	1	1	3	6
Rest of world	10	9	—	—	—	19
Region	D. With piped water constitute					Total
	Less than 30 per cent	30-44 per cent	45-59 per cent	60-74 per cent	75 per cent and over	
	Less than 30 per cent	30-44 per cent	45-59 per cent	60-74 per cent	75 per cent and over	
Developing countries	3	4	4	5	14	30
Western hemisphere	2	2	1	2	8	15
Africa	—	2	—	1	1	4
Asia	1	—	3	2	5	11
Rest of world	—	—	2	2	21	25
Region	E. With electricity constitute					Total
	Less than 30 per cent	30-44 per cent	45-59 per cent	60-74 per cent	75 per cent and over	
	Less than 30 per cent	30-44 per cent	45-59 per cent	60-74 per cent	75 per cent and over	
Developing countries	2	5	7	6	13	33
Western hemisphere	—	1	5	2	7	15
Africa	2	1	2	—	2	7
Asia	—	3	—	4	4	11
Rest of world	—	—	—	—	19	19
Region	F. With flush toilets constitute					Total
	Less than 10 per cent	10-29 per cent	30-49 per cent	50-69 per cent	70 per cent and over	
	Less than 10 per cent	10-29 per cent	30-49 per cent	50-69 per cent	70 per cent and over	
Developing countries	3	5	5	7	4	24
Western hemisphere	—	3	3	5	3	14
Africa	1	—	1	—	—	2
Asia	2	2	1	2	1	8
Rest of world	—	3	3	4	12	22

Source: See table A 9 in the statistical annex.

Adopting a more liberal definition of the availability of potable water (within reasonable reach of the dwelling place) some progress can be reported in the Latin American region. It is estimated that in 1960 only 60 per cent of the urban population had access to such water; by 1967 the proportion had risen to 69 per cent, within sight of the 70 per cent set as the 1970 target under the Alliance for Progress.<sup>22</sup>

Among the more advanced countries, the lowest proportions of urban dwellings with electricity were reported in Greece, Portugal and Turkey but nowhere did more than a fifth of such dwellings lack electricity. By contrast almost two thirds of the developing countries report more than a fourth of their urban dwellings as being without electricity. In Latin America only Mexico reported more than half of its urban dwellings as lacking electricity. The proportion of countries in this category was much higher in the other regions: Malawi, United Arab Republic and Zambia in Africa, and Ceylon, Jordan and Nepal in Asia all report that less than half their urban houses were wired for electricity.

The proportion of urban houses with flush toilets was over 70 per cent of the total in half the more advanced countries but in only a sixth of the developing countries. Correspondingly, the proportion with flush toilets was less than half of all urban houses in less than a third of the more advanced countries but more than two thirds of the developing countries of Asia and Africa. In the western hemisphere the lowest proportions were recorded in British Honduras, Nicaragua and Paraguay. The Alliance for Progress target was the provision of "adequate sewage disposal" to 70 per cent of the urban population and 50 per cent of the rural population. It was estimated that by 1967 the proportion so provided for was not much above a third.<sup>22</sup>

It is clear not only from the blanks in table A.9 in the statistical annex but also from the fact that even the available data relate to the situation at the beginning of the decade that the information is far too meagre for purposes of any current appraisal of progress. There is an urgent need for sample surveys to provide indicators of housing needs and achievements. Even if data were gathered on the physical structures, however, it would still fall short of measuring requirements. It is a frequent observation in developing countries that many inhabitants of the urban and peri-urban areas have no accommodation at all.

Nor do the available data on construction activities throw much light on what has been accomplished in the provision of new dwellings. Most of such in-

formation takes the form of official permits issued for the building of residential structures and there is no means of translating such paper authorizations into the tangible form of dwelling units. An attempt to put such permit information into perspective is made in table 19. The actual additional floor space authorized in building permits granted in twenty-one developing countries during the period 1960-1967 is related to a hypothetical figure for the total useful floor space occupied at the beginning of the period, assuming each urban dweller had at his disposal an area of six square metres.

The average annual ratio of additional authorized floor space to the assumed amount of existing floor space ranged from less than 2 per cent in the case of the Central African Republic, Kenya and Iran to over 10 per cent in the case of Costa Rica, Gabon, Israel and People's Republic of the Congo. In Colombia, Jamaica and Jordan the relative expansion in floor space approximated the previously recorded (1950-1960) rate of increase in population in localities of over 20,000 people. In Costa Rica, Israel and Morocco (and probably also in the Democratic Republic of the Congo and Gabon) the hypotheses based on permits give an average rate of increase well above the earlier growth in urban population. In the remaining two thirds of the countries for which such data are available, the hypothetical rate of authorized construction lagged behind the urban growth rate. This calculation will overstate the achievement to the extent that actual building fell short of authorization and actual growth in urban population was faster in the 1960s than in the previous decade.

In many countries the number of permits issued and the actual volume of housing built tend to vary a good deal from year to year, being influenced not only by the need for housing but also by the financial liquidity of the Government and the economy, the state of activity in the construction industry and general economic conditions. Thus the average annual rate of increase in authorized floor space varies quite widely: it was negative between 1960-1962 and 1965-1967 in several countries (Chile, Gabon, Jamaica, Jordan, Kenya, Senegal and Togo) and over 10 per cent in a number of others (Dominican Republic, Guatemala, Panama, People's Republic of the Congo and Republic of Korea). On this evidence, therefore, the rate of increase in authorizations does not appear to constitute a readily usable indicator of housing progress. The process of authorizing building plans, moreover, is aimed primarily at the housing of so-called middle- and upper-income groups. In many of the urban areas in the developing countries the most urgent housing problem lies outside these limits, in the settlements that are often unauthorized and uncontrolled.

<sup>22</sup> United States Agency for International Development, *A Review of Alliance for Progress Goals*, p. 40.

Table 19. Selected developing countries: residential building permits, 1960-1967

Country	Urban population, 1960 (thousands)	Number of urban households, 1960, hypothetical <sup>a</sup> (thousands)	Useful floor space occupied, 1960, hypothetical <sup>b</sup> (thousands of square metres)	Average annual additional floor space authorized, <sup>c</sup> 1960-1967 <sup>d</sup>		Average annual rate of increase	
				Amount (thousands of square metres)	Percentage of hypothetical existing floor space	In urban population <sup>e</sup>	In authorized floor space, 1960-1962 to 1965-1967 <sup>f</sup> (percentage)
<i>Western hemisphere</i>							
Chile	5,028	1,006	30,180	1,087	3.6	4.8	-0.2
Colombia	8,006	1,601	48,030	3,106	6.5	6.7	2.6
Costa Rica <sup>c</sup>	432	86	2,593	286	11.0	4.1	2.8
Dominican Republic <sup>c</sup>	922	184	5,532	244	4.4	11.6	11.6
El Salvador	967	193	5,801	237	4.1	7.2	9.7
Guatemala <sup>c</sup>	1,297	259	7,782	186	2.4	7.2	13.5
Jamaica	377	75	2,259	71	3.2	2.9	-2.8
Mexico	17,705	3,541	106,230	3,261	3.1	7.2	4.4
Panama	446	89	2,677	146	5.4	7.2	15.4
<i>Africa</i>							
Central African Republic	227	45	1,360	25	1.9		1.0
Gabon	63	13	390	47	12.1		-3.1
Kenya	630	126	3,780	53	1.4	7.2	-16.0
Libyan Arab Republic	332	66	1,992	65	3.3	4.1	5.2
Morocco	3,412	682	20,470	1,093	5.3	4.0	4.3
People's Republic of the Congo	68	14	406	51	12.4		16.6
Senegal	706	141	4,235	113	2.7	5.8	-11.2
Togo	139	28	834	33	3.9		-7.6
<i>Asia</i>							
Iran	7,897	1,579	47,370	5,759	1.2	4.4	7.0
Israel	1,698	340	10,187	2,679	26.3	6.4	4.3
Jordan	748	150	4,490	238	5.3	5.2	-2.2
Republic of Korea	6,997	1,399	41,970	1,052	2.5	5.1	27.0

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Statistical Yearbook, 1968* and *Demographic Yearbook, 1967* (United Nations publications, Sales Nos.: E/F.69.XVII.1 and E/F.68.XIII.1).

<sup>a</sup> Assuming five persons per household.

<sup>b</sup> Assuming an average household occupancy of 30 square metres.

<sup>c</sup> Completed construction rather than permits issued in the case of Costa Rica, Dominican Republic and Guatemala.

The availability of this indicator has determined the selection of countries in this table.

<sup>d</sup> 1960-1966 in the case of Jamaica; 1961-1967 in the case of Central African Republic and Gabon; and 1963-1967 in the case of Dominican Republic.

<sup>e</sup> Actual rate of growth of population in communities of over 20,000 between 1950 and 1960.

<sup>f</sup> Average annual change implicit in the terminal figures. 1961-1963 to 1965-1967 in the case of Central African Republic and Gabon; 1963 to 1965-1967 in the case of Dominican Republic; 1960-1962 to 1964-1966 in the case of Jamaica.

Another indicator is available in some countries in the form of an appropriate breakdown of gross fixed capital investment. The disadvantages of this are its tardiness (compared with data on construction permits or, preferably, on housing starts and completions) and the fact that as a value-based measure it may often give a poor reflection of the essential physical dimensions of performance such as usable floor area.

This national accounts indicator confirms the relative lag in housing construction in the developing countries in the 1960s. In three fourths of the countries for which data are available, investment in dwellings declined (as in the Khmer Republic and Mauritius) or increased to a less extent than gross domestic fixed capital formation. Thus the share of total investment devoted to dwellings—which ranged from less than 10 per cent in Bolivia, Swazi-

land, Thailand and Tunisia to over 25 per cent in Israel, Khmer Republic and Lesotho—was generally lower in 1966-1968 than at the beginning of the decade. Only in Bolivia, Chile, Panama and Venezuela was the housing ratio maintained or increased (see table 20).

In relation to previous growth in urban population the lag in investment in dwelling was less pronounced. There were as many countries in which investment in dwellings increased faster than population in the 1960s as there were those in which investment failed to keep pace. Among the former were countries with low housing investment ratios (Bolivia, China (Taiwan) and Republic of Korea), medium ratios (Jamaica and Kenya) and high ratios (Panama, Singapore and Venezuela). Similarly, among the countries in which investment in dwellings lagged behind earlier urban population growth there

Table 20. Selected developing countries: investment in dwellings, 1960-1968

(Percentage)

Country	Average annual rate of growth in				Ratio of investment in dwellings to			
	Urban population, 1950-1960	Gross domestic product, 1960-1968 <sup>a</sup>	Gross domestic fixed capital formation, 1960-1968 <sup>a</sup>		Gross domestic product		Gross domestic fixed capital formation	
			Total	Dwellings	1960-1962 <sup>b</sup>	1966-1968 <sup>c</sup>	1960-1962 <sup>b</sup>	1966-1968 <sup>c</sup>
<i>Western hemisphere</i>								
Bolivia	2.9	5.4	10.9	21.6	0.7	1.9	4.4	9.4
Chile	4.8	4.6	3.6	3.8	2.8	2.7	17.5	17.7
Costa Rica	4.1	6.5	6.7	1.7	4.9	3.8	25.7	18.5
El Salvador	7.2	6.1	6.7	1.8	2.7	2.1	21.5	13.8
Guatemala	7.2	5.2	9.0	7.4	1.6	1.8	15.7	14.6
Honduras	7.2	5.6	10.6	7.8	3.8	4.0	31.0	24.7
Jamaica	2.9	5.2	5.5	3.3	3.1	3.0	15.2	14.3
Nicaragua	4.1	7.3	11.0	4.7	2.0	1.8	15.7	10.5
Panama	7.2	8.0	11.9	12.4	3.2	4.2	20.0	20.8
Venezuela	6.9	4.6	5.5	13.0	1.8	3.2	12.2	18.6
<i>Africa</i>								
Kenya	7.2	6.2	14.2	13.2	2.0	2.3	16.0	15.4
Lesotho		7.9				3.2		30.6
Mauritius	7.2	4.6	4.5	8.9	7.8	3.6	33.0	23.3
Sierra Leone		4.9				3.1		23.6
Sudan	4.1	4.6			1.6		11.9	
Swaziland						1.7		8.0
Togo		7.0				1.5		12.8
Tunisia	2.5	3.7	8.6	2.6	2.3	2.1	12.0	9.1
<i>Asia</i>								
China (Taiwan)	5.6	9.7	17.5	16.4	1.9	2.3	11.9	11.0
Israel	6.4	8.2	4.7	0.5	8.9	5.1	32.7	26.8
Jordan	5.2	10.0	6.2	0.2	5.4	3.3	32.0	21.2
Khmer Republic	5.2	5.9	4.5	-1.8	6.1	4.4	35.9	28.0
Malaysia	5.4	7.0	7.9	6.3	1.8	1.8	12.3	10.6
Philippines	4.0	4.2	11.3	4.8	2.2	2.2	18.1	13.2
Republic of Korea	5.1	9.0	23.1	11.3	1.9	2.3	15.4	10.2
Singapore	2.9	8.6	20.8	20.2	1.9	3.0	23.1	22.2
Syria	4.0	7.0	8.8	1.3	3.9	2.8	21.5	15.3
Thailand	7.2	7.1	16.2	5.0	1.8	1.7	11.7	7.3

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Growth of the World's Urban and Rural Population, 1920-2000* (United Nations publication, Sales No.:E.69.XIII.3) and Statistical Office of the United Nations, *Yearbook of National Accounts Statistics*.

<sup>a</sup> 1960-1967 in the case of Costa Rica, El Salvador, Jamaica, Jordan, Lesotho, Thailand and Tunisia; 1961-1968 in the case of Syria; 1960-1966 in the case of Malaysia;

1964-1968 in the case of Kenya; 1962-1966 in the case of Khmer Republic.

<sup>b</sup> 1961-1963 in the case of Syria; 1962 only in the case of Khmer Republic; 1964 only in the case of Kenya.

<sup>c</sup> 1965-1967 in the case of Costa Rica, El Salvador, Jamaica, Mauritius, Thailand and Tunisia; 1964-1966 in the case of Lesotho and Malaysia; 1963-1964 in the case of Togo; 1968 only in the case of Kenya; 1967 only in the case of Swaziland; 1966 only in the case of Khmer Republic.

were those with low ratios (Thailand), medium ratios (Chile, Costa Rica, El Salvador and Syria) and high ratios (Israel, Jordan, Khmer Republic and Mauritius).

On the basis of a number of arbitrary but plausible assumptions regarding the size and rate of increase of urban populations, the average size of household, the average life of a dwelling unit and the average cost of building new dwellings, it is possible to arrive at a hypothetical share of total output that would need to be allocated to housing to keep up with attrition and expansion. Such a calculation, set forth in table 21, suggests that between 1 per

cent and 7 per cent of the gross domestic product may well be absorbed in merely preventing any deterioration in the urban housing situation, making no allowance for any backlog of overcrowded or substandard units.<sup>23</sup>

The cost assumptions suggested in this calculation serve to illustrate the implications of two possibilities. The one shows the effects of trying to relate the

<sup>23</sup> By 1967 the accumulated urban housing deficit was estimated to have reached 22 million units in southern and south-eastern Asia and not far short of that in Latin America. These figures would put the backlog at the equivalent of over ten years of construction at the rate postulated as necessary to meet attrition and expansion.

Table 21. Developing countries: hypothetical allocation of resources to urban housing, 1967

Country	Assumed		Hypothetical annual need for new dwellings				Hypothetical cost as percentage of gross domestic product, 1967	
	Urban population ratio <sup>a</sup> (percentage)	Number of urban households, 1967 <sup>b</sup> (thousands)	Replacements <sup>c</sup> (thousands)	New households <sup>d</sup> (thousands)	Total cost (millions of dollars)		A <sup>e</sup>	B <sup>f</sup>
					Hypothesis A <sup>e</sup>	Hypothesis B <sup>f</sup>		
Latin America								
Argentina	70	3,251	98	195	585	945	3.9	6.3
Barbados	40	20	1	1	4	4	3.8	4.0
Brazil	46	7,933	238	476	1,428	1,359	4.4	4.2
Chile	68	1,246	37	75	224	343	4.0	6.1
Colombia	52	1,996	60	120	359	286	5.9	4.7
Costa Rica	34	109	3	7	20	22	2.9	3.1
Cuba	53	842	25	51	152	197	3.8	4.9
Dominican Republic	30	235	7	14	42	30	3.8	2.7
Ecuador	36	395	12	24	71	42	5.4	3.2
El Salvador	39	243	7	15	44	31	5.0	3.5
Guatemala	34	321	10	19	58	45	4.0	3.1
Guyana	16	21	1	1	4	4	1.6	1.4
Honduras	23	108	3	7	20	13	3.4	2.1
Jamaica	23	88	3	5	16	22	1.5	2.1
Mexico	51	4,631	139	278	834	1,121	3.4	4.6
Netherlands Antilles	32	14	—	1	2	6	0.8	2.3
Nicaragua	41	146	4	9	26	25	3.9	3.6
Panama	41	110	3	7	20	30	2.5	3.8
Paraguay	36	156	5	9	28	16	5.7	3.2
Peru	47	1,175	35	70	211	153	5.9	4.3
Uruguay	82	458	14	27	82	127	4.8	7.4
Venezuela	67	1,261	38	76	227	560	2.5	6.1
Africa								
Algeria	39	974	29	58	175	111	5.5	3.5
Botswana	3	4	—	—	1	—	1.7	0.3
Burundi	2	15	—	1	3	—	1.7	0.2
Cameroon	16	176	5	11	32	13	3.6	1.5
Central African Republic	22	65	2	4	12	4	6.7	2.1
Chad	7	37	1	2	7	1	2.9	0.5
Congo (Democratic Republic of)	24	785	24	47	141	29	10.5	2.2
Dahomey	9	47	1	3	8	2	3.9	0.8
Ethiopia	7	350	11	21	63	10	4.2	0.7
Gabon	14	13	—	1	2	3	0.8	1.0
Gambia	9	6	—	—	1	—	2.4	0.7
Ghana	23	375	11	23	68	43	3.3	2.1
Kenya	8	154	5	9	28	9	2.3	0.7
Libyan Arab Republic	25	86	3	5	15	48	0.7	2.2
Malawi	5	42	1	3	8	1	2.9	0.5
Mali	11	105	3	6	19	4	4.6	1.0
Mauritania	7	15	—	1	3	1	1.9	0.7
Morocco	29	830	25	50	149	71	5.6	2.6
Nigeria	16	1,981	59	119	356	63	8.2	1.4
People's Republic of the Congo	12	15	—	1	3	2	1.3	0.9
Southern Rhodesia	17	152	5	9	27	15	2.5	1.4
Swaziland	7	5	—	—	1	1	1.3	1.3
Tunisia	40	366	11	22	66	35	6.5	3.4
United Arab Republic	41	2,545	76	153	458	214	7.9	3.7
United Republic of Tanzania	6	152	5	9	27	5	3.1	0.6
Zambia	20	150	5	9	27	21	2.2	1.7
Asia								
Burma	16	835	25	50	150	26	8.3	1.4
Ceylon	19	442	13	26	79	31	4.2	1.7
China (Taiwan)	58	1,525	46	91	274	187	7.7	5.2



Table 21 (continued)

Table 21 (continued)

Country	Assumed		Hypothetical annual need for new dwellings				Hypothetical cost as percentage of gross domestic product, 1967	
	Urban population ratio <sup>a</sup> (percentage)	Number of urban households, 1967 <sup>b</sup> (thousands)	Replacements <sup>c</sup> (thousands)	New households <sup>d</sup> (thousands)	Total cost (millions of dollars)		A <sup>e</sup>	B <sup>f</sup>
					Hypothesis A <sup>e</sup>	Hypothesis B <sup>f</sup>		
Asia (continued)								
Hong Kong	73	561	17	34	101	152	4.3	6.5
India	18	18,388	552	1,103	3,310	671	8.0	1.6
Indonesia	15	3,282	98	197	591	138	5.7	1.3
Iran	39	2,057	62	123	370	277	4.7	3.5
Iraq	44	745	22	45	134	91	5.6	3.8
Israel	82	442	13	27	80	302	2.0	7.5
Jordan	44	179	5	11	32	21	5.9	3.9
Khmer Republic	10	132	4	8	24	8	2.5	0.8
Kuwait	22	23	1	1	4	38	0.2	1.5
Malaysia (West)	47	803	24	48	144	117	4.4	3.6
Nepal	4	75	2	5	14	3	1.6	0.3
Pakistan	14	2,912	87	175	524	170	3.8	1.2
Philippines	30	2,079	62	125	374	285	3.5	2.7
Republic of Korea	34	2,001	60	120	360	143	7.6	3.0
Singapore	63	245	7	15	44	70	3.5	5.6
Syria	37	411	12	25	74	39	6.3	3.3
Thailand	18	1,192	36	71	214	83	4.2	1.6

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics, Monthly Bulletin of Statistics* and *Demographic Yearbook*, supplemented by estimates of the United Nations regional commissions, official national sources, International Bank for Reconstruction and Development, Organisation for Economic Co-operation and Development, United States Agency for International Development, and unofficial sources.

<sup>a</sup> Based on actual ratio of urban to total population at the beginning of the 1960s; except the 1964 ratio in the case of Bolivia, Botswana, Cameroon, Guatemala and Libyan Arab Republic; and the 1965 ratio in the case of Burundi, Cuba, Iraq, Kuwait, Mauritania and Republic of

cost of housing to the average *per capita* income in the country concerned. The other assumes that the basic similarity of urban conditions wherever they may be makes it more realistic to assume a more or less uniform cost for constructing a dwelling appropriate for any large concentration of population given certain mandatory health and convenience standards. It is probable that for low-income countries, five times the *per capita* gross domestic product gives too low a figure for the cost of a satisfactory urban dwelling, and a uniform \$2,000 too high a figure; for high-income countries (such as Argentina and Israel) the reverse is probably the case.<sup>24</sup>

<sup>24</sup> In 1963, in Europe the average cost of a traditional masonry house (excluding original land cost but including site preparation and provision of utilities) ranged from about 3.5 times *per capita* gross domestic product in the high-income countries of Sweden and United Kingdom to over six times the *per capita* gross domestic product in the lower-income countries of Finland and Italy (see "Housing costs in European countries" (ST/ECE/HOU/8)). The range of cost per square metre of gross floor space was from \$25 (in Yugoslavia) to \$68 (in Sweden). The lower limit of \$25 was also applicable to Africa (Democratic Republic of the Congo, Madagascar and

Korea; the 1966 ratio in the case of Algeria, Ethiopia, Iran, Malawi, Southern Rhodesia, Swaziland, Tunisia and United Arab Republic; the 1967 ratio in the case of Israel and United Republic of Tanzania.

<sup>b</sup> 1967 estimated urban population divided by five.

<sup>c</sup> Assuming each urban household occupies a dwelling unit and 3 per cent need replacing each year.

<sup>d</sup> Assuming a uniform 6 per cent annual growth rate in urban population.

<sup>e</sup> Assuming a uniform average over-all cost of \$2,000 per dwelling unit.

<sup>f</sup> Assuming an average over-all cost per dwelling unit of the equivalent of five times the country's *per capita* gross domestic product in 1967.

Too much importance should not be attached to these hypothetical figures; they are intended merely to indicate orders of magnitude. Because of the uniform assumptions on which they are necessarily based, they may be more useful for global estimates than as a bench-mark for individual countries.<sup>25</sup> They serve much the same function as the suggested average construction goal of ten dwelling units per

United Arab Republic) and Asia (Burma, Hong Kong, India, Indonesia and Japan in 1960) though the upper limit was generally more modest in the developing countries (rather more than \$50 in Ethiopia, Ivory Coast, Libyan Arab Republic and Republic of Korea). This relatively small difference in cost per square metre (at least among the cheaper houses) is widened considerably when the whole dwelling is taken as the unit: for the floor space in Asia and Africa tends to be half the European figure (see *Housing in Africa* (United Nations publication, Sales No.: 66.II.F.4) and *Study in Building Costs in Asia and the Far East* (United Nations publication, Sales No.: 61.II.F.9)).

<sup>25</sup> The hypothetical housing investment ratios correspond closely to the actual 1966-1968 figures in the case of Kenya and Swaziland, they were below actual expenditure in Costa Rica, Honduras, Israel, Jamaica, Khmer Republic, Panama and Venezuela and above actual expenditure, sometimes by a sizable margin, in Chile, China (Taiwan), El Salvador, Guatemala, Jordan, Malaysia, Nicaragua, Philippines, Republic of Korea, Singapore, Syria, Thailand and Tunisia.

1,000 people per annum,<sup>26</sup> or as the suggested target for the 1970s of an expenditure of 5 per cent of the national income on "housing and urban development".<sup>27</sup>

They serve to bring out, however, the importance of two of the parameters in the housing situation: unit cost and rate of urban growth. The average cost per unit (\$2,000, or five times *per capita* gross domestic product) subsumes commercial housing for high- and middle-income groups fully financed by the owner or occupier on the one hand and "low-income" housing, subject to varying degrees of subsidy by the public authority, on the other. The hard core of the housing problem lies in the latter, and one of the challenges of the 1970s is to reduce the cost of building in order to maximize the volume of accommodation obtainable from a given outlay. For the 1960s a target of \$500 per unit (plus a like sum for auxiliary services) was once suggested.<sup>28</sup> Pursuit of such a goal involves a considerable intensification of research into the most effective use of local materials and into techniques of building, including industrialized or mass construction at the one extreme and, at the other, self-help projects in which the building is erected to the maximum extent by the family that will occupy it.<sup>29</sup>

Reduction in the other main component of the housing problem—namely, the rate of urbanization—involves complex economic issues going far beyond the scope of housing. Setting aside the broader problems of raising agricultural productivity, extending the market by furnishing basic economic infrastructure and encouraging a reasonable geographical dispersion of new industry, housing policy itself can contribute to an easing of the strains of an over-rapid townward drift. Due attention to rural housing can exploit the fact that appropriate accommodation can be provided more cheaply than in the towns—local materials and self-help are more readily usable, and land shortage and all the difficulties that stem from a high concentration of population present much less of an obstacle.

That such attention has not in fact been forthcoming is evident not only from the accelerated

movement to the towns but also from the sparse data that are available from the censuses or surveys that were conducted early in the 1960s. A summary of the information relating to the eighteen developing countries that distinguished between their rural and urban communities is presented in table 22. Even among the countries that represent the higher-income strata—the Asian and African countries with massive subsistence sectors not being documented at all—there were cases in which a majority of rural dwelling units were classified as "rustic, mobile or improvised". And among the permanent dwelling units the bulk were without access to piped water and without any kind of toilet facilities. The houses were mostly small: only in Chile and Costa Rica was the average size three rooms or more, and in Ecuador, Mexico and Panama the average was less than two. Occupancy density was high—averaging over 1.5 persons per room in all cases and over three persons per room in Mexico and Nicaragua—and there were few countries (Israel and Trinidad and Tobago) in which less than a fourth of rural units housed fewer than three persons per room.

In contrast to the success of the Alliance for Progress in attaining the urban goal in respect of potable water supply, the rural achievement was relatively poor. Against a target of water service to half the rural population in the participating countries, Latin America had reached an average of one fifth by 1967. Only Colombia, Costa Rica and Venezuela were within sight of the goal. In 1967 an estimated 19 million of a rural population of about 100 million had a pure water supply.<sup>30</sup>

Where some headway has been made in improving the quality of rural housing it has stemmed from local self-help projects in which the Government has provided not only guidance and encouragement but also a supply of construction materials or credit for the purchase of such materials either by individual builders or through co-operative societies, often organized at the village level. A number of such projects have been undertaken in Africa—in Ghana, through a roof loan scheme, and in various localities in Kenya, Liberia, Mali, United Arab Republic and United Republic of Tanzania—as well as in parts of Latin America (Chile, Colombia, and Trinidad and Tobago, for example).<sup>31</sup> Even an increase in attention to reafforestation has been helpful, especially in places where the spread of population and livestock has

<sup>26</sup> Contained in Economic and Social Council resolution 1224 (XLII) of June 1967.

<sup>27</sup> See "Housing, building and planning in the Second United Nations Development Decade" (E/C.6/90), page 53.

<sup>28</sup> See *The United Nations Development Decade: Proposals for Action* (United Nations publication, Sales No.: 62.II.B.2) and *World Housing Conditions and Estimated Housing Requirements* (United Nations publication, Sales No.: 65.IV.8).

<sup>29</sup> The need to increase the use of local materials is particularly urgent in Africa where urban construction tends to have a high import component and efforts to improve the housing situation in the towns soon come up against a foreign exchange constraint.

<sup>30</sup> Plans on the drawing board in 1967 would extend the rural water service to a further 10 million people, still leaving the region far short of the goal of 64 million (half of the projected 1971 rural population of 128 million). See United States Agency for International Development, *A Review of Alliance for Progress Goals*, page 40.

<sup>31</sup> For a detailed description of these schemes see *Rural Housing, A Review of World Conditions* (United Nations publication, Sales No.: E.69.IV.8), pages 21-29.

Table 22. Selected developing countries:<sup>a</sup> rural housing conditions, around 1960

Country	Number of dwelling units (thousands)		Classified as rustic, mobile or improvised	Percentage of dwelling units					Permanent conventional occupied units: average number of	
				Permanent, conventional, occupied dwellings						
	Total	Conventional occupied		Without piped water		Without toilet		With three or more persons per room	Rooms per dwelling	Persons per room
				Inside	Inside or outside	Flush	Of any kind			
Argentina	1,035	582	42	..	86	70	21	26	2.9	1.7
Brazil	..	6,925	..	..	99	..	76	..	..	..
British Honduras	..	9	..	93	93	96	24	..	2.3	2.1
Chile	388	383	24	..	..	..	91	32	3.0	2.0
Costa Rica	..	145	..	56	49	90	39	..	3.6	1.7
Ecuador	570	570	50	97	88	98	91	54	1.8	2.8
Honduras	..	250	..	97	91	97	95	50	2.1	2.7
Israel	..	108	..	25	13	46	18	20	2.1	1.8
Jamaica	..	259	..	89	43	97	9	..	..	..
Jordan	..	184	..	97	86	98	67	..	..	2.3
Mexico	..	3,285	57	..	..	..	..	66	1.6	3.4
Morocco	1,619	83	95	72	..	..	—	40	2.4	2.3
Nicaragua	142	141	50	99	99	99	88	60	3.0	3.2
Panama	..	115	..	..	90	94	63	49	1.9	2.6
Peru	1,043	784	25	98	92	98	70	45	2.1	2.5
Republic of Korea	3,156	3,156	3	90	89	100	8	42	2.3	2.4
Syria	..	553	..	..	77	..	63	48	2.4	2.5
Trinidad and Tobago	161	130	..	86	80	90	8	24	2.4	1.8

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Compendium of Social Statistics, 1967* (United Nations

publication, Sales No.: 67.XVII.9).

<sup>a</sup> Selected on the basis of availability of data.

virtually denuded the landscape of trees, undermining the community's capacity to employ traditional materials and methods of construction.

Improvements have also been effected when an obligation to furnish adequate housing has been laid on corporate undertakings—such as mines, plantations and rural industries—in respect of their employees. Combined with fiscal incentives and proper inspection, such arrangements have raised the quality of rural accommodation in a number of places, including Ceylon, Ethiopia, Liberia, Nigeria and Venezuela.

So far, however, these and other such schemes have only touched the fringe of the problem. Ultimately an improvement in the housing component of the rural level of living is contingent upon the raising of agricultural productivity and the more even geographical spread of the process of economic development.

### Education

Education contributes to the level of living both directly in providing a specific human satisfaction and indirectly by improving the earning potential of the person concerned. The latter function has important social implications as one of the principal means of expanding the productivity of the economy and as such it is discussed in chapter III below. In the present context the main problem is how best to appraise educational progress as a source of

personal satisfaction and a means of obtaining higher incomes.

Assessing the intrinsic value of education to the individual soon leads too far into the field of subjective judgement and interpersonal comparisons of utility for useful analysis designed to inform national development policies. Beyond a certain point, individuals must pursue their education on their own initiative and in the direction that they themselves deem most likely to provide the desired satisfaction. Government involvement may perhaps be reasonably limited to creating the widest opportunities for individuals to pursue their chosen course. This may be achieved by such means as the provision of adequate schools and libraries and sponsorship of the arts in ways that will serve to reveal and nurture native talent.

Up to the point where individuals are thus best left on their own in the educational field, the intrinsic value and the income-raising propensity of education involve essentially the same problems: what are the basic skills that need to be imparted and how can this be accomplished most effectively. At the outset the first of these questions has a relatively simple answer, for virtually all educational doors are closed until the individual acquires the requisite degree of literacy and numeracy. Later the matter becomes much more complicated, involving not only the talents and aptitudes of the individual and the alternative techniques of imparting knowledge and skills but also the whole

economic environment in which the individual will ultimately exercise his newly developed capacity. For, as a means of raising his income, the formal education system has to stand the test of the market—the demand for the skills in question, their supply and the supply of the complementary factors which go into the making of a job opportunity. Unless the individual is able to translate his educational attainment into an income—through the commercial exercise of his talents and knowledge—the contribution that education makes to his level of living will remain limited to personal satisfaction inherent in the learning and training process itself and the possession of the resultant skills.

Appraisal of progress in this area involves three basic measurements: (a) changes in the educational status of the population, (b) changes in the effort being made to impart and acquire knowledge and skills and (c) changes in the educational profile of the group that has and the group that has not been able to obtain gainful employment. As in the case of most of the other major components of the level of living, such measurements are made in very few countries. Except for school enrolment, which is one possible measure of educational effort, the data required originate in censuses or surveys, and these are undertaken only at long intervals and the opportunity to gather information about education is not always taken when demographic enumerations are made. Thus, much educational information is seriously out of date and there is little or no possibility of assessing change over recent periods. This is obviously a grave disadvantage to countries looking for the means to evaluate their economic and social policies. Manpower planning is virtually ruled out and it is almost impossible to apply anything approximating a cost/benefit analysis to educational expenditure. As such expenditure is often the largest single item in the government budget a much greater effort is needed to assemble the essential data by which its effectiveness can be assessed.

One rough indicator of educational status is literacy. Most countries, though by no means all, have attempted to measure the literacy of their populations once in the past twenty years. Very few have done more; hence, only one figure is available—and that relating to the early 1950s in many cases—and no means of measuring change. Even the one figure is difficult to interpret, because the concept of literacy is an elusive one and short of personal testing—possible only in sample surveys—it is customary to rely either on the individual respondent's own subjective judgement regarding his own ability to read and write and that of the other members of his household or on an inference from his reply to a question on schooling. Some countries have equated illiteracy with "no formal education"; the latter may be more accurate than the implicit

measure of literacy derived from it, however, since school attendance does not automatically confer an ability to read and write. In many countries, moreover, there is a problem of language, especially where the amount of written material in the spoken language is very limited; literacy may have to be, or tend to be, measured in one of the international languages. Even the denominator gives trouble: for, while most countries compare the number of literates with the population over fifteen years of age, some use other age groups and others the total population.

For these and other reasons, caution is required in interpreting the data brought together in table A.10 in the statistical annex. This table is intended to present the most up-to-date picture possible, but most of its literacy ratios refer to the situation revealed by the census taken at the beginning of the 1960s, while in many instances even this failed and it was necessary to go back to the previous census in the 1950s. While the table does not permit detailed international comparisons country by country, it does serve to dramatize the contrast between the developing countries and the more advanced countries on the one hand and the differences between the three developing regions. While half of the more advanced countries had literacy ratios in excess of 90 per cent, only Argentina, Barbados and Uruguay were in this category among the developing countries.<sup>32</sup> And at the other end of the scale, none of the more advanced countries had literacy ratios of less than 30 per cent, while among the developing countries almost half were in this category. In the western hemisphere there was only one country (Haiti) with such low literacy; in Asia on the other hand over a third of the countries were in this category while in Africa only one out of five countries had a literacy ratio of 30 per cent or more (see table 23).

One of the goals of the Alliance for Progress was the elimination of adult illiteracy. Among the participants only Venezuela carried out more than one measurement of literacy in the 1960s; this indicates that between 1960 and 1967 the number of illiterates declined by 7 per cent and the illiteracy ratio was reduced from about a third to about a fourth of the adult population. For the region as a whole, it was concluded in 1969 that the main hope of reducing illiteracy in the face of a rapidly expanding population lay in a faster growth in primary education.<sup>33</sup>

<sup>32</sup> The table seriously understates the real contrast for it lacks data for no less than fourteen European countries as well as Australia, Canada and New Zealand, all of which may be assumed to have high literacy ratios. Their inclusion would probably raise the proportion with literacy ratios of over 90 per cent to almost three fourths.

<sup>33</sup> See United States Agency for International Development, *A Review of Alliance for Progress Goals*, pages 33 and 37.

Table 23. Distribution of countries according to educational status, around 1960

Range	Developing countries				Rest of world
	Total	Western hemisphere	Africa	Asia	
<i>Number of countries in which the proportion of literates was (percentage of population 15 years of age and over)</i>					
Under 10	16	—	14	2	—
10-29	30	1	22	7	—
30-49	16	5	7	4	1
50-69	11	7	1	3	2
70-89	18	9	—	9	7
90 and over	3	3	—	—	9
Total	94	25	44	25	19
<i>Number of countries in which the proportion without formal education was (percentage of population 25 years of age and over)</i>					
Under 10	1	1	—	—	12
10-29	4	3	—	1	4
30-49	5	3	—	2	3
50-69	12	7	1	4	4
70-89	20	10	6	4	2
90 and over	14	1	7	6	—
Total	56	25	14	17	25
<i>Number of countries in which the proportion whose formal education extended beyond the primary level was (percentage of population 25 years of age and over)</i>					
Under 5	36	14	12	10	1
5-9	10	7	—	3	7
10-19	8	4	1	3	12
20-29	1	—	—	1	4
30 and over	—	—	—	—	3
Total	55	25	13	17	27

Source: See table A.10 in the statistical annex.

Definitional problems also complicate international comparisons of formal education: the organization and accessibility of schools, designation and length of courses, rules about attendance, availability and acceptability of private and other forms of tuition, all differ widely from country to country. Again, however, a broad picture of educational status emerges if adult populations are classified by the extent of their formal schooling.

The proportion of countries in which, at the beginning of the 1960s, over half the adult population—over twenty-five years of age—had received no formal education was less than a fourth in the more advanced group but over 80 per cent among the developing countries. In only two of the reporting countries of Europe (Albania and Turkey) were over 70 per cent of the population without formal schooling whereas in Latin America 40 per cent of the countries were in this category, in Asia 60 per cent and in Africa virtually all the countries for which information is available.

Over 5 per cent of the adult population had proceeded beyond the primary level of formal education in all the more advanced countries (again with the exception of Albania and Turkey). By contrast, this was the case in only a third of the developing countries—around 40 per cent in the western hemisphere and Asia and in only one of the thirteen reporting countries in Africa. In a fourth of the more advanced countries over a fifth of the adult population had completed secondary or higher levels of schooling. Among the developing countries, Israel was the only one with this educational status.

Most countries made strenuous efforts in the 1960s to make good the deficiencies in their educational systems. With school-age population growing at 3-4 per cent a year in most developing countries,<sup>31</sup> the task of catering for the oncoming children while

<sup>31</sup> Projected rates of growth of the five-to-fourteen-year-old group would have resulted in a 30 per cent increase for the 1960s in Africa, 35 per cent in southern and south-eastern Asia and 40 per cent in Latin America.

improving the facilities for those already in the system imposed considerable strains both on available manpower and on the public budget through which most of the effort was financed. Moreover, when the decade opened with low enrolment ratios, even high rates of expansion in the intake of the schools often failed to prevent the number of children outside the system from increasing appreciably.

Between 1960 and 1967 three fourths of the developing countries increased their enrolment in primary schools faster than the growth of the relevant age group in the population. The proportion of countries in which the expansion in enrolment just kept pace with or lagged behind the growth in child population was highest (almost one half) in Latin America where both population increase and primary enrolment were well above the developing country average. In Asia about a third of the developing countries increased their primary school enrolment at more or less the same pace as the school-age group. In Africa, where the educational backlog was greatest, there were relatively few lagging countries: only in Lesotho, Malawi, Mauritania and Nigeria did enrolment rise at less than the average of 5 per cent a year (see table A.11 in the statistical annex).

At the other end of the scale, high rates of increase in enrolment—over 7 per cent a year between 1960 and 1967—were rare in Latin America: Nicaragua with an enrolment ratio well below the regional average was the only country in this category. In Asia about a fourth of the developing countries were in this rapid expansion group, with particularly high rates being achieved by some of the low-enrolment countries—Afghanistan, Nepal and Saudi Arabia, for example, and, to a less extent, Iran and Laos. In Africa, no less than two thirds of the countries increased their primary enrolment at an average rate of 8 per cent a year or more. Most of the countries in which enrolment rose at over 10 per cent a year had school systems that accommodated less than a third of the school-age population; the exceptions were Botswana and Chad and, most notably, Ghana where expansion was very rapid, especially in the first half of the decade, even though a majority of the five-to-fourteen-year-old group were in school.

By the middle of the 1960s the proportion of developing countries with less than 30 per cent of their school-age population enrolled in primary school had been reduced to one fourth. Two thirds of this educationally retarded group were in Africa. The only western hemisphere country in the group was Haiti. In Asia the group included not only Afghanistan, Nepal and Saudi Arabia mentioned above, but also Maldives, Pakistan, People's Democratic Republic of Yemen and Yemen.

At this stage more than half the school-age group was enrolled in primary education in a fourth of the

developing countries of Africa, half of those in Asia and two thirds of those in the western hemisphere (see table 24). And a handful of small countries had more than three fourths of their five-to-fourteen-year-old group enrolled—British Honduras, Guyana, Israel, Lesotho, Netherlands Antilles, People's Republic of the Congo, Surinam and Trinidad and Tobago, with a total enrolment of 1.3 million children.

The problem of providing adequately for primary schooling in the face of a rapidly rising population

Table 24. Distribution of developing countries according to education enrolment ratios, mid-1960s

Range	All developing countries	Western hemisphere	Africa	Asia
<i>Number of countries with:</i>				
<i>A. Primary level education enrolment ratios of (percentage)</i>				
Under 10	6	—	5	1
10-29	20	1	13	6
30-49	29	7	14	8
50-69	30	11	7	12
70 and over	14	8	5	1
Total	99	27	44	28
<i>B. Annual average increase in primary enrolment, 1960-1966 (percentage)</i>				
3 or less	14	7	1	6
4-5	13	3	7	3
6-7	23	10	5	8
8-9	17	—	15	2
10 and over	17	1	12	4
Total	84	21	40	23
<i>C. General secondary education enrolment ratios of (percentage)</i>				
Under 10	35	1	28	6
10-24	30	12	11	7
25-39	17	7	4	6
40-54	9	4	1	4
55-69	4	1	—	3
70 and over	4	2	—	2
Total	99	27	44	28
<i>D. Tertiary enrolment as percentage of all secondary enrolment of</i>				
Under 5	42	5	29	8
5-9	28	5	14	9
10-14	19	12	—	7
15-19	6	4	1	1
20 and over	4	1	—	3
Total	99	27	44	28

Source: See table A.11 in the statistical annex.

may be illustrated from the experience of Latin America where the target for the 1960s was six years of primary education for every child. Between 1960 and 1967 primary enrolment increased twice as fast as school-age population. The proportion of children not in school was lowered from 52 per cent to 43 per cent, but despite this, the actual number of children not provided for expanded by three quarters of a million. The requirements in the way of new schools and teachers were far in excess of actual performance so that at the Punta del Este Conference in 1967 the goal of universal primary education was deferred to the 1970s.<sup>35</sup>

The low rates of primary enrolment that have characterized the developing countries of Africa are duly reflected in the numbers proceeding to secondary education. In the mid-1960s only one in ten of the African countries had more than a fourth of their fifteen-to-nineteen-old population enrolled in secondary school; and even the high-enrolment countries had less than half the relevant age group at school—Tunisia (25 per cent), Ghana (27 per cent), Libyan Arab Republic (28 per cent), United Arab Republic (34 per cent) and Mauritius (46 per cent). In the other regions the proportions of the fifteen-to-nineteen-year age group enrolled in secondary schools were appreciably higher: approximately half the countries in each case had more than a fourth of the group at school and in a number of countries over half the age group was enrolled—Barbados, Netherlands Antilles and Uruguay in the western hemisphere and Ceylon, China (Taiwan), Hong Kong, Kuwait and Singapore in Asia.

The contrast between Africa and the other regions inevitably carries over into the tertiary level of education. If the number enrolled in higher education is expressed as a proportion of the total secondary enrolment, it is seen that only one African country (United Arab Republic) has a ratio in excess of 10 per cent. In two thirds of the countries of the region tertiary enrolment amounted to less than 5 per cent of secondary enrolment in the mid-1960s. The tertiary/secondary ratio was over 10 per cent to 40 per cent of the developing countries of Asia and 60 per cent of those in the western hemisphere. Particularly high ratios were recorded in Lebanon (24 per cent), Argentina (31 per cent), Israel (33 per cent) and Philippines (43 per cent).

Interregional and intercountry comparisons of this nature must not be interpreted too literally: there are too many definitional difficulties and differences to permit precise conclusions even in the purely quantitative terms in which the discussion has been

couched. And increasingly it has come to be realized that the qualitative dimension may often be more important than the number or proportion of children featuring on enrolment records. These qualitative considerations range through the curriculum to the method of instruction, the efficiency of teachers and the rapport between teacher and pupil. Such matters are vital to any national appraisal of educational progress, but they tend to be particular and specific in content since the ultimate test of the relevance of what is taught and the effectiveness of the teaching must be applied at the local level. It is extremely difficult to bring them to the sort of common basis required for global analysis.

Between the simple quantitative indicators and those subtle qualitative considerations lie a number of tests of the working of the educational system which could in principle be usefully deployed for international comparisons but which in fact are not at present sufficiently well documented for this purpose. These tests relate essentially to the smoothness and efficiency of the system in a more mechanical sense. One is the length of time a child actually remains in school and another is the extent to which a child has to repeat a given course. Both these tests affect the interpretation of enrolment data.

Nowhere is enrolment synonymous with attendance and the difference between the two tends to be quite large in the developing countries, particularly in the rural areas where motivation is often weakest, the schools least well equipped and organized and the other claims on children's time and energy most insistent, especially during the seasonal peaks of agricultural activity. An attendance coefficient—relating actual to possible—should be calculated for use in assessing educational performance.

Attendance is important in another sense, namely, to measure the continuity of the educational experience. A minimum time is required for primary education to yield literacy, and attendance for that period—put at four years by some authorities—is a more significant measure of the performance of the system than unqualified figures on enrolment. A wastage or drop-out coefficient—that is the average proportion of pupils failing to move on to the next grade—and the proportion of each year's intake achieving the minimum period of attendance are therefore additional indicators necessary for appraising educational progress.

The magnitude of the loss incurred through wastage may be illustrated from the estimates made of the average rate of attrition experienced in a typical African class entering school for the first time in 1960. The proportion of the original group entering successive grades in subsequent years declined to 66 per cent (that is, a one-third drop-out), 57 per

<sup>35</sup> See United States Agency for International Development, *A Review of Alliance for Progress Goals*, pages 34 and 37.



per cent, 46 per cent, 37 per cent and 32 per cent.<sup>30</sup> Thus only one third of the original group remained in school long enough to acquire permanent literacy and enter the sixth grade, on the way to secondary school. In these circumstances over half of the new entrants into primary school fail to derive therefrom any benefit likely to enhance their subsequent level of living.

From the point of view of measuring the effectiveness of the system, some allowance should also be made for children who are repeating a school year. Scattered evidence suggests that enrolment is magnified by between a sixth and a third by pupils who are going over the same ground again. This tends to inflate not only enrolment but also the cost of education to a degree that is disproportionate to the contribution that the schooling in question is likely to make to the level of living.

It is desirable to bring the financial dimension into the appraisal exercise also. It furnishes a ready means of measuring the efficiency—over-all cost per pupil, recurrent cost per pupil, recurrent cost per primary school graduate and so on—of various types of education over time and, with certain precautions, even between countries. It also serves to dramatize the great differences in unit costs between the levels

<sup>30</sup> For a discussion of the source and implication of these estimates, see United Nations Educational, Scientific and Cultural Organization, "Educational planning: a survey of problems and prospects" (ED/ICEP/3, June 1968).

in the educational system: in many developing countries recurrent expenditure per pupil is up to ten times as high at the secondary level as at the primary level, and unit costs in higher education are a further multiple (see table 25).

In the 1960s most of the developing countries strained their budgetary resources severely to expand the primary base of the educational pyramid. The logic of this expansion points to a corresponding growth in the secondary and tertiary layers of the pyramid as the numbers graduating from the primary level rise. This will be a very costly matter and many countries will find it extremely difficult to finance. Hence the urgent need to ensure that the system is yielding its maximum output in terms of those elements of knowledge and skill that are most important to the future level of living of those it is intended to serve.

In three out of four developing countries the proportion of total production devoted to public education increased in the course of the 1960s. In about a fourth of the developing countries public expenditure on education amounted to more than 4 per cent of the gross domestic product. These high ratios are a notable feature in Africa where *per capita* income and investment ratios tend to be low and the need to make education as relevant as possible to local requirements and opportunities is particularly great. In the Asian region, Ceylon, Iraq, Israel, Khmer Republic and Saudi Arabia all spent more than 4 per cent of their gross domestic product on public

Table 25. Selected developing countries: public expenditure on education,<sup>a</sup> 1960-1966  
(Dollars, except as indicated)

Country	Public expenditure on education				Average recurrent expenditure per pupil, 1966 <sup>t</sup>		
	As percentage of gross domestic product		Per enrolled pupil		Primary	Secondary	Tertiary
	1960 <sup>b</sup>	1966 <sup>c</sup>	1960 <sup>a</sup>	1966 <sup>e</sup>			
<i>Western hemisphere</i>							
Argentina . . . . .	2.0	3.6	64	135	99	260	374
Bolivia . . . . .	1.5	3.7	13	38	..	..	..
Brazil . . . . .	2.3	0.9	30	15	3	37	548
Chile . . . . .	2.6	3.8	72	110	56	154	976
Colombia . . . . .	2.8	2.3	56	42	27	102	864
Costa Rica . . . . .	4.2	4.0	69	71	58	128	373
Ecuador . . . . .	1.6	2.3	23	29	19	97	861
El Salvador . . . . .	2.3	2.8	37	52	29	32	504
Guatemala . . . . .	1.2	2.0	40	57	25	99	273
Guyana . . . . .	2.4	3.9	30	49	36	..	667
Honduras . . . . .	2.1	2.8	36	47	..	..	..
Jamaica . . . . .	2.4	2.5	58	69	34	165	..
Mexico . . . . .	1.4	2.4	32	63	23	59	432
Nicaragua . . . . .	1.5	1.6	32	40	35	100	273
Paraguay . . . . .	1.3	1.6	11	17	11	69	..
Trinidad and Tobago . . . . .	2.2	2.3	49	64	47	193	..
Uruguay . . . . .	2.6	3.7	95	68	44	114	271
Venezuela . . . . .	3.4	3.4	183	168	99	276	1,618



Table 25 (continued)

Country	Public expenditure on education				Average recurrent expenditure per pupil, 1966 <sup>f</sup>		
	As percentage of gross domestic product		Per enrolled pupil		Primary	Secondary	Tertiary
	1960 <sup>b</sup>	1966 <sup>c</sup>	1960 <sup>d</sup>	1966 <sup>e</sup>			
<i>Africa</i>							
Botswana	...	5.0	24	42	20	442	...
Cameroon	...	2.1	18	22	19	486	...
Ethiopia	...	1.4	30	43	22	172	...
Gabon	2.4	2.9	66	77	...	...	...
Ghana	3.4	4.3	67	60	...	...	...
Ivory Coast	3.8	4.5	94	120	...	...	...
Kenya	4.6	3.9	36	42	22	288	3,133
Lesotho	...	3.3	9	14	8	160	721
Liberia	0.7	2.0	25	77	26	577	1,396
Libyan Arab Republic	2.4	2.3	33	168	...	...	...
Madagascar	...	5.8	...	76	24	588	1,050
Malawi	...	4.2	12	32	17	210	1,025
Mauritius	3.8	3.4	36	37	44	378	...
Morocco	3.8	3.9	76	74	54	149	629
Senegal	2.2	3.0	103	95	49	219	250
Sierra Leone	...	3.3	63	86	25	94	1,998
Sudan	1.9	3.9	55	108	37	281	2,994
Swaziland	...	3.3	49	49	27	374	...
Togo	...	1.9	...	38	27	91	308
Tunisia	5.1	4.9	86	51	29	128	410
Uganda	3.4	1.6	25	28	...	...	...
United Arab Republic	4.9	4.7	64	58	...	...	...
Zambia	1.6	5.6	33	117	17	148	...
<i>Asia</i>							
Burma	1.5	2.5	12	15	9	20	136
Ceylon	4.3	4.2	27	29	...	...	...
China (Taiwan)	1.8	2.9	21	29	13	43	212
Iran	2.1	2.3	55	51	37	72	65
Iraq	4.9	5.2	89	100	84	118	563
Israel	...	7.0	253	456	183	188	824
Jordan	3.5	3.9	36	43	25	53	283
Khmer Republic	...	4.2	37	41	26	...	...
Kuwait	...	2.4	...	653	185	2,716	...
Lebanon	2.0	2.5	114	176	95	...	318
Malaysia (West)	3.8	3.4	59	64	43	82	1,143
Pakistan	0.9	1.2	10	16	7	10	60
Philippines	2.7	2.5	31	23	25	24	99
Republic of Korea	5.8	3.3	49	20	10	...	26
Republic of Viet-Nam	1.0	1.3	16	15	10	35	40
Saudi Arabia	...	4.1	599	367	...	...	...
Thailand	1.9	2.8	16	25	14	67	203

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics*; and United Nations Educational, Scientific and Cultural Organization, *Statistical Yearbook, 1968* (Paris, 1969).

<sup>a</sup> The countries selected are those for which relevant data are available. Expenditure by the Ministry of Education only in the case of Lebanon and Madagascar.

<sup>b</sup> 1961 in the case of Libyan Arab Republic, Morocco and United Arab Republic; 1962 in the case of Gabon.

<sup>c</sup> 1965 in the case of Bolivia, Burma, Cameroon, Gabon, Ghana, Guatemala, Honduras, Ivory Coast, Kenya, Lesotho, Morocco, Nicaragua, Paraguay, Senegal, Trinidad and Tobago, Uganda, Uruguay and Zambia.

<sup>d</sup> 1961 in the case of Cameroon, Ceylon, China (Taiwan), Colombia, Gabon, Libyan Arab Republic, Madagascar,

West Malaysia, Mexico, Morocco, Nicaragua, Swaziland, Thailand, United Arab Republic and Uruguay; 1962 in the case of Israel, Lebanon, Senegal and Tunisia; 1959 in the case of the Republic of Korea and Trinidad and Tobago; 1963 in the case of Saudi Arabia.

<sup>e</sup> 1965 in the case of Bolivia, Burma, Cameroon, Gabon, Ghana, Guatemala, Honduras, Ivory Coast, Kenya, Lesotho, Madagascar, Morocco, Nicaragua, Senegal, Uganda, Uruguay and Zambia; 1964 in the case of Paraguay and Trinidad and Tobago.

<sup>f</sup> 1965 in the case of Bolivia, Burma, Ceylon, Ecuador, Guatemala, Honduras, Kenya, Khmer Republic, Libyan Arab Republic, Malawi, Senegal, Thailand and Tunisia; 1964 in the case of West Malaysia, Paraguay, Philippines and Trinidad and Tobago; 1962 in the case of Zambia; 1961 in the case of Lesotho.

education in 1966. In the western hemisphere the average was 3 per cent, but increases were the rule: education accounted for 13 per cent of central government outlays in 1967 compared with 9 per cent at the beginning of the decade.

While the ratio of expenditure on education to total production is useful for making intercountry

comparisons of the effort being made, financial outlays as such have no particular merit as an indicator of educational progress. Their role in the appraisal exercise is in the measurement of efficiency, that is, the ability of the system to produce the desired components of the level of living and improve the productive capacity of those who pass through it, all at the least possible cost.

## Chapter III

### PRODUCTIVE CAPACITY

Though difficult to measure as a single concept, the productive capacity of an economy is a matter of major importance to the process of economic and social development. It is the primary determinant of a country's viability in the world economy and of its ability to maintain and improve the level of living of its inhabitants. In any system of progress appraisal, therefore, it is necessary to examine the changes that have been taking place in the various aspects of the economy that have a bearing on its productivity. These may be divided into three broad categories—expansion in physical plant and equipment, improvement in the knowledge, skills and motivation of workers and changes in conjuncture and organization which facilitate the more efficient use of productive factors.

The over-all measure of the expansion in physical plant and equipment is fixed investment. This can be calculated gross or net, that is, before or after due allowance has been made for the using up of capital in the course of producing the output of the period under review. One indicator of investment performance is the proportion of total production actually devoted to fixed capital formation. This brings out the competitive relationship between investment and consumption: they represent alternative ways in which output can be used in the short run. Where the investment ratio—of gross fixed capital formation to gross domestic product—is increasing, the country is making an effort to enlarge its productive capacity.

Performance may also be measured by the growth of fixed investment over time. Some countries have defined their investment objectives in terms of a target rate of annual increase. Actual investment has to be reduced to "real" terms by appropriate allowance for changes in the prices of investment goods. In principle, a net figure would be preferable to a gross one, to measure the rate at which the effective capacity was expanding, but, as indicated in chapter I, the allowance that is made for the depreciation of capital assets is often rather arbitrary—depending chiefly on fiscal rules and conventions—so that in practice the gain in precision might be quite illusory.

Apart from changes in its volume, investment has also to be measured by its effectiveness. One way of doing this is to relate the investment of a given period not to the output of goods and services in

the same period—and of which it constitutes one expenditure component—but to the output of some subsequent period which should reflect its deployment. The relationship between the increment in fixed capital in one year and the increment in total output in the next year furnishes a first approximation of the efficiency of the investment.

The incremental capital/output ratio is no more than a first approximation, however, for the link between investment and production is by no means simple and direct. Many forms of investment do not yield any immediate increase in output; and production is influenced by many factors other than the volume of investment in the previous year. The less developed the economy the greater is likely to be the proportion of investment in infrastructure and other forms of social overhead that tend to exert only a very long-term influence on production. And the less developed the economy the greater is likely to be the proportion of output originating in the agricultural sector and peculiarly subject to short-term fluctuations induced by the weather and other natural conditions that are affected little if at all by the previous year's investment.

The capital/output ratio is likely to be more useful as a long-term than as a short-term indicator. And, while the goal of reducing it is tantamount to one of improving the effectiveness of investment—a very desirable objective in most developing countries in which capital is in such short supply—it is unlikely to be achieved solely by modification in investment policy: it involves the operation of the whole economy.

More useful as a check on investment policy is a systematic review of its sectoral composition and results. At the sectoral level the connexion between one year's investment and the next year's output is generally more clearly discernible than it is at the more aggregative level. A capital/output ratio by sector is therefore a potentially more helpful measuring rod of performance: in some respects it is equivalent to the *ex post* counterpart of the cost/benefit analyses that are carried out before the investment is undertaken.

The effectiveness of investment in expanding productive capacity depends not only on the sector (and the demand for the particular output) and the volume but also on the appropriateness of the technology it

embodies. For optimal results it should conform to the indigenous resource pattern as closely as possible. If the other required inputs are not available the new capacity will not yield its full potential output. And by the same token, an unsuitable technology will make less than optimal use of available resources, leaving some unnecessarily unemployed and hence not contributing to production.<sup>1</sup>

The productive capacity of the economy thus depends not only on the expansion of fixed investment but also on the effective deployment of the other factors. And capital formation is not confined to physical plant and equipment but should logically include the enlargement of the knowledge and capabilities of labour. This is particularly important in developing countries where shortage of specific skills is often a major constraint on production. In appraising its performance in respect of capacity creation, a country should therefore review its manpower situation as well as its investment in fixed capital. The filling of skill gaps by human capital formation may often contribute as much to the expansion of the productive capacity of the economy as conventional physical capital formation.

Three types of measurement need to be applied to the manpower situation in order to assess the progress that is being made in human capital formation. One is the stock of various skills available at different points of time. This is akin to the use of an educational status profile of the population as a bench-mark for evaluating the operation of the educational system, though in the context of productivity the focus of interest is less on general primary and secondary education than on particular types of training or preparation for employment or vocation. Another measure is the effort actually being put into provision of new skills as indicated by the enrolment in career-oriented classes and schools. A third involves the subsequent deployment of skilled manpower—a test of the appropriateness of the training, including the earning levels of graduates of various kinds and the skill composition of the unemployed group and the unfilled vacancies.

While the productive capacity of the economy depends on the supply of capital and suitably qualified manpower, mere availability does not ensure effective use: allocation problems are also involved as well as the supply of complementary resources, particularly those that have to be obtained from abroad, and there are many organizational and institutional factors which can enhance or inhibit productivity.

The allocation problem is best discussed in the context of economic balance (in the next chapter)

<sup>1</sup> Some of these problems of imbalance are discussed in chapter IV below.

since in large measure productivity optimization depends on the maintenance of the proper relationship between sectors and between particular investment projects within sectors. As indicated above, a given investment enlarges the effective capacity of the economy only if appropriate arrangements exist for furnishing it with the inputs necessary for its operation. Thus a blast furnace adds to steel-making capacity only to the extent that it can be provided with the requisite iron ore and coke and other raw materials. A railway line adds to transport capacity only when an appropriate complement of locomotives and rolling stock can be put into service. The capacity of a factory depends not only on its physical plant but also on the skill of its operating staff and the number of hours per day it is permitted to function.

To evaluate its performance in expanding capacity and raising productivity, a country thus needs to examine many aspects of its economic life—the adequacy of existing arrangements for mobilizing savings, the appropriateness of its laws governing corporate structure and the way in which resources are pooled in the formation of operating enterprises, the extent to which its land tenure system provides the security necessary to encourage the maximum productive effort from peasant cultivators, the effect of its labour laws on the optimal utilization of plant and equipment and the effect of fiscal and monetary policies on the balance and intensity of factor use.

Such an appraisal can be carried out only at the national level: the peculiar cultural values and historical circumstances of individual countries enter into the picture at an early stage. Nevertheless, in the field of economic development the experience of one country is not irrelevant to others, and the efforts made to raise productivity should also be analysed and compared at the international level. No ready-made methodology exists for dealing with subtle changes in the legal or institutional influence that affect productive capacity. But certain features of the economic scene merit systematic scrutiny: innovations in the collection and canalization of savings, in the way in which operating enterprises can be organized, and in the conditions governing the employment of labour, the importation of essential inputs and the cultivation of the soil. These are the sensitive areas in which institutions and policies are likely to have the most direct influence on the effective capacity of the economy, enhancing or inhibiting the productive utilization of scarce resources.

#### AN APPRAISAL OF RECENT CHANGES IN PRODUCTIVE CAPACITY

Where income levels are low, almost the whole of current output is necessarily pre-empted for con-

sumption; relatively little can be set aside for the expansion of capacity. The lower the rate of saving, the more important it is to increase effective capacity by optimizing investment patterns and by removing and reducing those features of the economy that hamper the full use of the capital that is available. As institutional deficiencies tend to be greatest in low-income countries the scope for improving effective capacity is not subject to the limitation imposed by savings ratios. Moreover many developing countries are in a position to tap the savings of other parts of the world, thus permitting investment rates to rise substantially above rates of domestic saving. With so many variables affecting the method and pace of capacity expansion, it is not surprising that the global picture is one of great diversity, both in terms of current efforts and results and in terms of the changes that have taken place over the 1960s.

### *Savings performance*

Though savings data are among the least reliable components of the national accounts—often being calculated as a residual after documented forms of expenditure are accounted for—there can be little doubt about the fact that developing countries save a smaller proportion of their total output than do the more advanced countries. In the period 1966-1968 the average savings ratio among the developed market economies was over 22 per cent of gross domestic product, while among the developing countries it was only 15 per cent. In both groups the ratio had risen in the course of the decade, slightly more among the developing countries than among the developed market economies but still leaving a wide and characteristic disparity (see table A.12 in the statistical annex).

Almost two thirds of the developed market economies had savings ratios in excess of 23 per cent in 1966-1968. The corresponding figure among the developing countries was not much more than one in eight. And in most of the latter, the savings were generated in large measure by the operations of foreign-owned enterprises—in mining in the case of Gabon, Kuwait, Libyan Arab Republic, Mauritania, People's Republic of the Congo, Saudi Arabia, Uganda and Zambia, and in plantations in Malaysia. In the case of China (Taiwan) and Thailand, high production growth rates—10 and 8 per cent, respectively, in the 1960s—also helped to raise the savings ratio, while in Southern Rhodesia, the only other territory in the high-savings group, the trade boycott to which it was subjected during this period was partly responsible for stimulating domestic savings.

The only developed market economies with savings ratios of less than 14 per cent of gross domestic product in 1966-1968 were the marginal cases of

Cyprus and Malta which are among the low-income countries of Europe. Well over half the developing countries had savings ratios of less than 14 per cent, and in more than a third of the eighty-two countries for which data are available, less than 11 per cent of total output was saved. The proportion of low savers was highest in the western hemisphere (where half the countries saved less than an eighth of their output), in Africa there were some countries with hardly any savings in this period (Botswana, Liberia and Malawi) and two (Chad and Lesotho) in which consumption exceeded domestic production.

The low savers were a heterogeneous group of countries. They were mostly low-income countries, but they included Chile, Israel, Lebanon and Uruguay, where *per capita* incomes were far above the developing country average. They were mostly small countries but they included two of the largest countries in Africa (Ethiopia and Nigeria) and in Asia (Indonesia and Pakistan). They were mostly low-growth countries, but they included several in which production had risen by more than 5 per cent a year during the 1960s—Bolivia, Botswana, Gambia, Guatemala, Israel, Jordan, Lesotho and Pakistan. They were mostly countries in which there was relatively little foreign investment, but they included Bolivia, Chile, Guyana, Liberia and Sierra Leone where foreign-owned mining or plantation companies were important and active during this period.

The average savings ratio in 1966-1968 was 15.9 per cent of gross domestic product in the western hemisphere, 16.2 per cent in Asia and 16.5 per cent in Africa. There were very few countries in this middle range, however: none at all in Asia, Niger and Togo in Africa; and Brazil, Colombia, Mexico and Panama in the western hemisphere. Diversity was thus one of the main features of performance in this period, especially in Africa and Asia. Altogether a third of the developing countries registered savings rates of less than 10 per cent and almost a fourth, rates of over 20 per cent (see table 26).

Compared with the developed market economies, there was far more change in savings ratios in the developing countries in the course of the 1960s. There were no developed market economies in which the savings ratio in 1966-1968 was more than 4 percentage points (of gross domestic product) less than in 1960-1962, and there was only one (Japan) in which the ratio had risen more than 5 percentage points. By contrast, almost a third of the developing countries had changed their savings performance more than this: in about 10 per cent of the seventy-nine countries for which data exist there was a reduction of more than 5 percentage points, and in about 20 per cent an increase of more than 6 percentage points.

Table 26. Distribution of countries according to domestic savings ratios, 1960-1968

Item and range	Developing countries				Developed market economies
	Total	Western hemisphere	Africa	Asia	
<i>Number of countries in which:</i>					
<i>A. Average ratio of savings to gross domestic product in 1966-1968 was (in percentage points)</i>					
Less than 11.0	28	9	12	7	2
11.0-13.9	17	4	8	5	—
14.0-16.9	6	4	2	0	3
17.0-19.9	12	3	6	3	3
20.0-22.9	7	3	1	3	2
23.0 and over	12	0	7	5	17
Total	82	23	36	23	27
<i>B. Change in ratio of savings to gross domestic product between 1960-1962 and 1966-1968 was (in percentage points)</i>					
More than —10.0	1	—	—	1	—
—5.1 to —10.0	9	2	1	6	—
—0.1 to —5.0	19	9	9	1	11
—0.0 to 2.9	20	7	9	4	12
3.0 to 5.9	15	4	7	4	4
6.0 to 8.9	7	1	3	3	—
9.0 and over	8	—	4	4	—
Total	79	23	33	23	27

Source: See table A.12 in the statistical annex.

Among the countries in which there was a large decline in savings ratio, changes in the activities of foreign-owned enterprises were often a major factor, as in the case of Bolivia, Chile, Kuwait, Liberia and Peru. In Kuwait and Peru, moreover, savings were abnormally high in the early 1960s, as they were in Singapore where there was a 40 per cent decline in the savings ratio. There were also sharp reductions in savings rates, but from more or less normal figures, in Afghanistan, Burma, Israel, Jordan, Lebanon and Malawi connected more closely with local events and domestic policies.

At the other end of the scale are the countries whose savings rates greatly increased in the 1960s. These include some of the countries in which mining was responsible for a notable expansion in resources—Algeria, Libyan Arab Republic, Mauritania and People's Republic of the Congo—and savings rates were raised to well above the developing country average. The group also includes some of the high-growth countries which also managed to generate more savings—China (Taiwan), Hong Kong, Jamaica, Republic of Korea, Syria, Thailand and Togo. Except in the case of Togo, which was among the countries starting with extremely low savings rates at the beginning of the decade, these countries also regis-

tered ratios well above the developing country average in 1966-1968. To a less degree this also occurred in Barbados, Ceylon and United Republic of Tanzania which increased their output only modestly in the 1960s but managed to achieve a markedly higher savings rate. Savings rates also improved notably—from extremely low levels—in two other slow-growing countries, the Republic of Viet-Nam and Upper Volta.

The most widespread increase in savings rates occurred in Africa where 70 per cent of the countries registered higher rates in 1966-1968 than at the beginning of the decade. This resulted in a gain of over 4 per cent of gross domestic product in the savings ratio for the region as a whole, raising it from below to above the developing country average.

A gain of 2.4 percentage points—half the over-all increase in Africa—was achieved in Asia, reflecting improved savings performance in Iran, Iraq and Saudi Arabia and, to a less extent, in Malaysia and the Philippines, as well as the sharp increases in the high-growth countries referred to above. This raised the regional average to fractionally above that of the developing countries as a whole. Though marginally improved, savings rates remained low in

India (13 per cent) and even more so in Indonesia (8 per cent) but the most disturbing feature in Asia was the decline in the savings ratio of several countries that began the decade with relatively low figures—Afghanistan, Burma, Israel, Jordan, Lebanon and Pakistan.

Also disturbing is the fact that half the developing countries of the western hemisphere were saving a smaller proportion of their output in 1966-1968 than in 1960-1962. With the notable exception of Mexico, where there was an improvement of 2 percentage points, and Argentina, which maintained its high savings ratio, all the larger countries in the region registered reductions in their savings rates. The ratios remained above the developing country average in the case of Brazil and Venezuela as well as Argentina, reached the vicinity of the average in the case of Colombia, fell below the average in the case of Peru, and dropped further below the average in the case of Chile and Uruguay and several of the smaller countries. Hence, notwithstanding improvements in Costa Rica, Jamaica, Nicaragua and Trinidad and Tobago—and on a smaller scale in Barbados, El Salvador, Guatemala and Honduras—the regional average savings ratio declined from the relatively high figure of 16.5 per cent of total output at the beginning of the decade to fractionally below the developing country average in 1966-1968.

Among the countries that had set savings targets for themselves for a plan period ending in 1967 or 1968, China (Taiwan), with an ambitious goal, Costa Rica and Jamaica, with an average developing country goal, and Trinidad and Tobago, with a very modest goal, had all exceeded intentions (see table 27). Venezuela's achievement of a 21 per cent savings ratio was below the high (27 per cent) aim of the plan; Tunisia also fell well short of its more conservative intention of raising its savings rate from 12 per cent to 16 per cent, while Barbados and Paraguay failed to reach even the low aim of 10-12 per cent. Among the countries with another year of their plan period to go, El Salvador and Nicaragua were saving as much as had been intended (around 12 per cent of output in the former and 17 per cent in the latter), but Argentina and Pakistan were short of their goal, most seriously in the case of Pakistan whose 1965-1969 plan had visualized a rise in the savings ratio from 10 per cent to 14 per cent of total production. Of the countries whose plan periods ended in 1970, Gambia, Panama, Sudan and Togo were all ahead of their low targets in 1968 and Malaysia and Zambia were ahead of much more ambitious targets. Brazil and Kenya, aiming at saving rates in the vicinity of the developing country average, were not far off target—the former somewhat ahead, the latter behind. Syria was also running slightly behind its objective (a savings

rate of 20 per cent), so and to a greater extent were Iraq and Peru with high aims and Jordan with a very modest target. Lesotho, Thailand and Uganda, whose plans had longer to run, were on or ahead of target in 1968, but Bolivia was still well short of its ten-year intention to reach a 14 per cent ratio by 1971, while Uruguay was trailing far behind its ambitious 1965-1974 objectives. Altogether, of the twenty-nine countries that had designated savings targets in their plans, just over half were on or above their intended ratio in 1968.

There was no evidence that either the target that had been set or the actual savings achievement was greatly affected by the rate at which total production had been rising. The proportion of targets above the developing country average, around that average and below that average was much the same among the high-growth countries (over 5 per cent a year) as among those with low growth rates. The distribution of actual savings ratios was also virtually the same in the two growth rate groups.

#### *The use of foreign savings*

Almost a third of the developing countries generate more savings than they use, the excess being transferred to other parts of the world. This proportion was higher than that obtaining among the developed market economies in 1966-1968 when only France, Italy, Japan, New Zealand, United Kingdom and United States (less than a fourth of the countries in the group) had savings to transfer.

In the developing countries, the generation of excess savings often reflects the operation of foreign-owned enterprises. Thus the countries in which more than 5 per cent of the gross domestic product was involved in 1966-1968 include some of the major mining and plantation economies: Gabon, Ivory Coast, Libyan Arab Republic, Mauritania, Southern Rhodesia, Uganda and United Republic of Tanzania in Africa, and Iraq, Kuwait, Malaysia and Saudi Arabia in Asia.

At the other end of the scale the proportion of countries heavily dependent on foreign savings (to the extent of 6 per cent of gross domestic product or more) was twice as high among the developing countries (almost a third) as among the developed market economies (less than a sixth). Of the European countries only Cyprus, Greece, Iceland and Malta were in this position, whereas a fourth of the developing countries of Africa received the equivalent of over 6 per cent of their total output from abroad in 1966-1968 and a third of those in Asia and the western hemisphere (see table 28).

The group in which foreign savings played the largest relative part (over 10 per cent of gross domestic product) included some in which direct investment was in a particularly active phase, as in Bolivia, Guyana, Liberia, Peru and Singapore, and

Table 27. Selected developing countries: investment and savings performance, most recent plan period  
(Percentage of gross domestic product)

Country <sup>a</sup>	Period	Plan		Actual performance (average from beginning of plan period to 1968) <sup>c</sup>	
		Objective <sup>b</sup>		Gross domestic fixed capital formation	Gross domestic savings
		Investment	Savings		
Libyan Arab Republic	1963-1968	d	...	23.3	47.9
China (Taiwan)	1965-1968	19.0-22.0	17.0-20.0	22.9	23.2
Jordan	1964-1970	14.0-15.0	0.0-8.0	16.5	3.9
Thailand	1967-1971	24.0-23.0	19.0-21.0	29.3	25.1
Panama	1963-1970	17.0-17.0	10.0-9.0	18.4	13.3
Syria	1966-1970	17.0-22.0	17.0-20.0	17.4	17.2
Ivory Coast	1960-1970	12.0-16.0	...	16.6	18.6
Nicaragua	1965-1969	16.0-18.0	14.0-17.0	18.7	18.9
Togo	1966-1970	15.0-14.0	11.0-8.0	16.6	14.1
Gambia	1967-1970	12.0	1.0	13.9	-9.9
Iraq	1965-1970	16.0-23.0	19.0-26.0	15.5	20.9
Zambia	1966-1970	11.0-27.0	28.0-27.0	21.6	30.3
Costa Rica	1965-1968	18.0-22.0	13.0-15.0	20.6	19.1
Lesotho	1967-1971	14.0-20.0	-24.0-16.0	10.4	-16.2
Mexico	1966-1970	d	...	15.6	14.0
Pakistan	1965-1969	18.0-20.0	10.0-14.0	14.4	11.1
El Salvador	1965-1969	14.0-16.0	10.0-12.0	14.0	12.9
Malaysia	1965-1970	20.0-19.0	21.0-18.0	16.7	23.6
Peru	1967-1970	19.0-21.0	17.0-20.0	20.6	14.7
Honduras	1965-1969	14.0-20.0	...	16.7	12.1
Bolivia	1962-1971	17.9-19.9	6.9-13.9	17.0	4.8
Jamaica	1963-1968	20.0-20.0	15.0	19.0	15.3
Gabon	1966-1971	28.0-19.0	...	29.2	43.7
Botswana	1968-1973	d	...	18.4	1.1
Guatemala	1965-1969	d	...	11.6	10.1
Brazil	1968-1970	14.3-15.6	13.5-14.7	17.8	16.9
Trinidad and Tobago	1964-1968	28.0-24.0	10.0	20.0	20.1
Kenya	1966-1970	13.0-20.0	12.0-14.0	14.7	13.3
Liberia	1967-1970	d	...	15.4	2.3
Barbados	1965-1968	16.0	10.5-11.0	23.5	10.3
Chile	1961-1970	14.3-20.3	...	16.3	12.1
Paraguay	1965-1967	16.0-21.0	10.0-12.0	15.5	11.3
Sudan	1961-1970	11.4-10.3	6.0-8.7	13.4	10.6
Venezuela	1965-1968	18.0-22.0	22.0-27.0	17.8	21.0
Tunisia	1965-1968	20.4-22.0	12.0-16.4	22.6	11.0
Uganda	1966-1971	13.0-17.0	11.0-13.0	15.1	23.9
Morocco	1965-1967	13.0-21.0	...	12.1	11.9
Lebanon	1965-1969	d	...	22.6	9.4
Argentina	1965-1969	22.0-22.0	22.0-22.0	18.5	20.5
Upper Volta	1967-1970	12.7	...	14.3	9.4
Senegal	1965-1969	14.0-16.0	...	12.8	12.8
Guyana	1966-1972	d	...	24.7	8.9
Afghanistan	1967-1971	d	...	20.9	4.4
Madagascar	1964-1969	14.0-19.0	...	10.2	6.6
Central African Republic	1967-1970	20.0	...	22.4	7.8
Chad	1966-1970	9.0-10.0	...	10.9	-0.3
Nigeria	1962-1968	d	...	12.5	9.8
Uruguay	1965-1974	13.0-21.0	13.0-22.0	11.5	11.9

Source: Country plans, and table A.12 in the statistical annex.

<sup>a</sup> The selection of countries reflects the availability of data. They are arrayed in descending order of 1960-1968 rate of gross domestic product growth.

<sup>b</sup> The range sometimes indicates the intended change from the first to the final years of the plan.

<sup>c</sup> Gross domestic capital formation in some cases (see table A.12).

<sup>d</sup> The plan specifies only investment in the public sector.



Table 28. Distribution of countries according to foreign savings ratios, 1960-1968

Item and range	Developing countries				Developed market economies
	Total	Western hemisphere	Africa	Asia	
<i>Number of countries in which:</i>					
<i>A. Average ratio of foreign savings to gross domestic product in 1966-1968 was</i>					
More than —10.0	6	—	3	3	—
—5 to —10.0	4	—	3	1	—
—0.1 to —5.0	13	4	6	3	6
0.0 to 2.9	17	7	8	2	12
3.0 to 5.9	17	4	7	6	5
6.0 to 8.9	8	3	2	3	1
9.0 and over	17	5	7	5	3
Total	82	23	36	23	27
<i>B. Change in ratio of foreign savings to gross domestic product between 1960-1962 and 1966-1968 was (in percentage points)</i>					
More than —10.0	8	1	6	1	—
—5.1 to —10.0	7	1	3	3	1
—0.1 to —5.0	27	7	10	10	12
0.0 to 2.9	16	7	6	3	9
3.0 to 5.9	10	3	5	2	3
6.0 and over	11	4	3	4	2
Total	79	23	33	23	27

Source: See table A 12 in the statistical annex.

others in which the inflow of external resources took different forms—as in Barbados and Dominican Republic in the western hemisphere, Afghanistan, Israel, Jordan and Lebanon in Asia and Botswana, Central African Republic, Chad, Lesotho, Mozambique and Tunisia in Africa.

The developing countries were thus characterized by the wide spread in the relative role of inflows and outflows: over 10 per cent of total production was involved in as many as a third of them. In Africa, the outflows exceeded the inflows in the period 1966-1968; in the western hemisphere, however, there was a net inflow equivalent to 1.2 per cent of the region's total output, and in Asia a somewhat larger relative inflow. Thus, in the aggregate, foreign savings amounted to 1.3 per cent of the gross domestic product of the developing countries, that is, the equivalent of about \$4 billion.

The 1966-1968 ratio was less than it had been at the beginning of the decade when foreign savings stood at almost 2 per cent of the over-all gross domestic product. The decline reflects the fact that, in total, the rise in domestic savings rates had been almost twice as great as the rise in the investment ratio. The relative importance of foreign savings had declined in over half the developing countries, most notably in Asia in terms of the number of countries (two thirds of the total) and in Africa

in terms of the relative volume of resources (over 4 per cent of the region's over-all output). In the western hemisphere where, in contrast to the other regions, the average domestic saving rate declined, foreign resources made an increased contribution in two thirds of the countries but were marginally less important for the region as a whole. In Asia external resources contributed a slightly greater proportion of total production in 1966-1968 than at the beginning of the decade. In Africa, however, there was a marked swing from a large net inflow (equivalent to just over 4 per cent of the combined product) to a small net outflow.

Again some of the major changes were associated with fluctuations in direct foreign investment: this was relatively much smaller at the end of the decade than at the beginning in Algeria, Gabon, Libyan Arab Republic, Mauritania and People's Republic of the Congo as well as in Iraq and Trinidad and Tobago, and much larger at the end than at the beginning in Bolivia, Democratic Republic of the Congo, Dominican Republic, Guyana, Kuwait and Peru. In Africa, changes in direct investment also played a part in small reductions in the external contribution to savings in Liberia and Nigeria and small increases in Angola, Ethiopia and Ivory Coast.

Among the developing countries of Asia there were also marked reductions in the relative importance of

foreign savings in Ceylon, China (Taiwan), Hong Kong and Syria as domestic savings rates rose. In Jordan, Lebanon and Singapore, on the other hand, domestic savings rates declined and foreign savings became much more important. Among the major countries in the region there were small reductions in the relative use of external resources in Burma and Indonesia and small increases in India, Pakistan and Thailand.

In the western hemisphere where, as indicated above, domestic savings rates showed a generally downward tendency and foreign savings contributed fractionally less in 1966-1968 than at the beginning of the decade, changes tended to be small: in half the countries they were less than 3 per cent of total production. Apart from Bolivia, Dominican Republic, Guyana and Peru, mentioned above, the largest increases in the contribution of foreign savings were in Honduras, Paraguay and Venezuela—around 4 per cent of total production. In Argentina, Jamaica and Uruguay there were comparable reductions. Apart from Trinidad and Tobago, the most notable case of greater self-financing was Barbados which registered the region's highest relative gain in domestic savings and a sharp reduction in the share of foreign savings which had been the highest in the region in 1960-1962.

In three out of four of the developing countries, domestic and foreign savings moved in opposite directions, that is a rise in domestic savings rates was accompanied by a decline in the relative intake of foreign savings. There were some countries, however, in which the two sources of savings moved more or less in parallel. There were reductions in both in Uruguay, Liberia, Mauritius and Sudan, and in Burma and Israel, and increases in both in a larger number of countries, chiefly in the high-growth category—Cameroon, Mozambique and Zambia, Thailand and the central American group, including El Salvador, Honduras, Nicaragua and Panama—but also in some with only moderate growth records in the 1960s, including Angola, Morocco and Tunisia, India and the Philippines.

#### *Investment performance*

In 1966-1968 the average investment ratio among developing countries (that is gross domestic fixed capital formation expressed as a proportion of gross domestic product) was just over 17 per cent—only slightly higher than at the beginning of the decade. As the average investment ratio for the developed market economies had risen by over 10 per cent in this interval, the disparity with the developing countries had widened: it was just over 5 percentage points (of total output) in 1960-1962 and nearly 7 percentage points in 1966-1968.

Among the developing countries differences in regional performance were not very marked: the average investment ratio had declined fractionally in Africa and by about 1 percentage point in the western hemisphere, while in Asia it had been raised to 17.9 per cent of gross product marginally higher than in the other regions.

Within the various regions, by contrast, there was a wide diversity in the performance of individual developing countries. Whereas among the developed market economies only Finland and Italy registered a reduction in their investment ratios between 1960-1962 and 1966-1968, over a third of the developing countries had such reductions. Among the developed market economies only Iceland increased its investment ratio by more than 6 per cent, while one eighth of the developing countries had increases of this order (see table 29).

The deepest cuts in investment ratios were concentrated in Africa, where a fourth of the countries registered reductions of more than 5 percentage points. These included Mauritius, Southern Rhodesia and Sudan as well as some of the African countries in which there were large swings in foreign mining investment in the course of the decade—Algeria, Gabon, Liberia, Libyan Arab Republic, Mauritania and People's Republic of the Congo—most of which had exceptionally high investment ratios in 1960-1962. In the western hemisphere, Trinidad and Tobago also belonged to the group. There were also sharp declines in the rates of investment in Burma (from an initial level of about 17 per cent of total output) and in Israel (from the high level of about 26 per cent) in response to internal developments.

The most notable increases in investment ratios took place in Asia—from a relatively low level in the case of Kuwait, Republic of Korea and Republic of Viet-Nam but from a rate that was already over-average in the case of China (Taiwan), Singapore and Thailand. In Africa, the largest gains were made by Cameroon and the Democratic Republic of the Congo (from the low base to which investment had fallen at the beginning of the decade) and Mozambique (from a higher level). In the western hemisphere, the increases were generally smaller: the largest (about 8 percentage points) was registered in the Dominican Republic where investment recovered to more normal levels, while in Honduras, Nicaragua and Panama investment rates were increased around 5 percentage points, from below the regional average to well above it.

These changes left a wide dispersion of results in the 1966-1968 period. While among the developed market economies there was only one country (the United States of America) with an investment rate of less than 17 per cent of gross domestic product, over half the developing countries fell into this cate-

Table 29. Distribution of countries according to investment rates, 1960-1968

Item and range	Developing countries				Developed market economies
	Total	Western hemisphere	Africa	Asia	
Number of countries in which:					
A. Ratio of gross domestic fixed capital formation to gross domestic product in 1966-1968 was					
Less than 11.0	8	2	4	2	—
11.0 to 13.9	13	3	9	1	—
14.0 to 16.9	21	4	11	6	1
17.0 to 19.9	21	9	5	7	4
20.0 and 22.9	10	3	4	3	4
23.0 and over	9	2	3	4	18
Total	82	23	36	23	27
B. Change in ratio of gross domestic fixed capital formation to gross domestic product between 1960-1962 and 1966-1968 was (in percentage points)					
More than —10.0	4	—	4	—	—
—5.1 to —10.0	8	1	5	2	—
—0.1 to —5.0	15	7	3	5	2
0.0 to 2.9	26	10	8	8	15
3.0 to 5.9	16	4	10	2	9
6.0 to 8.9	7	1	2	4	1
9.0 and over	3	—	1	2	—
Total	79	23	33	23	27

Source: See table A.12 in the statistical annex.

gory, and in the case of Africa two thirds. One fourth of the developing countries invested less than 14 per cent of total output: a sixth of those in the western hemisphere, a fifth of those in Asia and a third of those in Africa.

Most of the low-investment countries had *per capita* incomes and rates of production growth below the regional averages. Of the twenty-one countries that invested less than 14 per cent of their total output in 1966-1968, only Mauritius had a growth rate and a *per capita* income above the regional average; Ceylon, Senegal, Sierra Leone, Southern Rhodesia and Uruguay had over-average incomes but low growth rates; El Salvador, Gambia, Guatemala and Lesotho had over-average growth rates but low incomes; the remaining eleven countries—Ecuador and Haiti, Chad, Ethiopia, Madagascar, Malawi, Nigeria, Sudan and Upper Volta, and Burma and Indonesia lagged in both respects. In a number of these low-investment countries, indeed—including Chad, Madagascar, Nigeria, Senegal and Upper Volta, Burma and Indonesia, and Haiti and Uruguay—the rate of increase of output was lagging behind the growth of population. In such circumstances, the rate of capital formation could be raised only at the expense of a cut in *per capita* consumption.

Not all low-growth countries had low investment ratios in 1966-1968, however. A number of countries whose output had been expanding at less than 4 per cent a year achieved investment rates above the regional average—Argentina, Dominican Republic and Guyana in the western hemisphere, for example, Algeria, Central African Republic, Democratic Republic of the Congo, Tunisia and United Arab Republic in Africa, and Afghanistan, Khmer Republic, Lebanon and Republic of Vietnam in Asia. On the other hand, a majority of those countries that devoted more than a fifth of their gross output to fixed capital formation belonged to the high-growth category: Jamaica, Panama and Peru in Latin America, Gabon, Libyan Arab Republic, Mozambique, People's Republic of the Congo and Zambia in Africa, and China (Taiwan), Hong Kong, Republic of Korea and Thailand in Asia. Clearly, much depends on how incomes are distributed, how savings are mobilized and how efficient the process of investment is. Moreover, during any given period of time, the nature of the domestic resource endowment and the activities of foreign investors are clearly also important determinants of performance.

These factors, as well as past performance, have to be taken into account in formal development

planning. This is reflected in the wide spread of expectations and objectives to be found in the plans that were operative during the 1966-1968 period. These totalled thirty-nine altogether, and the investment targets ranged from a low figure of around 10 per cent of gross domestic product (in Chad and the Sudan) to a high figure of 28 per cent (in Gabon and Trinidad and Tobago).

Among the nine countries whose development plans included an over-all investment target and terminated in the 1966-1968 period, almost all had set rates of 20 per cent or over. Barbados, China (Taiwan) and Tunisia had exceeded their goal, Costa Rica was within the designated range, Jamaica, Trinidad and Tobago and Venezuela had come fairly close, while Morocco and Paraguay were much further off.

Of the seven countries whose plans ended in 1969, Nicaragua was the only one running ahead of its target in 1968. Honduras had an investment ratio within the declared range but well short of the final figure. Argentina was also short of its more ambitious intention of devoting 22 per cent of output to fixed capital formation. El Salvador had not managed to raise its investment rate above 14 per cent; neither had Pakistan which had set a much higher goal. Senegal was lagging even farther behind, while in the case of Madagascar the actual investment ratio was not much more than half the objective for the final year of the plan.

The seventeen countries with plans running till 1970 were generally nearer to realizing their investment aims. A number that had set relatively modest goals—Brazil, Chad, Gambia, Ivory Coast, Jordan, Panama, Sudan, Togo and Upper Volta—were on or ahead of their intended investment rates, as were Central African Republic and Peru where it was planned to devote about 20 per cent of production to capital formation. The remaining third of this group were lagging behind their stated objectives in varying degree. Chile was less than half way to its ten-year aim of raising its investment rate from 14 to 20 per cent, and Kenya was lagging even more in its similar five-year objective. Malaysia was also well short of a 20 per cent goal; in Iraq and Syria the target was more ambitious and the shortfall greater, while Zambia was investing almost 22 per cent of total output compared with the 27 per cent visualized for the final year of the plan.

Among the countries whose development plans stretch into the more distant future, Gabon and Thailand were running ahead of objectives in 1968, while Bolivia and Uganda were trailing slightly and Lesotho and Uruguay by a substantial margin.

Changes in gross domestic capital formation over short periods of time are difficult to appraise from

over-all data. One problem arises from the movement of inventories, which is generally much greater in developing countries than in more advanced countries, reflecting in part the smaller absolute and relative volume of industrial and commercial stocks, in part the greater dependence on imports (supplies of which tend to vary widely in anticipation of changes in external balance and trade policies), and in part the relatively greater role of agriculture and the consequent impact of increases and reductions in harvest. Another problem arises from the disparate nature of the capital assets that result from the investment process in terms of their contribution to future output. Some of these assets (factory plant and machinery, for example) are likely to be immediately productive, others (such as roads and ports) are only indirectly conducive to greater output, and others (such as dwellings and public buildings and amenities) yield only an imputed rent and add to future physical production only through their effect on the efficiency of the workers occupying them.

For appraising investment performance, therefore, it would be desirable to supplement the data for the over-all ratio of capital formation by a series of capacity indicators on an industrial basis. Each country should be aware of its "normal" capacity to produce various basic commodities—fossil fuels, steel, cement, bricks, lumber, glass, cloth, food-grains, milk and so on across the spectrum of items that are fundamental to future production and consumption—and thus put itself in a position to assess its investment each year not only in aggregative terms but also in terms of the growth in such capacity.

Along these lines, one important indicator of productive capacity is the extent to which human labour has been supplemented by mechanical power. This is not to argue that the mere substitution of mechanical energy for human energy necessarily constitutes economic progress; the optimization of capacity requires not the displacement of labour but its equipment with the range of tools and other inputs necessary to raise productivity to the greatest extent possible in the light of technical and market constraints. In this sense an increase in the availability of mechanical energy is tantamount to an expansion in the potential capacity of the economy to produce, transport and transform various types of materials and manufactures.

Certainly, one of the most characteristic differences between the more developed and the less developed parts of the world lies in energy consumption: in 1960, for example, the average inhabitant of the developing countries consumed rather less than 500 kilogrammes of coal-equivalent, while in the more advanced countries the average was of the order of 8,000 kilogrammes. Even within the developing regions there were wide disparities: *per capita*

consumption was twice as high in Asia as in Africa and five times as high in the western hemisphere.

During the 1960s there was a slight narrowing of the differences: between 1960 and 1968 energy consumption increased at an average rate of 6.4 per cent a year in the developing countries and just over 5 per cent in the more advanced countries. If allowance is made for the differential rates of population growth, however, the narrowing effect is eliminated: indeed, on a *per capita* basis energy consumption rose more rapidly in the more advanced countries. The average annual increase was just over 3 kilogrammes of coal equivalent per person in Africa, 8 kilogrammes in Asia,<sup>2</sup> 21 kilogrammes in the western hemisphere, 112 kilogrammes in Europe and 241 kilogrammes in the rest of the world (see table A.13 in the statistical annex).

In the western hemisphere, the only country to register a decline in energy consumption between 1960 and 1968 was Haiti, though in Uruguay and Venezuela the gain was less than the growth in population, so that average *per capita* consumption was cut. There was a particularly rapid rate of increase in some of the smaller countries in Central America and the Caribbean area, under the influence of nascent industrialization or tourism.

In Africa there was expansion in every country, though not rapid enough to raise *per capita* consumption in some of the smaller places—Cape Verde Islands, Central African Republic, Dahomey and Rwanda. There was a notable increase in some of the countries in which new mining ventures were being undertaken—Gabon, Liberia, Libyan Arab Republic, Mauritania—as well as in Ethiopia, Ivory Coast and Togo.

In Asia, which had the highest rate of increase in energy consumption among the developing countries (over 7 per cent a year), the only decline was recorded by Indonesia. There were sharp increases in the Philippines, Republic of Korea, Republic of Viet-Nam, Saudi Arabia and Thailand and also in some of the smaller countries—Afghanistan, Macao, Nepal and Yemen—where consumption is still very low.

In the developed market economies a good deal of energy is used up in personal motor travel. In some ways a better indicator of productive capacity is the electricity component of total energy. In 1960 the generating capacity in existence in the developing countries of Asia amounted to about 14 kilowatts per person. It was slightly more in Africa (21 kilowatts per person) and about six

times as much (88 kilowatts per person) in the western hemisphere. In Europe the figure was almost 400 kilowatts per person and in the other advanced countries almost twice that amount.

Between 1960 and 1968 there was a rather uniform rate of expansion, averaging just under 8 per cent a year. Only in the developing countries of Asia was the rate out of line: with the lowest *per capita* capacity, this region registered the highest rate of increase—12 per cent a year. This meant an average annual increase of almost 2 kilowatts per person, compared with 1.4 kilowatts in Africa, 5 kilowatts in the western hemisphere, 31 kilowatts in Europe and 52 kilowatts in the rest of the world.<sup>3</sup>

There were no reductions in generating capacity in the western hemisphere in this period, though in Uruguay the expansion was too little to keep pace with the growth in population. High rates of increase (over 10 per cent a year) were registered in Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Paraguay and Venezuela and a number of smaller territories. In Argentina, Trinidad and Tobago and Venezuela more than 10 kilowatts a year were added to *per capita* capacity, over twice the regional average.

In Africa, developments were rather more varied. With the breaking up of the Federation of Rhodesia and Nyasaland, there was an absolute reduction in the generating capacity available to Zambia, and in a number of countries—including Cameroon, Democratic Republic of the Congo, People's Republic of the Congo and Morocco—the increase in capacity was too small to prevent a reduction in *per capita* availability. Expansion of over 10 per cent a year was quite common, and among some of the countries that started the decade with very little generating capacity there were increases averaging over 20 per cent a year, as in Chad, Malawi, Mauritania and Rwanda. Notable increases were also registered in countries with a more substantial capacity such as Angola, Ethiopia, Ghana, Liberia, Libyan Arab Republic, Mozambique, Nigeria and the United Arab Republic.

Among the developing countries of Asia, only Burma failed to add to its *per capita* capacity. With a regional rate of expansion as high as 12 per cent a year, there were a number of countries adding to their generating capacity at more than 20 per cent a year—Afghanistan, Iran, Kuwait, Saudi Arabia, Republic of Viet-Nam and Thailand. Among the major countries, only Indonesia, Philippines and Syria added to their electricity capacity at appreciably below the average rate.

<sup>2</sup> Excluding mainland China, Democratic People's Republic of Korea and Democratic Republic of Viet-Nam; in these countries energy consumption is thought to have declined by an average of 3 per cent (or 21 kilogrammes *per capita*) a year.

<sup>3</sup> Outside mainland China, Democratic People's Republic of Korea and Democratic Republic of Viet-Nam, where generating capacity is estimated as having expanded by about 4 per cent a year.

While only about a third of the more advanced countries increased their generating capacity by more than 10 per cent a year in the period 1960-1968, almost 60 per cent of the developing countries achieved such high rates of expansion and one sixth of them registered increases of over 20 per cent a year (see table 30). This growth was on a relatively small base, however, and in terms of absolute figures the contrast is reversed: while virtually all the more advanced countries increased their electricity capacity by more than 5 kilowatts *per capita per annum*, the corresponding proportion among the developing countries was only one fourth. Indeed, almost a third of the developing countries and a half of those in Africa expanded their capacity by less than 1 kilowatt *per capita per annum*.

This expansion brought the installed generating capacity in the developing countries up to the 1968 average of 46 kilowatts *per capita*. The corresponding figure in the more advanced countries was about 800 kilowatts *per capita*. The high rate of new construction in Asia had raised the regional average to 29 kilowatts *per capita*, not far short of the African average of 33 kilowatts *per capita*, but still well below the western hemisphere figure of 128 kilowatts *per capita*.

As the cost of installing an average kilowatt of capacity and arranging for the distribution of the resultant electricity was of the order of \$100, the growth in power-producing facilities represents a considerable investment. Its effective use, moreover, depends upon a parallel investment in electrically driven machinery and equipment. The mechanization of the economy, being so capital-

intensive, is a process that demands systematic review to ensure the most efficient utilization of the new facilities to supplement human effort, thereby increasing employment rather than displacing labour.

#### *The concept of investment efficiency*

As indicated above, the concept of investment efficiency is a very elusive one. Yet because capital is a particularly scarce factor in developing countries, some attempt should be made to assess the effectiveness with which it is being used. It was suggested at the beginning of this chapter that countries might institute a system of cost/benefit analyses carried out *ex post facto* for at least the major investment projects. It would be desirable to know the number of new jobs created and the flow of new output per unit investment.

What is conceivable on a project-by-project basis, however, becomes a much more formidable task when generalized across the economy as a whole with a view to comparing the effectiveness of different forms of investment. The output and employment consequences of various types of investment not only mature over differing time periods but are contingent in varying degree on other events and policies. Isolating and measuring the effects over a given period of time of all the investments made in a datum period cannot be done directly or precisely. Some indirect approximation must be sought.

One test that needs to be applied is the growth in employment opportunities. Though this is affected by many things other than new investment, it is a crucial indicator that should be taken into account in decisions regarding the nature and direction of

Table 30. Distribution of countries according to growth in electricity generating capacity, 1960-1968

Average annual rate of change	Developing countries				Rest of world
	Total	Western hemisphere	Africa	Asia	
<i>A. Total generating capacity</i>					
Less than 5 per cent . . . . .	14	4	9	1	1
5-9.9 per cent . . . . .	30	15	10	5	25
10-14.9 per cent . . . . .	30	11	9	10	8
15-19.9 per cent . . . . .	11	1	5	5	4
20 per cent and over . . . . .	19	1	11	7	2
Total . . . . .	104	32	44	28	40
<i>B. Kilowatts per capita</i>					
Less than 1 . . . . .	32	2	23	7	—
1-2.9 . . . . .	26	7	11	8	1
3-4.9 . . . . .	17	10	4	3	—
5-9.9 . . . . .	16	6	5	5	3
10-19.9 . . . . .	8	4	1	3	7
20 and over . . . . .	5	3	—	2	29
Total . . . . .	104	32	44	28	40

Source: See table A.13 in the statistical annex.

new investment. The number of jobs must be made to increase *pari passu* with the working-age job-seeking population, and investment policies should be directed towards this end. While many considerations are necessarily involved and investment decisions cannot be taken in isolation, it is clear that every effort should be made to hold down the capital intensity of new projects and enterprises. How such an effort is faring would then be part of the progress appraisal exercise at the national level. As employment data are improved and published, so international assessment will become possible. Since no developing country at present reports regularly on employment, however, such an assessment cannot now be attempted.<sup>4</sup>

Another possible test lies in the distribution of fixed capital formation. While there can be no "right" or "optimum" distribution in a general sense, it might often be helpful if the pattern of investment in each country were regularly scrutinized with a view to revealing significant changes over time and differences between countries. Of particular interest is the proportion of investment going into directly productive assets as against overheads or infrastructure or consumer-oriented assets. Also of interest is the duration of the investment process, that is, the time elapsing between the first diversion of resources into the formation of the particular capital asset and its emergence as an operating entity. This would call for a tabulation of incomplete investment—capital assets that are still under construction. Like inventories, such unfinished investment would be sterile from the point of view of current production, and a rise in its relative proportion would tend to reduce the efficiency of capital formation.

Presently available information regarding the composition of investment is insufficient for such a test. Some countries distinguish between public and private capital formation, but this is a legal or ownership criterion rather than an economic one. Public investment may include all sorts of production enterprises, while private investment includes housing, an essentially consumer asset. The fact that in 1966-1968 public investment consisted of less than a fifth of the total in Argentina, Honduras, Nicaragua and Panama and over half the total in Lesotho and Tunisia cannot be interpreted as an indication of the relative importance of social overheads in the capital formation of the latter.

"Non-productive" investment (outside the main producing sectors—agriculture, industry, power and transport) accounted for about 30 per cent of the total in the Republic of Korea and Thailand, where three fourths of capital formation was in the private sector, and also in Bolivia, where only half of all

investment was in the private sector. In Mauritius and Mexico between 60 and 70 per cent of capital formation was in the private sector, but the proportion of investment outside the productive sectors was three times as high in the former (48 per cent) as in the latter (16 per cent). Particularly high proportions of non-productive investment (around 60 per cent) were registered in El Salvador and Lesotho, but the proportion of capital formation in the public sector was less than half as great in the former as in the latter (see table 31).<sup>5</sup>

In the light of these differences it is not surprising that the proportion of capital devoted to the various "productive" sectors also differed widely. Mining received the largest share in Bolivia and Zambia but in most cases this sector was grouped with manufacturing as part of industry. Thus defined, industry was the main recipient of resources in almost two thirds of the twenty-two countries for which the relevant breakdown was available: it absorbed between 12 per cent of gross output (in Cameroon) and 54 per cent (in Singapore), but mostly in the neighbourhood of 25 per cent. In a fourth of the countries, the largest share of investment went into transport—17 per cent of the total in Venezuela, around 20 per cent in Ethiopia, Israel, Kenya and Mauritius, and as much as 33 per cent in Mexico. Only in Tunisia was agriculture the leading sector for capital formation, accounting for 19 per cent of the total in 1966-1968, though it was probably high in Ceylon too. Elsewhere around one eighth of investment was in agriculture though the share was much lower (around 5 per cent) in Bolivia, Cameroon, El Salvador, Ethiopia and Zambia. In these countries, this was also the share of the power sector in capital formation. At a higher level, power absorbed much the same amount as agriculture in several other countries, including China (Taiwan), Mexico, Republic of Korea and United Arab Republic.

If the sectoral breakdown of investment were made to conform precisely with the sectoral breakdown of production, a ready-made instrument would in principle be at hand for relating the process of fixed capital formation directly to its production consequences. In practice, the use of such an instrument for analytical purposes is beset by many difficulties, particularly in the developing countries where the capital stock—that is, the capacity actually in place—is often quite small and new investments may effect a large increment rather than a minor marginal change. The relationship between a new investment

<sup>4</sup> This problem is examined in chapter IV below, from the point of view of unemployment.

<sup>5</sup> One of the reasons for these disparities lies in the extent to which construction is allocated to the productive sector it is intended to serve (irrigation dams, factory buildings, hydroelectric barrages, roadworks and so on) rather than left unallocated in a separate category of investment or in "other sectors".

Table 31. Selected developing countries: composition of investment, 1966-1968<sup>a</sup>

(Percentage)

Country <sup>b</sup>	Public <sup>c</sup>	Private <sup>c</sup>	Agriculture	Mining	Manufacturing	Power	Transport	Other sectors	Stocks
Thailand	24	76	19	5	21	6	19	23	7
Singapore	45	55	—	d	54	6	15	25	—
Republic of Korea	23	77	8	1	26	8	26	25	6
China (Taiwan)	38	62	11	1	27	10	14	21	16
Tunisia	79	21	19	13	10	6	11	39	2
Zambia	41	59	4	12	7	3	8	46	20
Jamaica	..	..	8	17	8	3	11	50	3
Libyan Arab Republic	44	56	..	..	..	..	..	..	..
Panama	9	91	..	..	..	..	..	..	..
Khmer Republic	42	58	..	..	..	..	..	..	..
Israel	..	..	9	d	13 <sup>d</sup>	4	21	52	2
Iran	45	55	..	..	..	..	..	..	..
Argentina	16	84	..	..	..	..	..	..	..
United Arab Republic	..	..	17	d	24 <sup>d</sup>	16	12	18	13
Nicaragua	16	84	..	..	..	..	..	..	..
Kuwait	30	70	..	..	..	..	..	..	..
Dominican Republic	32	68	..	..	..	..	..	..	..
Ivory Coast	36	64	..	..	..	..	..	..	..
Venezuela	36	64	14	8	12	4	17	38	7
Honduras	20	80	..	..	..	..	..	..	..
Syria	..	..	7	d	35 <sup>d,e</sup>	e	21	38	—
Bolivia	49	51	4	24	5 <sup>f</sup>	9	28	17	13
Brazil	29	71	..	..	..	..	..	..	..
Cameroon	..	..	6	d	12 <sup>d</sup>	1	8	73	—
Colombia	21	79	..	..	..	..	..	..	..
Malaysia	39	61	..	..	..	..	..	..	..
Congo (Democratic Republic of)	23	77	..	..	..	..	..	..	..
Mexico	38	62	14	d	25 <sup>d</sup>	12	33	16	—
Paraguay	37	63	..	..	..	..	..	..	..
Chile	47	53	15	6	15	9	14	32	10
Iraq	..	..	12	3	23	7	14	41	..
Kenya	..	..	15	—	17	5	20	43	—
Ceylon	32	68	52 <sup>g</sup>	d	28 <sup>d</sup>	g	20	g	—
El Salvador	26	73	4	—	23	3	18	50	2
Sierra Leone	24	76	..	..	..	..	..	..	..
Ethiopia	..	..	5	3	13	5	21	50 <sup>h</sup>	2
Mauritius	31	69	12	—	9	9	21	48	—
Southern Rhodesia	38	62	11	10	12	7	1	33 <sup>i</sup>	27
Nigeria	36	64	..	..	..	..	..	..	..
Ecuador	37	63	..	..	..	..	..	..	..
Lesotho	59	41	14 <sup>j</sup>	j	18 <sup>e</sup>	3	4	58	4

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics*.

<sup>a</sup> Public/private and sectoral distribution percentages relate to 1966-1968 average except for: Brazil, Ecuador, Ethiopia, Jamaica, Mexico (sectoral only); Thailand and Tunisia, 1965-1967; Chile, Ivory Coast, Khmer Republic and Malaysia, 1964-1966; Iran, fiscal years beginning 21 March 1965/66-1967/68; Kuwait, fiscal years beginning 1 April 1965/66-1967/68; Lesotho and Nigeria, fiscal years beginning 1 April 1964/65-1966/67; Cameroon and United Arab Republic, July/June 1965/66-1967/68; Sierra Leone, July-June 1966/67-1968/69; El Salvador, 1967-1968 for sectoral, and 1965-1967 averages for private/public; and Zambia 1966-1967 average.

<sup>b</sup> Countries are those for which relevant data are available; they are listed in descending order of average investment ratio 1966-1968.

<sup>c</sup> Public investment includes fixed investment of government enterprises and public corporations as well as general government fixed capital formation; except in the case of Ceylon, Colombia, Democratic Republic of the Congo, Kuwait, Lesotho, Mauritius, Paraguay and Republic of Korea, where public corporations are included in private investment. Stock changes included with fixed investment in the case of Colombia, Nicaragua and Paraguay.

<sup>d</sup> Mining included with manufacturing.  
<sup>e</sup> Power included with manufacturing.  
<sup>f</sup> Manufacturing includes construction.  
<sup>g</sup> Power and "other" included with agriculture.  
<sup>h</sup> Of which 20 per cent is non-monetary investment not split by sector.  
<sup>i</sup> Transport included with "other sectors".  
<sup>j</sup> Mining included with agriculture.



and the increase in output it helps to bring about thus tends to be rather erratic, and it is often made even more so by the length of the gestation period of a major piece of capital formation and by the exogenous forces that influence not only the output of the new asset but also the economy as a whole. Thus a drought may reduce agriculture production and hydro-power production and perhaps even the total output of the economy, irrespective of any capital formation that may have been taking place in the period immediately before. A new capital asset may take an abnormally long time to yield its rated output because other inputs are in short supply. Contrariwise, the discovery of a new resource—an exploitable mineral, for example—may result in a rapid upsurge in production quite disproportionate to the capital formation that has been under way in the sector or even in the economy as a whole.

The numerical ratio between the volume of investment in one year and the increment in output between that year and the next thus tends to fluctuate rather widely. This is illustrated in table 32 which lists

all the developing countries that reported their fixed capital formation as well as their production on a sectoral basis in the years 1965-1968. Even though the capital/output ratio has been calculated from the moving average of investment and production increment (thus smoothing out most of the erratic deviations), no less than a fourth of the countries reported a negative ratio for agriculture—that is, a decline in output notwithstanding whatever investment was made in that sector. The only other negative ratios were rather special cases—mining in Southern Rhodesia and transport in the United Arab Republic, where reductions in output had been caused by political events, and manufacturing in Mauritius, where the main industry is sugar and its output depends largely on the crop.

The range of variation was narrowest in the case of manufacturing for which the capital/output ratio was around 1 in Bolivia, Ethiopia, Israel and Republic of Korea at one end of the scale and just under 5 in Kenya, Lesotho and United Arab Republic at the other. It was also fairly narrow in the service sectors, which registered the lowest average

Table 32. Selected developing countries: incremental capital/output ratios,<sup>a</sup> by sector, 1965-1968<sup>b</sup>

Country <sup>c</sup>	Agriculture	Mining	Manufacturing	Power	Transport	Other sectors	Average for economy as a whole
Singapore	— <sup>d</sup>	e	3.5 <sup>e</sup>	2.2	f	0.5 <sup>e, f</sup>	1.4
Republic of Korea	2.9	3.1	1.4	4.7	6.1	1.3	2.0
China (Taiwan)	1.4	1.7	1.9	9.7	3.6	0.6	1.6
Tunisia	—5.5	3.5	3.6	12.8	4.5	5.0	6.2
Zambia	7.5	3.0	1.9	9.6	1.9	2.5	2.6
Jamaica	5.1	5.4	2.3	6.2	4.3	2.3	3.0
Israel	3.6	g	1.2 <sup>g</sup>	h	4.7	2.5 <sup>h</sup>	2.6
United Arab Republic	3.8	g	4.6 <sup>g</sup>	39.9	—2.5	1.9	5.5
Venezuela	8.3	4.5	3.6	2.3	16.6	2.8	4.0
Syria	1.2	g	3.8 <sup>g, i</sup>	j	2.9	1.7	2.2
Bolivia	—14.9	3.0	0.4 <sup>j</sup>	21.1	9.1	2.0 <sup>j</sup>	2.9
Chile	—15.8	1.2	3.0	40.7	15.8	4.5	5.1
Kenya	0.8	d	4.6	10.6	3.6	2.2	2.0
Ceylon	3.0	e	2.3 <sup>e</sup>		3.9		1.8
Ethiopia	0.2	8.3	1.5	17.4	9.4	2.5	1.7
Mauritius	—10.4	— <sup>d</sup>	—8.2	8.2	k	8.7	5.4
Southern Rhodesia	—5.1	—81.0	2.9	4.4		1.8	3.9
Lesotho	0.1	e	4.8 <sup>e</sup>	3.7	2.7	1.4 <sup>e</sup>	0.6
Percentage of negative ratios	28	10	6	—	6	—	—
Average of positive ratios	3.2	3.7	2.8	12.9	6.4	2.6	3.0

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics*.

<sup>a</sup> Net domestic product for Israel. Ratio of three-year moving average of gross domestic fixed capital formation to three-year moving average of increment in gross domestic product at factor cost (at market prices in the case of Ceylon), ending one year later.

<sup>b</sup> Fixed capital formation 1964-1966 in the case of Ceylon, Chile and Ethiopia; 1964-1965 fiscal years beginning 1 April for Lesotho; 1964/65-1966/67 fiscal years beginning 1 July for United Arab Republic.

<sup>c</sup> Countries are listed in descending order of investment ratio 1966-1968.

<sup>d</sup> No investment.

<sup>e</sup> Manufacturing includes mining and construction.

<sup>f</sup> Transport included in "other sectors".

<sup>g</sup> Manufacturing includes mining.

<sup>h</sup> Power and construction included in "other sectors".

<sup>i</sup> Manufacturing includes power.

<sup>j</sup> Manufacturing includes construction.

<sup>k</sup> No change in output.

(2.6) for the eighteen countries concerned—less than the average ratio in manufacturing (2.8) and agriculture (3.2) if the countries in which output declined in the period 1965-1968 are omitted. The range of results was much wider in the transport sector and even more so in the case of the power sector; for transport, the ratio reached 16 in Chile and Venezuela and for power, figures of 40 were recorded in Chile and United Arab Republic, and for the group of countries the average capital/output ratio was 6 and 13, respectively, indicating that these are the most capital-intensive sectors. Even the over-all ratio for the economy as a whole showed quite a wide dispersion—from around 1 in Lesotho and Singapore to around 6 in Tunisia and the United Arab Republic. There is no evidence that the rate of investment influenced the capital/output ratio: there were ratios of 2 or less among both the high-investment countries (China (Taiwan), Republic of Korea and Singapore) and those with low investment (Ceylon, Ethiopia, Kenya and Lesotho), and the high ratios were also scattered.

It is clear that too much importance should not be attached to year-to-year changes in the capital/output ratio: short-term fluctuations in the pattern of investment and the impact of exogenous events exert too strong an influence. Nevertheless, countries in which capital is in very short supply must continually seek to maximize the productiveness of capital formation—that is, to obtain the greatest possible increase in output for each unit of investment. A systematic check needs to be kept, therefore, on the relationship between the investments that are made and the resultant increment in production. A persistent increase in the capital/output ratio is a sign of unproductive investment or poor capacity utilization.

A comparison of the capital/output ratios for 1965-1968 with those at the beginning of the decade—depicted in table 33—shows how diverse such changes can be.

About a third of the seventy-six developing countries for which appropriate data are available had relatively low ratios—less than 3.5—both at the beginning of the decade and in the most recent period. All but a fifth of these countries were in the high-growth (over 5 per cent annual increase in gross domestic product) category and two thirds of these high-growth countries had high investment ratios (above 15 per cent of gross domestic product). This high-investment, high-growth group included many of the principal mineral-exporting countries (Iran, Kuwait, Libyan Arab Republic and Saudi Arabia, for example, as well as Bolivia and Togo), and some of those that were developing export-oriented manufacturing industries during the 1960s (such as China (Taiwan), Hong Kong, Republic of Korea and Sin-

gapore and, in a more limited way, Cameroon and Panama). It also included the larger industrializing economies of Brazil and Mexico and the smaller economies of Ivory Coast, Syria and Thailand.

Relatively high investment efficiency was also achieved by El Salvador, Guatemala and Pakistan which recorded under-average capital formation but over-average expansion in production. The other countries in this group were less dynamic in both respects: Burma, Ethiopia, Morocco and Sudan belong to the low-investment, low-growth category.

At the other end of the scale is a smaller group—about an eighth of the total—in which the capital/output ratio has remained high (over 4.5). These were almost all slow-growing countries (only Gabon registered a production increase of over 5 per cent a year) with high investment rates (only Uruguay was investing less than 15 per cent of its output in 1966-1968). Apart from Gabon and to a less extent Guyana where mining investment was significant, the vagaries of agriculture played a major role in the response of output to new capital formation in the group, though in the case of Argentina the record of capacity utilization in the manufacturing sector was relatively poor, while in Ghana there was a good deal of unproductive investment in the first half of the decade.

The remainder of the developing countries—rather more than half the total—were more or less equally divided between those in which there was an appreciable reduction in the capital/output ratio during the 1960s (in the lower left-hand quadrant of table 33) and those in which the ratio registered a significant increase (in the upper right-hand quadrant).

Most of the countries that reduced their capital/output ratios had relatively low rates of growth. The only countries in which production increased by more than 5 per cent a year in the 1960s—Costa Rica, Iraq, Jamaica, People's Republic of the Congo, Trinidad and Tobago and Zambia—had high rates of capital formation, based to a large extent on the beneficial exploitation of natural resources. Most of the rest were low-growth countries and often low-investment countries too, though in a number of cases investment rates were somewhat higher at the beginning of the decade than later—most notably in Algeria and Liberia, but also, to a less extent, in Ceylon, Colombia, Ecuador, Indonesia and Kenya—suggesting that the yield from some of the facilities created in 1960-1962 was rather slow in being manifested in production. The maintenance of an investment rate above the developing country average did not succeed in raising the rate of growth of production above the average in Barbados, the Khmer Republic or Paraguay, nor did an increase in

Ratio in 1960-1963 <sup>b</sup>	Ratio in 1965-1968 <sup>c</sup>					
	Less than 1.5	1.5-2.4	2.5-3.4	3.5-4.4	4.5-5.4	5.5-6.4
Less than 1.5 ..	Libyan Arab Republic 20.4					
1.5-2.4 .....	Guatemala 11.7 Pakistan 14.3 Kuwait 18.2 Togo 16.6 Syria 17.4 Panama 20.3 Saudi Arabia 15.8 Republic of Korea 24.7 China 24.1 (Taiwan) Hong Kong 20.6	Ivory Coast 18.1 Morocco 14.1 Cameroon 16.3 El Salvador 13.7 Thailand 29.2	Congo (Demo- cratic Re- public of) 16.0 Malaysia 16.2	Southern Rhodesia 12.6 Angola 14.0 Nicaragua 18.7 Jordan 16.3	Niger 14.4	United Arab Republic 18.8 Mauritius 13.2
2.5-3.4 .....	Singapore 25.7	Sudan 10.3 Mexico 15.6 Iran 18.9	Dominican Republic 18.1 Burma 7.6 Ethiopia 13.3 Brazil 16.7 Bolivia 17.0 Honduras 17.4	Madagascar 10.2 Uganda 15.1 Chile 15.5 Israel 19.0	India 16.5 Peru 20.9 Philippines 18.3 Mozambique 29.4	Nigeria 12.3 Republic of Viet-Nam 18.3 Chad 10.9
3.5-4.4 .....		Ecuador 10.9 Ceylon 13.8 Costa Rica 14.7	Colombia 16.3 Trinidad and Tobago 18.1 Iraq 15.5	Venezuela 18.0 Paraguay 15.6 Liberia 15.3		Tunisia 22.1
4.5-5.4 .....		Sierra Leone 13.7 Kenya 14.7	United Republic of Tanzania 14.8 Jamaica 20.8			Ghana 15.0 Lebanon 22.5
5.5-6.4 .....		Indonesia 8.8	People's Republic of the Congo 33.8		Gabon 29.2	
6.5 and over <sup>d</sup>			Khmer Republic 19.2 Malawi 12.4 Barbados 24.3 Zambia 21.6	Algeria 18.4 Haiti 6.2		Uruguay 11.7 Central African Republic 21.2 Afghanistan 20.4 Guyana 24.7 Argentina 18.8

Source: See table A.12 in the statistical annex.

<sup>a</sup> Countries are selected on the basis of availability of data; within each cell they are listed in ascending order of rate of growth in gross domestic product 1960-1968. The increment in capital is measured by fixed investment except in those countries listed in foot-note *a* of table A.12 for which gross capital formation had to be used. The figures after the country name represent the average investment ratio 1966-1968.

<sup>b</sup> The ratio of average annual domestic fixed capital formation in 1960-1962 to the average annual increment in gross domestic production between 1960 and 1963.

<sup>c</sup> The ratio of average annual domestic fixed capital formation in 1965-1967 to the average annual increment in gross domestic production between 1965 and 1968.

<sup>d</sup> Including those cases in which there was a decline in production.

the high rate of investment in Venezuela. The other countries in the group—Haiti, Malawi, Sierra Leone and United Republic of Tanzania—remained low-growth, low-investment economies despite a rise in the investment ratio and the improvement in investment efficiency.

A majority of the countries in which there was a deterioration in the capital/output ratio were in the low-growth category. Only in Israel, Jordan, Malaysia, Mozambique, Nicaragua, Niger and Peru did production rise at more than 5 per cent a year in the 1960s. Except in the case of Niger where the rate of capital formation rose sharply in the decade but remained below 15 per cent, these were all high-investment countries, in which the direct impact of capital formation on production was relatively small or else offset to some degree by extraneous events. The remaining two thirds of the countries in the group belonged to the under-average-growth category. Most of the African countries among them—Angola, Chad, Madagascar, Mauritius, Nigeria and Southern Rhodesia—also belonged to the low-investment category. The Democratic Republic of the Congo, Philippines and Republic of Viet-Nam had very low rates of capital formation in the early part of the period; they moved into the high-investment category later in the decade but production was slow to respond. The other countries in the group—Chile, India, Uganda and United Arab Republic—maintained over-average rates of investment throughout the decade but for various reasons including, in particular, the lag in agriculture and the capital-intensive nature of some of the facilities that were being built, the rate of increase in total output remained below the developing country average.

#### *Capacity to import*

One of the characteristics of developing countries is the considerable extent to which they depend on imports. This is particularly true in the creation of productive capacity. The generation of savings is not enough: to translate savings into fixed capital is often beyond the capability of the existing industrial structure; it requires equipment and machinery from abroad. Thus, in order to expand its capacity a developing country must provide itself not only with the necessary savings but also with the means of financing the necessary imports.

Some imports may be financed by loans and gifts from the supplying country or an international agency, but in the short run the bulk and in the long run virtually all must be paid for in foreign currency that must be earned.<sup>6</sup> Hence a country's

<sup>6</sup> The amount paid out by developing countries as interest on loans is of the same order as the amount received as gifts. The extent to which loans and gifts have been contributing to the development process is examined in chapter V below.

ability to earn foreign exchange is a major determinant of its potential for fixed capital formation.

In practice, a developing country's foreign exchange earnings are not entirely within its own control: they depend on world market conditions and the production and import policies of its trading partners.<sup>7</sup> But they also depend on the structure of the country's export sector, the performance of this sector in respect to the quantity and quality of output and the effort made to sell the product abroad. In this sense export performance is clearly a candidate for regular appraisal.

At the national level it would be desirable to evaluate carefully the factors lying behind the changes that have occurred in export earnings. This means an examination of the changing composition of exports, of the effect of price changes—both in terms of value and quantum relationships and in terms of the response of the export industry concerned—and of changes in destination. A country should know how its export sector is responding to market signals and follow the working of its own trade and exchange rate policies. There may be need for official assistance in the establishment or modification of institutions relating to various aspects of export trade—market research, shipping, financing and so on.

Trade was a very dynamic component of the world economy in the 1960s: exports increased at almost 9 per cent a year between 1960 and 1968. Against this background, the expansion in the earnings of the developing countries from commodity exports, though high by historical standards, was a modest 6.5 per cent a year. The highest rates were registered by the countries of the Central American Common Market (11 per cent) and the petroleum exporters of West Asia (9 per cent). The lowest rates (less than 5 per cent) were registered by the developing countries in the rest of the western hemisphere and the rest of Asia.

Within these regional averages there was a wide dispersion of performance. In the western hemisphere, almost a third of the developing countries increased their export earnings at less than 5 per cent a year, while a fourth achieved rates of over 10 per cent a year. Most of the larger countries in the region—including Argentina, Brazil, Mexico and Peru—were in the middle group with rates of between 5 and 10 per cent a year.

The developing countries of Africa were more or less equally divided between the three groups. The principal mineral exporters (including Gabon, Liberia, Libyan Arab Republic, Mauritania, Togo and Zambia) were in the high-growth group, while the low-growth group (with earnings rising at less

<sup>7</sup> These externally determined forces are discussed in chapter V below.

than 5 per cent a year) included Ghana, Madagascar, Morocco, Senegal, Sudan, Tunisia and United Arab Republic.

The developing countries of Asia were clustered around the extremes: about 40 per cent of them achieved rates of increase in export earnings of over 10 per cent a year, but an even higher proportion were in the low-growth group. The high-growth countries were chiefly those in which manufactured goods play a significant role in exports (China (Taiwan), Hong Kong, Israel, Lebanon and Republic of Korea) and those exporting petroleum (Iran and Saudi Arabia). Some of the larger countries were in the slow-growth group, notably India and Malaysia, while several showed a decline in export earnings—Burma, Ceylon, Indonesia and Republic of Viet-Nam.

If the developing countries are divided in accordance with the relative importance of exports of goods and services in total production (as is done in table 34), it can be seen that there was some accentuation of differences during the 1960s; among the countries in which exports accounted for more than 15 per cent of total production, over half registered an increase in that ratio, whereas among those with a low export ratio less than a fourth registered an increase. This suggests that the export-oriented countries tended to gain more from the buoyant state of international trade, though in some instances—Algeria, Guyana, Malawi, Nigeria, Republic of Viet-Nam, for example—the rise in export ratio reflects slow domestic growth rather than any great upsurge in the earnings from trade.

In general, an increase in export ratio indicates that the country's capacity to import has not been the principal constraint on economic growth. By the same token, the relatively poor export performance of a number of countries—such as Burma, Ceylon, Dominican Republic, Ghana, Haiti, Khmer Republic, Morocco, Senegal, Sudan, United Arab Republic and Venezuela—certainly had a strong negative effect on over-all rates of expansion. The same is probably true of some of the countries whose export ratio was not significantly changed during the 1960s: low rates of increase in import capacity (less than 5 per cent a year) were closely linked to the low rates of increase in total production in Afghanistan, Argentina, India, Indonesia, Madagascar, Tunisia and Uruguay. Low rates of increase in export earnings (under 5 per cent a year) also exerted an inhibiting influence on growth in Brazil and Colombia. The average rate of growth of total production in the thirty-nine countries which became more "open" during the decade was 6.2 per cent a year,<sup>8</sup>

<sup>8</sup> Within this group the most dynamic subgroup comprised the countries with high (and rising) export ratios: the average increase in production in these sixteen countries—many of which were major mineral exporters—was 8.5 per cent a year.

compared with 5.0 per cent for the twenty-five countries that became less "open". Both groups consisted for the most part of the smaller economies, the former accounting for about a fourth and the latter for about a fifth of the over-all output of the developing countries in 1966-1968. In between were the fifteen countries that showed little change in these export ratios; they included the largest economies of Asia and Latin America—low-growth (Argentina, India and Indonesia) as well as high-growth (Mexico and Pakistan)—and accounted for over half the total developing country output.

It is clear that the importance of external trade to a developing country is not fully measured by an export ratio: even where external trade accounts for only a small proportion of total output, what it provides in imports may be crucial to the process of economic growth. Thus a regular assessment of import capacity is as necessary in low-export countries as it is in countries in which a large proportion of total production goes into trade. What is important is not only the volume and price of exports that are the main determinants of import capacity but also the composition of imports.

In most developing countries there is a fairly close relationship between domestic fixed capital formation and imports of capital goods: in general, the latter expand or contract in response to decisions regarding the former. As indicated above, however, investment decisions are influenced by the availability of foreign exchange; in a sense, therefore, it is the capacity to import capital goods that determines the pace of fixed capital formation.

Where there is some form of exchange or import control—as there is in most developing countries because of pressure on the balance of payments—high priority is usually given to capital goods: foreign currency is allocated for capital goods imports, a favourable rate of exchange is sometimes granted to the private importer of such goods and they are often admitted at low or negligible rates of duty. Only when foreign exchange is particularly scarce and domestic circumstances dictate that food-stuffs or raw materials or other factory inputs are required more urgently, do capital goods imports lose their priority.

During the 1960s almost all the developing countries that increased their investment ratios also increased the ratio of imports of capital goods to total imports. Of the forty-seven developing countries in which fixed capital formation was a higher proportion of the total output in 1966-1968 than in 1960-1962, only three (Guatemala, Philippines and Tunisia) showed virtually no change in the proportion of capital goods to total imports and only five (Dominican Republic, India, Lebanon, Panama and

Table 34. Selected developing countries: change in export ratio, 1960-1962 to 1966-1968

Countries <sup>a</sup> in which, between 1960-1962 and 1966-1968, the average ratio of exports of goods and services to gross domestic product									
Declined significantly			Remained more or less the same			Increased significantly			
Low	Medium	High	Low	Medium	High	Low	Medium	High	
Burma 3.7	Ghana 2.4	Singapore 8.6	Indonesia 2.6	Uruguay 4.1	Kenya 4.8	Mozambique 5.4	Republic of Viet-Nam 1.6	Mauritius 4.6	
Haiti 1.2	Dominican Republic 2.9	Malaysia 5.8	Afghanistan 3.5	Tunisia 4.1	Kenya 4.1	Upper Volta 2.8	Algeria -0.6	Guyana 2.5	
Colombia 4.9	Ceylon 4.8	Kuwait 6.5	India 5.1	Chad 5.6	2.1	Republic of Korea 9.0	Madagascar 2.2	Trinidad and To- bago 5.1	
United Arab Republic 3.5	Venezuela 4.6	Southern Rhodesia 3.5	Brazil 3.2	Cameroon 5.1	5.6		Nigeria 0.3		
Khmer Republic -0.9	Sudan 4.6	Zambia 6.8	Argentina 6.4	Niger 4.4	5.1		Thailand 8.1	Jamaica 5.4	
public 4.6	Sierra Leone 4.9		Mexico 4.6	Ethiopia 8.7			Philippines 4.2	Iraq 6.8	
Paraguay 2.7	Senegal 4.1		Chile 4.6				Malawi 2.8	United Re- public of Tanzania 3.4	
	Morocco 7.7						El Salvador 5.8	Costa Rica 6.7	
	Syria 4.4						Angola 2.7	Guatemala 5.2	
	Ecuador 4.4						Togo 7.0	Barbados 4.7	
	Congo (Democratic Re- public of) 3.1						Iran 8.1	Saudi Arabia 8.5	
	Peru 5.7						Nicaragua 7.3	People's Re- public of the Congo 7.6	
	Ivory Coast 7.5						Israel 8.2	Hong Kong 11.7	
	Central African Republic 2.1						Honduras 5.6	Gabon 5.4	
							Jordan 8.1	Lebanon 3.6	
							Bolivia 5.4	China (Taiwan) 9.7	
								Liberia 4.8	
								Panama 8.0	
								Libyan Arab Republic 30.0	
								Mauritania 9.7	

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics*.

<sup>a</sup> Country selection is based on availability of data. Countries are divided into three categories according to the average ratio of goods and services to

gross domestic product in 1966-1968: low—less than 15 per cent; medium—between 15 and 35 per cent; and high—over 35 per cent. Within each column, countries are listed in ascending order of the 1960-1968 rate of increase in earnings from commodity exports. The figure after the country name is the average annual growth rate of gross domestic product.

United Arab Republic) recorded a reduction in the proportion of capital goods imports. By contrast, about half of the twenty-four developing countries that reduced their investment rates in this interval registered either negligible change or a reduction in the ratio of capital goods imports to over-all imports (see table 35).

The proportion of capital goods in total imports varies considerably from country to country, depending on the status of the domestic capital goods industries and the composition of investment.<sup>9</sup> Some

<sup>9</sup> There is also the problem of defining "capital goods" and translating customs and trade categories into standard and comparable groups. This is being tackled by the systematic identification of each item in terms of its trade groupings (SITC), its industrial grouping (ISIC) and its end use classification (SNA), distinguishing consumption

countries with high investment rates in 1966-1968 had a low capital goods content of imports—Afghanistan, Barbados, Lebanon and Trinidad and Tobago, for example, and to a less extent, Jamaica, Jordan and Syria. Similarly, some countries with relatively low investment rates had imports with a high capital goods content—Burma, Ecuador and Indonesia, for example, and to a less extent, Chile, India, Iraq, Mexico, Pakistan and Paraguay.

Some of these anomalies are reflected in wide differences in the import content of domestic fixed capital formation. This was very low—less than

goods, capital goods and an intermediate group of producer goods and industrial supplies that are usable for either purpose. See "Draft classification by broad economic categories" (E/CN.3/408).

Table 35. Selected developing countries: changes in capital goods imports<sup>a</sup> between 1960-1962 and 1966-1968

Country	Change in investment ratio between 1960-1962 and 1966-1968 (percentage of gross domestic product)	Average ratio of capital goods imports to			
		Total imports		Gross domestic fixed capital formation	
		1960-1962 <sup>b</sup>	1966-1968 <sup>c</sup>	1960-1962 <sup>d</sup>	1966-1968 <sup>e</sup>
Republic of Korea	13.3	18.9	37.1	14.4	20.9
Thailand	11.2	38.0	44.8	41.1	38.0
Singapore	8.6	22.7	49.6	76.4	81.7
Republic of Viet-Nam	8.3	32.8	40.7	32.1	38.9
China (Taiwan)	7.4	34.2	41.4	36.8	42.8
Dominican Republic	7.4	22.7	16.0	31.2	18.0
Kuwait	6.3		15.4		17.4
Cameroon	6.2	7.6	13.2	17.5	19.6
Congo (Democratic Republic of)	6.1	13.9	17.6		55.3
Togo	5.6	12.1	15.9	28.4	23.0
Nicaragua	5.6	19.8	25.2	29.6	40.8
Philippines	4.9	44.9	44.8	31.4	27.9
Honduras	4.8	19.7	24.7	29.1	37.4
Zambia	4.4		19.9		28.9
Iran	4.2	13.6	26.8	12.4	21.1
Panama	4.2	16.8	15.6	32.8	25.3
Uganda	4.0	16.6	19.2	24.9	21.8
Niger	3.7	8.5	13.6	6.8	9.9
Ivory Coast	3.6	12.5	18.8	20.2	25.1
Morocco	3.5	9.2	12.9	20.1	19.4
Bolivia	3.4	28.2	36.8	41.0	53.5
Central African Republic	3.4	17.6	20.7	75.4	64.6
Tunisia	3.1	16.9	16.7	21.7	16.9
United Republic of Tanzania	2.9	16.3	17.3	25.9	23.0
Malawi	2.8		6.9		15.2
Sierra Leone	2.2	5.6	12.2	13.7	23.8
Guatemala	2.1	21.9	22.2	28.1	26.0
United Arab Republic	2.1	17.9	14.1	17.5	14.8
El Salvador	1.9	17.5	20.2	29.2	32.1
Peru	1.8	35.6	39.1	37.3	42.7
Afghanistan	1.7	2.8	4.5	3.7	7.0
Barbados	1.6	4.6	5.4	12.1	24.4
Guyana	1.5		17.8		41.7
Jamaica	1.5	9.4	10.5	14.8	15.7
Ethiopia	1.4	22.6	26.5	19.9	21.7

Table 35 (continued)

Country	Change in investment ratio between 1960- 1962 and 1966-1968 (percentage of gross domestic product)	Average ratio of capital goods imports to			
		Total imports		Gross domestic fixed capital formation	
		1960- 1962 <sup>b</sup>	1966- 1968 <sup>c</sup>	1960- 1962 <sup>d</sup>	1966- 1968 <sup>e</sup>
Venezuela	1.4	25.8	33.1	21.8	23.8
Mexico	1.2	38.1	40.6	23.5	21.6
Pakistan	1.1	44.1	47.3	26.3	21.1
Madagascar	1.0	11.0	13.9	23.3	26.2
Costa Rica	0.6	21.5	23.3	27.9	31.1
India	0.6	45.7	34.2	20.9	17.5
Nigeria	0.5	6.9	17.3	11.9	20.5
Lebanon	0.5	3.7	2.8	14.1	19.0
Syria	0.4	2.9	9.5	4.1	12.0
Paraguay	0.2	22.0	33.8	21.5	27.8
Khmer Republic	0.1	29.0	30.1	23.4	24.3
Malaysia (West)	0.1	23.3	31.5	51.7	57.9
Chad	-0.1	12.6	13.9	17.1	23.7
Jordan	-0.4	11.4	8.8	26.5	19.7
Ceylon	-0.5	20.9	18.0	36.5	25.3
Kenya	-0.5	15.9	20.4	25.8	32.8
Indonesia	-0.6	29.0	34.6	23.6	24.9
Chile	-1.0	38.7	30.6	29.5	24.8
Brazil	-1.2	57.0	28.7	13.9	7.7
Colombia	-1.8	27.2	27.8	18.7	15.8
Ecuador	-2.2	33.7	33.1	28.7	39.7
Hong Kong	-3.2	15.6	17.2	62.6	54.5
Argentina	-3.7	41.6	34.3	20.4	13.1
Iraq	-3.9	27.5	38.8	32.1	55.3
Ghana	-4.3	4.6	22.5	7.3	29.1
Uruguay	-4.4	30.8	21.7	32.7	21.2
Liberia	-5.5	28.8	27.7	57.5	65.0
Sudan	-5.6	16.6	10.3	23.2	14.1
Southern Rhodesia	-6.5	...	14.6	...	32.2
Israel	-6.8	15.2	15.5	17.0	14.1
Trinidad and Tobago	-8.9	7.6	8.1	15.5	20.4
Mauritius	-8.9	9.4	...	18.6	...
Burma	-9.5	28.7	31.6	36.7	44.2
Gabon	-12.2	22.2	27.1	13.9	36.0
People's Republic of the Congo	-17.0	19.7	21.1	23.6	40.6
Libyan Arab Republic	-28.4	19.2	18.7	18.0	16.0

Source: See table A.12 in the statistical annex, and Statistical Office of the United Nations, *Yearbook of International Trade Statistics*.

<sup>a</sup> Countries have been selected on the basis of the availability of data; they are listed in descending order of the increase in investment ratio between 1960-1962 and 1966-1968. Goods have been classified on the basis of "Draft classification by broad economic categories" (E/CN.3/408).

<sup>b</sup> 1962-1964 for Afghanistan and Sudan; 1961-1963 for Kenya, Niger and Uganda; 1962-1963 for Democratic Republic of the Congo, Ethiopia and Paraguay; 1960-1961 for Singapore and Indonesia; and 1960 for Iraq and Morocco.

<sup>c</sup> 1965-1967 for Afghanistan, Barbados, Chad, Central African Republic, Ceylon, Colombia, Gabon, Ghana, Indonesia, Iran, Iraq, Ivory Coast, Kenya, Kuwait, Lebanon, Liberia, Malaysia, People's Republic of the Congo, Republic of Viet-Nam, Rwanda, Senegal, Sierra Leone, Sudan, Trinidad and To-

bago, United Arab Republic and United Republic of Tanzania; 1964-1966 for Burma, Cameroon, Democratic Republic of the Congo, Jordan, Malawi, Niger and Togo; and 1964-1965 for Southern Rhodesia.

<sup>d</sup> 1962-1964 for Afghanistan, Ethiopia, Libyan Arab Republic, Paraguay and Sudan; 1961-1963 for Kenya, Niger, Uganda and United Republic of Tanzania; 1960-1961 for Indonesia; and 1960 for Iraq and Morocco.

<sup>e</sup> 1965-1967 for Afghanistan, Brazil, Chad, Ceylon, Colombia, Costa Rica, Ecuador, Ethiopia, Gabon, Ghana, Guyana, Indonesia, Iran, Iraq, Ivory Coast, Kenya, Kuwait, Lebanon, Liberia, West Malaysia, Mexico, Morocco, Nigeria, People's Republic of the Congo, Peru, Republic of Viet-Nam, Sierra Leone, Sudan, Trinidad and Tobago, Uganda, United Arab Republic, United Republic of Tanzania and Zambia; 1964-1966 for Barbados, Burma, Cameroon, Jordan, Madagascar, Malawi, Niger and Togo; 1964-1965 for Southern Rhodesia; and 1966 for Democratic Republic of the Congo.



15 per cent in 1966-1968—not only in countries such as Argentina, Brazil, Israel and United Arab Republic that have a considerable local capacity for producing capital goods but also in Afghanistan, Niger, Sudan and Syria where industrialization is far less advanced. At the other end of the scale are the countries in which the import content of investment was especially high (in excess of 40 per cent in 1966-1968); they include Bolivia, Democratic Republic of the Congo, Guyana, Iraq, Liberia, Malaysia, People's Republic of the Congo and Peru—in all of which mineral exploitation was actively proceeding—as well as Burma, China (Taiwan), Hong Kong and Nicaragua, where efforts to industrialize were probably the main determinant of the pattern of imports.

There was a slight tendency for changes in the import content of investment to conform to changes in investment rates. Among the countries in which the latter rose between 1960-1962 and 1966-1968, the majority—two out of three—also registered an increase in import content; whereas, among the countries in which investment rates were reduced, less than half registered an increase in import content.

But the causes of the change in the import content of investment do not seem to have been structural; that is, associated with the stage of development. Among the countries registering a significant increase in investment ratio between 1960-1962 and 1966-1968 (say, over 2 per cent of the gross domestic product) the largest increases in the import content of investment (over 5 per cent of gross fixed capital formation) were recorded by Bolivia, Iran and Sierra Leone (countries engaged in mining expansion), Honduras, Ivory Coast and Nicaragua (countries actively diversifying), China (Taiwan) and Republic of Korea (industrializing countries), and Republic of Viet-Nam (where a lot of new infrastructure was being built). In the rising-investment group there were also a number of countries in which the import content of investment declined by similar proportions. These included India and Pakistan, which were industrializing vigorously at the beginning of the decade, and several countries in which special facilities were being built at that time: Dominican Republic (bauxite mining), Panama (petroleum refining) and Togo and Tunisia (phosphate mining).

There was a similar diversity among the countries that were investing a smaller fraction of their output in 1966-1968 than in 1960-1962. There were some major increases in the import content of investment reflecting the timing of mining expansion (as in Gabon, Iraq, Liberia and People's Republic of the Congo) or other large capital projects (as in Barbados, Chad, Ecuador, Kenya, Malaysia and Para-

guay) or a sharp cutback in imports regarded as less essential (as in Burma, Ghana and Trinidad and Tobago). There were also some significant reductions in the import content of investment, as in the case of Ceylon and Hong Kong as well as Argentina, Brazil, Chile and Uruguay, and, to a smaller extent, Israel. In some of these countries—Argentina, Ceylon and Uruguay and also in Sudan—the reduction was linked to the critical balance of payments position at the time which necessitated a cutback in all imports and the lowering of the priority of capital goods relative to food and raw materials and other industrial inputs.

It is clear that if the import content of investment is to be used as an indicator of progress, it has to be interpreted not only in light of the economic structure of the country concerned but also in the context of the immediate conjuncture to which the country's policy instruments have to react. Over the long run, as development proceeds, a country should become increasingly capable of producing the goods required for fixed capital formation: a gradual reduction in the ratio of capital goods imports to fixed investment is therefore to be expected. While such an indicator needs to be kept under observation, too much importance should not be attached to it in the short run. Given the economic status of the country, including, in particular, its industrial capacity, year-to-year changes in the import content of investment need to be interpreted in the light of the on-going pattern of fixed capital formation. Major development projects—the building of a railway line or a large power station, the opening up of new mineral resources or the expansion of an important industrial plant—will inevitably affect the composition of imports and perhaps even their volume. And the smaller the country's own industrial capacity the greater the impact of such investment on imports. Moreover, the composition of imports is not independent of the state of external balance. While capital goods are generally accorded high priority in the import policies of developing countries, in times of special stringency they tend to lose position relative to the goods required to keep the economy running.

#### *Human capital formation*

In chapter II education was discussed in terms of its intrinsic powers of fulfilling a human need. It was argued that, apart from furnishing the consumer with the essential means of intellectual self-realization through access to the written word, education also helped to qualify the student for more remunerative work than he would otherwise be capable of and hence was an important means of raising his level of living. If this process is viewed not from the side of the individual and his income but from the side of the economy as a whole, it can be seen that edu-

cation is also the means of raising human productivity. It is, in this sense, a tool that enables its user to accomplish more than he would otherwise be able to.

As a process, therefore, education is a form of capital formation. The stock of knowledge embodied in individuals who can put it into effect is equivalent to a pool of plant and equipment, ready to be mobilized for purposes of production. Indeed, the capacity of the economy consists not only of the physical production facilities but also of the trained and knowledgeable human beings who are needed to activate them.

The difference between education regarded as a consumer good and education regarded as capital formation lies essentially in its purpose and then in its nature. As a consumer good, education must satisfy the needs of the student for specific forms of satisfaction—ability to read or to count or to play a musical instrument or to find out the answers to the questions of the curious. As a form of capital formation, on the other hand, education must satisfy the needs of the market place and the production mechanism for a complementary factor necessary for its operation.

There is clearly a good deal of common ground between the two ends. Literacy, for example, is often an essential element whether the purpose be consumer satisfaction or the raising of productivity. And many individuals may be able to achieve intellectual self-fulfilment through the work they are trained to do. But the more education is directed towards capital formation the more is its nature constrained by the manpower needs of the economy. And in the developing countries where manpower is the major available resource and education a costly process, the need to give priority to the imparting of usable skills that lead to gainful employment is particularly pressing.

There is a strong tendency to regard primary education as a human right, and many developing countries have enacted legislation regarding free and compulsory schooling even though in many cases it cannot be provided or enforced.<sup>10</sup> Secondary education is essentially preparatory. Though many sec-

ondary graduates go back into the primary system as teachers—especially in Africa—most proceed to other forms of training either on the job or in more specialized vocational and third level schools. Here they are concerned with the acquisition of skills for career purposes; learning is less an end in itself than a means of securing gainful employment.

In appraising performance in respect of human capital formation, therefore, it seems wise to focus chiefly on the higher levels of education.<sup>11</sup> It is from the third level that the education system itself has to draw its teachers—one of the principal constraints on the expansion in capacity. It is on the third level that the professions and the senior echelon of the civil service depend for their quality as well as their number. And, apart from its key role in the determination of the future size and efficiency of the specialists in the labour force, the third level of education calls for particular attention because of its costs. As indicated in chapter II, outlays per student *per annum* rise very rapidly with the prolongation of formal schooling: at the third level unit cost may be as much as ten or twenty times as high as at the primary level.

Given the multiplicity of claims on their resources, the developing countries cannot afford to provide a third level training not in accord with the employment possibilities likely to materialize in time to absorb the output of the schools. To do so is to risk waste for the economy and frustration for the trainee; the latter may end up in a pool of unemployed or move out of the economy altogether in search of opportunities in one of the more advanced countries. Every effort should be made, therefore, to tailor the third level education system to the needs of the country, looking upon the problem as essentially one of capital formation. And an appraisal of progress should involve a close examination both of the educational composition of those who lack employment and of the nature and size of the flow of students through the third level schools.

As the absorptive capacity of the economy—prospective as well as present—is a critical factor in assessing the appropriateness and effectiveness of the effort being made, such an examination must be conducted at the national level. In the international comparisons that are discussed below, this should be borne in mind: a common bench-mark cannot be applied, nor is *per capita* income or rate of economic growth a satisfactory criterion for grouping countries. The output of the schools must be geared to

<sup>10</sup> In the mid-1960s the situation with regard to compulsory education was as follows:

Up to five years: Brazil, Colombia, Iran, Laos, Mauritania and Republic of Viet-Nam;

Six years: Afghanistan, Algeria, Chile, China (Taiwan), Costa Rica, Cuba, Dahomey, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Indonesia, Iraq, Khmer Republic, Libyan Arab Republic, Mexico, Nicaragua, Panama, Paraguay, Peru, Philippines, Republic of Korea, Rwanda, Saudi Arabia, Syria, Trinidad and Tobago, United Arab Republic, Uruguay and Venezuela;

Seven years or more: Argentina, Bolivia, Botswana, Ceylon, Democratic Republic of the Congo, Gabon,

Ghana, Guinea, Guyana, India, Israel, Jamaica, Jordan, Kuwait, Liberia, Madagascar, People's Republic of the Congo, Réunion, Southern Rhodesia and Thailand.

<sup>11</sup> General literacy and primary education, common to both consumer satisfaction and capital formation, were reviewed in chapter II.

the actual and emerging structure of the economy and to its natural resources and its plans for exploring and developing them. Just as the composition of investment varies markedly from country to country (see table 29 above), so the pattern of training and educational specialization must be expected to differ.

Judged by the numbers of students graduating from the third level of study in the mid-1960s (the latest year for which comprehensive data are available), Africa is the lagging region in respect of human capital formation. Notwithstanding a doubling or trebling of the annual number of graduating students in the first half of the decade, the only developing countries in Africa to produce more than one graduate per 10,000 of the total population were Ghana, Libyan Arab Republic, Réunion, Tunisia and United Arab Republic. And here, as in other countries in the region, the great bulk of graduates had studied education or the traditional courses in law and the humanities, patterned in part in the European mould and designed primarily to meet the needs of those entering teaching or the civil service. Only in Dahomey and Mauritius did technical subjects predominate as a field of study, reflecting the existence of special schools that provided a small group of students with training in science and agriculture.

Apart from Mauritius, the only countries with more than 10 per cent of their graduates specializing in agriculture were Ethiopia, Kenya, Liberia and United Arab Republic. The Sudan and United Arab Republic were the only countries with more than 10 per cent graduating in engineering. The Democratic Republic of the Congo, Kenya and Sierra Leone were the only countries with more than 10 per cent graduating in medicine (see table A.14 in the statistical annex).

The relative size of the graduating group was substantially larger in the developing countries of Asia. Only in Afghanistan and Republic of Viet-Nam did the graduates constitute less than one per 10,000 of the population; in several countries—China (Taiwan), Israel, Philippines, Republic of Korea and Singapore—graduates numbered over one per 1,000. With their longer traditions of tertiary education, most countries in the region registered slower rates of increase in graduates in the first half of the 1960s: in several cases, however, a doubling had occurred—China (Taiwan), Hong Kong, Iran, Pakistan, Republic of Viet-Nam and Syria.

There was a somewhat greater dispersion of fields of study than was the case in Africa, though here too education and the humanities tended to predominate. Only in Israel did more than half the graduates have other fields of specialization—notably engineering and the natural sciences. China (Tai-

wan), Iran, Iraq and Republic of Korea were the only other countries in the region with more than 10 per cent of their students graduating in engineering. Medical science was most heavily represented—over 15 per cent of the total—among the graduates of Afghanistan, Iran, Republic of Viet-Nam and Thailand.

In terms of numbers, the developing countries of the western hemisphere fall between those of Africa and those of Asia. There were several countries with less than one graduate per 10,000 population in the mid-1960s—El Salvador, Guatemala, Haiti and Honduras—and few with more than five (only Argentina, Costa Rica and Surinam). On the whole, however, there was less concentration on the traditional forms of study: less than half the graduates specialized in education or the humanities in Colombia, Ecuador, Guatemala, Honduras, Nicaragua, Paraguay, Peru and Uruguay.

Agriculture was particularly important in Honduras, engineering in Peru. Medicine was the field of study of over half the graduates in Nicaragua and Uruguay, and a third in Argentina, Dominican Republic, Paraguay and Peru. Except in Jamaica and Paraguay, the natural sciences were not very well represented.

Altogether in the mid-1960s, about a fifth of the developing countries for which relevant data are available<sup>12</sup> graduated more than five students per 10,000 of the population: 9 per cent of the countries of Africa, 14 per cent of the western hemisphere and 37 per cent of the Asian region. At the other end of the scale, about a third of the developing countries graduated less than one student per 10,000 of the population: 11 per cent in Asia, 18 per cent in the western hemisphere and over three fourths of those in Africa (see table 36).

Classification problems make it difficult to compare the composition of enrolment with that of the graduating group: many undergraduates specialize only in their later years of study and there is always a certain overlapping of courses, particularly in the case of the category labelled "education" which may often involve specialization in one of the other disciplines. (There is also a problem in respect of coverage, as in some countries the reported data refer only to specified institutions.) Nevertheless, it is clear that in a number of countries enrolment in the technical fields in the mid-1960s was appreciably above earlier levels, as evidenced by the distribution of graduates in the year under review. This was most noticeable in Ghana, Malawi and Nigeria as

<sup>12</sup> The figures cited are probably upper limits, since the countries for which no information is available—chiefly in Africa—are mostly those where third level education is a very recent development and hence with no graduates to report in 1966.

Table 36. Selected developing countries: distribution of graduates and field of study at the third level, around 1966

Item	Number of developing countries			
	Total	Western hemisphere	Africa	Asia
<i>Graduates per 100,000 of the population</i>				
Less than 10	23	4	17	2
10-29	18	11	3	4
30-49	10	4	—	6
50-69	3	1	1	1
70 and over	9	2	1	6
Total countries	63	22	22	19
<i>Percentage enrolment in technical subjects</i>				
Less than 10	6	2	4	0
10-19	9	3	3	3
20-29	17	2	8	7
30-39	20	7	6	7
40-49	24	9	8	7
50 and over	13	4	8	1
Total countries	89	27	37	25

Source: See table A.14 in the statistical annex.

well as in Jordan, Malaysia, Pakistan and Republic of Korea, where the proportion of students enrolled in each of the four technical fields was well above the proportion graduating. Assuming no marked differences in the drop-out rate between the various fields of study, this would mean a high proportion of technical graduates later in the 1960s.

The most notable increase in relative weight was evidenced in engineering: in no less than twelve countries in the western hemisphere, nine in Africa and nine in Asia the proportion of students enrolled in engineering was substantially above the proportion graduating. Engineering accounted for a fifth or more of the enrolment in a number of Latin American countries—Chile, Colombia, Cuba, Ecuador, El Salvador and Mexico—as well as in Kenya (University of Nairobi) and Republic of Korea.

Enrolment in the natural sciences also showed a widespread increase in relation to the proportion graduating: eight countries in the western hemisphere, nine in Africa and eight in Asia. Particularly high ratios were recorded in Jamaica (a third of the students at Mona College), Panama (a fifth of all full-time students), Malawi and Senegal (about a fourth of the total enrolment), India (almost a third) and Burma and Republic of Viet-Nam (about a fifth).

There were fewer potential increases in medicine. In the western hemisphere where, as indicated above, the proportion of medical graduates was relatively high in the mid-1960s, only Jamaica had a higher enrolment. The proportion of enrollees exceeded that of graduates in eight African countries and five

Asian countries. It was highest—over 10 per cent of total enrolment—in Nigeria, Senegal and United Arab Republic and in Burma, Ceylon and Iraq.

There was about the same number of impending increases in agriculture, though in this case they were concentrated in Latin America and Africa. In Asia, only Jordan and Republic of Korea had a higher proportion of enrolment in agriculture than was the case with graduates. In Latin America there were six countries, though nowhere did agriculture account for as much as 10 per cent of enrolment. In Africa there were also six countries, with over 10 per cent being registered in Malawi, Nigeria and Sierra Leone.

In the aggregate, enrolment in technical courses—agriculture, engineering and medical and natural science—accounted for over half the total number of third level students in one developing country out of seven: 4 per cent of the countries in the Asian region, 15 per cent in the western hemisphere and 22 per cent in Africa, reflecting the opening of a number of new institutions in the 1960s. At the other end of the scale, regional differences were much smaller and on the average technical enrolment accounted for less than a fifth of the students in about a sixth of the developing countries.

As was the case in respect of graduates, Africa— notwithstanding the growth of new schools and the increase in the proportion of technical students—still lagged behind the other regions in total third level enrolment. It exceeded one per 1,000 of the population in only four countries—Libyan Arab Republic, People's Republic of the Congo, Tunisia and United Arab Republic. In the western hemisphere, by contrast, enrolment was less than one per 1,000 in only four countries—Guadeloupe, Guyana, Haiti and Trinidad and Tobago. In Asia, the third level enrolment ratio was less than one per 1,000 in Afghanistan, Kuwait, Laos, Nepal and Saudi Arabia, and over five per 1,000 in China (Taiwan), Israel, Lebanon, Philippines, Republic of Korea, Singapore and Syria.

The process of enlarging and diversifying the third level of education continued in the second half of the 1960s. In many countries the swing away from the traditional courses was encouraged as a matter of official policy. Typical of the new efforts was the setting up by China (Taiwan) of a new research centre to promote applied agricultural sciences (and train up to 1,000 students a year in associated fields) and of new institutes for agricultural engineering and microbiology. In 1968, when third level enrolment was two thirds above the 1965 level, Brazil instituted a far-reaching inquiry as a prelude to university reforms carried through in 1969 with the intention of improving administration and curricula including, in particular, the teaching of various branches of

science and technology. Argentina undertook similar reforms, designed in part to enlarge and improve the scope of training in agronomy, veterinary science, economics and administration and other disciplines regarded as strategic for the country's development. By establishing a National Institute of Education Credit for Equal Opportunity, it was hoped to reduce the high rates of retardation and drop-out caused by the financial difficulties of students working their way through college.

Reforms of this nature have an impact on the second level of education, both in terms of its suitability as a preparatory phase and in terms of its vocational content. In Mexico, for example, agricultural and technical courses were strengthened in the schools and in special post-secondary institutes, and a number of new training centres were established for women living in rural areas. Many new vocational training institutes were set up in Pakistan, and facilities for providing commercial and business training were added to some of the existing technical institutes: altogether the number of vocational schools was more than doubled (to 110) in the course of the third plan period ending in 1969. In Iran, five technical schools were opened for girls between 1966 and 1968, and an effort was made to graft technical courses on to the general curriculum in a number of other schools. Kenya and Zambia began upgrading their trade schools by broadening and lengthening the courses, giving more emphasis to engineering and organizing more on-the-job training.

The task of simultaneously expanding and restructuring the educational system is a formidable one, even in the best of circumstances. In most developing countries it is rendered much more difficult by the initial inadequacies and the unprecedented upsurge both in the school-age population and in the desire for formal education. Very few have been able to improve their pupil/teacher ratios, for example: between 1960 and 1966 only about eleven developing countries—Argentina, Barbados and Cuba in the western hemisphere, Dahomey, Libyan Arab Republic, Morocco and Mozambique in Africa, and Iraq, Israel, Singapore and Thailand in Asia—were able to achieve a clear reduction in the average number of enrolled students per registered teacher even in the ordinary primary and secondary school system. Elsewhere, ratios were at best held, but in most cases deteriorated. Raising quality and obtaining staff for the new institutes and the new disciplines has proved correspondingly harder.

Nevertheless, in general, the 1960s have witnessed a serious and widespread attempt to meet some of the major problems encountered as education came increasingly to be regarded as an extension of the process of capital formation in the context of na-

tional economic development. The most important has been the need to train students to fill the many skill gaps that were emerging as development proceeded. These have been particularly troublesome on the technical side, at all levels. Linked to that has been the need to shift the weight of instruction away from some of the traditional fields in which the output of the schools was in excess of the requirements of the economy. The phenomena of "unemployed intellectual" and "brain drain" are in part reflections of poor alignment between the schools and the market place, symptomatic of a waste of educational capacity. The task of correcting it has begun.

#### *Institutional aspects of capacity creation*

Though, for purposes of exposition, the major components of productive capacity have been discussed separately in this chapter, in the real world they are closely interconnected. Indeed, both the creation of capacity and its effective operation depend upon a nexus of institutions; and to turn savings into capital and capital into effective capacity requires the mobilization of these institutions. The expansion of productive capacity requires far more than the mere raising of an investment ratio, whatever the importance of this in the development process. Ill-adapted institutions and poor organization can prevent or at least slow down the growth of capacity and, by the same token, productivity can be greatly enhanced through sound organization and the operation of appropriate institutions. In any appraisal of economic performance, therefore, a country must review the functioning of relevant institutions, and see to what extent adaptations have been made and organization gaps closed.

This can hardly be done on an international basis: each country has too many unique features to make comparisons useful. Nevertheless, a checklist of the functions that need to be performed could be drawn up in a general way; and individual countries could then decide how well these functions were being carried out by the indigenous mechanisms. Similarly, a list of common institutional problems and difficulties could be compiled, and individual countries could use it for testing how effectively they have been avoided or overcome.

For illustrative purposes in the present context it will be sufficient to refer to what recent experience has shown to be the major problem areas in which lagging institutional arrangements can, by reducing productivity, nullify the effect of capacity expansion. These include agrarian tenure systems which constitute the framework within which peasant cultivators operate, and the laws and policies governing the establishment and operation of industrial enterprises and hence the way in which plant and equipment are utilized. They also include the mechanisms by

which savings are tapped, canalized into the capital market and converted into fixed investment. And, at the most general level, they include the wide array of influences that determine individual motivation in the economic context: security of person and property, confidence of people in those with whom they work and in the Government that sets the rules and establishes the framework within which the various factors of production must co-operate, and, most subtle of all, a sense of participation in the development process so that individuals can appreciate the delicate balance of objectives—private as against social, present as against future.

#### *The capacity and productivity of land*

Because of the importance of the agricultural sector in most developing countries, every effort needs to be made to ensure that its organization is conducive to progress, permitting the expansion of output, incomes and savings necessary for the development of the economy as a whole. In any appraisal of the progress that has been made during a given period, it would then be desirable to take particular note of those features of the situation which tend to militate against optimal use of the land. Among them, recent experience suggests that the most significant are non-beneficial ownership implicit in latifundia and absentee landlordism, the lack of security inherent in some forms of tenancies, subdivision of holdings into non-viable units, the unsuitability of some forms of customary communal tenure for modern farming technology, and difficulties in obtaining the inputs that become necessary as techniques of cultivation change. Progress in such cases consists in removing or alleviating the inhibiting factor.

Though relatively little has been done in recent years to change the situation in those countries in which the latifundia system is prevalent, experience in places in which estates have been broken up and other forms of tenure introduced—Bolivia, Chile, Iran, Mexico, Peru and Venezuela, for example—suggests that older fears about the disruptive effects of a change have not been substantiated. Where land that was not previously used was given over to cultivation, production benefited, as it did when people who had previously been squatters or customary tenants were given a more secure tenure. Nor did the cut in the rent receipts of the landlord always have a negative effect on savings: for, on the one hand, the high rent income was not all saved and the cut fell as much if not more on consumption, and, on the other hand, the new forms of tenure, combined with an improvement in the incomes of the peasant concerned, encouraged an offsetting increase in savings and investment. In a few instances the imposition of land taxes has succeeded in inducing owners to dispose of part of their holdings or put them into revenue-earning production.

Where land reforms have given the cultivating tenant better defined rights and greater security of occupation the scene has often been set for an expansion in the productive capacity of the land. The tenant has been persuaded to make improvements that would not have been made in the absence of some assurance of continued occupation. Where uncertain titles have been cleared and legalized, the owner's willingness to save and invest in his land has been similarly increased. In the period 1960-1967 such title clearances were processed for almost 58,000 families in Colombia, 41,000 in Brazil and 30,000 in Guatemala.

The same sort of effect has been achieved in a few cases where private ownership has been substituted for traditional communal tenure, but the delineation of private rights within customary land systems is often a matter of great intricacy and delicacy that cannot be resolved in a piecemeal fashion and without costly and time-consuming cadastral surveys. The individualization of holdings has proceeded furthest in districts where the cultivation of cash crops has tended to monetize land values. It has also occurred as a matter of more deliberate policy in places where the absence of land improvements in the face of population growth has dramatized the weaknesses of customary forms of tenure by causing land shortage to exist side by side with poor cultivation and low returns.

Where tribal and customary tenure has been seen to be inadequate in the light of production needs and possibilities, it has not always been converted into private ownership. Various schemes of group and co-operative farming have also been experimented with. Results have been mixed, not only from the point of view of fully developing the capacity of the land but also in terms of putting the land into a national rather than a local context. In Africa, where tribal land systems are most prevalent, Cameroon is the only country to have formulated a national land policy aimed at redistributing populations and achieving a geographically more balanced development.

Where a tenancy system has been retained, as in some of the Asian countries, its reform has involved regularization. Crop sharing with all its uncertainty has been abolished in favour of a fixed rent, payable in cash or produce, thus strengthening the cultivator's incentive to expand production. The tenant has been given the right to build and make improvements, for which he is entitled to compensation in case of the termination of the lease, thus enabling him to broaden the asset base for purposes of borrowing.

Where the supervision of such a tenancy system has been considered too difficult, the land has been



purchased from the owner (for government bonds maturing over a lengthy period) and then resold to the cultivator. In India, the new owner is required to pay the purchase price in instalments over a given period, with the title being transferred on a stipulated date, the precise timing being designed to increase certainty and confidence and hence stimulate investment and production. In a number of countries—including China (Taiwan), Iraq, Republic of Korea, Syria and United Arab Republic—the title thus passed has been a limited one, generally containing clauses restricting the subsequent disposition of the land, so as to prevent its subdivision or its diversion to non-agricultural or speculative uses.

From the point of view of productive capacity, the problem of preventing the fragmentation of holdings into units that are too small to be economically farmed is a serious one, especially in countries in which population density is high and rising. In many areas the question is not only one of prevention but also one of how best to reverse the process and recreate viable holdings from sub-economic plots. In Pakistan, one aspect of the land reform programme has been the setting of upper and lower limits to the size of individual holdings in various climatic and soil districts of the western region: under this, small plots totalling 7 million acres were consolidated in the first half of the 1960s. In the same period, 90,000 hectares of farmland were consolidated into viable units in China (Taiwan) in terms of a programme under which the Government advanced the funds required and the farmers concerned repaid the bulk of the amount over a period of years. In India about 13 million acres of fragmented farmland were consolidated in the course of the third five-year plan (1963-1968).

Where pressure on the land is relatively light, capacity may be enlarged by colonization and settlement. In Ceylon, schemes involving the dry zone and the higher land increased the area at the disposal of about a fifth of the population in the course of the 1960s. In Malaysia, sixty-two new settlements were in the process of being effected in 1969 in newly cleared areas which are expected to accommodate 16,000 farming families. In China (Taiwan), retiring military personnel have been systematically settled on new land. In the United Arab Republic the provision of additional water from the Nile is facilitating the settlement of nearly 1.6 million acres of newly cultivable land. In the Sudan a similar but smaller scheme is extending the Gezira cotton-growing area at Manaqil.

Experience has shown that the gains in productivity and output emanating from any type of agrarian reform depend not only on the land involved and the new forms of tenure but also on the effectiveness with which such changes are complemented by the

provision of other inputs. These include extension services based on sound research and operated as an educational exercise to teach and demonstrate cultivation techniques most appropriate to the new crops, the new soil and the different area of responsibility. They also include appropriate credit supplies to make it possible for the farmer to acquire the purchased inputs (implements and fertilizer, for example) necessary for the productive utilization of the new land.

The organization of credit is itself a complex task often requiring a good deal of institutional innovation. In a number of cases the use of the regular co-operative societies for this purpose has resulted in inefficient use of funds and a poor recovery record.<sup>13</sup> If the modernization of agriculture is an objective, the handing out of credit is by no means a mechanical operation: appropriate institutions to supervise the implementation of technical and economic policies are essential at the village level. The outflow and repayment of credit are not ends in themselves but means to improve the productivity of the cultivator in changing economic and technical circumstances. In this respect, the more comprehensive forms of co-operative organized in China (Taiwan) and in the Republic of Korea have been more successful: their involvement in the supply of farm requisites and in the marketing of crops has made them more development-oriented and members' savings now constitute an important element in their financial resources.

#### *Savings and investment institutions and policies*

A country's saving performance depends not only on the size and distribution of its income and the decisions of those who dispose of it but also on the policies pursued by the Government and the existence and activities of institutions that accept deposits and canalize funds into investment. Official policies work in part through the fiscal system and the result is reflected in the budget. By gathering in revenues in excess of current expenditures, Governments are themselves able to accumulate funds for investment. By tax and other incentives, a Government can also encourage saving in the private sector. In appraising a country's performance, therefore, it is necessary to examine first the Government's own contribution to saving and then the response of the private sector to the economic conjuncture and the official measures.

Only a small proportion of the developing countries now prepare their national accounts in a way that permits the Government's contribution to domestic saving to be distinguished from the contri-

<sup>13</sup> For example, see Nimal Sanderatne, "Agricultural credit: Ceylon's experience" in *South Asian Review* (London), April 1970.

bution of the private sector. Of the twenty-eight countries for which such data exist for the period 1966-1968, however, only a fifth derived more of their savings from the public sector than from the private sector. These include Chile, Colombia and Venezuela and, if public corporations are included as part of government, Ecuador and, with an appreciably smaller government contribution, Paraguay and Republic of Korea (see table 37).

Among the twenty-two countries in which the private sector provided most of the savings, government savings were actually negative in a third—Bolivia, Israel, Jordan, Mauritius, Netherlands Antilles, Peru and Republic of Viet-Nam—and zero in

Guyana. Even where the Government was not drawing on private savings to sustain public consumption, the contribution of the public sector was relatively small: on a net basis (that is, after allowance has been made for depreciation) it exceeded 3 per cent of gross domestic product only in Malaysia and Tunisia. In a majority of the twenty-six countries with relevant data, government savings constituted a smaller proportion of total production in 1966-1968 than in 1960-1962. The reduction was greatest in Israel and Republic of Viet-Nam where military conflict drained away a lot of resources, but it was over 2 per cent of total output in several other countries, including Guyana, Malaysia, Mauritius, Netherlands Antilles and Peru. Among the 40 per

Table 37. Selected developing countries: net domestic savings ratio, by source, 1960-1962<sup>a</sup> and 1966-1968<sup>b</sup>  
(Percentage of gross domestic product)

Country <sup>c</sup>	Total		Government <sup>d</sup>		Private <sup>e</sup>					
	1960-1962	1966-1968	1960-1962	1966-1968	Total		Household		Corporate	
					1960-1962	1966-1968	1960-1962	1966-1968	1960-1962	1966-1968
Zambia	...	...	6.9	12.1	...	...	...	...	...	...
Thailand	...	16.8	...	1.0	...	15.7	...	14.1	...	1.6
Southern Rhodesia	...	15.2	...	0.5	...	14.7	...	4.9	...	9.8
China (Taiwan)	6.3	16.0	-1.0	2.3	7.2	13.6	5.9	11.9	1.3	1.8
Malaysia (West)	16.2	13.6	7.5	3.5	8.7	10.1	8.5	9.9	0.2	0.3
Peru	15.5	11.6	2.4	-0.3	13.0	11.9	7.9	3.3	5.1	8.5
Venezuela	13.1	11.3	7.1	6.6	6.1	4.6	4.9	3.2	1.2	1.3
Mauritius	12.6	10.9	1.8	-0.4	10.8	11.4	7.4	2.4	3.3	9.0
Uruguay	9.2	10.3	0.6	0.2	8.6	10.1	7.1	...	1.5	...
Philippines	7.7	10.1	0.9	0.3	6.8	9.8	4.6	7.1	2.3	2.7
Panama	4.2	9.6	2.5	2.2	1.7	7.4	-5.7	0.3	7.4	7.1
Trinidad and Tobago	9.3	9.2	2.6	1.1	6.7	8.1	5.8	...	0.9	...
Honduras	7.4	9.0	...	1.4	7.4	7.7	5.3	4.1	2.1	3.4
Costa Rica	9.9	8.8	1.4	0.8	8.5	8.0	8.0	7.6	0.6	0.3
Colombia	8.5	8.4	3.3	5.0	5.2	3.4	2.6	0.8	2.6	2.5
Jamaica	9.1	8.1	2.5	2.1	6.6	6.0	1.7	0.8	4.9	5.2
Tunisia	7.4	8.0	1.8	3.7	5.6	4.3	1.1	0.9	4.5	3.4
Guyana	9.6	6.4	2.9	...	6.7	6.4	5.2	5.9	1.5	0.5
Republic of Korea	-2.8	6.1	-2.5	4.1	-0.2	2.1	-2.1	-0.3	1.9	2.3
Netherlands Antilles	11.7	5.2	2.4	-0.5	9.3	5.6	9.1	4.0	0.2	1.6
Nigeria	...	...	2.4	...	...	...	...	...	...	...
Ecuador	7.3	5.7	3.8	4.3	3.5	1.5	...	...	...	...
Chile	0.8	5.5	3.0	6.5	-2.2	-1.0	-4.6	-4.2	2.4	3.2
Bolivia	-1.2	5.3	-1.0	-0.3	-0.2	5.5	0.9	1.2	-1.1	4.3
Guatemala	2.0	4.5	1.5	1.8	0.5	2.6	...	...	...	...
Paraguay	3.2	3.9	1.8	2.5	1.4	1.4	...	...	...	...
Israel	4.3	0.1	-0.1	-5.7	...	...	...	...	...	...
Jordan	-4.5	-3.0	-9.9	-10.6	5.4	7.5	...	...	...	...
Republic of Viet-Nam	-4.7	-5.6	-0.6	-10.2	1.3	4.5	-0.8	2.2	2.1	2.3

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Yearbook of National Accounts Statistics, 1969*, vols. I and II (United Nations publications, Sales Nos.: E.71.XVII.2 and 3).

<sup>a</sup> 1962-1964 for Paraguay.

<sup>b</sup> 1965-1967 for Ecuador, Guatemala, Guyana, Israel, Jamaica, Netherlands Antilles, Tunisia and Uruguay; 1964-1966 for West Malaysia, Nigeria and Peru; 1963-1965 for Republic of Viet-Nam.

<sup>c</sup> Selected on the basis of availability of data; arranged in descending order of net savings ratio, 1966-1968.

<sup>d</sup> Net government savings include savings of general government and government enterprises. For Ecuador, savings of public corporations are also included. For Israel, gross government savings.

<sup>e</sup> Net corporate savings include savings of public and private corporations with the exception of China (Taiwan), Costa Rica, Ecuador and West Malaysia, where private corporate savings are included in net household savings.



cent of developing countries in which the government was contributing more to savings in 1966-1968 than at the beginning of the decade, the most notable improvement was recorded by the Republic of Korea—almost 7 per cent of gross production. Large gains were also registered by Zambia (whose public savings were the highest of all in 1966-1968), Chile (where the 1966-1968 ratio was twice the 1960-1962 figure) and China (Taiwan) where, as in the Republic of Korea, the public sector moved from a deficit to a surplus position in the course of the decade.

The raising of the public sector contribution to savings presents the developing countries with a considerable challenge. There are severe constraints on both sides of the equation: the smallness of the tax base makes it difficult to increase revenue collections, while the number and urgency of the claims for additional public services make it no less difficult to contain—let alone reduce—government expenditure. In appraising performance, therefore, Governments need to scrutinize both their tax structure and the distribution of their budgetary outlays. Every effort must be made to devise taxes that encourage and respond to economic growth: this means leaning more heavily on taxation related to income and wealth and less heavily on taxes based on particular types of transaction. It also means increased attention to the equitable enforcement of tax laws so that both evasion and cost of collection can be minimized. And on the expenditure side, it means a close alignment of the regular budget with the development plan, so that the priorities written into the latter are fully reflected in the former.

Net private saving was negative in 1966-1968 only in Chile, but in over a third of the twenty-four countries for which such data are available it was lower than at the beginning of the decade, most notably—by more than 2 per cent of gross domestic product—in Ecuador and Netherlands Antilles. On the other hand, increases of more than 2 per cent of gross domestic product were reported in the net private savings of several of the countries in which government savings had declined—Jordan, Panama, Philippines and Republic of Viet-Nam—as well as in Bolivia, China (Taiwan), Guatemala and Republic of Korea where the government contribution had risen. In most of these countries the gain was in the household sector, but in Bolivia and Mauritius it was the corporate sector that contributed the additional savings. This distinction has important institutional implications both for the stimulation of savings and for their subsequent translation into investment.

Private savings may be divided into two categories—retained and transferred. Retained savings are those used in the saver's own economic activity—

as currency or precious metal or inventories or as investments in the home, farm or business. Transferred savings are those deposited in a financial institution or held in the form of a marketable financial instrument. While in some forms retained savings may add to the productive capacity just as much as do transferred savings—as when a farmer installs a pump or builds a fence—a good deal tends to be held in forms that meet personal liquidity and cultural needs but serve no useful purpose for the economy as a whole. The transfer of savings makes possible their pooling and their direct deployment in fixed capital formation.

In general, the proportion of private savings that is transferred tends to rise in the course of development as institutions capable of tapping those savings proliferate and as a capital market evolves and the opportunities for investment increase. Moreover, the spread of savings institutions has a positive influence on savings ratios: a wide range of the liquidity and security requirements of various types of saver can be met, interest payments act as a stimulus, contractual arrangements impose a discipline, and the creation of a link between savings and a specific physical asset may serve as an added incentive.<sup>14</sup> Similarly, the spread of investment institutions, by facilitating the transfer of savings from the inexpert to the expert, increases the prospects of deploying them to the greatest economic advantage. To appraise its achievements in capacity creation, therefore, a country should examine not only its actual savings and investment data but also the operation of the mechanisms through which those functions are carried on.

Among the most widespread and most active savings instruments in the developing countries in recent years have been the commercial banks. In none of the forty-one countries for which data are available did the real value of time and savings deposits in the banks decline in the period 1960-1968. In almost two thirds of the countries, rates of increase of over 10 per cent a year were registered, and in very few countries—Colombia, India, Morocco and Uruguay—did such deposits expand less rapidly than the total output of goods and services (see table 38).

There has been little apparent relationship between the growth of bank savings deposits and the country's over-all savings performance. High rates of in-

<sup>14</sup> For an empirical analysis of the correlation between savings ratios, on the one hand, and ratios of retained to transferred savings, and of tangible assets to financial assets, on the other, carried out in several countries in southern and south-eastern Asia at the beginning of the 1960s, see United Nations, "Financing economic development", *Economic Bulletin for Asia and the Far East*, vol. XIII, No. 3, December 1962, page 12; and R.W. Hooley, "Implications of savings structure for economic development", *Philippines Economic Journal* (Manila), vol. 1, No. 2, September 1962.

Table 38. Selected developing countries: time and savings deposits, 1960-1968  
(Percentage)

Country <sup>a</sup>	Ratio of gross domestic savings to gross domestic product, 1966-1968	Time and savings deposits <sup>b</sup>		
		Ratio to gross domestic product		Average annual rate of growth in real value, 1960-1968 <sup>c</sup>
		1960-1962 <sup>e</sup>	1966-1968 <sup>d</sup>	
Jamaica	17.7	11.4	18.9	23.9
China (Taiwan)	24.2	12.6	18.7	16.8
Guyana	8.9	10.0	16.8	16.0
Israel	4.6	8.8	15.0	22.2
Thailand	25.8	5.6	15.0	27.6
Philippines	12.4	9.4	13.8	15.5
Malaysia	28.3	8.1	13.4	14.6
Trinidad and Tobago	21.6	11.0	13.0	7.9
Republic of Korea	18.1	3.3	11.3	42.4
El Salvador	12.4	5.6	10.7	20.3
Jordan	3.6	6.2	10.7	19.7 <sup>g</sup>
Iran	19.2	5.3	10.5	24.7
Panama	15.2	2.6	8.8	30.5
United Arab Republic	18.0	6.4	8.2	9.8
Pakistan	10.1	4.2	8.1	19.0
Venezuela	21.1	6.4	7.8	9.2
Peru	13.8	6.9	7.7	5.6
Guatemala	10.3	3.5	7.6	19.1
Argentina	20.4	6.3	7.6	5.6
India	13.2	8.0	7.6	2.8
Tunisia	11.1	2.6	7.2	24.6
Ceylon	20.3	5.4	7.1	7.8
Honduras	12.4	3.0	6.2	18.2
Iraq	21.6	5.0	5.9	8.7
Uganda	23.9	3.5	5.6	20.0
Paraguay	10.1	1.3	5.6	33.3
Dominican Republic	6.9	3.3	5.1	10.8
United Republic of Tanzania	20.6	4.1	4.7	6.7
Nigeria	9.2	2.7	4.5	10.1
Nicaragua	18.3	1.2	4.3	25.8
Chile	9.4	4.0	4.2	8.6
Costa Rica	19.4	3.4	4.2	8.6
Ecuador	8.8	2.6	3.7	12.2
Uruguay	10.9	9.1	3.5	—
Ivory Coast	19.9	2.1	3.5	11.5
Mexico	14.0	1.8	2.9	18.1
Morocco	11.9	2.5	2.3	5.1
Colombia	14.9	2.3	2.2	6.3
Sudan	11.2	0.7	2.0	21.5
Brazil	16.0	1.7	1.8	8.8
Bolivia	2.8	0.2	1.5	40.0

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics* and *Monthly Bulletin of Statistics*; and International Monetary Fund, *International Financial Statistics* (Washington, D.C.).

<sup>a</sup> Countries selected on the basis of availability of relevant data; arrayed in descending order of the ratio of time and savings deposits to gross domestic product for 1966-1968.

<sup>b</sup> Time deposits only for Brazil, Colombia, Dominican Republic, India, Israel, Ivory Coast, Mexico, Morocco, Nicaragua and Paraguay. Time and foreign currency deposits only

for China (Taiwan), United Republic of Tanzania and Venezuela. Data for Honduras include foreign currency deposits.

<sup>c</sup> 1961-1963 for China (Taiwan), Guyana, Iran, Tunisia, Uganda and United Republic of Tanzania.

<sup>d</sup> 1965-1967 for Ivory Coast, Nigeria and Peru.

<sup>e</sup> Reported monetary totals deflated by consumer price index.

<sup>f</sup> 1961-1968 for China (Taiwan), Guyana, Iran, Tunisia, Uganda and United Republic of Tanzania; 1960-1967 for Ivory Coast, Nigeria and Peru.

<sup>g</sup> At current prices.

crease in deposits were registered by countries with low savings ratios (Bolivia, Ecuador, Guyana, Israel and Jordan, for example) as well as by countries in which savings ratios were well above the developing country average (China (Taiwan), Iran, Malaysia, Thailand and Uganda, for example). Correspondingly, among the countries in which bank deposits increased relatively slowly there were some with high savings ratios (Argentina, Ceylon, Costa Rica, Iraq, Trinidad and Tobago and United Republic of Tanzania) as well as some with low ratios (Chile, India, Morocco and Peru). The fact that not all such deposits end up as savings in the national accounting sense, however, does not mean that such savings did not benefit from the activities of the banks in trying to attract funds.

In India and Pakistan, for example, special efforts were made by the respective State Banks to spread banking facilities into the rural areas where savings instruments tend to be sparse and inaccessible. In India these were supported by the setting up of a Deposit Insurance Corporation in 1962, designed to protect small savers in particular against the possible default of the bank holding their deposits. In West Africa, the commercial banks also mounted a special campaign to attract rural depositors and in the process not only enlarged the number of savers but also induced some switch in deposits from post office savings accounts and forced interest rates upwards.

Higher interest rates were actively used to stimulate deposits in China (Taiwan) and Republic of Korea, drawing money into the banking system from the so-called korb market for short-term funds. In China (Taiwan), the increase came in the 1950s, and as inflationary forces subsided in the 1960s, the rate was allowed to decline from about 17 per cent a year at the beginning of the decade to 10 per cent in 1967. Though the rate of growth in savings deposits declined from the high level of the 1950s it remained vigorous. In the Republic of Korea interest rates were doubled—from 15 to 30 per cent a year—in 1965, pulling a large amount of money into the banks, chiefly from private households whose savings rates were positively affected.

Higher interest rates have been supplemented by lottery features in a number of countries in which inflation has been severe enough to discourage the transfer of savings into financial instruments—as in Colombia and Peru and other parts of Latin America.

Special-purpose savings banks are much less common than ordinary commercial banks, but in a number of countries they have expanded rapidly in terms of number of depositors and volume of deposits. Under the Alliance for Progress, for example, and with a view to stimulating the generation of resources for housing, several Latin American coun-

tries set up a system of building societies or savings and loan associations early in the 1960s. By 1968 the number of depositor members had risen to 267,000 in Chile, 20,000 in Ecuador, 219,000 in Peru and 72,000 in Venezuela, and their savings balances totalled 485 million escudos, 58 million sucres, 2 billion soles and 260 million bolivares, respectively. The lending of these institutions to new house owners had increased even more steeply, bringing into being a new group of savers among the borrowers repaying the loans.

Though relatively much less important in the developing countries than in the developed market economies, life insurance has also played a part in inducing and collecting savings. Among the eighteen developing countries for which data are available, only Guatemala registered a reduction in the 1960s in the ratio of life insurance in force to gross domestic product. Though reaching as much as a fourth of gross domestic product in only two of the countries (Costa Rica and Israel)—compared with up to twice the gross domestic product in some of the more advanced countries—some notable increases in the ratio were registered: between 1960 and 1968 there was a doubling in Argentina and Mexico, and a trebling in Chile, China (Taiwan), Israel and the Republic of Korea. In India, where the business was nationalized in 1956, policies in force in 1968 amounted to the equivalent of a fifth of the national income, and the Life Insurance Corporation became the largest single source of investible funds in the country.

In many countries saving through life insurance is encouraged by favourable tax treatment for premiums. More accurate mortality tables have permitted a reduction in premium in several countries, particularly in Latin America. And new types of policy—incorporating a profit element, for example—have been devised to reduce the losses occasioned by inflation.

Provident funds, contributory pension arrangements and other types of social security have also tended to spread with the growth of formal employment. In their early years, before the outflow of resources begins to approach the inflow, such funds have been important contributors to total savings. Even in their maturity, it is probable that the compulsory and contractual elements in such schemes have a positive effect on the savings rates of individuals. Not being negotiable, pension rights do not satisfy all the needs for which an individual saves and hence are not merely substitutes for other forms of savings. This conclusion has been tested in some of the developing countries in Asia<sup>15</sup> but it seems

<sup>15</sup> See United Nations, *Economic Bulletin for Asia and the Far East*, vol. XIII, No. 3, December 1962; see also Franco Reviglio, "Social security: a means of saving mobi-

to be borne out elsewhere—in Nigeria, for example, where in 1962 a national provident fund was set up for all employees of government and public corporations and extended in 1965 to all but the lowest-paid employees of private enterprises with ten or more workers.

*Pari passu* with the increase in transferred savings has been the growth of institutions dealing with the investment of the funds involved. Where transferred savings have begun to assume a major role, these investment channels have become quite intricate and a more sophisticated capital market is emerging, capable of dealing with funds available for various lengths of time, for various purposes and in various amounts. Where less development has taken place, the investment institutions tend to be more dependent on public funds; enterprises, often family-controlled, tend to satisfy their own financial needs, and the links between private savers and those carrying out the capital formation are much more tenuous.

Among the more sophisticated institutions is the *financiera*, which evolved in Mexico and is now operating in a number of Latin American countries. In the 1960s the *financieras* tended to move away from relatively short-term borrowing through time deposits, towards sale of their own bonds and the issue of medium-term—two to ten years—certificates of deposit. In the case of Mexico the expansion of these new instruments—bonds from less than 1 billion pesos in 1960 to 16 billion in 1968 and certificates from less than 3 billion pesos in 1960 to almost 10 billion in 1968—was partly at the expense of other institutions, such as commercial and mortgage banks, and thus led the Central Bank to increase the reserve requirements of *financieras* and tighten the control exercised over them in the interest of balanced growth of the capital market.

Another instrument that has become more common in recent years is the mutual fund—the sale to small savers of a share in a portfolio of corporate investments. Such funds have had a rather favourable reception in Colombia and India, but less so in Pakistan where the Government set up a National Investment Trust in the mid-1960s.

Where the capital market cannot be relied on to canalize funds in directions in which economic capacity needs to be enlarged, Governments have sometimes created simpler mechanisms. One such mechanism is the provision of credit through the

central bank or other official entity at rates that favour specific sectors or activities. In the 1960s, Guatemala offered special low rates for discounting paper relating to agricultural and industrial equipment, for example, and other Latin American countries—such as Chile, Colombia and Peru—have also adopted differential credit facilities. The same purpose has been achieved by a differential reserve policy, lightening the reserve requirements for favoured institutions—for housing or agricultural finance, for example—or specifying the form in which particular proportions of reserves must be held. Where interest rates are regulated, funds have been directed towards certain forms of investment by selectively widening the margin between permissible lending rates for the institution concerned and available rediscount rates granted by the central bank. In these cases developing countries often have to reach a compromise between the financial needs of development policy and the constraints imposed by safety, liquidity and purely monetary considerations.

Where the capital market and its constituent institutions are less than adequate for meeting specific financial needs, Governments have created development corporations to canalize funds in designated directions. Such corporations have generally been provided with funds from budgetary sources, at least initially and sometimes for long after they had been expected to be self-financing through receipt of profits and sales of the assets they had helped to finance. Apart from the funds they have disposed of, they have acquired considerable expertise not only of a purely financial nature—as through their underwriting function, for example—but also in dealing with the entrepreneurial and managerial responsibilities of new corporate entities, including technical problems on the factory floor and market research.

Most developing countries have established such development corporations and in the context of performance appraisal they are obvious candidates for examination at the national level. Their mandates and the circumstances in which they have to operate being so diverse, it is clearly impractical to review their activities at an international level. Experience suggests, however, that some of the problems that have been encountered are common to many countries—the temptation to elevate political criteria above economic criteria in making investments, slowness in turning over funds, failure to raise sufficient private resources, a tendency to act as a holding company rather than as an initiator and stimulus. Some of these shortcomings may merely reflect the newness of the corporations and the inadequacies of other components of the capital market. Certainly, the oldest of them—the National Financiera of Mexico—has had a good deal of success in obtaining outside participation (through certificates

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lization for economic development", International Monetary Fund, *Staff Papers* (Washington, D.C.), vol. XIV, No. 2, July 1967; and for India, K.L. Deshpande, "Estimate of savings and investment in the Indian economy, 1950-51 to 1962-63", *Reserve Bank of India Bulletin* (New Delhi), vol. XIX, 1965.

backed by specific securities) and in marketing its bonds.<sup>16</sup>

Even the newer corporations have been helpful in relations with external sources of finance, furnishing guarantees to foreign suppliers and investors, for example, and in some cases acting as a channel through which external funds can pass to enterprises that are too small to deal effectively with the source. They have also been able to set a more distant horizon than would have been possible for most private entrepreneurs, taking the development of the economy as a whole into account, with less regard to the short-term profitability of each specific investment.

The difficulties experienced by development corporations in selling participations and bonds also reflect in part the rudimentary nature of the local capital market. Stock exchanges exist in Argentina, Brazil, Ceylon, Chile, Colombia, India, Israel, Lebanon, Malaysia, Mexico, Pakistan, Peru, Philippines, Uruguay and Venezuela, but they tend to be very thin both in terms of buyers and sellers and in terms of the number and nature of the securities traded.<sup>17</sup> The smallness of personal savings, the predominance of family business,<sup>18</sup> scepticism about price stability and the value of the currency and even of the Government and its policies, as well as outmoded methods of conducting transactions in securities and an inadequate company law, all exert a negative influence not only on the willingness to subscribe to new enterprises but also on the appeal of the bonds of public authorities. If the full value of a capital market as a means of mobilizing the limited capital resources of the developing countries is to be realized, the practice of transferring savings through acquisition of financial instruments will have to be assiduously cultivated. In many cases the development corporation is in a unique position to contribute to this end by means of underwriting public issues and sales of its participations and bonds in appropriately organized packages. This objective may be as important to the growth of the country's economic capacity as its more direct entrepreneurial activity.

#### *Institutions and policies affecting industrial capacity*

The creation of productive capacity involves the bringing together of a variety of resources in appro-

priate combinations. Part of the development process thus consists of continually adapting the legal and institutional framework of the economy to facilitate the pooling of skills and capital in the manageable operational entities that are called for by the changing technological and market circumstances. The precise constitution of these entities will vary from case to case, and developing countries will have to experiment with different forms of co-operative and corporate enterprise under different types of control and ownership. In the present context it is sufficient to note that a critical examination of how the various forms of organization are actually operating will form part of any appraisal of progress.

It was argued above that human capital formation is a vital part of capacity creation. The process does not end with the inculcation of knowledge and the training of particular skills; means must also be elaborated for the workers to be brought together in the right numbers and with the necessary complementary factors for exercising their skills with optimum effect. Where there are many specific scarcities and potential bottle-necks, the effective deployment of labour involves two organizational functions—manpower planning and the operation of an employment service.

Manpower planning is the effort to align the process of human capital formation, conducted chiefly through the educational system, as closely as possible with the needs for specific skills as determined by the demand for various products on the one hand and the availability of appropriate complementary factors on the other. The test of effective manpower planning is the avoidance of major imbalances—skill shortage bottle-necks and unemployment—and as such it is best discussed in chapter IV below.

An employment service is a mechanism for facilitating the purposeful movement of labour into the most suitable occupations and the most suitable jobs. Its form will depend on the complexity of the economy and the number of workers needing direction. It serves essentially as a placement centre through which available workers are matched as closely as possible against job opportunities. To function effectively, it needs the collaboration of the workers and the employers and its experience should be constantly fed back to those engaged in manpower planning.

To maximize the capacity that can be created from a given supply of productive factors, the scarcest of those factors must be used as effectively as possible. In most developing countries this means that special care must be exercised over the pattern of investment to ensure that the greatest possible employment and

extremely difficult to attach a market value to them. Shares tend to become relatively illiquid and very vulnerable to loss in real value through inflation.

<sup>16</sup> By 1968, outstanding participation certificates totalled 2 billion pesos and bonds in circulation totalled 6 billion pesos. See Banco de México, *Informe Anual*, 1968.

<sup>17</sup> In 1963 there were only thirty industrial enterprises quoted on the Venezuelan stock exchange and sixty-three in Colombia; in the former, 90 per cent of the year's transactions related to five stocks, while in the latter, though forty-eight stocks were traded, a mere six accounted for 82 per cent of the transactions.

<sup>18</sup> Even where some shares are owned by the public, the vagaries of control and dividend policy make it ex-

output are obtained from each unit of capital. The sort of machinery most appropriate for this purpose is for each country to determine on the basis of experiment and experience. It needs close links to the planning mechanisms on the one hand and to the departments of education and labour on the other. It also needs to be in touch with the on-going work in the field of technological adaptation, particularly the evolution of capital-saving techniques of carrying out industrial operations, and with any mechanism that may exist for the allocation of foreign exchange for the importation of plant and equipment.

Policies affecting the nature of the equipment installed and the intensity of its utilization should also be the subject of regular appraisal. Where external transactions are managed, there is a temptation to encourage industrialization by the granting of favourable rates of exchange or low tariffs for the importation of capital goods. If, at the same time, local industries—usually import-substituting producers of consumer goods—are protected from external competition, the price of wage goods may be significantly raised, relative to the cost of machinery. The result is a price distortion which militates against employment and the optimal use of capital for job creation and total output.

Undue protection of local industry may also militate against the most efficient use of capital. The absence of outside competition reduces the pressure

on management to get the most out of the plant and equipment being operated. The codes under which factories are run may also contribute to under-utilization of capacity. In some cases such codes have been taken over from the current practice in more highly industrialized countries and are not wholly appropriate in the economic circumstances and with the factor endowment of the developing countries. Rules governing the use of multiple shifts, for example, deserve careful scrutiny to ensure that they do not unnecessarily deny the country the opportunity of making the maximum use of its scarce capital.

Problems of this nature have no general solution. The essential requirement is that each country should equip itself with the means of assessing the impact of the policies it is pursuing on the productivity of the economy. The objective of increasing the effective capacity of the economy will be given due weight in the development plan. The process of institutional innovation will be aimed, at least in part, at this objective. But short-term economic management may also determine effective capacity and capacity utilization, and in most developing countries—because of lack of reserves and vulnerability to exogenous events and circumstances—day-to-day measures and policies tend to impose a severe constraint on what can be achieved in the longer run. This makes it all the more important that means be at hand to apply an "effect on productivity" test to all proposed actions in the economic sphere.

## Chapter IV

### THE STATE OF BALANCE

Economic development is the process of change generated by the efforts of individuals, communities and nations to raise their productivity and their levels of living. The changes occur in all segments of the economic and social system but the extent and pace of transformation must be expected to differ from one aspect to another. Changes in technology may come suddenly and in spurts in the wake of the unplannable process of invention and discovery. Changes in knowledge and skill may take place only slowly as the organization of formal methods of instruction is improved and extended. Changes in institutions may proceed at vastly different speeds: where the underlying conditions are ripe mere legal authorization may bring new bodies and new systems into formal and functioning existence, but where the old institutions are deeply rooted in history and tradition their transformation and adaptation may take generations.

The less developed countries are peculiarly vulnerable to disequilibrating impulses not only because of their special desire to speed up the process of change but also because far more of the impulses come from abroad than is the case with more advanced economies. These impulses are transmitted in many ways but chiefly through trade and the transfer of capital, personnel and technology, and even though some—a decline in export prices or a rise in import prices, for example—have a negative impact, to try to shut them off is to make development even more difficult. The challenge is to accept them selectively, to adjust to them when they have to be accepted and to harness them whenever possible to those forces of domestic change that are helping to raise productivity and incomes.

It is inevitable, therefore, that in the course of its economic development a country should exemplify a multitude of stresses and strains arising from inequalities in the nature and pace of change affecting interdependent parts of the system. The art of economic management consists in part in keeping the whole machine moving forward at an optimum speed by promoting beneficial change in the lagging components and restraining undue advances in the more volatile elements. Consequently, in appraising progress, it is necessary to seek evidence of instances of disequilibrium that, by interfering with the smooth

functioning of interrelated parts of the economy, might jeopardize the forward movement.

While the whole situation needs to be kept under surveillance, experience has shown that certain types of disequilibrium pose more of a threat to economic and social progress than others. These call for special attention. They include the imbalance that does not generate countervailing forces but tends to cumulate or accelerate, the imbalance that affects the economy as a whole and hence needs to be dealt with through general economic policies and measures, and the imbalance in strategic sectors which, if not alleviated, might have unfavourable repercussions on other parts of the economy.

The first of these disequilibria is illustrated by the condition known as inflation because of its most obvious symptom—the blowing up of prices. In developing countries this is an ever-present risk since in the face of a relatively small *per capita* supply of goods and services, there is a pressing need to raise levels of living and expand the capacity of the economy. The claims on resources arising from those who have the purchasing power (or can borrow it or even create it) often tend to exceed the supply, and in the competitive bidding for them prices are pushed up. Where the rise in prices chokes off the excess demand the process may be brought to an end. But where the demand is urgent and the means of financing are at hand, the pressure on prices may continue, the higher prices becoming incorporated in costs and a spiralling process being set in motion in which successive rises in the price of outputs and the cost of inputs induce and stimulate each other.

Rapid price movements of this nature have a very unequal incidence, bearing hardest on those whose incomes are fixed in money terms. In appropriate circumstances this may result in the diversion of resources from consumption to investment, but in a way that tends to be extremely inequitable and difficult to reconcile with the development objective of raising levels of living and improving the distribution of income. Beyond a certain point, moreover, inflation tends to become disruptive of economic growth. People become more concerned about protecting the purchasing power of whatever they hold than about the normal optimization of their expenditure pattern, and this may mean a movement away



from money towards real estate, inventories of goods and foreign currencies. Unless amortization arrangements can be denominated in real terms, allowing for the expected deterioration in the purchasing power of money, the ordinary process of lending and borrowing may be brought to a halt. Unless it is brought under control, the end of such an inflationary process is a complete breakdown in confidence in the currency, bringing the whole economy to a standstill.

The second type of disequilibrium that must be kept under close observation is that relating the economy as a whole to the outside world. This imbalance may arise as a consequence of inflation, for excessive demand and rising domestic prices cannot but affect external trade, stimulating imports and inhibiting exports. This means that the value of the country's currency must be continually adjusted to allow for internal price changes. Where the composition of exports is such that the bulk is sold at world market prices, the question resolves itself largely into a bilateral one between the Government and the export industry: the local currency equivalent of the latter's foreign exchange earnings has often to be decided as a form of tax question in the light of the other taxes to which exporters may be subject and the need to provide an adequate incentive to them to maintain or increase the volume of their exports. On the import side, more complex considerations may influence the price at which the Government sells the foreign exchange at its disposal: the local industrial structure and the country's priorities in investment or consumption may invite a multiple exchange rate, with the foreign currencies being sold much more cheaply for urgently needed imports than for those that are less necessary.

While the external imbalance may thus be no more than a reflection of the country's domestic inflation and hence to be dealt with in the same constellation of measures, it may be shaped by many other forces, some quite independent. Among the latter are changes in export markets, either in the country of destination or in respect of particular commodities. The way in which a current account deficit has been financed may also be a significant factor making for disequilibrium: the excessive use of supplier's credits or other high-interest or short-term borrowing may have caused a rapid rise in the burden of debt servicing.

An analysis of the cause of a deteriorating external balance is vital for the formulation of remedial policies; in the present context, however, it is the existence or emergence of the imbalance that is of concern. Early discernment and diagnosis of an external imbalance are essential functions of any appraisal of progress. Unlike the cumulative process of inflation, a deteriorating external balance is likely

to end abruptly in a payments crisis, default on debt, loss of international credit status and a sharp curtailment of needed imports. All this can be very costly in terms of disruption of development, not only immediately in the wake of emergency action but also in the longer run as rolled-over debts are paid, liquidity restored and import capacity and credit ranking reconstituted.

The third type of disequilibrium is the partial one, involving not the whole economy as in the case of inflation and payments crises, but particular sectors or functions. Because the process of economic development does not involve the uniform growth of all the various parts of the economy, sectoral or functional imbalances are very numerous; indeed, as indicated above, they are in one sense inherent in the very nature of the transformations that constitute the development process. However, what in some circumstances may be regarded as a normal imbalance arising from the disparate rates of growth or adjustment may in other circumstances turn out to be a serious economic malaise symptomatic of incorrect plan priorities or inappropriate policies, and liable, if not attended to, to act as a brake on further growth. The task of progress evaluation is to identify those imbalances that are potentially disruptive or indicative of more serious economic difficulties.

Which of the many sectoral imbalances should be taken under closer surveillance can be decided only in the context of a given country and in the light of the prevailing conditions and prospects. Recent experience suggests that certain of these imbalances have proved to be dangerous more often than others, and hence merit discussion in the present chapter, but each country should remain alert to other sectoral bottle-necks and should broaden the purview of its progress appraisal accordingly. The imbalances that seem to be most frequently troublesome in developing countries include lagging food supply, insufficient employment opportunities and a number of industrial and infrastructure inadequacies.

The imbalance in the food situation reflects changes and problems on both sides of the demand/supply equation. Basic to the imbalance in most cases has been the acceleration that has occurred in population growth. Combined with the efforts that have been made to raise levels of living, this has meant an unprecedentedly rapid expansion in the demand for food. Against this, many countries have encountered serious difficulties in raising the productivity of agriculture fast enough to meet the growing requirements. New hope has emerged with the genetic advances in cereal stock in the past few years, but it is still far from certain how the advantages offered by high-yield rice, wheat and maize can be exploited in situations in which some of the critical farm inputs—water, fertilizer and management—remain



in very short supply. And since the food problem, both in nutritional terms and increasingly in terms of demand, is moving steadily from quantity to quality considerations—from calories to proteins—and the expansion of livestock industry will place much more strain on the cereal supply, it seems likely that the balance between food supply and food requirements will remain precarious in many developing countries throughout the 1970s.

The importance of keeping this balance under close observation lies in the central role that food purchases play in household expenditure in all developing countries. Shortages are soon reflected in price increases and, because food-stuffs pre-empt such a large proportion of the family budget, such increases soon have to be reflected in wages. This has proved very awkward in a number of countries in which strenuous efforts were being made to contain other inflationary forces.

The second common area of concern about functional imbalance involves a key aspect of the whole development process, namely, the extension of the division of labour by means of the movement of workers from the undifferentiated subsistence sector to more specialized employment in the market sector. The process has been stimulated by the acceleration in population growth and the increasing difficulty experienced in many developing countries of usefully accommodating a larger working force in the traditional society. But it is rapidly frustrated if the migrants are not productively absorbed in the market sector, and this has been the case in many countries. The result—as noted in chapter II above—is the emergence of a pool of urban or peri-urban unemployed whose economic status may have been lowered rather than improved by the shift.

Involving even greater economic loss to the society is the drifting into this pool of people who have had the benefit of formal education and training but are unable to find jobs in the more specialized sector of the economy. Such a pool is tangible evidence of a serious imbalance in factor proportions: there is a lack of the complementary resources—capital and entrepreneurial and managerial skills—to combine with the available labour for productive purposes. For many reasons—political, as well as economic and social—this imbalance poses a major challenge to many developing countries. Not only must the supply of the scarce factors be augmented as rapidly as possible but special efforts need to be made to modify the technological constraints which dictate factor proportions. The development process must be made more labour-intensive so that the energies of the jobless group can be effectively harnessed for the common good.

The nature and magnitude of this non-participating group are very poorly documented in most devel-

oping countries. A critical test of economic and social progress in the 1970s will be the rate of job creation, the rate at which workers are absorbed into the productive system and the rate at which unemployment in the market sector is reduced. For this purpose much more information will be required about the unemployed group and the pathology of unemployment in developing countries.

The third area of sectoral imbalance that warrants special surveillance is that involving specific industrial bottlenecks. The measurement of this type of imbalance poses conceptual as well as statistical problems, and it is probable that in most cases a number of indicators will need to be kept under observation: the rate of increase in real output, geographical disparities and differential price movements may all assist in identifying incipient bottle-necks.

Recent experience suggests several candidates that require close scrutiny in the peculiar circumstances that obtain in most developing countries. There are, for example, the power and transport components of social infrastructure. Because these tend to involve large, discrete investments, there is an inherent tendency for them to run ahead or lag behind actual needs. While the over-all scarcity of capital makes it very wasteful for such investments to run too far ahead of demand, yet two features about their role in developing countries indicate that the risk of lag may be appreciably greater.

One is the fact that preparations for such investment take a considerable time especially in the least developed parts of the country where years may be required even to gather the data on which feasibility and cost/benefit studies depend. In this sense, development must be visualized far beyond the period for which actual investment plans are drawn up. A wide and accurate knowledge of the various alternatives is likely to improve the decision-making process.

The second feature about these infrastructural investments is that they are often seminal in their over-all impact. By opening up new territory or providing new energy to supplement the traditional hand labour, they often play a major role in extending the market and increasing productivity—both key elements in the development process. They thus help to mitigate some of the ill-effects of the dualism that characterizes so many developing countries: extension of some of the modernizing influence may serve to lessen the sharp contrast between the disproportionately developed coastal cities (that have more in common with the more advanced economies across the sea than with their own hinterlands) and the rural, traditional subsistence societies that tend to be bypassed by many of the aspects of progress that could ease their transition into the more diversified

economies that their population growth is making increasingly necessary.

Geographical balance is not a mechanical concept which can be applied indiscriminately in any appraisal exercise. Yet it is clearly one of the tests by which progress should be measured, not only in pursuit of a more equitable distribution of income but also as a gauge of the effectiveness of the development process itself.

Another potential industrial bottle-neck that needs to be watched for in developing countries is the complex of activities that go to make up the construction industry. This plays a crucial part in most forms of capital formation, not only in the building of infrastructure and of the premises that contain the machinery and equipment for manufacturing but also of the dwellings and other amenities required for housing the workers and making possible the functioning of larger communities. As a construction industry has no role in a traditional society, it has to be built up as part and parcel of the development process itself. The strain on the industry is inevitably very great: it comes not only from the rapid growth in demand in all its various forms but also from the need to devise ways and means of using materials and construction techniques that are as well adapted as possible to resource endowment, climate and needs of the country or district concerned.

This is a tremendous challenge, and its nature and magnitude suggest that a periodic evaluation of the industry's response would be very desirable. Weaknesses in the construction industry are likely to have repercussions throughout the economy, slowing down and lowering the efficiency of many types of investment.

#### INFLATION AND ITS MEASUREMENT<sup>1</sup>

To monitor the state of balance between the supply of goods and services and the demand for them, it is necessary to review the movement of prices and costs against the background of information relating to production and incomes. Since, in most developing countries, this background information is rather slow in unfolding, current appraisals will generally have to lean heavily on the analysis of price trends. This may be supplemented by a parallel analysis of changes in the supply of money.

The relevance of price data depends on the accuracy with which they reflect the underlying market forces. In general this tends to be lower

<sup>1</sup> In principle, imbalances that are manifested in deflation are no less important than those characterized by inflation. For developing countries, however, where the emphasis is on raising investment ratios, increasing incomes and accelerating the rate of growth in production, the problem is not symmetrical. The constant pressure of demand on resources that tend to be in inelastic supply makes inflation a far greater and more frequent risk than deflation.

in the developing countries than in the more advanced countries: markets are smaller and less competitive, information moves more slowly, as do the buyers and sellers, official controls are more common but less certain in their incidence. In the larger countries price movements may not always be uniform; in the face of poor communication, local shortages and other market differences may give rise to significant regional disparities. Where imports are large in relation to production for domestic use, market prices are strongly influenced from abroad and thus tend to be poorer indicators of internal balance, particularly in the smaller developing countries. Where government revenue is raised largely by indirect taxation, changes in prices may reflect changes in taxes as well as the relative movement of demand or supply.

Methods of gathering price data also add to the uncertainty. Few developing countries can afford an adequate statistical service; hence, the number and type of market tests that are possible tend to be very limited and it is often difficult to ensure that the prices that are collected are really those that are in fact being charged and paid in ordinary transactions. Storage and stock inadequacies tend to give rise to wide seasonal fluctuations, and in some places even the arrival (or tardiness) of a cargo ship from abroad can make a significant difference to local prices.

On the whole, the less developed the economy and the greater the weight of imports among marketed goods the less relevant are local prices as indicators of internal balance. This is particularly true in the case of prices at the wholesale level whose usefulness in the present context depends very largely on the extent of domestic production of the goods concerned. Thus many developing countries have not yet attempted to collect wholesale prices and, among those that do the limited degree of industrialization often results in a price index that is not really representative of the situation among domestic producers.

If all segments of economic activity were adequately priced, the national accounts could be compiled not only in current values but also at the prices of a given base year. Bringing together the constant price series sector by sector would provide a series for total production. A comparison of the latter with the series compiled from the current price data would show the effect of price changes weighted in accordance with the structure of the economy. Such an implicit deflator of the gross domestic product would provide an appropriately weighted indicator of price changes in the economy as a whole and hence of changes in the over-all balance between supply and demand.

While it is important to have an appropriate weighting system for an economy-wide indicator, the

accuracy of the gross domestic product deflator depends on that of the underlying commodity prices going into the calculation of sectoral price changes. There is no escape from the need to gather as much price information as possible and as carefully as possible. However, the very process of bringing together a mass of price data within the national accounts framework is itself time consuming, and the result is likely to be more useful for longer-term analysis than for current diagnosis of the state of balance. For that—a vital requirement for economic management—an on-going, higher frequency indicator is necessary.

Even for the longer run, available evidence suggests that for purposes of detecting changes in the intensity of inflationary pressures, the consumer price index (as presently calculated) is not an unreasonable proxy for the more accurately weighted gross domestic product deflator (as presently calculated). In the fifty-five developing countries for which the two series are available for the 1960s, there is a slight tendency for the deflator to move more slowly than consumer prices, but in almost a third of the countries the former showed a greater change over the period (see table 39). In any case, except in a

Table 39. Selected developing countries:<sup>a</sup> indicators of internal balance, 1960-1968

(Percentage)

Country	Average annual change, 1960-1968 <sup>b</sup>		
	Implicit deflator of gross domestic product	Consumer prices	Wholesale prices
<i>Western hemisphere</i>			
Argentina	22.2	24.2	21.3
Barbados	2.5	3.0	...
Bolivia	4.7	6.2	...
Brazil	47.3	50.6	47.8
British Honduras	...	1.4	...
Chile	28.5	25.3	25.4
Colombia	11.9	11.9	11.3
Costa Rica	1.0	2.1	2.1
Cuba	...	...	...
Dominican Republic	3.4	1.9	2.9
Ecuador	4.0	4.0	2.5
El Salvador	0.3	0.5	0.4
Guatemala	...	0.5	0.7
Guyana	3.2	2.2	...
Haiti	2.4	3.1	...
Honduras	1.2	2.5	...
Jamaica	3.6	3.2	...
Mexico	3.7	2.4	1.9
Netherlands Antilles	0.4	0.8	...
Nicaragua	1.0	2.0	...
Panama	1.4	0.9	...
Paraguay	3.5	3.9	...
Peru	10.0	10.6	...
Surinam	...	3.4	...
Trinidad and Tobago	2.2	3.1	...

Table 39 (continued)

Country	Average annual change, 1960-1968 <sup>b</sup>		
	Implicit deflator of gross domestic product	Consumer prices	Wholesale prices
<i>Western hemisphere (continued)</i>			
Uruguay	51.5	47.4	...
Venezuela	2.5	1.2	2.7
<i>Africa</i>			
Algeria	0.3	2.1	2.5
Botswana	2.6	...	...
Burundi	3.4	3.1	...
Cameroon	4.2	4.1	...
Central African Republic	2.7	...	4.5
Chad	2.2	4.6	...
Congo (Democratic Republic of)	26.9	26.6	...
Dahomey	3.4	...	...
Equatorial Guinea	...	...	...
Ethiopia	3.0	5.1	...
Gabon	3.1	3.5	4.8
Gambia	2.6	...	...
Ghana	8.2	8.3	7.3
Guinea	0.3	...	...
Ivory Coast	3.3	3.1	...
Kenya	1.6	2.1	...
Lesotho	3.4	...	...
Liberia	1.4	3.7	...
Libyan Arab Republic	6.0	5.4	...
Madagascar	2.4	2.3	...
Malawi	3.5	...	...
Mali	4.1	...	...
Mauritania	2.1	4.5	...
Mauritius	0.5	1.8	...
Morocco	2.5	2.3	2.2
Mozambique	3.2	2.7	...
Niger	2.4	3.1	...
Nigeria	2.4	2.7	...
People's Republic of the Congo	2.9	5.1	...
Rwanda	...	...	...
Senegal	1.7	2.4	...
Sierra Leone	2.0	5.3	...
Somalia	2.3	4.6	...
Southern Rhodesia	0.8	2.3	...
Sudan	0.8	2.2	1.5
Swaziland	2.4	...	...
Togo	2.8	...	...
Tunisia	2.8	2.5	4.3
Uganda	2.7	2.8	...
United Arab Republic	4.0	3.6	3.0
United Republic of Tanzania	2.4	2.1	3.8
Upper Volta	1.8	...	...
Zambia	3.7	4.7	...
<i>Asia</i>			
Afghanistan	10.1	...	...
Burma	0.5	...	...
Ceylon	1.3	2.0	...
China (Taiwan)	3.1	3.1	2.2
Fiji	...	2.4	...
Hong Kong	...	2.2	...
India	7.4	7.2	6.4

Table 39 (continued)

Country	Average annual change, 1960-1968 <sup>b</sup>		
	Implicit de- flator of gross domestic product	Consumer prices	Wholesale prices
<i>Asia (continued)</i>			
Indonesia	182.7	185.7	...
Iran	0.6	1.5	1.1
Iraq	-0.6	1.1	2.0
Israel	5.2	4.9	2.6
Jordan	0.3	...	...
Khmer Republic	2.5	2.0	...
Kuwait	—	...	...
Laos	...	26.1	...
Lebanon	3.0	...	...
Malaysia	4.5	1.0	...
Maldives	...	...	...
Nepal	...	5.5	...
Pakistan	2.4	3.4	3.2
People's Democratic Republic of Yemen	...	3.2	...
Philippines	5.8	5.9	4.8
Republic of Korea	15.6	13.7	13.5
Republic of Viet-Nam	16.2	14.7	9.5
Saudi Arabia	...	...	...
Singapore	...	1.4	...
Syria	2.3	2.8	3.5
Thailand	1.7	2.2	2.6
Yemen	...	...	...

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on sources indicated in table A.1 in the statistical annex, and Statistical Office of the United Nations, *Monthly Bulletin of Statistics*.

<sup>a</sup> Countries have been selected on the basis of the availability of at least one of the price indicators.

<sup>b</sup> Compound rate of change between averages for the terminal years 1961-1968 in the case of Cameroon, Ghana, Mauritania and Mozambique; 1964-1968 in the case of Lebanon, Niger, Nepal, Libyan Arab Republic and Madagascar; 1960-1967 in the case of British Honduras, Algeria, Iraq and Netherlands Antilles; 1965-1968 in the case of Burundi and Liberia; 1963-1968 in the case of the Democratic Republic of the Congo, Ethiopia, Israel, Sierra Leone and Syria; 1962-1967 in the case of the People's Democratic Republic of Yemen; 1960-1966 in the case of the Republic of Viet-Nam; 1962-1966 in the case of the Khmer Republic; 1962-1968 in the case of Kuwait.

few countries—most notably India and the Libyan Arab Republic and, to a less extent, Sierra Leone and Somalia—the difference between the two series during the 1960-1968 period was not significant for diagnosing the state of internal balance.

While the consumer price index rose more than twice as fast as the gross domestic product deflator in a number of countries (Algeria, Chad, Costa Rica, Guatemala, Iran, Iraq, Liberia, Mauritania, Mauritius, Nicaragua, Southern Rhodesia and Sudan), they were all cases in which the absolute movement was quite modest—generally less than 3 per cent a year, well below the rate that would indicate a dangerous imbalance between the over-all

demand for goods and services and their supply. In only one case—Venezuela—was the gross domestic product deflator rising at more than twice the rate of the consumer price index. And in the two cases of wide disparity—India and the Libyan Arab Republic—the consumer price index suggested a degree of imbalance much greater than that to be inferred from the gross domestic product deflator.

As sensitivity must be reckoned an advantage in the present context, and timeliness a necessity if the analysis is to be useful in formulating and testing economic policies, the more advanced countries tend to attach special diagnostic importance to the wholesale price index which measures the state of the market for goods (mostly raw materials) before they enter the retail nexus. The lower the degree of industrialization the less helpful is this index likely to be, however, and the number of developing countries that compile such an index (twenty-six) is less than half the number that have a consumer price index. Its movement over the 1960s, moreover, was more or less in line with that at the retail level: indeed, between 1960 and 1968 countries in which wholesale prices rose less than retail outnumbered those in which they rose faster.

Taking these considerations into account it is clear that most developing countries will have to resort to the consumer price index as the initial indicator of the state of internal balance. For social reasons, virtually all countries compile some index of this nature on a fairly up-to-date basis. Without interfering with its use for measuring the impact of price changes on the cost of living and consumer well-being, it should be possible to present it in a form in which it would throw the maximum light on the sectoral distribution of inflationary forces.

The extent to which the existing indices represent the typical basket of consumer purchases differs considerably from country to country. The relative importance of the category "food, drink and tobacco", for example, ranges from less than 40 per cent in the Democratic Republic of the Congo, Dominican Republic, Israel and Lebanon to over 80 per cent in Bolivia, Uganda and United Republic of Tanzania (see table A.15 in the statistical annex). Though, in principle, these weights are determined on the basis of consumer expenditure surveys, in practice the feasibility of gathering the necessary price information tends to be a more powerful consideration. Even where the survey expenditure pattern is priced with some care, it is sometimes so out of date as to be of doubtful relevance. In a number of countries (Dominican Republic, Guatemala, Haiti, Honduras, India, Khmer Republic, Senegal and Venezuela, for example) it goes back to the 1940s, and in a few (Lebanon, Mexico and United Arab Republic) pre-war patterns of expenditure are used for weighting.

Moreover, the proportion of the population directly affected by the prices concerned differs widely. In many developing countries the pricing is done only in the capital city, so that the relevance of the index is severely limited even in respect of its welfare (cost-of-living) implications, quite apart from its possible use as a national indicator of changes in the balance between the demand for goods and services and their supply. Improving the mechanics of price collection and extending the area of coverage are two statistical tasks that need to be tackled urgently in many developing countries.

Apart from the need to establish a weighting pattern relevant to contemporary consumer tastes and habits, and to price at least all the major components as accurately as possible, it would be desirable for the resulting price data to be grouped in categories that would illuminate the state of balance in certain sectors of the economy. Four such categories can be suggested—food-stuffs and beverages, other consumer goods, rent and other consumer services. Considerations affecting rental and the price of services are different from those affecting the prices of physical goods, and among the latter, as implied above, food is in a uniquely important position.<sup>2</sup>

For purposes of progress appraisal, therefore, the movement of a number of price series needs to be taken into account. For an indicator of changes in inflationary pressures, reliance will generally have to be placed on the consumer price index, supplemented by its physical goods component and by the wholesale price index, especially the domestic component. Other forms of imbalance may be monitored by other price series: rent movements, for example, throw light on changes in the housing situation and, where they are available, differences in the various components of the wholesale price index—building materials, farm products, textiles and so on—would provide early indications of sectoral or industrial imbalances.

In using a retail price index as an indicator of the relationship between demand and supply, it is necessary to abstract from it the price effects stemming directly from fiscal or administrative action, such as excise taxes on particular goods, alterations in the import tariffs on consumer items or changes in classification of goods for exchange control purposes, and the imposition or modification of price controls on specific commodities. Increases in prices caused by changes in the tax system (as in Brazil in 1966 and 1967, for example) or by the raising of customs duties (as in Ghana under the 1968 stabilization programme) or by changes in the rate of exchange applicable to specific goods entering the

<sup>2</sup> The significance of the state of balance in the food sector is examined below.

index (as has happened from time to time in several countries operating multiple exchange systems which categorize imports according to a current but variable scale of priorities) or by the decontrol of a particular price in the interest of stimulating investment in the production of the article or service in question, are all likely to have an immediate impact on the retail price level, obscuring its relevance to the state of internal balance. In national appraisals, therefore, every effort should be made to allow for the effect of such influences before the indicator is used for measuring economic stability.

What constitutes an acceptable rate of increase in the general level of prices is a matter for national decision. Three risks merit particularly careful consideration—the degree to which certain groups of people may be penalized because of their inability to take defensive action, the degree to which the competitive status of export industries is damaged, and the degree to which the price increases enter costs and set off a spiralling feed-back effect. These risks differ from case to case depending on the structure of the economy, the way incomes are earned and distributed and the way in which export prices are determined.

Protective action to shield vulnerable groups against the full force of inflation cannot be taken in all countries with equal confidence that the result will not soon be reflected in costs and then in prices again. Nor are export products equally affected by changes in domestic prices. Exporters of primary products tend to face a world market price at which their sales must be effected: if domestic costs have risen to unremunerative levels, producers, if they are to continue in operation, may need to be compensated—by exchange rate or other forms of subvention. Exporters of manufactures face quite different conditions, and the impact of increases in domestic costs depends very largely on what has been happening to the domestic costs of their competitors: for any one country, the most awkward problems tend to come from getting out of step.

For policy formulation, short-term movements in prices tend to be as important as changes in year-to-year averages. Indeed, for current analysis, it is necessary to examine month-to-month changes in order to detect evidence of acceleration or deceleration. As table A.15 shows, the change recorded during a year may differ appreciably from that derived from a comparison of annual averages, and, for evaluating the effectiveness of the policies being pursued, the unfolding index may be more helpful than one that averages out the short-term movement.

Among the more advanced countries, very few experienced a rate of retail price increase of over 5 per cent a year in the period 1960-1967: Japan

was the only industrial country in this category; the rest were on the European periphery—Denmark, Finland and Iceland in the north, Spain, Turkey and Yugoslavia in the south. There were far more among the developing countries: Bolivia and Peru in Latin America, India, Israel, Nepal and the Philippines in Asia, and quite a number in Africa—Central African Republic, Chad, Ethiopia, Ghana, Libyan Arab Republic, Mauritania, Niger and People's Republic of the Congo. And among the developing countries were some with a much more virulent degree of inflation: Argentina, Brazil, Chile, Colombia, Democratic Republic of the Congo, Indonesia, Laos, Republic of Korea, Republic of Viet-Nam and Uruguay.

Given this diversity, the bench-marks against which a particular country will measure its performance will necessarily differ. Those that have been accustomed to relative price stability will be concerned about degrees of acceleration that other countries might be expected to regard as a significant improvement. Thus, against the 1960-1967 background, the 1967-1968 upswing in prices in Barbados, Ceylon, China (Taiwan), Ivory Coast, Jamaica, Khmer Republic, Mauritius, Trinidad and Tobago and Zambia would have been the occasion for a careful diagnosis. World trade prices declined fractionally between 1967 and 1968 (at least in dollar terms, following the devaluation of sterling and related currencies late in 1967). In the case of Barbados, Ceylon, Jamaica, Mauritius and Trinidad and Tobago, which devalued along with sterling, the higher cost of imports from countries that did not devalue played a major role in the rise in local retail prices. But in China (Taiwan), Ivory Coast, Khmer Republic and Zambia, the origins of the price movements lay elsewhere and an appraisal of progress would have to determine where.<sup>3</sup>

Among the developing countries characterized by a moderate degree of inflation during the 1960-1967 period—with price increases of between 5 and 10 per cent a year—a majority experienced some abatement in internal pressures in 1968. Bolivia, Chad, Ethiopia, India, Israel, Mauritania, Nepal, People's Republic of the Congo and the Philippines all registered smaller price increases in 1968 (and 1969) than they had done, on the average, over the earlier years of the decade. In the case of Niger there was also a slackening in pressures in 1968, but it was followed by a renewed upswing in 1969 suggesting some erratic factors affecting the small population group to which the price index applies.

<sup>3</sup> Except in the Khmer Republic, caught in the turmoil of the Indochina peninsula, there was no accentuation of price movements in these countries in 1969, even in the face of a much more inflationary pattern in international trade. In Ivory Coast, however, there was another price upsurge in 1970.

In three other countries—Ghana, Libyan Arab Republic and Peru—there was a deterioration in the local price situation, touched off by a serious drought in Peru, by an earnest effort to correct an external imbalance in Ghana marked by a steady decline in imports from 1965 to 1968, and by other forms of bottle-neck in the Libyan Arab Republic in the face of rapidly rising incomes.

Among the developing countries with high rates of inflation in 1960-1967 there was also some tendency for the pressures to lessen: a majority of the group—including Argentina, Brazil, Colombia, Democratic Republic of the Congo, Indonesia, Laos and Republic of Korea—had less of a price increase in 1968 (and 1969) than they had become accustomed to. This was not the case in Chile, Republic of Viet-Nam and Uruguay, however: in these countries the price indicators suggest a further intensification of inflationary forces.

The improvement in Argentina reflects the execution of a series of disinflationary measures: better tax administration combined with a reduction in outlays (involving the retrenchment of over 6,000 public employees) brought the budget nearer to balance, while a wage freeze held down consumer demand and relaxation of investment control helped to increase production. Supplies were also augmented by a recovery in imports which had been reduced in 1966 and 1967. As 1969 progressed, however, demand pressures began to rise again and the balance came under increasing strain in 1970.

In Brazil, the government deficit was also reduced both in 1967 and, even more, in 1968, and it was financed more than in earlier years by borrowing from the public. That helped to hold down the rise in money supply to a rate well below that of the earlier years of the decade (see table 40). In 1968 there was some compensatory increase in private credit designed to stimulate industrial production; this served to hold back further improvement in the rate of price rise until the gains in output began reaching the market in 1969 and 1970.

In Indonesia, a start was made in bringing under control the hyper-inflation that had developed in the 1960s. Investment was held down to about 5 per cent of gross domestic product and efforts were made to increase agricultural production and improve the transport system bringing supplies into the main urban areas. Imports, which had declined between 1965 and 1967, were increased in 1968 with the help of additional external assistance, and with favourable harvests, the rate of price rise was sharply reduced in 1968 and 1969, reaching the relatively moderate figure of about 7 per cent in 1970.

In the Republic of Korea, some headway was made in 1967 and more in 1968 in reducing the

Table 40. Selected developing countries:<sup>a</sup> indicators of inflation, 1960-1968

Country	Annual change in consumer prices (percentage)			Annual change in money supply <sup>b</sup> (percentage)			Government deficit as percentage of gross domestic product		
	Average, 1960-1967	During		Average, 1960-1967	During		Average, 1960-1967	1967	1968
		1967	1968		1967	1968			
Argentina	26	27.0	9.8	27	39	25	..	1.4	1.7
Brazil	60	25.4	24.9	54	43	44	2.8	2.6	1.6
Chile	27	21.8	27.8	36	25	38	1.9	0.2	-0.4
Colombia	14	6.6	5.6	17	8	14	0.8	0.3	..
Congo (Democratic Republic of)	23	76.5	18.5	26 <sup>c</sup>	51	22	..	..	..
Indonesia	225	112.2	85.1	..	132	121	..	..	1.4
Laos	55	9.0	4.7	..	..	..	..	..	..
Republic of Korea	14	11.5	11.0	26	73	27	3.2	1.9	0.2
Republic of Viet-Nam	18	32.0	24.6	27	30	49	17.5	..	..
Uruguay	42	135.9	65.4	48	126	117	..	6.2	2.2

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Monthly Bulletin of Statistics*; and International Monetary Fund, *International Financial Statistics* (Washington, D.C.).

<sup>a</sup> Countries subject to acute internal imbalance.

<sup>b</sup> Liabilities of the monetary system (in currency and demand deposits) to the domestic private sector.

<sup>c</sup> 1963-1967.

size of the government deficit, but with a booming economy the over-all flow of credit was not reduced. The containing of the inflationary pressures was assisted by a rapid increase in industrial production (a threefold expansion between 1964 and 1969) and in imports (a fourfold expansion between 1965 and 1969), but demand pressures remained powerful and by 1970 earlier rates of price increase were again experienced.

An increase in the supply of goods in 1968 also helped to improve the state of internal balance in Colombia: agricultural production rose by much more than the modest 1960-1967 annual average, and industrial production by slightly more, while imports were just short of the record for the decade. The government deficit was significantly reduced in 1967, and in 1968 total demand was more nearly in balance with supply than in any previous year in the decade.

This was also true in the Democratic Republic of the Congo, where imports were allowed to recover in 1968 after a sharp cutback in 1967 accompanying a devaluation of the currency and a general internal reform of the monetary system. The reform was extended to fiscal administration and, assisted by a settlement with the foreign interests in the country's mining industry and a further rise in the price of copper, there was a substantial increase in tax revenues. Government investment was thus expanded in a non-inflationary manner, and there was some abatement in the rate of price increase in 1968 and virtual stability in 1969 and 1970.

In contrast to these more successful efforts to reduce or at least contain the degree of domestic disequilibrium, there was some deterioration in the

situation in Chile and Uruguay. In Chile, the principal factor was an unprecedented drought which not only reduced agricultural output but, through cutbacks in hydroelectric power, brought the expansion in industrial production to a halt. Coinciding with a sharp rise in mining investment, there was a marked difference between demand and supply movements notwithstanding a notable swing in the government budgetary position. In Uruguay there was also a great improvement in the budgetary position: better tax collection reduced the deficit very sharply between 1967 and 1968. But an attempted wage freeze failed, and private credit continued to expand—less rapidly than in 1967 but more rapidly than the high long-term rate. In both countries external imbalance accentuated the domestic problem: currency depreciation in 1967 and 1968 added substantially to the local cost of imported goods and adversely affected the course of prices. In Uruguay, however, imports were allowed to recover to their 1964 level in 1969 and this brought supply somewhat nearer to total demand in 1970.

The link between external and internal balance is particularly close in developing countries which, as indicated in chapter III above, tend to be highly import-dependent. Not only do the local currency prices of imports get fed directly into the domestic price structure but the volume of imports tends to have a considerable effect on the local supply situation. Imports provide not only finished products for immediate sale to users but also a large variety of intermediate goods that are complementary to local inputs. Such imports are often of strategic significance to the domestic production effort, especially in countries in which the industrial structure is still rather rudimentary. Shortages of such inputs



can prevent the effective utilization of raw materials and intermediate products that are available locally, and hence exert a particularly damaging influence on domestic supply. For this reason stabilization measures can rarely be viewed exclusively in terms of the state of internal imbalance. Just as relief may be obtainable from abroad in the form of additional supplies, so the need to cut back imports because of foreign exchange stringency can frustrate efforts to bring domestic supply and demand into more satisfactory alignment.

#### EXTERNAL IMBALANCE

Though, in principle, a country has to keep a full and accurate account of its transactions with the rest of the world, in practice there are many recording and valuation difficulties to obscure even the historical record and impede the compilation of an up-to-date picture. And the data required to furnish an early warning of impending imbalance are even more elusive.<sup>4</sup>

Since, in the case of developing countries, import capacity is a major determinant of growth, export earnings are relatively volatile and foreign exchange reserves generally small, the need for systematic monitoring of the state of external balance is quite clear. Watch must be kept not only on the magnitude of any imbalance that may have emerged but also on its cause and trend and on the effectiveness of the steps that have been taken to ameliorate it. It is important to determine whether the difficulty has arisen through a reduction in the proceeds of exports of goods or services or through an expansion in the purchases of foreign goods or services, or through changes in one of the other inflows or outflows of resources. Only by identifying the proximate cause of the imbalance can remedial measures be formulated. Such an exercise should be a regular part of the process of foreign exchange budgeting.

Two sets of tests need to be applied to current performance: in an area so subject to sudden changes, a short-term view has first to be taken as a check on recent developments and the effectiveness of on-going policies, but it has to be supplemented by a longer-term view of trends in the principal variables that do most to determine the state of external balance. There are several such variables, but the most critical in the present context are actual and potential foreign exchange earnings and the contractual element in capital and current payments: compared with these, import expenditure and other outlays are much more susceptible to

control. The expansion of foreign exchange earnings depends not only on what is done in the export sector but also on what happens to demand and other sources of supply abroad, features of the market over which any single country has little influence. And contractual payments are the fruit of past agreements: they involve both amortization and interest on past borrowings, to default on which involves the risk of lowering the country's credit standing and damaging the prospects for future accommodation.

The complexity of the situation is illustrated in table A.16 in the statistical annex, which presents the available data on which performance in 1968 would have to be judged. For each country, the state of external balance is measured in the first instance by the size of the current account surplus or deficit in relation to total export earnings; these range from surplus ratios approaching 20 per cent (in the Democratic Republic of the Congo and the Libyan Arab Republic) to deficit ratios of over 70 per cent (in Burma, Jordan, Mali, Republic of Korea and Republic of Viet-Nam). Where balance of payments data are not available, the more limited indicator of the trade balance must be resorted to; by this measure the performance range widened from a surplus ratio of over 40 per cent (in Gabon, Kuwait, Mauritania and Zambia) to a deficit ratio of over 100 per cent (in Afghanistan, Barbados, Dahomey, Laos and Lebanon).

The trade balance and the current account balance are best regarded as separate indicators. The course of merchandise trade and the impact of trade policies need to be closely scrutinized in any performance appraisal. The other items on the current account merit their own assessment: shipping and insurance costs and earnings, the income from tourism and other invisibles, the course of factor payments and receipts are all increasing in importance in most developing countries, and as each raises its own policy questions they require separate examination. Many developing countries have a surplus on merchandise account and a deficit on invisibles large enough to turn the whole current account passive.

The state of balance is also measured by changes in international liquidity. This third test reflects the extent to which the current account surplus or deficit has been offset by the movement of capital or donations. Most countries added to their reserves in 1968, more than doubling them in the case of Colombia, Democratic Republic of the Congo, Niger and People's Republic of the Congo. But there were also some losers: reductions generally amounted to less than 15 per cent of the liquidity with which the country began the year, though a decline of over 40 per cent was registered by Gabon, Senegal and Somalia.

<sup>4</sup> These difficulties are by no means confined to the developing countries, as the large "errors and omissions" entries in the balance of payments statements of many of the more advanced countries testify. The effect of seasonal and other short-term and special variations is always difficult to interpret, and the liquidity of various claims and obligations is not always known or predictable.



The fourth test—the contractual component of outlays, referred to above—mixes current and capital items. The debt service ratio, which measures the proportion of export earnings pre-empted for interest and amortization payments on previously incurred debt, ranged from zero among countries (such as Kuwait and the Libyan Arab Republic) that have

had no occasion to borrow from abroad, to more than 20 per cent among heavy borrowers such as Argentina, Brazil, India, Mexico, Peru and Tunisia.

The distinction between short-term changes and the longer-run trends is emphasized in table 41 in which countries are grouped in accordance with

Table 41. Developing countries: distribution according to change in external balance in 1968  
(Percentage)

Country	Average annual rate of increase, 1960-1967, in		Average ratio of exports to imports, 1960-1967		Ratio of outstanding debt to exports of goods and services, 1968 <sup>b</sup>	Ratio of international liquidity, end-1968, to imports, 1968
	Exports	Debt service payments <sup>a</sup>	Goods and services	Goods only		
<i>Countries in deficit in 1968</i>						
<i>With no favourable indicator</i>						
<i>Out of 4:</i>						
Ceylon	-1	17	91		90	14
Ecuador	6	3	88		121	25
Paraguay	8	8	80		149	16
Philippines	8	33	95		43	13
<i>Out of 3:</i>						
Burma	-8		95			135
<i>Out of 2:</i>						
Burundi	-3			84	42	13
Madagascar	4	(39)	70		99	18
Peoples' Democratic Republic of Yemen	-3			72		30
Rwanda	5			70	17	26
Syria	5			66	89	20
<i>Out of 1:</i>						
Angola	8			105	70	
Barbados	9			56		
Southern Rhodesia	-2	-60		119		
<i>With 1 favourable indicator</i>						
<i>Out of 4:</i>						
Ethiopia	6	29	83		135	38
Guyana	4	8	90		62	21
Jamaica	5	16	89		38	37
Malawi	9	(40)	61		161	32
Mexico	6	12	84		123	34
Morocco	4	37	92		115	15
Nicaragua	14	17	84		11	26
Singapore	1	31	97		5	13
Somalia	3	(7)	94		260	16
Thailand	7	13	92		29	86
United Republic of Tanzania	8	14	100		70	36
<i>Out of 3:</i>						
United Arab Republic	3		77		213	24
<i>Out of 2:</i>						
Afghanistan	3			51	782	28
Central African Republic	14			82	62	14
Chad	7			73	66	3
Hong Kong	14			77	1	12
Mauritius	3		91		37	
Niger	12			75	95	7

Table 41 (continued)

Country	Average annual rate of increase, 1960-1967, in		Average ratio of exports to imports, 1960-1967		Ratio of out-standing debt to exports of goods and ser-vices, 1968 <sup>b</sup>	Ratio of inter-national liqui-dity, end-1968, to imports, 1968
	Exports	Debt service payments <sup>a</sup>	Goods and services	Goods only		
<i>Out of 2: (continued)</i>						
People's Republic of the Congo	12	...		53	73	11
Senegal	3	10		79	54	9
<i>Out of 1:</i>						
Algeria	—			75		71
<i>With 2 favourable indicators</i>						
<i>Out of 4:</i>						
Brazil	5	9	89		207	12
China (Taiwan)	23	22	86		81	42
Colombia	2	3	83		164	27
Dominican Republic	—1	119	85		110	17
Guatemala	11	38	85		60	25
Iran	13	1	94		97	21
Kenya	6	13	96		83	31
Peru	9	9	87		104	18
Tunisia	4	14	64		221	16
Uganda	8	21		165	63	40
Venezuela	2	—5	114		19	58
<i>Out of 3:</i>						
Israel	14	—8	57		158	61
Jordan	15	70	50		144	179
Khmer Republic	4	...	76		...	95
Republic of Viet-Nam	—19	...	49		...	60
Sudan	2	16	82		108	25
<i>Out of 2:</i>						
Cameroon	9	...		98	72	24
Dahomey	—2	...		42	187	23
Laos	25	...		4	...	12
Lebanon	18	...		17	65	67
Surinam	14	...	71		...	34
Togo	13	...		67	96	55
Upper Volta	29	...		32	96	54
<i>With 3 favourable indicators</i>						
<i>Out of 4:</i>						
Argentina	5	6	99		125	65
Costa Rica	9	19	77		78	10
Honduras	14	9	90		57	18
India	3	22	64		360	27
Mali	7	...	37		835	2
Nigeria	6	46	76		89	24
Pakistan	9	24	57		434	25
Panama	18	22	88		34	30
Republic of Korea	41	50	49		182	28
Trinidad and Tobago	5	18	90		19	12
<i>Out of 3:</i>						
Ghana	—1	...	76		177	37
Haiti	—	...	74		...	7
<i>With 4 favourable indicators</i>						
<i>Out of 4:</i>						
Bolivia	17	—9	73		209	26
Chile	10	9	82		179	29
El Salvador	9	10	88		43	29
Indonesia	—2	...	76		303	5
Sierra Leone	2	12	76		56	30

Table 41 (continued)

Country	Average annual rate of increase, 1960-1967, in		Average ratio of exports to imports, 1960-1967		Ratio of out-standing debt to exports of goods and ser-vices, 1968 <sup>b</sup>	Ratio of inter-national liqui-dity, end-1968, to imports, 1968
	Exports	Debt service payments <sup>a</sup>	Goods and services	Goods only		

  

<i>Countries in surplus in 1968</i>						
<i>With no favourable indicator</i>						
Out of 3:						
Saudi Arabia . . . . .	10	—	122		—	122
Out of 2:						
Kuwait . . . . .	4	—		312	—	28
<i>With 1 favourable indicator</i>						
Out of 2:						
Gabon . . . . .	13	8		157	40	9
Mauritania . . . . .	102			139	60	18
Out of 1:						
Liberia . . . . .	14	3		101	109	100
<i>With 3 favourable indicators</i>						
Out of 4:						
Iraq . . . . .	6	28	103		22	112
Malaysia . . . . .	3	21	103		30	44
Uruguay . . . . .	2	20	91		122	118
Zambia . . . . .	13	2	115		35	29
Out of 3:						
Congo (Democratic Republic of) . . . . .	8		99		68	41
Ivory Coast . . . . .	10		99		61	25
<i>With 4 favourable indicators</i>						
Out of 4:						
Libyan Arab Republic . . . . .	69	—	106		—	84
Average, all developing countries . . . . .	6	9	84	95	127	36

Source: See table A.16 in the statistical annex.

<sup>a</sup> 1961-1967 for China (Taiwan); 1962-1967 for Guyana, Israel and Morocco; 1963-1967 for Bolivia, Brazil, Dominican Republic, Iraq, Jamaica, Jordan, Republic of Korea, Singapore, Trinidad and Tobago and Tunisia; 1964-1967 for Argentina, Gabon, Liberia, Malaysia, Sierra Leone, Zambia; 1965-1967 for Senegal, Southern Rhodesia; 1966-1967 for

Madagascar, Malawi and Somalia, where figures are given in parentheses.

<sup>b</sup> Including amounts borrowed but not yet received. Ratio of debt to merchandise exports in the case of Afghanistan, Angola, Cameroon, Central African Republic, Chad, Dahomey, Hong Kong, Lebanon, Liberia, Madagascar, Mauritania, Niger, People's Republic of the Congo, Rwanda, Senegal, Togo and Upper Volta.

the degree of improvement in the external balance in 1968 as measured by the four indicators applied in table A.16. For the great majority of countries this involves ascertaining which indicators point to a reduction in the deficit in the dealings with the rest of the world. But for a handful, chiefly the major mineral and plantation economies, the indicators provide evidence of what has happened to the surplus. In either case, to interpret these short-term changes, it is necessary to look at the longer-term evidence of the state of external balance. Several of the most generally available of these external status dimensions are suggested in table 41:

the average ratio of exports to imports during recent years (1960-1967 in the present context), the average annual rate of increase in export earnings, the ratio of outstanding external debt to one recent year's export receipts, and the average annual rate of increase in debt service payments in recent years, and, finally, the ratio of available international liquidity to one year's import expenditure.

Among the deficit countries the group with the poorest 1968 performance included Burma, Ceylon, Ecuador, Paraguay and the Philippines. Their current account deficits were not unusually large but, except in the case of Burma, their foreign exchange reserves

were all well below the developing country average. The most serious feature in the case of Burma and Ceylon was the poor longer-term export record. Ecuador and Paraguay had relatively high debt ratios. Apart from its low liquidity, the main weakness in the position of the Philippines was the rapid increase in its debt service outlays.

A second group of countries in which all the available indicators of change in external balance were unfavourable in 1968 consisted of Angola, Barbados, Burundi, Madagascar, Rwanda, Southern Rhodesia, People's Democratic Republic of Yemen and Syria. Except for Angola and Southern Rhodesia, these are high-deficit countries in most of which exports finance less than three fourths of imports. Though firm information is lacking in Angola, Barbados and Southern Rhodesia, it is probable that they, like the others, are low-liquidity countries. More serious in the case of Burundi, Southern Rhodesia and the People's Democratic Republic of Yemen and, to a less extent, Madagascar, Rwanda and Syria, was the low rate of growth in export earnings.

A much larger group of deficit countries had only one indicator (out of the possible four) suggesting an improvement in the external balance in 1968. Among these countries, the most marked evidence of disequilibrium characterized Morocco, Senegal and United Arab Republic. In the face of low rates of increase in export earnings, these countries revealed at least two other symptoms of weakness: a high proportion of imports not financed by exports in the case of Senegal and United Arab Republic, a high ratio of external debt to export earnings in the case of the United Arab Republic, a rapid rise in debt service payments in the case of Morocco, and low liquidity ratios in all three countries.

Among the other countries in this group to show several signs of external weakness in 1968 were Ethiopia, Jamaica and Malawi. In all three, exports financed a relatively low proportion of imports, and debt service payments were rising at far above developing country average rates. In Ethiopia and Malawi the ratio of external debt to export earnings was relatively high, and in Jamaica, export earnings were themselves growing at less than the developing country average rate.

Low liquidity ratios—less than 20 per cent of import expenditure, compared with a developing country average of 30 per cent—characterized a number of countries in this group: in the case of Chad, Niger, People's Republic of the Congo, and, to a less extent, Central African Republic, it was combined with abnormally low export/import ratios, making the countries exceptionally dependent on other sources of finance.

Afghanistan and Algeria also had low export/import ratios, combined, in this case, with extremely low rates of growth in export earnings, and in the former with a high debt ratio.<sup>5</sup>

Guyana and Somalia were also in the vulnerable group by virtue of their relatively low export growth rate, plus low liquidity in the case of the former and high debt ratio in the case of the latter. Mauritius was also in this group, with poor prospects for improving its export performance because of its continued high dependence on sugar, itself a vulnerable export commodity.

Hong Kong and Singapore were also in the group with only one favourable change in 1968, the former with a dangerously low liquidity ratio (offset by a high export growth rate and a low debt ratio) and the latter with a poor record of export growth in the 1960s and low liquidity in 1968 (but also a low debt ratio).

And, finally, in this group were some countries in which debt service payments had been rising particularly rapidly—Mexico, Nicaragua, Thailand and United Republic of Tanzania. The vulnerability of the two Latin American countries was increased by the relatively low proportion of their imports paid for out of the proceeds of exports.

The countries in which 1968 brought favourable movements in two (of the possible four) indicators were characterized by generally higher liquidity ratios. But there were a number of exceptions, among which the countries with the most serious signs of external imbalance were Brazil, Dominican Republic, Sudan and Tunisia. Not only did these countries have low external liquidity in 1968 but they were also characterized by relatively poor export performance in the 1960s, less than developing country average export/import ratios (particularly Tunisia), rapidly rising debt service payments (except Brazil), and in the case of Brazil and Tunisia, a high ratio of debt to export earnings.

Other countries with low external liquidity in this group were Dahomey, Laos and Peru, all of which paid for relatively small proportions of their imports from their export earnings. Iran also had an under-average liquidity ratio, but was in a relatively strong position in respect of each of the other four indicators of external equilibrium.

Jordan was also a vulnerable country in this group, with a relatively high debt ratio and rapid increase in service payments, while export earnings covered only half of total import expenditure. Israel, Khmer Republic, Lebanon, Republic of Viet-Nam, Suri-

<sup>5</sup> A relatively rapid increase in trade since 1967 has changed the status of Algeria in respect of both these indicators.

nam, Togo and Upper Volta also depended on sources other than exports to finance a considerable proportion of imports; in the case of Israel this weakness was combined with a relatively high debt ratio, in the case of the Khmer Republic and the Republic of Viet-Nam, with a poor export performance.

Colombia was the only other country in this group with a greatly over-average debt ratio, combined in this case with an under-average ratio of exports to imports and a very low rate of increase in export earnings. Poor export growth was also a weakness in the otherwise (externally) well-balanced economy of Venezuela.

In China (Taiwan), Guatemala, Kenya and Uganda, the most troublesome feature was the rise in debt service payments in the 1960s, though with debt ratios appreciably below the developing country average and export earnings expanding at or above that average, this trend would not necessarily persist into the 1970s.

Among the deficit countries that showed the most notable sign of improvement in external balance in 1968—with three or even all the suggested indicators registering a favourable change—were several which remained extremely vulnerable when judged by the longer-term criteria. Most prominent among these were India and Indonesia, which had low liquidity (particularly in the latter case), low export/import ratios, low export growth, and high debt ratios and debt service increase.

High dependence on sources other than exports to finance import expenditure and a high debt ratio also characterized Bolivia, Chile, Ghana, Mali, Pakistan and Republic of Korea. In most of these countries—except Bolivia and Chile, which had been borrowing for a long time—the 1960s had seen a rapid rise in the cost of servicing the external debt. In the case of Mali, the situation was aggravated by an extremely low liquidity ratio, and in the case of Ghana by a very poor export performance in the 1960-1967 period.<sup>6</sup>

Costa Rica and Haiti also revealed several signs of external weakness, including in particular a low export/import ratio and low liquidity. In Costa Rica there was a rapid rise in debt service outlays in the 1960s, while in Haiti the basic weakness was the stagnation of export earnings. A poor export record was also the main source of weakness in Sierra Leone: over the decade a fourth of its imports had to be financed by other means than export proceeds.

An upsurge in debt service payments was troublesome in Nigeria and Panama. In Nigeria, moreover,

<sup>6</sup> With the rise in the price of cocoa, this improved in 1968 and 1969.

the export/import ratio was well below the developing country average. In Honduras and Trinidad and Tobago, the low level of foreign exchange reserves was the most noticeable weakness, though in the latter it was combined with an unsatisfactory growth in exports.

In contrast to the great majority of developing countries, the small group of countries that were in balance of payments surplus in 1968 had no difficulty in financing imports. This does not mean that they had no problem of external balance, however, particularly where the surplus was generated by foreign-owned enterprise, and the external balance of the rest of the economy, including the bulk of the population in most cases, was subject to the sort of difficulties experienced by many deficit countries. The external debt ratio of Liberia and Uruguay was slightly above the developing country average, for example, and the liquidity ratio of Gabon and Mauritania was extremely low. Iraq, Malaysia and Uruguay all experienced an upsurge in debt service payments in the period just before 1968. And, perhaps most disturbing from a long-run point of view, Kuwait, Malaysia and Uruguay had a relatively poor record of export growth in the 1960s. In the case of Kuwait this reflects the opening up of other sources of petroleum in the period—particularly in Africa—and some readjustment in market shares among the West Asian producers. In the case of Malaysia, the main factor in the slowdown in the growth of export receipts was the halving in the price of natural rubber on the world market between 1960 and 1967.<sup>7</sup> In Uruguay, trade difficulties were linked to the acute state of internal imbalance referred to in the preceding section; this proved highly disruptive of the export industries, accentuating the problems caused by the competition of synthetic fibres and the slow expansion in the demand for coarse wool, the country's major export.

#### STRATEGIC SECTORAL AND FUNCTIONAL BOTTLE-NECKS

In one sense the very process of economic development consists of an unending succession of sectoral and functional imbalances. Through price adjustments on the market or by means of actions implementing explicit policy decisions, such imbalances are continually being corrected. It is only when the economy's response mechanisms fail to operate rapidly enough or smoothly enough that there is a risk of the imbalance becoming a serious bottleneck, throwing other parts of the system out of alignment and ultimately slowing down the rate of growth. In appraising its progress, a country

<sup>7</sup> With rubber prices rising by one third between 1967 and 1969, the export earnings of Malaysia increased by 10 per cent between 1967 and 1968 and by about a fourth between 1968 and 1969.

would need to look specifically for signs of such incipient bottle-necks.

Recent experience suggests that the imbalances that tend to be potentially most disruptive in the developing countries are lags in agricultural production (particularly of food-stuffs for domestic consumption) and lags in job creation (particularly in the modern segment of the economy). Usually less troublesome but cumulatively very costly are the industrial imbalances that arise from the lumpiness of investment, misallocation of resources and shortages of specific complementary inputs that prevent the full utilization of capacity.

#### *Agriculture and food supply*

Many developing countries have experienced difficulty in maintaining the balance between the production of food-stuffs and the demand. There have been problems on both sides of the equation. Demand has expanded at a historically unprecedented pace, reflecting the combined effect of the accelerated growth in population, the rise in *per capita* incomes and the movement of consumers from close to the point of production (sometimes in the subsistence sector) to more distant urban points, where it is expressed in money terms on an often newly emerging national market. While production has in many instances also increased at rates that have no historical parallel, it has often fallen short of requirements: farm structures, methods of cultivation, the availability of complementary inputs, storage, transport, preservation and other distribution facilities have all proved less than adequate in the circumstances.

In appraising progress, both the short-term and the longer-term situation need to be analysed. For

various reasons—climate, cultivation techniques, exposure to pests, poorer forecasting, difficulty in responding quickly to exogenous changes, smaller inventories, less adequate transport facilities for moving seed and other inputs, and so on—the developing countries tend to be more vulnerable to short-term changes in agriculture than do the more advanced countries. By the same token, such changes tend to have a greater impact on the economy than they would if stocks were larger and could be moved around more freely, if agriculture did not account for as high a proportion of total output as it does in most developing countries, and if food did not occupy so important a place in the consumer budget. The short-term response to fluctuation in domestic production is a corresponding change in food imports. As foreign exchange is in very short supply in most developing countries, its diversion to purchase something that could be produced at home (from use for high-priority imports that cannot be so produced) must be regarded as detracting from the development effort.

A short-term assessment of the food balance will thus entail not only a careful examination of agricultural performance but also the scrutiny of the response of the economy to whatever fluctuations in output may have occurred. Included in this response would be price policies, inventory policies, research and extension activities in the agricultural field, irrigation and water supply policies, and the logistics of the food production and distribution system on a national basis. The need for such an examination is particularly acute in those countries—such as in North Africa and West Asia—in which year-to-year variations in major crops have been exceptionally wide (see table 42).

Table 42. Selected developing countries: year-to-year fluctuations in food production,<sup>a</sup> 1960-1968

Country	Number of occasions <sup>b</sup> on which production declined by			Range of annual percentage change	
	Over 5 per cent	Over 10 per cent	Over 20 per cent	From	To
<i>Western hemisphere</i>					
Argentina .....	2	1	—	-10.3	12.5
Bolivia .....	—	—	—	-2.7	4.8
Brazil .....	—	—	—	-4.0	15.5
Chile .....	—	—	—	-2.7	10.1
Colombia .....	—	—	—	-1.7	8.4
Costa Rica .....	1	—	—	-6.7	13.2
Cuba .....	4	4	1	-21.8	13.9
Dominican Republic ..	1	1	—	-10.4	6.1
Ecuador .....	—	—	—	-3.5	6.3
El Salvador .....	1	—	—	-5.0	13.4
Guatemala .....	—	—	—	-0.9	8.3
Guyana .....	2	—	—	-7.3	10.3
Haiti .....	1	—	—	-9.7	3.3
Honduras .....	—	—	—	-0.8	8.4
Jamaica .....	2	—	—	-6.5	5.3
Mexico .....	—	—	—	2.0	9.7

Table 42 (continued)

Country	Number of occasions <sup>b</sup> on which production declined by			Range of annual percentage change	
	Over 5 per cent	Over 10 per cent	Over 20 per cent	From	To
<i>Western hemisphere (continued)</i>					
Nicaragua	—	—	—	—0.4	13.1
Panama	—	—	—	—2.2	16.0
Paraguay	1	—	—	—9.4	9.3
Peru	1	—	—	—5.1	6.8
Trinidad and Tobago	1	—	—	—9.6	8.1
Uruguay	2	2	—	—14.0	17.3
Venezuela	1	—	—	—6.7	8.1
<i>Africa</i>					
Algeria	3	3	2	—29.8	29.1
Angola	—	—	—	—1.0	2.8
Burundi	1	1	—	—15.5	10.3
Cameroon	—	—	—	—1.7	6.2
Congo (Democratic Republic of)	1	—	—	—9.9	6.3
Dahomey	1	1	—	—11.2	7.3
Ethiopia	—	—	—	0.9	6.9
Ghana	2	1	—	—12.2	11.5
Guinea	1	1	—	—12.3	14.0
Ivory Coast	3	1	—	—11.4	38.5
Kenya	—	—	—	—1.6	13.2
Liberia	2	—	—	—8.7	14.8
Madagascar	—	—	—	—2.4	6.7
Malawi	2	2	1	—28.9	76.6
Mali	1	—	—	—9.6	7.9
Morocco	2	2	1	—25.7	42.6
Niger	2	1	1	—22.4	20.9
Nigeria	1	—	—	—7.2	6.1
Rwanda	3	1	1	—26.1	30.6
Senegal	2	2	1	—21.2	20.7
Sierra Leone	—	—	—	—1.7	4.3
Southern Rhodesia	2	1	1	—25.5	50.0
Sudan	1	1	—	—14.3	14.8
Togo	1	1	—	—13.4	8.0
Tunisia	3	2	2	—39.3	41.3
Uganda	—	—	—	0.9	4.9
United Arab Republic	—	—	—	—2.5	12.4
United Republic of Tanzania	—	—	—	1.8	7.6
Upper Volta	3	2	—	—12.0	24.2
Zambia	2	2	2	—50.3	87.3
<i>Asia</i>					
Burma	2	—	—	—9.6	12.6
Ceylon	1	1	—	—16.3	18.6
China (Taiwan)	—	—	—	—2.7	11.9
India	1	1	—	—10.0	18.9
Indonesia	1	—	—	—8.9	8.8
Iran	1	—	—	—9.6	10.9
Iraq	—	—	—	—2.8	16.3
Israel	1	—	—	—6.5	16.5
Jordan	4	4	3	—47.5	175.0
Khmer Republic	3	3	1	—24.8	25.5
Lebanon	1	1	—	—14.4	31.2
Malaysia	1	—	—	—5.0	14.3
Pakistan	—	—	—	—4.7	12.5
Philippines	—	—	—	—	9.4
Republic of Korea	2	—	—	—6.8	18.1
Republic of Viet-Nam	3	—	—	—9.2	12.3
Syria	4	2	1	—26.2	65.0
Thailand	2	1	—	—13.0	21.2

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on United States Department of Agriculture, *Foreign Agriculture Bulletin* (Washington, D.C.), various issues.

<sup>a</sup> The countries listed are those for which an index of food production is available. For definition of food, see foot-note c to table A.2 in the statistical annex.

<sup>b</sup> Out of eight year-to-year changes.

Much of the information required for a short-term assessment is also needed for the review of longer-term trends. This might start at an aggregative level and then proceed to the most important imbalances among individual food-stuffs.

On the demand side, recent studies of consumer budget practices suggest that on the average among developing countries, about half of any marginal increment in personal income is spent on additional food purchases. The higher the *per capita* income and the better nourished the population the lower is this ratio, and over time as development proceeds and incomes rise, it may be expected to decline. It is estimated at under one sixth for the River Plate

countries and around one third in a number of other higher-income developing countries of the western hemisphere, but two thirds or more in some of the lower-income countries of Africa and Asia.

By combining these estimates of demand elasticity with the data for the growth of population and personal income, it is possible to derive a first approximation of the rate at which the demand for food in general is increasing. When this is compared with the rate of expansion in food production, an indicator is obtained of the longer-term state of balance in the food sector. This has been done for the 1960s in table 43, which suggests that food produc-

Table 43. Selected developing countries:<sup>a</sup> average annual change in food production and demand, 1960-1968

Country	Annual average percent- age rate of increase in		Elasticity of demand for food <sup>b</sup>	Average annual percent- age rate of increase in	
	Population	Per capita income		Estimated de- mand for food <sup>c</sup>	Domestic food production <sup>d</sup>
<i>Western hemisphere</i>					
Argentina	1.6	1.6	0.14	1.8	2.7
Bolivia	2.6	2.7	0.66	4.4	0.8
Brazil	3.0	2.0	0.30	3.6	4.3
Chile	2.5	2.0	0.43	3.4	2.1
Colombia	3.2	1.6	0.42	3.9	3.1
Costa Rica	3.4	3.2	(0.36)	4.6	3.7
Cuba	2.1		0.34		-2.1
Dominican Republic	3.6	-0.7	0.40	3.3	-1.5
Ecuador	3.4	1.0	0.54	3.9	2.4
El Salvador	3.6	2.1	0.40	4.4	3.5
Guatemala	3.1	2.0	0.40	3.9	4.3
Guyana	3.1	-0.6	(0.40)	2.9	0.5
Haiti	2.0	-0.8	0.66	1.5	-2.3
Honduras	3.4	2.1	0.40	4.2	4.5
Jamaica	2.0	3.3	(0.36)	3.2	-0.2
Mexico	3.4	2.9	0.36	4.4	5.0
Nicaragua	3.4	3.8	0.40	4.9	6.9
Panama	3.3	4.5	0.40	5.1	5.9
Paraguay	3.1	1.5	0.35	3.6	0.7
Peru	3.1	2.5	0.48	4.3	0.3
Surinam	3.5	2.7	(0.36)	4.5	
Trinidad and Tobago	2.6	2.4	(0.30)	3.3	-0.1
Uruguay	1.3	-1.1	0.15	1.1	0.7
Venezuela	3.5	1.1	0.40	3.9	5.3
<i>Africa</i>					
Algeria	2.3	-2.8	0.46	1.0	-1.1
Angola	1.3	1.4	0.58	2.1	1.8
Burundi	2.0	0.6	0.58	2.3	2.1
Cameroon	2.1	3.4	0.58	4.1	2.7
Central African Republic	2.4	-0.3	0.58	2.2	
Chad	1.5	0.6	0.58	1.8	
Congo (Democratic Republic of)	2.1	1.0	0.58	2.7	-0.4
Dahomey	2.9	-0.6	0.58	2.6	1.4
Equatorial Guinea	1.8		(0.55)		
Ethiopia	2.0	2.4	0.56	3.3	2.4



Table 43 (continued)

Country	Annual average percent- age rate of increase in		Elasticity of demand for food <sup>b</sup>	Average annual percent- age rate of increase in	
	Population	Per capita income		Estimated de- mand for food <sup>c</sup>	Domestic food production <sup>d</sup>
<i>Africa (continued)</i>					
Gabon	1.9	3.4	0.58	3.9	...
Ghana	2.7	-0.3	0.58	2.5	1.0
Guinea	2.7	2.3	0.55	4.0	1.4
Ivory Coast	3.0	4.4	0.58	5.6	4.2
Kenya	2.9	1.8	0.60	4.0	4.1
Liberia	1.7	3.0	0.55	3.4	0.6
Madagascar	2.4	-0.2	0.57	2.3	1.9
Malawi	2.6	0.2	0.67	2.7	4.7
Mali	2.1	-0.1	0.66	2.0	-0.7
Morocco	2.9	1.2	0.55	3.6	4.6
Mozambique	1.3	4.0	0.46	3.1	...
Niger	3.1	1.9	0.66	4.4	2.3
Nigeria	2.4	-2.1	0.48	1.4	0.7
People's Republic of the Congo	1.5	6.0	0.58	5.0	...
Rwanda	3.1	-0.5	0.58	2.8	2.4
Senegal	2.1	0.6	0.66	2.5	0.9
Sierra Leone	1.3	3.6	0.55	3.3	1.3
Southern Rhodesia	3.2	0.3	0.67	3.4	1.8
Sudan	2.9	1.7	0.52	3.8	1.7
Togo	2.6	4.3	0.58	5.1	1.2
Tunisia	2.3	1.8	0.57	3.3	-1.6
Uganda	2.5	1.6	0.49	3.3	1.6
United Arab Republic	2.5	1.0	0.50	3.0	1.5
United Republic of Tanzania	2.5	0.9	0.61	3.0	2.7
Upper Volta	2.0	0.8	0.66	2.5	0.3
Zambia	3.0	3.7	0.67	5.5	5.4
<i>Asia</i>					
Burma	2.1	1.6	0.48	2.9	1.0
Ceylon	2.4	2.3	0.63	3.8	4.5
China (Taiwan)	3.0	6.5	0.46	6.0	4.6
India	2.5	1.0	0.72	3.2	1.8
Indonesia	2.4	0.2	0.68	2.5	1.7
Iran	2.9	5.1	0.67	6.3	4.9
Iraq	2.8	3.9	0.58	5.1	2.9
Jordan	2.7	5.3	0.47	5.2	5.0
Khmer Republic	2.4	-3.2	(0.50)	0.8	-2.6
Kuwait	8.7	-2.0	(0.35)	8.0	...
Lebanon	2.5	1.1	0.41	3.0	6.4
Malaysia	3.0	2.7	0.50	4.4	5.1
Pakistan	2.1	3.7	0.72	4.8	3.1
Philippines	3.4	0.8	0.61	3.9	3.3
Republic of Korea	2.7	6.1	0.47	5.6	3.7
Republic of Viet-Nam	2.7	-1.1	(0.50)	2.2	-1.0
Singapore	2.5	6.0	0.50	5.5	...
Syria	2.8	4.8	0.49	5.2	4.1
Thailand	3.1	4.8	0.44	5.2	3.7

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Monthly Bulletin of Statistics*; Food and Agriculture Organization of the United Nations, *Agricultural Commodities—Projections for 1975 and 1985*, vol. II (Rome); United States Department of Agriculture, *Foreign Agriculture Bulletin* (Washington, D.C.), various issues.

<sup>a</sup> Countries have been selected on the basis of availability of data.

<sup>b</sup> Based on Food and Agriculture Organization of the United Nations, op. cit., pp. 28-33. Elasticity of demand for food estimated at farm value. Figures in parentheses interpolated.

<sup>c</sup> Based on population growth plus the product of estimated coefficient of demand elasticity and rise in *per capita* income.

<sup>d</sup> For the definition of food and the calculation of the average rate of growth, see table A.2 in the statistical annex.

tion had been keeping up with the increase in local demand in less than one fourth of the developing countries.

The performance was best in the western hemisphere where, despite a generally high rate of increase in the demand for food, a third of the countries raised their domestic output sufficiently fast to accommodate it. Included among them were the major Latin American countries—Argentina, Brazil, Mexico and Venezuela—as well as some in the Caribbean area (Guatemala, Honduras, Nicaragua and Panama). In Africa, only Kenya and Morocco were in this category, along with, less certainly, Malawi and Zambia. In Asia the corresponding group consisted of Ceylon, Lebanon and Malaysia.

To achieve an average rate of expansion in food production in excess of the average rate of increase in demand is not tantamount to achieving any particular nutritional goal. Demand is related to income more than to requirements, and the average figures may conceal wide fluctuations over time and wide disparities in both incomes and food supplies within individual countries. Jordan, Malawi, Morocco and Zambia are among the countries with the widest year-to-year variations in food production, for example, and even a relatively high average rate of increase might not rule out periods of food shortage. Moreover, some of the crops taken into the production calculation are intended partly, or even largely, for export, and there is no assurance that domestic demand will be accorded any priority.<sup>8</sup>

Whatever the caveats that need to be entered in the interpretation of such averaged data, it is clearly preferable, in the circumstances of most developing countries, to have food output rise faster than internal demand than to have it lag. In most cases a food shortage imbalance has more serious and widespread repercussions than a food surplus.

Particularly wide gaps—a difference in growth rates of over 3 per cent—had opened up in Bolivia, Democratic Republic of the Congo, Dominican Republic, Haiti, Jamaica, Khmer Republic, Paraguay, Peru, Republic of Viet-Nam, Togo, Trinidad and Tobago and Tunisia. There were somewhat smaller gaps—between 2 and 3 per cent—in Algeria, Guinea, Guyana, Liberia, Mali, Sierra Leone, Sudan and Upper Volta. In none of these countries had domestic food production kept pace even with the growth of population. Indeed, failure to keep food production in line with population was a feature of

the majority of the developing countries—two thirds of those in the western hemisphere and Africa and over one third of those in Asia.

In almost a fourth of the countries for which appropriate data are available, food production kept up with population but, in the face of incomes that were rising rapidly by historical standards, lagged behind demand. This group included Angola, Burundi, Costa Rica, El Salvador, Ethiopia, Iraq, Ivory Coast, Jordan, Philippines, Syria, Thailand and United Republic of Tanzania. It also included some countries in which the income effect was greater than the growth in population—Cameroon, China (Taiwan), Iran, Pakistan and Republic of Korea.

In one sense the lag in food production was most apparent in Africa where in only one out of every seven countries was the recorded expansion adequate in the light of what was happening to population and incomes. Many of the countries in this region face a major challenge in converting agriculture into a fully productive sector, capable not only of sustaining what was once the subsistence economy but also of supplying food-stuffs to those who have left the land and are now congregating increasingly in the more diversified and industrialized urban areas. At a time when import requirements are burgeoning in the wake of development plans, the need to purchase more food abroad is particularly inopportune. In the North African countries, food-stuffs comprised between a fifth and a fourth of total imports at the beginning of the decade (1960-1962); by 1966-1968 they had receded slightly to about 19 per cent in Tunisia and to about 21 per cent in Algeria, but had increased to over 26 per cent in Morocco and over 29 per cent in the United Arab Republic. In Sudan, food-stuffs accounted for 15 per cent of all imports in 1960-1962 and over 21 per cent in 1966-1968.

Among the developing countries of the western hemisphere and Asia, the proportion in which food production was moving along more or less in line with demand was appreciably higher, but still only one out of three. In many Latin American countries imports of food-stuffs absorb a higher proportion of foreign exchange than would appear to be necessary in the light of the region's natural resources. The proportion declined slightly in Paraguay—from 16 per cent of total imports in 1960-1962 to 14 per cent in 1966-1968—and remained around 5 per cent in Colombia and around 10 per cent in Costa Rica; but it increased in Uruguay (from 6 to 8 per cent), Dominican Republic (8 to 13 per cent), Chile (12 to 14 per cent) and Brazil (14 to 17 per cent). In many cases the institutional barriers to capacity creation and expansion, discussed in the preceding chapter, still stand in the way of a more dynamic food-producing sector.

<sup>8</sup> Though coffee and tea are not included as food crops in this discussion, such important export items as sugar, cocoa, olive and other edible oil crops, wine and citrus, bananas and other fruits are included and, given the data problems that characterize the measurement of agriculture production, it is probable that export crops are generally better documented than are domestically consumed crops in most developing countries.

In Asia, though two out of every three developing countries had to supplement their domestic food production by imports, the course of events in the 1960s was far from uniform. Food purchases by the Republic of Korea were around 11 per cent of all imports and by Pakistan around 14 per cent. The proportion spent on food declined in Thailand (from 8 per cent in 1960-1962 to 5 per cent in 1966-1968), in Iraq (from 15 per cent to 13 per cent) and in Syria (from 23 per cent to 20 per cent). But it increased in Afghanistan (from 11 per cent to 19 per cent) and in the Philippines (from 14 per cent to 15 per cent) and in India (from 16 per cent to 32 per cent). Since 1968, better weather and the spread of new high-yield varieties of rice and wheat have greatly improved the situation, but it is by no means certain that the balance between food production and food demand has been restored. For at issue is not only the trend in calorie supply for human consumption but also the need to upgrade the nutritional quality of the whole food supply as *per capita* incomes rise and the demand for protein sources expands.

Thus the use of these indicators of imbalance is not tantamount to advocating a policy of self-sufficiency in food. Applied at such an aggregative level it is merely an initial test of the state of balance and the way in which it has been changing. Within the food category other tests must also be applied. For, as incomes rise and urbanization proceeds, so the pattern of consumption alters: the demand for higher-quality and prepared food-stuffs increases and the demand for some of the old staples grows more slowly and may even decline. Thus, even though

the food sector as a whole may be in balance—with total output moving in parallel with demand—sub-sectoral imbalances may emerge. One of the most important of these—the relative shortage of protein supplies—was discussed in chapter II above in the light of its welfare connotations. Only in a few countries has this type of imbalance acquired market dimensions: the shortages referred to in chapter II were defined not in terms of actual monetary demand but against a bench-mark of physiological standards. Nevertheless, the market impact of changes in demand from one type of food to another can already be discerned in many developing countries. And because it tends to occur first in the major urban areas, which are often also major ports, it has already begun to spill over into import demand. Regular appraisal of this may help to inform agricultural policy and keep the composition of production in closer alignment with the changing pattern of demand.

Apart from the light thrown on this question by the more detailed changes taking place in the structure of imports, an early warning of impending imbalance may be obtained from price movements: at the national level these can be compiled and grouped in ways calculated to show incipient shortages or surpluses in particular types of foods. While such data are not available at present—even at the national level in most developing countries—the practice of using price movements as an indicator of sectoral imbalances can be instituted first on an aggregative basis.

An analysis of price changes over the period 1960-1968 (see table 44) shows that food prices

Table 44. Developing countries: movements in consumer prices,<sup>a</sup> by component, 1960-1968

Country	Period	Index (initial year = 100) of				
		Consumer prices <sup>b</sup>	Food	Fuel and light <sup>c</sup>	Clothing <sup>d</sup>	Rent <sup>e</sup>
<i>Western hemisphere</i>						
Argentina	1960-1968	560	525	390	582	496
Barbados	1960-1965	109	107	111	104	104
	1966-1968	111	111	...	104	108
Bolivia	1960-1968	161	151	...	148	...
Brazil	1960-1968	2,618	2,300	3,030	2,820	2,800
Chile	1960-1968	612	661	...	567	...
Colombia	1960-1968	246	251	...	232	...
Costa Rica	1960-1968	118	119	110	105	115
Dominican Republic	1960-1968	116	116	138	112	95
Ecuador	1960-1965	118	127	107	117	120
	1965-1968	113	119	...	106	107
El Salvador	1960-1968	104	113	117	89	73
Guatemala	1960-1968	104	104	112	86	...
Guyana	1960-1967	116	117	111	106	102
Haiti	1960-1968	128	130	...	134	118
Honduras	1960-1968	122	122	119	166	110
Jamaica	1960-1967	121	119	116	116	130

Table 44 (continued)

Country	Period	Index (initial year = 100) of				
		Consumer prices <sup>b</sup>	Food	Fuel and light <sup>c</sup>	Clothing <sup>d</sup>	Rent <sup>e</sup>
Western hemisphere (continued)						
Mexico	1960-1968	120	120	121	122	...
Nicaragua	1960-1967	114	122	135	101	101
Panama	1962-1968	107	110	101	104	107
Paraguay	1964-1968	109	106	...	104	106
Peru	1960-1966	171	182	...	177	137
Trinidad and Tobago	1961-1968	126	125	119	109	120
Uruguay	1963-1968	1,649	1,768	...	1,777	783
Venezuela	1962-1968	108	106	93	101	106
Africa						
Algeria	1964-1967	104	100	...	105	102
Burundi	1965-1968	111	111	...	...	...
Cameroon <sup>f</sup>	1961-1968	132	134	...	...	...
Central African Republic	1960-1966	145	153	114	154	...
Central African Republic <sup>g</sup>	1960-1968	158	163	122	195	...
Chad <sup>h</sup>	1960-1968	143	146	101	122	...
Congo (Democratic Republic of)	1963-1968	325	337	...	...	...
Ivory Coast	1960-1968	128	127	118	131	126
Ivory Coast <sup>i</sup>	1960-1968	126	121	96	136	...
Ethiopia	1963-1968	128	132	133	123	...
Gabon	1962-1968	123	119	110	144	...
Gabon <sup>j</sup>	1960-1968	150	147	110	162	...
Ghana	1960-1968	187	191	147	206	112
Kenya	1960-1967	117	119	127	103	...
Kenya <sup>k</sup>	1960-1967	121	124	111	110	...
Liberia	1964-1968	114	107	...	...	...
Libyan Arab Republic	1964-1968	124	129	...	109	129
Madagascar	1964-1968	109	110	105	...	...
Madagascar <sup>l</sup>	1960-1968	124	122	99	128	...
Malawi	1960-1964	110	108	...	104	...
Mauritania <sup>m</sup>	1961-1968	136	132	104	120	...
Mauritius	1962-1968	116	116	...	101	...
Morocco	1960-1968	120	121	...	132	113
Mozambique	1961-1968	120	117	107	119	146
Niger	1963-1968	114	114	...	109	...
Niger <sup>n</sup>	1960-1968	143	143	118	146	...
Nigeria	1960-1968	123	112	124	136	137
People's Republic of the Congo <sup>o</sup>	1960-1967	143	145	126	124	...
Senegal <sup>p</sup>	1960-1968	121	129	113	80	...
Sierra Leone	1961-1968	129	108	123	111	253
Somalia	1960-1966	139	130	91	181	196
Southern Rhodesia	1960-1965	112	111	...	...	...
Sudan	1960-1967	132	146	119	107	116
Tunisia	1962-1968	125	126	112	129	111
Uganda	1960-1968	125	128	...	...	...
Uganda <sup>q</sup>	1960-1968	132	124	...	131	...
United Arab Republic	{ 1967-1968 1960-1967	{ 104 131	{ 100 150	{ ... ...	{ ... ...	{ ... ...
United Republic of Tanzania	1960-1968	118	115	152	137	...
Zambia	1960-1968	144	145	...	...	...
Zambia <sup>r</sup>	1960-1968	137	134	97	129	106
Asia						
Burma	1960-1964	100	101	102	94	99
Ceylon	1960-1968	117	120	101	126	...
China (Taiwan)	1960-1968	128	129	127	103	128
Hong Kong	1964-1968	114	124	101	103	...

Table 44 (continued)

Country	Period	Index (initial year = 100) of				
		Consumer prices <sup>b</sup>	Food	Fuel and light <sup>c</sup>	Clothing <sup>d</sup>	Rent <sup>e</sup>
Asia (continued)						
India	1960-1968	174	181	168	148	128
Indonesia	1960-1968	4,439	5,716	...	1,691	3,521
Iran	1960-1968	113	117	116	107	104
Iraq	{ 1960-1962	102	102	...	97	101
	{ 1963-1968	103	104	103	107	95
Israel	1960-1968	158	145	113	136	229
Khmer Republic	1960-1967	122	110	...	106	...
Laos	1960-1965	652	699	...	680	503
Malaysia (West)	1960-1968	108	109	...	101	105
Nepal	1964-1968	124	128	...	...	...
Pakistan	1960-1968	130	138	...	114	125
People's Democratic Republic of Yemen	1960-1967	118	128	120	95	...
Philippines	{ 1960-1963	115	122	...	108	...
	{ 1964-1968	117	122	105	110	116
Republic of Korea	{ 1960-1965	205	231	176	208	143
	{ 1966-1968	123	119	127	118	141
Republic of Viet-Nam	1960-1968	416	596	...	262	194
Singapore	1960-1968	111	114	110	104	108
Syria	1962-1967	115	122	105	98	...
Thailand	1960-1968	119	131	...	101	124

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on International Labour Organisation, *Yearbook of Labour Statistics, 1969* (Geneva).

<sup>a</sup> Applicable only in many cases to major towns and certain population groups: see table A.15 in the statistical annex.

<sup>b</sup> Excluding rent in Mexico and all African countries except Algeria, Burundi, Democratic Republic of the Congo, Liberia, Libyan Arab Republic, Morocco, Mauritius, Mozambique, Nigeria, Somalia, Sudan, Tunisia and United Arab Republic; excluding "miscellaneous items" in Haiti and Mexico.

<sup>c</sup> Fuel only in El Salvador, Hong Kong,

Jamaica, Uruguay, Venezuela; electricity only in Honduras; including water in Cameroon, Central African Republic, Chad, China (Taiwan), Ivory Coast, Gabon, Mauritania, Mozambique, Niger, People's Democratic Republic of Yemen, Senegal, Sudan and Tunisia.

<sup>d</sup> Including household items in some cases.

<sup>e</sup> Including water and electricity in Dominican Republic, El Salvador, Indonesia, Jamaica and Venezuela; including water, fuel and light and repairs in Paraguay; including fuel and light in Algeria, Laos, Morocco, Peru and Republic of Viet-Nam; including maintenance and repairs in Burma, Malaysia, Nigeria and Thailand; including fuel in Pakistan.

<sup>f</sup> European residents.

rose more rapidly than those of other reported categories of goods and services—fuel and light, clothing and rent—and led the consumer price index upwards in about a third of the developing countries of the western hemisphere (including Chile, Colombia, Costa Rica, Ecuador, Guyana and Peru) where production was lagging behind demand, a similar proportion of those in Africa (including the Democratic Republic of the Congo, Madagascar, Senegal, Sudan, Uganda and United Arab Republic) and about two thirds of those in Asia (including China (Taiwan), India, Indonesia, Iran, Pakistan, Philippines, Republic of Korea, Republic of Viet-Nam and Thailand).

The price indicator is probably more useful for short-term assessments and as an early warning of an emerging imbalance than for longer-term appraisal. Over the longer term, the price movement itself evokes a response: producers and importers are, in effect, being invited to step up the supply and close the opening gap. Alternatively, if the market is not

very efficient or if there are serious technological or administrative impediments to the indicated response, then the Government may itself intervene. In the case of food-stuffs, which, as indicated earlier in this chapter, constitute a major component of household expenditure, there are powerful arguments for official action: rising food prices are dangerous politically because of their immediate impact on urban levels of living, and also economically because of their rapid translation into wage increases, with all that these may connote for the over-all balance of the economy.

#### Unemployment and job creation

One of the most pervasive imbalances in the developing countries is that between the number of job openings and the number of workers entering the labour force. This reflects chiefly the rapid expansion in work seekers—fed by the high rate of natural increase of those already in the exchange economy as well as by an inflow of new workers

from various forms of self-employment in the rural—farm and subsistence—economy. It also reflects the shortage of many of the complementary factors needed for the creation of opportunities for gainful employment.

While it is a matter of common observation that there is a lot of unemployment in most developing countries, precise quantification has remained elusive. Because the phenomenon is important in human, economic and political terms, its measurement must be regarded as a major challenge to the developing countries in the 1970s. The provision of an adequate number of job opportunities will doubtless be one of the principal objectives of many of these countries in their development plans, often outranking in urgency the goal of increasing output. Some means will need to be devised to measure the employment consequences of economic policies just as the output effects are measured. Indeed, it would be desirable not only to create the means of measuring employment *ex post* but also to establish regular machinery to apply an "employment test" to all economic policy and investment decisions *ex ante*.

As no single method of assessing the employment situation is likely to yield unequivocal results, it may be necessary to institute all three of the main means of measurement. The first is to call upon all employers—or all employers with more than a specified (small) number of workers on their payroll—to provide a regular return of the number and characteristics of their working force. This would need to be done in as simple and streamlined a manner as possible in order to avoid any suggestion that the system would add to labour costs or deter an employer from taking on the extra worker.

The other two means of keeping the situation under observation involve the counting of unemployed rather than employed. In principle, this can be done either through some form of registration system or through sample surveys of households in specified areas. In practice, because of the rudimentary nature of the employment service that is to be expected in most developing countries, both types of measure would be desirable.

The efficacy of any count of unemployment through registration depends very largely on the relative magnitude of the problem (that is, in effect, the degree of imbalance) and the dynamism and efficiency of the employment service itself or the department of labour that conducts it. In the long run, the incentive to register depends upon its consequences. If it is linked to a social security system or if it leads more quickly to an acceptable job, it is likely to be generally used and hence give a fairly accurate count of the number of unemployed workers. If it comes to be regarded as a form of bureaucratic

procedure with little tangible result, it will cease to be used and its records will bear scant resemblance to the state of the labour market.

The more seriously employment objectives are taken the more likely a Government is to build up its employment service into an activist operation closely connected with potential employers in both public and private sectors. It will seek to know the qualifications of its applicants, applying aptitude tests whenever these seem likely to be useful and keeping in close touch with the educational system not only to help in the placement of its output but also to advise in shaping its structure and curricula so as to bring them into better conformity with the manpower needs of the economy. If the employment service is effective in mobilizing the labour force, it will, *ipso facto*, furnish a running measure of the state of balance between workers and jobs.

The existing systems of recording unemployment are extremely inadequate. In most of the developing countries, they depend on some form of registration by the unemployed person, either to report the fact of his unemployment or to indicate that he is an applicant for work. In most cases the system is ostensibly country-wide but in practice it operates exclusively, or at least chiefly, in the larger towns. Of the twenty-seven developing countries whose registrations are reported, only six—Chad, Guatemala, Guinea, Kenya, Niger and Upper Volta—are stated explicitly to refer to a particular urban area. In other cases there is no means of determining the size of the population group to which the data refer. In either case it is difficult to estimate how complete the registration is or how "live" the register is kept by the constant addition and removal of names, as workers seek and find employment.

Where the number of unemployed persons is counted by sample survey, the reference population must by definition be known. The difficulty in this case lies partly in the practical problems common to all such surveys—such as consistency in timing,<sup>9</sup> reaching all the sampled households and eliciting accurate responses to the key questions—and partly in the conceptual problem of defining unemployment in a satisfactory and consistent manner. The latter problem is brushed aside in a registration system in which an "unemployed" person is merely one who defines himself as such by the act of registering. A household enquiry brings a lot of other people into the purview of the system—more females, adolescents and aged, the partly employed, the

<sup>9</sup> Though unemployment is basically a structural problem in the developing countries, there is often a superimposed seasonal fluctuation originating in the changing intensity of agricultural activities and the impact of weather and climate on construction, tourism and other such "outdoor" industries.

underemployed and the self-employed and those suffering from some mild disability. Potentially, thus, a survey provides a more complete count, but its use as a measure of changes over time requires a series of decisions about the definition of an unemployed person appropriate to the circumstances of the country concerned.

While a common definition would facilitate international comparisons, the wide differences that now exist among developing countries in respect of economic structure, division of labour and industrialization make it unrealistic to seek early conformity. Even between broad regions, the labour participation rate—a rough measure of the ratio of “producers” to consumers or “workers” to total population—ranges from about a third in Latin America to almost half in East Asia.<sup>10</sup> And among countries, there are even wider differences, reflecting such factors as age composition, the relative size of the subsistence and exchange sectors, the growth of enterprises based on wage labour, the length and intensity of formal education, and laws and customs relating to the occupations of women and the employment of juveniles.

For these reasons the relative incidence of unemployment cannot be inferred with any degree of assurance from the presently available data brought together in table 45, even in the case of countries that base their assessment on sample surveys. Among the latter, the 1967 rate of unemployment was reported as averaging about 2 per cent of the labour force in China (Taiwan), 3 per cent in the United Arab Republic, 5 per cent in Syria, 6 per cent in Argentina, Chile, Panama and Republic of Korea, 8 per cent in the Philippines, and 15 per cent in Trinidad and Tobago.<sup>11</sup>

<sup>10</sup> See International Labour Organisation, *The World Employment Programme* (Geneva, 1969), p. 19.

<sup>11</sup> Other sample surveys carried out on an *ad hoc* basis at different times of the year have yielded higher estimates of the incidence of unemployment. Among the male population of fifteen years and over, for example, the proportion without work was estimated at 13 per cent in the urban areas of Ceylon in January 1968, at 10 per cent in Bogota (Colombia) in March 1968, at 18 per cent in the urban areas of Guyana in 1965, at 3.4 per cent in the urban areas of India in 1961-1962, at 4.6 per cent in Teheran (Iran) at the time of the 1966 census, at 7.4 per cent in the larger towns of Malaysia in 1965, at 9 per cent in non-farm households in the Republic of Korea in 1968, at 3.2 per cent in the Bangkok-Thonburi area of Thailand in the second half of 1966, and at 14 per cent in Trinidad and Tobago in the first half of 1968. Among women the rates were generally higher—double in the case of Ceylon and Malaysia and over 50 per cent greater in Colombia and Guyana. In Singapore, where no distinction was made, an over-all unemployment rate of 9 per cent of the adult (fifteen years and over) population was estimated in 1966. The corresponding rate in the urban areas of Uruguay in 1963 was 12 per cent, and in the urban areas of Venezuela in March 1969 was 8 per cent. All these surveys revealed a much higher rate of unemployment among young people: in the 15-24 age group, for example, rates commonly ran double those for the whole adult population.

In several countries these surveys suggest a declining trend in unemployment over the preceding three to five years—by about 4 per cent a year in the Republic of Korea, 6 per cent a year in Syria and as much as 17 per cent a year in China (Taiwan). This continued into 1968, reducing the unemployment rate from over 5 per cent of the labour force in 1963 to under 2 per cent in 1968 in China (Taiwan), and from 8 per cent to 5 per cent in the Republic of Korea, reflecting a vigorous growth in employment outside of agriculture: by between 8 and 9 per cent a year between 1960 and 1968. In China (Taiwan), employment in manufacturing rose at almost 6 per cent a year in the 1960s, absorbing on the average almost a third of the increment in population. With the growth of more technologically complex industries, shortages of various skills began to emerge; vocational education was extended and towards the end of the decade the demand for employment was reduced by the extension of the duration of public schooling from six to nine years. In the Republic of Korea, with a smaller industrial base,<sup>12</sup> manufacturing employment rose at about 13 per cent a year—an intake of about 9 per cent of the increase in population. In Syria, on the other hand, the reduction in unemployment came from a more rapid growth in the agricultural labour force—by almost 9 per cent a year in the 1960s, as against a growth of not much more than 3 per cent a year in manufacturing.

Among the other countries measuring their unemployment by sample survey, the imbalance appears to have been accentuated in the course of the decade: the number of unemployed rose by an average of 2 per cent a year in Chile, 5 per cent in Panama, the Philippines and Trinidad and Tobago, 6 per cent in Argentina and almost 20 per cent in the United Arab Republic. Thus, between 1963 and 1968 the unemployment rate rose from 5 per cent to 6 per cent of the labour force in Chile<sup>13</sup> (where manufacturing employment increased at less than half the population growth rate). It rose from 6 per cent of the labour force to 8 per cent in the Philippines, where manufacturing employment kept pace with population growth in the first half of the decade but tailed off sharply thereafter, so that a smaller proportion of the labour force was engaged in industry in 1967 (11 per cent) than in 1960 (12 per cent). In Argentina, the unemployment rate was highest when disinflationary policies were being pursued most vigorously: it declined

<sup>12</sup> In 1963 manufacturing accounted for 8 per cent of total employment in the Republic of Korea, as against almost 16 per cent in China (Taiwan).

<sup>13</sup> At the time of the sample survey of Greater Santiago in December 1966, when 5.4 per cent of the working population was classified as “unemployed”, it is reported that 19 per cent of the “inactive” adult population expressed a desire to work.

Table 45. Selected developing countries:<sup>a</sup> recorded volume of unemployment in the 1960s

Region and country	System of measurement <sup>b</sup>	Reference area population, 1967 <sup>c</sup>		Registered unemployment, around 1967			Average annual rate of increase in registered unemployment	
		Number (thousands)	Percentage of total population	Number (thousands)	Percentage of		Number of years	Percentage
					Reference population	Labour force		
<i>Western hemisphere</i>								
Argentina	SS	7,700	33	198.7	2.6	6.4	3	6.0
Barbados	Ra	249	100	1.4	0.6	1.5	7	-15.8
Chile	SS	2,370	26	55.6	2.3	6.1	6	2.2
Guadeloupe	Ra	320	100	2.0	0.6	1.3	6	-7.1
Guatemala	Ru	630	13	0.3	0.1	—	7	6.0
Panama	SS	1,329	100	25.0	1.9	6.2	4	4.5
Surinam	Ru	363	100	2.5	0.7	2.5	7	-6.7
Trinidad and Tobago	SS	1,010	100	53.7	5.3	15.0	3	5.3
<i>Africa</i>								
Chad	Ra	104	3	0.1	0.1	0.3	7	6.5
Ghana	Ru	8,139	100	16.7	0.2	0.5	7	5.7
Guinea	Ra	197	5	0.2	0.1	0.3	6	-3.9
Kenya	Ra	4,914	50	8.1	0.2	0.4	7	-0.6
Madagascar	Ru	6,330	100	0.9	—	0.3	7	1.7
Malawi	Ra	4,146	100	1.8	—	0.1	4	6.2
Morocco	Ra	14,140	100	23.7	0.2	0.6	7	1.3
Mauritius	Ru	774	100	14.2	1.8	6.7	4	37.0
Mozambique	Ru	7,187	100	1.9	—	0.1	6	5.1
Niger	Ra	60	2	0.1	0.2	0.6	7	-4.0
Nigeria	Ru	61,450	100	20.1	—	0.1	7	16.5
Sierra Leone	Ra	2,439	100	13.7	0.6	1.3	7	8.2
United Arab Republic	SS	31,693	100	268.0	0.8	3.2	4	19.6
Upper Volta	Ra	155	3	0.4	0.3	0.4	7	12.9
Zambia	Ru	3,945	100	12.3	0.3	0.7	4	11.8
<i>Asia</i>								
Ceylon	Ra	11,703	100	249.5	2.1	6.5	7	9.0
China (Taiwan)	SS	13,145	100	94.0	0.7	2.3	3	-17.1
India	Ra	511,125	100	2,706.3	0.5	1.2	7	8.8
Indonesia	Ra	107,431	100	71.8	0.1	0.2	6	-3.5
Iraq	Ra	8,725	100	2.7	—	0.2	7	11.1
Israel	Ru	2,629	100	7.9	0.3	0.9	6	4.6
Malaysia	Ra	8,540	100	117.0	1.4	4.1	7	24.5
Pakistan	Ra	120,160	100	184.1	0.2	0.4	7	1.3
People's Democratic Republic of Yemen	Ru	1,170	100	3.7	0.3	0.8	7	-5.2
Philippines	SS	34,656	100	999.0	2.9	8.0	6	4.9
Republic of Korea	SS	29,784	100	590.0	2.0	6.2	5	-3.8
Singapore	Ra	1,956	100	77.0	3.9	11.9	7	5.1
Syria	SS	5,540	100	88.2	1.6	5.3	3	-5.6

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Demographic Yearbook, 1968* (United Nations publication, Sales No.: E/F.69.XIII.1) and Statistical Office of the United Nations, *Monthly Bulletin of Statistics*; International Labour Organisation, *Yearbook of Labour Statistics, 1969* (Geneva, 1970).

<sup>a</sup> Countries are those actually reporting on unemployment.

<sup>b</sup> SS—based on labour force sample surveys; Ra—based on employment office statistics on registered applicants for work; Ru—based on employment office statistics on registered unemployed.

<sup>c</sup> 1966 in the case of Indonesia and Israel; 1968 for United Arab Republic. For some countries the reference area comprises the capital city or a small number of major towns, or both; for Argentina, metropolitan Buenos Aires; for Chad, Fort Lamy; for Chile, metropolitan Santiago; for Guatemala, Guatemala City; for Guinea, Conakry region; for Niger, Niamey; for Upper Volta, Ouagadougou and Bobo-Dioulasso. Elsewhere, the reference area is ostensibly country-wide but the accessibility of the point of registration to the work-seeker probably differs greatly from place to place. For Kenya, males only.

from about 9 per cent in the early years of the decade to about 5 per cent in 1966, rising again to 7 per cent in 1967. In Trinidad and Tobago, employment in agriculture barely increased in the

1960s while employment outside agriculture increased at not much more than half the population growth rate. In the United Arab Republic, employment in industry expanded at about twice the rate



of population, but by 1966 it accounted for only 11 per cent of the labour force compared with 10 per cent at the beginning of the decade. In Panama there was a rather sharper upswing in manufacturing employment, raising its share of the total from 8 per cent in 1963 to just over 12 per cent in 1968.

Among the countries in which unemployment is measured by registration, the published figures are extremely difficult to interpret. This is particularly so in the countries in which the data point to a decline. In the case of Guinea and Niger the reference population was a very small fraction of the total so that the reduction in the implicit unemployment rate to less than 1 per cent of the labour force—even if it were an accurate reflection of conditions in the reference area—can hardly be accepted as indicative of the state of balance of the country as a whole. Similarly, low inferred rates reported by Indonesia and the People's Democratic Republic of Yemen suggest that registration was limited to the major urban centres there too. Even that may be too generous an assumption: the number of registrations reported in Indonesia is equivalent to only 2 per cent of urban households. A negligible rate also emerges from the data reported from Kenya where registration is nominally open to about half the population: expressed as a proportion of urban households, the number of registered unemployed would reach about 5 per cent. And, assuming that all unemployed persons actually registered, declines in registration in Barbados, Guadeloupe and Surinam would yield a computed unemployment rate of around 2 per cent of the labour force by 1967.

In most of the other countries with such data, registrations increased quite rapidly in the 1960s. This accords with informed as well as casual observation of the actual numbers without regular jobs in the countries in question. But the precise relationship between the number on the register and the number actually seeking jobs is again ambiguous: when the former is expressed as a proportion of the labour force it yields a very low unemployment rate: only in Ceylon, Malaysia, Mauritius and Singapore did it exceed 1 per cent in 1967. In view of the uncertainty of the size of the "labour force" that should properly be regarded as the denominator in such a calculation, most of these countries will find it difficult to use a registration-based unemployment rate as an indicator of imbalance between worker availability and job openings.

In Ceylon the high rate of unemployment—an estimated 9 per cent of the urban working force in 1968 and still rising—was a special disappointment since employment targets had been a central feature of the ten-year plan (1959-1968), and a serious effort had been made to improve educational standards and increase opportunities for training. In-

dustrial production expanded at about 6 per cent a year but factory employment rose less. The failure of the economy to generate sufficient jobs resulted in a rapid rise in the unemployment rate in the educated group.

In the six major urban areas of West Malaysia unemployment is estimated to have exceeded 11 per cent in 1968. The highest ratios were recorded among the new entrants into the labour force: 26 per cent in the 15-19 year old group and 14 per cent in the 20-24 year old group. Employment in manufacturing increased at about 5 per cent a year during the decade, but in absolute numbers the absorption was relatively small. Efforts to transfer labour from West Malaysia to eastern Malaysia (where there was a shortage) met with little success.

How far changes in the absolute total of workers on the registers can be relied on as a measure of the movement of unemployment is something that has to be decided in each country in the light of the considerations referred to above, particularly the completeness of registration in the reference area and the care taken to keep the register live. The data now available show that the relationship between the register and the situation in the field differs greatly from country to country. The wide spread in the average rate of increase in the number registered in the 1960s suggests that in some cases the registers seriously understate the rate of growth in actual joblessness, while in others they imply an unrealistically high expansion: the range was from a mere 1 per cent a year in Morocco and Pakistan, 2 per cent in Madagascar, 5 per cent in Chad (in the main urban area), Israel, Mozambique and Singapore, 6 per cent in Ghana, Guatemala (main urban area) and Malawi, 8 per cent in Sierra Leone, 9 per cent in Ceylon and India, 11 per cent in Iraq, 12 per cent in Zambia, and 13 per cent in the capital city of Upper Volta, to a high 17 per cent in Nigeria and 37 per cent in Mauritius.

In general, the smaller the relative coverage of the registration system the less accurately are changes in the number registered likely to represent changes in the number of actual job seekers. In Pakistan, for example, the number of registered unemployed (applicants for jobs) remained virtually static between 1964 and 1968 at less than 0.5 per cent of the labour force which was increasing at about 3 per cent a year.<sup>14</sup> At the time of the census at the beginning of the decade, 1 per cent of the labour force (which constituted a third of the total population, half of the population over ten years of age) was recorded as "not working but looking

<sup>14</sup> About 3.5 million, or 12 per cent, during the first half of the decade (the span of the second five-year plan) and about 5 million, or 15 per cent, during the second half of the decade (the third plan period).

for work", when sample surveys showed the unemployment rate to average between 3 and 4 per cent of the labour force in rural areas, 8 per cent in the larger towns of the West and 11 per cent in the larger towns of the East where, in addition, underemployment, urban and rural, was equivalent to an unemployment rate of over 20 per cent.

In Morocco a similar gap must have been widening between the registration ratio and the unemployment ratio. The fact that the number on the register fluctuated around 20,000 during the 1960s while the labour force was expanding more rapidly than gainful employment, may be ascribed in part to the requirement that the job applicant re-register every thirty days (every ninety days since 1967). Removal from the register was thus not necessarily related to the obtaining of a job.

At the other end of the spectrum, the high rates of increase between 1960 and 1967 in the number of registered unemployed in Mauritius and Nigeria also owe a good deal to the quirks of the system. In both cases there was a sharp reduction—of well over one third—in 1968, with no corresponding change in either the labour force or the number in gainful employment.

Though there is no registration system in Thailand, the available evidence suggests that there has been no great increase in unemployment in the 1960s. Sample surveys in municipal areas indicate a generally modest rate of 3-6 per cent. The contrast with many other developing countries lies in the more vigorous development of agriculture from which output rose at very nearly 6 per cent a year during the decade. On the average, agriculture managed to absorb almost 70 per cent of the annual increment in the working-age population. Manufacturing accounted for only 10 per cent.

These figures are symptomatic of one of the basic difficulties facing many developing countries: the industrial sector is neither large enough nor sufficiently labour-intensive to absorb the share of the increment in the working-age population made necessary by the slow growth of agriculture. In Latin America, for example, the labour force expanded by 2.8 per cent a year in the 1960s; agriculture, accounting for 45 per cent of the economically active population in the mid-decade, increased its employment by only 1.5 per cent a year, and manufacturing, accounting for 14 per cent of the economically active population, increased its employment by 2.3 per cent a year. Services, already accounting for about a third of the working force, increased their employment by 4.6 per cent a year. Nevertheless, this left a large fringe group of unspecified activities (accounting, even in 1965, for a greater proportion of the economically active population than industry) to absorb workers at the fastest

rate: this category, which includes the urban underemployed, increased its numbers by over 8 per cent a year.<sup>15</sup>

The problem is dramatized in table 46 which shows the order of magnitude of the investment that would have been required to provide employment in the "modern" market sector to all those entering the labour force in 1960, on the assumption that each new worker involved a complementary input of capital equivalent on the average to four times the actual average *per capita* level of annual net domestic capital formation in the developing countries of Africa and Asia and five times that level in Latin America.<sup>16</sup>

The table illustrates some of the salient quantitative aspects of the problem. The relatively low participation rates in the developing countries mean that only a small fraction—around a third in most cases but as low as a fourth in places where the population is young and lacks a tradition of female employment—of the increment in population actually enters the ranks of productive workers. And of this fraction, a much smaller ratio—less than a tenth in some African and Asian countries—finds employment in industry. One of the reasons for this is the high capital intensity of industry: among the countries making such measurements the net investment per additional worker at the beginning of the 1960s ranged from around \$2,000 in Bolivia, China (Taiwan), Ethiopia and Kenya to \$5,000-6,000 in Chile, Mauritius and Zambia. Only one country (Republic of Korea) invested less than \$1,000 per new job, whereas several—Israel, Jamaica and Venezuela, for example—spent over \$10,000 to absorb the additional industrial worker. These are annual net capital formation figures, exclusive of any investment required to replace plant and equipment worn out in the course of the year's operation. And they refer to industry only, with no allowance for the infrastructural investment—in transport and utilities and workers' housing, for example—that would generally be required to bring the new industrial capacity into production.

In order to absorb the whole of the increment in the labour force into the modern sector in these circumstances would require a net investment two to three times as great as that necessary to provide the rest of the increase in population with an expansion in capital facilities at the current average national rate. The countries in which the difficulties

<sup>15</sup> See *Economic Survey of Latin America, 1968* (United Nations publication, Sales No.: 70.II.G.1), part I.

<sup>16</sup> These multiples reflect the actual ratios between average *per capita* net domestic capital formation and the average annual investment in industry divided by the average annual increase in employment in industry at the beginning of the 1960s in the eighteen developing countries for which the necessary data are available (identified in table 46).

of accommodating the increase in the labour force in the modern exchange sector are likely to be most intractable are those in which the current level of fixed capital formation is relatively low and those in which the expansion in the labour force is relatively large. On the average, in the 1960s the annual volume of investment amounted to about \$140 per working-age person in Latin America, \$40 in Africa and nearer \$30 in Asia. The burden of absorbing new workers into occupations calling for a complementary capital input of up to a hundred times these figures is manifestly too great to permit any rapid easing of this form of imbalance. Two conclusions follow: first, the bulk of the annual increment in the labour force will need to be accommodated in employment with a low capital intensity and, secondly, every effort will need to be made to improve the utilization of capital and maximize its labour employment potential.

Industrial employment has been rising at somewhat less than 5 per cent a year in the developing countries on the average during the 1960s. Against this modest rate of expansion, the number of males of working age has been increasing each year by the equivalent of a fifth of the actual working force in industry in Latin America, a fourth in the developing countries of Asia, and over 80 per cent in those of Africa.

#### *Industrial leads and lags*

Economic development is in some ways a leapfrogging process in which each sector is alternately underequipped and overequipped in relation to the market. Because capital is so scarce a factor in most developing countries, one objective of both development policy and economic management is to minimize the degree of overequipment, that is, to maximize the output per unit of capital in operation. At the same time, however, the investment process is the spearhead of development: it opens up new resources, it creates new demand and expands the market for capacity already in place, and in the end it raises productivity both in the sector concerned and for the economy as a whole. Hence, one of the most intricate arts in the field of economic development is the maintenance of an appropriate balance in each of a series of key relationships—between installed capacity and the demand for the product, between the capital and labour input in any given project, and between operating capacities in interconnected industries.

Appraisal of progress in improving the balance in each of these areas requires a good deal of the sort of information that is normally derived from an industrial census. In countries that are actively industrializing, indeed, there is a strong argument for the frequent—annual or biennial—collection and

analysis of certain data appertaining to these questions of balance. It would be particularly desirable to have a continuing measure of capacity, output and employment not only per firm but also for technologically identifiable components of individual plants.

In the case of the textile industry, for example, it should be possible to keep track of the productivity of machines used in spinning, weaving and knitting. To judge by the data presented in table 47, this may differ markedly from one country to another and also over time. The amount of textile fibre spun by a single spindle in 1967 was over five times more in the Republic of Viet-Nam than in Algeria. And over the three years 1965-1967 there were considerable fluctuations in the average intensity of use: while in some countries—especially the more industrialized—the highest productivity differed from the lowest by less than 10 per cent, in a number of cases (Algeria, Burma, Sudan and Thailand, for example) the range was over 50 per cent. These were random fluctuations, not systematic increases in throughput per spindle, and they suggest that there were years in which capacity utilization was relatively low.

When plants are laid down in the first instance, more weight is sometimes attached to current designs and practices in the more advanced countries (about which the equipment salesmen are usually well informed) than to the market size, availability of skills and other economic and technical characteristics of the developing country in which they are to be installed. The intensity of capital utilization may thus turn out not only to be low for the plant as a whole but also to differ from one part to another. Among the seventeen integrated steel plants that operate in Latin America, for example, the mills shaping the initial blooms from the original metal tend to have a disproportionately large capacity—estimated to average 25 per cent above that of the hot rolling mills to which the steel subsequently passes. In 1966 not much more than half the blooming mill capacity was in use; less than a fourth of the plants used more than 80 per cent of their blooming capacity.<sup>17</sup>

Underutilization of capacity is also characteristic of the electricity generating industry. In the more advanced countries annual output of electricity is around half of the theoretical maximum that could be obtained by operating all the installed generating equipment continuously. Of the ninety-four developing countries for which 1967-1968 data are available, only six—Brazil, Cameroon, China (Taiwan), Israel, Republic of Korea and Trinidad and Tobago

<sup>17</sup> See "United Nations Second Development Decade: industrial development in Latin America" (E/CN.12/830), pp. 30-31.

Table 46. Selected developing countries: growth in population, labour force, employment and investment, around 1960

Country	Annual increment (thousands) in			Annual net domestic capital formation		Hypothetical capital required				
	Population	Labour force	Employment in industry <sup>a</sup>	Total (millions of dollars)	Per unit increase in population (dollars)	To provide for the increment in the non-participating population (millions of dollars)				
						To employ increment of labour force in industry	Per worker (dollars)	Amount (millions of dollars)		
Western hemisphere										
Argentina .....	353	114	82	1,638	4,640	23,201	2,645	1,109	3,754	
Bolivia .....	99	27	10	25	253	1,670 <sup>e</sup>	45	18	63	
Brazil .....	2,080	624	185	2,737	1,316	6,580	4,106	1,916	6,022	
Chile .....	192	40	12 <sup>b</sup>	198	1,031	5,157 <sup>e</sup>	206	157	363	
Colombia .....	492	115	22	370	752	3,760	432	284	716	
Costa Rica .....	43	8	4	62	1,442	7,210	58	50	108	
Dominican Republic .....	110	22	3	30	273	1,364	30	24	54	
Ecuador .....	148	33	7 <sup>b</sup>	77	520	2,602	86	60	146	
El Salvador .....	88	16	6 <sup>b</sup>	42	477	2,387	38	34	72	
Guatemala .....	118	28	8	55	466	2,875 <sup>e</sup>	108	42	150	
Guyana .....	18	3	1	32	1,829	9,143	27	27	54	
Haiti .....	80	40	5	10	125	625	25	5	30	
Honduras .....	63	15	3 <sup>b</sup>	28	444	2,222	33	21	54	
Jamaica .....	33	2	1	81	2,455	14,750 <sup>e</sup>	30	76	106	
Mexico .....	1,222	299	116	1,121	917	4,587	1,371	847	2,218	
Nicaragua .....	48	11	3	38	792	3,959	44	29	73	
Panama .....	35	9	2	38	1,086	5,429	49	26	75	
Paraguay .....	54	12	4	28	519	2,593	31	22	53	
Peru .....	311	66	26	303	974	4,872	322	239	561	
Trinidad and Tobago ..	22	6	5	94	4,273	21,364	128	106	234	
Uruguay .....	33	10	5	152	4,606	8,540 <sup>e</sup>	85	106	191	
Venezuela .....	257	82	18	561	2,183	11,778 <sup>e</sup>	966	382	1,348	
Africa										
Algeria .....	248	12	2	537	2,165	8,661	104	511	615	
Angola .....	63	25	6	54	857	3,428	86	33	119	
Cameroon .....	100	34	3 <sup>b</sup>	44	440	1,760	60	29	89	
Central African Republic ..	29	10	—	18	621	2,483	25	12	37	
Chad .....	45	19	1	16	356	1,422	27	9	36	
Congo (Democratic Republic of) ..	297	98	17	89	300	1,200	118	60	178	
Ethiopia .....	414	128	11	91	220	1,455 <sup>e</sup>	186	63	247	
Gabon .....	8	2	—	46	5,750	23,000	46	34	80	
Ghana .....	183	51	25 <sup>b</sup>	207	1,131	4,524	231	149	380	
Ivory Coast .....	97	24	1	61	660	2,660	266	100	366	

Kenya	237	90	9	91	1,620	2,000	180	29	65
Liberia	17	4	1	38	2,235	8,941	36	29	190
Libyan Arab Republic	50	9	3	123	2,460	9,840	89	101	91
Madagascar	129	53	4 <sup>b</sup>	41	1,271	1,271	67	24	37
Mauritius	17	2	1	27	1,588	6,353 <sup>c</sup>	13	24	176
Morocco	338	67	18	118	349	1,396	94	82	238
Mozambique	86	23	2	132	1,544	6,176	142	96	503
Nigeria	1,248	254	130 <sup>b</sup>	312	250	1,000	254	249	76
People's Republic of the Congo	11	2	1	49	4,455	17,818	36	40	59
Sierra Leone	29	13	9 <sup>b</sup>	24	828	3,310	43	16	298
Southern Rhodesia	123	45	2	142	1,155	4,618 <sup>c</sup>	208	90	325
Sudan	339	103	13	170	501	2,006	207	118	17
Togo	38	11	2	9	237	947	10	7	183
Tunisia	89	16	6	145	1,629	4,000 <sup>c</sup>	64	119	83
Uganda	167	62	4 <sup>b</sup>	39	234	934	58	25	1,362
United Arab Republic	648	250	65 <sup>b</sup>	576	889	4,031 <sup>c</sup>	1,008	354	102
United Republic of Tanzania	256	90	10	50	195	781	70	32	238
Zambia	96	31	6 <sup>b</sup>	99	1,031	5,500 <sup>c</sup>	171	67	
<i>Asia</i>									
Burma	469	177	40	142	303	1,211	214	88	304
Ceylon	247	58	16	139	563	2,251	131	106	237
China (Taiwan)	318	111	30 <sup>b</sup>	184	579	2,333 <sup>c</sup>	259	120	379
India	10,725	3,714	668 <sup>b</sup>	4,000	373	1,492	5,541	2,615	8,156
Indonesia	2,244	694	116	267	119	476	330	184	514
Iran	614	137	64	366	569	2,276	312	271	583
Iraq	192	51	17	207	1,078	4,312	220	152	372
Israel	71	20	10 <sup>b</sup>	505	7,113	10,400 <sup>c</sup>	208	363	571
Jordan	46	14	7	44	957	3,826	54	31	85
Khmer Republic	158	47	4	77	487	1,949	92	54	146
Malaysia	207	53	12	171	826	3,304	175	127	302
Pakistan	2,605	668	125	551	212	846	565	410	975
Philippines	931	500	60	544	595	3,383 <sup>c</sup>	1,692	256	1,948
Republic of Korea	667	250	100 <sup>b</sup>	265	397	830 <sup>c</sup>	208	166	374
Syria	128	60	10 <sup>b</sup>	91	711	2,844	171	48	219
Thailand	818	296	35	334	408	3,000 <sup>c</sup>	888	213	1,101

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics, Monthly Bulletin of Statistics and Demographic Yearbook*; International Labour Organisation, *Yearbook of Labour Statistics*.

<sup>a</sup> Based on current participation rates furnished by the International Labour Organisation.

<sup>b</sup> Actual for the countries indicated; otherwise twice the proportionate rate of increase in the labour force.

<sup>c</sup> Actual for the countries indicated; otherwise four times the average rate of annual net domestic capital formation per unit increase in population in Africa and Asia and five times that rate in the western hemisphere.

<sup>d</sup> Increment in population minus increment in labour force multiplied by the average actual rate of net domestic capital formation per unit increase in population.

—had a capacity utilization ratio in excess of 50 per cent, and in three fourths of the developing countries the ratio was below 40 per cent, the lowest figure recorded among the more advanced countries (see table A.17 in the statistical annex).

While fluctuations in precipitation and river run-off are the occasion for erratic use of capacity in some countries in which hydro-plants play a major role, and the toll taken by breakdowns and repairs is probably inversely related to the degree of economic development, the principal factor in most cases is lack of demand. This reflects in part the relatively low level of industrialization and in part the low intensity of utilization of mechanical equipment in many of the operating industries.<sup>18</sup> It is significant that the developing countries with the highest power utilization ratios—well up to the best figures among the more advanced countries—are those with a diversified and rapidly expanding industrial sector (such as Brazil, China (Taiwan), Israel and Republic of Korea) or with a single large-scale industry that is particularly power-intensive, as in the case of Cameroon (aluminium refining) and Trinidad and Tobago (petroleum refining).

The demand for power depends on the technology in operation in the consuming industries, on the demand for the products of the latter and on their organization and structure. The low utilization of power-generating facilities often reflects the absence of shift work in user industries as well as the relatively small scale of operations and other characteristics of factory operations in developing countries that make for poor use of plant.

Another frequent source of the unproductive tying up of capital lies in the undue length of construction and gestation periods. Poor planning and delays in assembling all the required inputs make for a relatively large volume of work-in-progress. One indicator of the effectiveness of capital utilization would be the ratio of unfinished projects to total investment; though the valuation of work in hand presents considerable difficulties, the very process of trying to measure it would be salutary.

Shortages of other inputs may also lower the efficiency of operation of plant already installed. Such shortages may reflect imbalances between complementary capacities (as in the example of the steel industry cited above); they may be caused by poor planning or inadequate interindustry transport facilities; very often they result from an external imbalance which has made it necessary to cut back imports. Thus, in compiling information regarding the intensity of capital utilization, it would be desirable to seek the causes of changes in performance. In view of the imperative need to make the most productive use of capital in order to accommodate the highest possible proportion of the increment in the labour force in "modern" employment, a care-

<sup>18</sup> In some cases it also reflects a lower degree of mechanization in these industries, though, as a result of the tendency to install essentially the same type of equipment as is used in more highly industrialized countries, this is far from universal among the developing countries. A comparison between Italy and Venezuela in respect of the mechanical power available per employee, for example, shows that at the beginning of the 1960s the latter had a higher degree of mechanization in all the major categories of industry with the exception of wood and cork, pulp and paper, chemical and petroleum products and transport equipment. See E/CN.12/830, p.16.

Table 47. Utilization of textile spinning machinery, 1967

Countries <sup>a</sup> with an input of raw material (in kilogrammes per active spindle) of				
Less than 70	70-99	100-129	130-159	160 and over
Algeria (78)	India (8)	Mexico (14)	Cuba (26)	Nigeria (6)
United Kingdom (5)	Peru (45)	Venezuela 26*	USSR (5)	Sudan (84)
Lebanon (2)	Netherlands (4)	El Salvador 4*	South Africa (4)	Syria (8)
Federal Republic of Germany (9)	Ecuador 57*	Poland (7)	Iraq 17*	Mainland China 6*
Indonesia 28*	Israel (4)	Colombia (15)	Republic of Korea (11)	Hong Kong 5*
Uruguay (19)	Philippines (32)	Chile (12)	Turkey 12*	Republic of Viet-Nam (21)
	Brazil (16)	Ethiopia (10)	Iran (12)	
	Japan 4*	Pakistan 12*	Thailand (82)	
	Burma (54)	United Arab Republic 8*	China (Taiwan) 9*	
	Argentina (15)		Democratic Republic of the Congo (27)	
			United States (5)	

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on International Federation of Cotton and Allied Textile Industries, *International Cotton Industry Statistics* (Zurich), vol. 10, 1967.

<sup>a</sup> In each column, countries are listed in ascending order

of raw material absorption per spindle. The figures after the country name represent the percentage by which the highest annual average productivity per active spindle in the three years 1965-1967 exceeded the lowest; an asterisk (\*) indicates progressive increase, parentheses () indicate random fluctuation.

ful diagnosis is called for of all the factors lowering the utilization coefficient.

This may help to improve economic policies in a number of related areas—investment decisions and choice of technology; education and the training of needed skills; labour laws and other administrative practices governing the relationship between workers and machinery; transport and the facilities for mov-

ing products between industries; import control and the priorities accorded to industrial components and other essential inputs that cannot be produced locally. Such an analysis of the use of capital, carried out at regular intervals, would help to achieve consistency in the deployment of the various instruments by which the economy is managed and thus increase the effectiveness of economic planning in general.

## Chapter V

### THE EXTERNAL ENVIRONMENT

In all countries the direction and pace of economic development are influenced by external events and policies, and on the whole the effect of recent technological and institutional changes has been to increase the degree of interdependence. For the developing countries, the impact of external events is particularly important not only because of the relative size of the foreign trade sector participating in the international division of labour but also because of the inability of the economy to provide from within some of the key resources required in the course of development. Access to the outside world enables the developing country to obtain those critical resources—by purchase, on loan or as a gift. Up to now the lacunae have been filled chiefly by purchase, so that for most developing countries a major determinant of the pace of development has been the ability to earn the foreign exchange necessary for financing the required imports.

The ability to earn foreign exchange—and indeed the eligibility for gifts and loans—is determined in part by domestic policy and performance. But however efficient a country's export industries and however wise its import policies and practices, their effectiveness in providing the needed resources depends also on what is happening in partner countries and on the world markets for goods it is selling and buying. In judging the performance of a developing country, therefore, due account must be taken of the relevant conditions in partner countries and on the world market. In the present context, these conditions have been designated the external environment.

In the framework of the Development Decade there is an additional reason for analysing this external environment: it is shaped in varying degree by the official policies and actions of partner countries, and these are the subject of separate targets and commitments. The performance of partner countries in trade and aid matters on which there have been policy undertakings is therefore something that calls for appraisal on its own merits.

The two aspects of the external environment that require close examination are thus the flow of imports into the more advanced countries from the developing countries and the flow of loans, grants

and investment from the more advanced countries to the developing countries. In both cases it is necessary to appraise the volume and composition of the flow on the one hand and, on the other, the main forces determining it, including the official actions and policies of the countries concerned.

The demand for a particular commodity from the developing countries depends on a number of factors operating in the importing country. Among them the most significant are generally the historical structure of production, consumption and trade, changes in income, in domestic output of the commodity in question, in supply from other sources, in price, quality and techniques of utilization and what may be broadly called the terms of entry. Though only the last of these factors—changes in the terms on which the commodity is allowed to enter the market of the importing country—is subject to direct control, most of the others can be, and usually are, influenced to some extent by official policy. There are thus two aspects of the trading situation to be evaluated: performance and policies. The first includes the actual course of imports during the review period and the factors determining this trade; the second includes the policies actually pursued in the importing country to affect local production and demand and the volume and cost of supplies from abroad. The latter will need to be compared with any related commitments that may have been made in the context of the international development strategy.

There is a similar dual interest in the transfer of resources to developing countries outside the channels of trade. On the one hand is the volume and quality of the flow itself, and on the other hand, the official policy and action influencing that flow, directly and completely in the case of government loans and donations, indirectly and partially in the case of private lending and investment. In this field, too, performance needs to be measured against target commitments—in respect of volume, total and official, and in respect of terms and conditions such as the interest rate and maturity of loans and the degree of restraint (such as tying) on the use of funds.

Over and above those country appraisals, it is also necessary to examine the international setting.



The external environment facing the developing countries is more than a simple sum of the relevant conditions and policies in each of the partner countries. It also comprises the circumstances that result from the interaction of those partner countries: the imbalances between them affect their relations with the developing countries, as do the policies they jointly adopt and the institutions they establish. These, too, should be subject to periodic assessment in respect of the influence they may exert on the course of economic and social progress in the developing countries.

#### THE COURSE OF IMPORTS FROM DEVELOPING COUNTRIES IN THE 1960s

In one respect the external environment facing the developing countries in the 1960s was exceptionally favourable: it was a period of rapid and widespread growth in world trade. The average rate of increase between 1960 and 1969 was over 8 per cent a year. Even after allowance for the inching up of the average price level during the period, the rate of growth was in excess of 7 per cent a year. Though the most dynamic component of this trade was the flow among developed market economies, the average rate of increase of imports of the more advanced countries from the developing countries was not far short of 7 per cent a year at current prices.

This average rate of increase in import demand conceals some wide differences among the major commodity groups. Imports of industrial raw materials rose by a mere 2 per cent a year in the 1960s and imports of food-stuffs by about 3.5 per

cent a year. At the other end of the scale, imports of fuels more than doubled in value between 1960 and 1968, expanding at over 10 per cent a year; imports of chemicals also doubled, imports of ordinary manufactures (including textiles and non-ferrous metals) rose two and a half times and imports of machinery increased sevenfold. Altogether, the developed market economy imports of manufactured goods from the developing countries expanded by 13 per cent a year (see table 48).

These disparate rates of growth resulted in a significant change in the composition of imports into the developed market economies from the developing countries. At the beginning of the decade, food-stuffs constituted almost a third of the total, raw materials and fuels each about a fourth, and manufactures only an eighth. By 1968, fuels had risen to first place—one third of all imports—and the other three major categories each accounted for around a fifth of the total.

Among the more advanced countries, the course of imports from the developing countries was by no means uniform. Individual markets changed appreciably in relative importance during the 1960s not only in respect of particular items of trade but even in respect of over-all size. The most dramatic of these changes was the reduction in the influence of the United Kingdom on the external environment of the developing countries and the simultaneous growth in the importance of Japan (see table A.18 in the statistical annex). Other countries whose significance as trading partners increased greatly in the 1960s included Italy and, somewhat lower down the scale, Belgium, Spain and the Soviet Union.

Table 48. Trade between developing countries and the rest of the world, 1960-1969

Importing region and commodity group	Annual average				Average rate of increase, 1959-1961 to 1967-1969 (percentage per annum)
	1959-1961		1967-1969		
	Millions of dollars <sup>a</sup>	Percentage	Millions of dollars <sup>a</sup>	Percentage	
Centrally planned economies <sup>b</sup>	1,230	6	2,300	7	8.1
Developed market economies <sup>c</sup>	19,460	94	32,670	93	6.7
Food-stuffs <sup>d</sup>	6,120	30	8,050	23	3.5
Raw materials <sup>e</sup>	5,570	27	6,490	19	2.0
Fuels <sup>f</sup>	5,200	25	11,330	32	10.2
Manufactures <sup>g</sup>	2,490	12	6,620	19	13.0
Total	20,690	100	34,970	100	6.8

Source: Centre for Development Planning, Projections 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*, November 1970.

<sup>a</sup> Valued f.o.b. at current prices.

<sup>b</sup> Mainland China, Eastern Europe, Mongo-

lia, Democratic People's Republic of Korea and Democratic Republic of Viet-Nam.

<sup>c</sup> North America, Western and southern Europe, Australia, Japan, New Zealand and South Africa.

<sup>d</sup> SITC 0 and 1.

<sup>e</sup> SITC 2 and 4.

<sup>f</sup> SITC 3.

<sup>g</sup> SITC 5-8.

France dropped back from third place to fifth as a market for exports from the developing countries; the Federal Republic of Germany rose from fifth to fourth; the United States of America remained by far the largest market even though it absorbed a slightly smaller proportion of the total at the end of the decade than it did at the beginning. The top five countries continued to account for over two thirds of all the developing countries' trade with the rest of the world, and the top ten for nearly seven eighths.

Compared with the violent movements that characterized the previous decade, imports as a whole were not unduly affected by price changes in the 1960s: the average price of manufactures other than non-ferrous metals rose slowly over the decade while that of primary commodities fluctuated within a narrow range. Among some of the commodity groups, however, there were some much more decisive movements—upward most strongly in the case of non-ferrous metals and more gently in the case of raw food-stuffs, and downward in the case of fibres and other agricultural non-food products. At the end of the decade, non-ferrous metal prices were about 80 per cent above the 1959-1961 level, those of primary food-stuffs about 15 per cent higher, and those of other agricultural products about 10 per cent lower. These changes in primary commodity prices were duly reflected in the unit value of developing country exports to the developed market economies. There was an erratic upward movement in the unit value of exports of food, beverages and tobacco, and a steadier and more vigorous upward movement in the unit value of manufactured goods (including non-ferrous metals). These increases were more or less offset, however, by the downward drift of unit values in the other export

categories—fuels and raw materials. The over-all average, after a dip and recovery in the first half of the decade, remained around the 1960 level in the second half of the decade. As the price of goods shipped to the developing countries from the developed market economies began inching upwards after 1963, the terms of trade of the developing countries as a group did not regain the loss sustained in the opening years of the decade: the index remained remarkably stable at about 3 per cent below the 1959-1961 average. For the countries other than the major petroleum exporters, the deterioration in the terms of trade that occurred in 1961 and 1962 was made good as the decade advanced, and by 1966-1968 the average purchasing power of a unit of exports was the same as in 1960 (see table 49).

#### *An appraisal of import performance in 1968*

In the present context, in which the principal concern is to measure the amenability of the external environment to the needs and purposes of the developing countries, the first requirement is to set up some criteria by which each of the more advanced countries might judge its own performance as a provider of foreign exchange to the developing countries through trade. Perhaps the most obvious test is the rate of growth of imports over time, and changes in the rate of growth. Imports can also be related to specific internal magnitudes, such as population or one or other of the national accounts aggregates, thus permitting comparisons to be made among the more advanced countries as well as over time. It would also be useful to compare imports from the developing countries with imports from other sources, thus in effect monitoring the extent to which the former are sharing in the general growth of the country's trade.

Table 49. Developing countries: export unit value of trade with the developed market economies, 1960-1969  
(Average 1959-1961 = 100)

Year	Food-stuffs (SITC 0-1)	Raw materials (SITC 2 and 4)	Fuels (SITC 3)	Manufactures (SITC 5-8)	All commodities	Terms of trade with developed market economies	
						Total	Excluding fuels
1960	100	104	99	101	102	101	102
1961	97	98	97	101	98	98	98
1962	94	94	96	101	96	95	95
1963	102	96	96	102	99	97	99
1964	110	98	95	106	102	99	103
1965	104	96	94	117	101	96	100
1966	105	96	93	127	103	97	102
1967	104	92	93	130	102	96	100
1968	101	92	94	130	102	97	101
1969	105	93	93	140	104	97	103

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Monthly Bulletin of Statistics*.

Provided they were used imaginatively, such measurements would furnish a convenient set of benchmarks against which to assess import performance. Comparisons of such indicators over time and between countries would serve to initiate questions regarding changes and differences. Clearly the role of purchases from developing countries varies greatly from one importer to another—depending not only on the domestic situation and the economic relations among the more advanced countries themselves but also on the supply situation and the export effort of the developing countries. Nevertheless, marked differences between countries invite closer examination: are there sound structural reasons for them, or do they reflect wholly or in part the existence of special obstacles to the movement of exports from the developing countries? Similarly, it would be appropriate to ask whether the movement in a particular indicator represented the result of changing demand or supply conditions or the incidence of some policy with a deterrent effect on the flow of developing country commodities. Used in this way, such indicators would assist countries in assessing their own particular contribution to the efforts being made by the developing countries to expand their export earnings.

Though such assessments would be made at the national level and in the light of the peculiar structure and circumstances of each country, the process can be illustrated on an international level on the basis of the data for 1968. Table 50 indicates three measures of the closeness of the trade link between the developing countries as a group and individual partner countries—the amount spent on imports from developing countries per head of population, the significance of those imports in relation to the total output of goods and services in each partner country, and the proportion of each country's external supplies provided by the developing countries.

In assessing a country's import performance on a year-by-year basis, due allowance needs to be made for the consequences of random events that may have occurred during the period, affecting the immediate course of trade but not necessarily the longer-term trend. The most obvious of such events are the vagaries of the weather, which may exert a strong if temporary influence on the demand for supplies from abroad. This is particularly important in the case of temperate farm products, imports of which are directly affected by seasonal fluctuations in many of the more advanced countries.

One such swing occurred in the Soviet Union during the 1960s when imports of wheat rose from negligible proportions in 1962 to an average of 7 million tons a year in 1964-1966, receding to 1.3 million tons in 1968. Most of these imports came from the developed market economies (chiefly Canada), but Argentina, which provided very little before, sup-

plied 0.8 million tons in 1965 and 1.4 million tons in 1966, but none since then. There was a similar upsurge in imports of maize by Poland (from Mexico) in 1965, reflecting in this case a short-term fodder policy. Bad weather in the Federal Republic of Germany in 1964/65 caused a 20 per cent increase in imports of food-stuffs, in which developing countries shared. The poor wheat harvest in Italy in 1968, however, was met entirely by imports from other developed market economies.

Adjustments are not always made solely through imports of the product chiefly affected. When wet weather lowers the quality of the wheat harvest in Europe, for example, more of the local crop may be used for feed, and greater imports of wheat may be accompanied by a reduction in the demand for maize. Moreover, domestic inventories may sometimes be sufficient to keep external demand fairly stable.

The pattern of food imports into the United Kingdom was altered in 1968 by an outbreak of foot and mouth disease late in 1967 which led to the banning of all imports of carcass meat from countries in which the disease was endemic. Total imports of beef and veal dropped 10 per cent in 1968 from the average of the three preceding years, and imports from Argentina were cut by two thirds—from 110,000 tons a year in 1965-1967 to 35,000 in 1968.

Labour strikes have also affected the volume and timing of international trade and their incidence must be allowed for in interpreting any single year's data. A dock strike in the United Kingdom at the end of 1967 caused an abnormal increase in arrivals in the early months of 1968. Similarly, imports into the United States were exceptionally heavy towards the end of 1968 in anticipation of the closing of eastern and southern ports; imports in the first quarter of 1969 were abnormally low and there was a sharp upswing in the second quarter. One of the causes of the rapid rise in non-ferrous metal prices referred to above was a prolonged strike in the United States copper industry which greatly inflated imports of the metal in 1967 and early 1968.

United States imports were also affected by changes in procurement policy in connexion with the conflict in Indochina. Between 1964 and 1967, sales of China (Taiwan), Hong Kong, Republic of Korea, Singapore and Thailand to the Republic of Viet-Nam rose threefold to \$212 million and then receded as the United States, to protect its balance of payments, began to reduce off-shore purchases.

A more general impact on trade in 1968 was exerted by the closing of the Suez Canal by the Arab-Israeli war. About 15 per cent of world trade had passed through the Canal, and in varying degree

Table 50. Developed countries: imports from developing countries, 1968

Country <sup>a</sup>	Imports from developing countries in 1968 <sup>b</sup>				1960-1968 average	
	Total (mil- lions of dollars)	Per capita (dol- lars)	As percentage of		Annual rate of increase in imports <sup>c</sup>	Elasticity of imports rela- tive to gross domestic product <sup>d</sup>
			Imports from all sources	Gross domestic product		
United States	9,085	45	27.4	1.0	5.1	1.1
Japan	5,499	54	42.4	3.9	14.6	1.3
United Kingdom	5,382	97	28.4	5.3	2.0	0.7
Germany (Federal Republic of)	4,059	70	20.1	3.1	7.1	1.9
France	3,234	65	23.2	2.6	3.9	0.7
Italy	2,596	49	25.3	3.5	10.4	1.9
Netherlands	1,480	116	15.9	5.9	6.7	1.3
Belgium-Luxembourg	1,461	147	17.5	6.8	7.9	1.8
USSR	1,060	4	11.6	0.4	9.6	1.4
Canada	998	48	8.7	1.6	5.0	1.0
Spain	908	28	25.9	3.2	19.0	2.5
Sweden	605	76	11.8	2.4	5.9	1.3
Australia	514	43	13.3	1.7	2.9	0.6
Switzerland	374	61	8.3	2.2	8.9	2.1
South Africa	365	19	15.3	3.1	7.0	1.2
Denmark	351	72	10.9	2.8	8.2	1.8
Portugal	321	34	27.3	6.4	9.7	1.6
China (mainland) <sup>e</sup>	300	—	12.7	.	1.3	.
Norway	260	68	9.6	2.9	7.9	1.5
Czechoslovakia	204	14	6.6	0.8	1.7	0.5
Poland	190	6	6.7	0.5	8.1	1.2
German Democratic Republic	166	10	4.9	1.2	7.1	1.9
Austria	157	21	6.3	1.4	5.4	1.3
Greece	155	18	11.1	2.1	11.0	1.5
Yugoslavia	154	8	8.6	1.7	6.1	1.1
Ireland	126	43	10.7	4.3	5.1	1.3
New Zealand	125	46	14.0	2.5	4.7	1.3
Finland	110	24	6.9	1.4	6.9	1.6
Hungary	102	10	5.7	0.9	13.5	2.4
Bulgaria	87	10	4.9	1.0	25.0	3.2
Turkey	69	2	9.0	0.6	9.8	2.2
Romania	65	3	4.0	0.4	12.1	1.3
Iceland	5	25	3.7	1.2	4.1	1.1
Albania	1	—	4.3	.	4.9	.
Total or average:						
Developed market econo- mies, added	38,393	52	22.3	2.2	6.5	1.2
F.o.b.	32,670	44	19.7	1.9	6.5	1.2
Eastern Europe and USSR, <sup>f</sup> f.o.b.	1,920	6	8.3	0.5	10.6	1.6

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *World Trade Annual* and *Yearbook of International Trade Statistics*; Organisation for Economic Co-operation and Development, *Statistics of Foreign Trade* (Paris); International Monetary Fund, *Direction of Trade* (Washington, D.C.), and table A.1 in the statistical annex.

<sup>a</sup> Listed in descending order of value of imports in 1968.

<sup>b</sup> Valued c.i.f., current prices except in the case of Canada, United States and centrally planned economies, whose imports are valued

f.o.b. For the basis of gross domestic product estimates of the centrally planned economies, see table A.1 in the statistical annex.

<sup>c</sup> Compound rate of growth between terminal years, current dollars.

<sup>d</sup> Ratio of average annual rate of increase in imports to average annual rate of increase in gross domestic product, both measured at 1960 prices.

<sup>e</sup> Including Democratic People's Republic of Korea and Democratic Republic of Viet-Nam.

<sup>f</sup> These figures include a small amount of trade with the developing countries that could not be allocated to specific partner countries.

the landed cost of most imports was increased by the rise in shipping freight rates,<sup>1</sup> most notably in

<sup>1</sup> From Western Europe, conference rates rose by about 10 per cent in the case of Far Eastern ports, 15 per cent in the case of East Africa, 17.5 per cent in the case of

the case of petroleum which was affected not only by the shortage of tankers but by the high propor-

India and Pakistan, and 50 per cent in the case of Red Sea ports.

tion of the trade that had previously moved from West Asia to Europe through the Canal. Tanker rates began receding towards the end of 1968, but a major change in the pattern of trade had been effected: developed market economy imports in 1968 were one fourth above the 1966 level and half the increment had come from North Africa and only an eighth from the three main West Asian producers, Iraq, Kuwait and Saudi Arabia. Canada was the only developed market economy to increase its shipments significantly, though there was a sharp rise in the trade in partly refined petroleum among the member countries of the European Economic Community.

The high degree of concentration of the trade of developing countries, noted above, makes it desirable to look more closely at the evolution of imports into some of the principal partner countries. In order to reduce the possibility of distortion from year-to-year fluctuations, the changes between 1959-1961 and 1966-1968 are examined in table 51.

During this interval, imports into the major market—the United States—increased at 4.5 per cent a year, its share in the total developed market economy purchases from the developing countries declining from just over to just under a third. The lag was in raw materials and fuels. Imports of the former declined during the 1960s even in absolute terms: they accounted for about a fourth of all United States purchases from the developing countries at the beginning of the decade but only 15 per cent in 1966-1968. Imports of crude textile fibres

were more or less halved in value in the course of the decade, reflecting both the expansion in the use of domestically manufactured fibres and the tendency of developing countries to sell more of the fibres in processed form as cordage and fabric, United States imports of which grew at almost 10 per cent a year. Imports of fuels increased at less than 3 per cent a year in value—a sharp contrast to the explosive growth of petroleum imports into other industrial countries—declining from almost a fourth of all imports from developing countries at the beginning of the decade to little more than a fifth at the end. Imports of manufactured goods (other than non-ferrous metals) increased at the high rate of 19 per cent a year: at the beginning of the decade they constituted only 8 per cent of all United States imports from developing countries, at the end of the decade they constituted over a fifth of such imports.

By 1969, United States imports of manufactures from the developing countries exceeded \$3 billion (valued f.o.b.), rather more than an eighth of the country's total purchases of manufactures from abroad. Of this, \$0.5 billion was non-ferrous metals, chiefly copper from Latin America and tin from south-eastern Asia. Of the remaining \$2.5 billion, over \$1 billion was in the form of textiles (\$0.5 billion) and clothing (\$0.5 billion). A further \$0.7 billion was in the form of electrical apparatus and telecommunications equipment. And over \$0.2 billion consisted of wood products (other than furniture). The main source of these purchases was southern

Table 51. Selected developed market economies: rates of increase in imports from developing countries,<sup>a</sup> by category, 1959-1961 to 1966-1968  
(Percentage per annum compound rate)

Import category	United States	Japan	United Kingdom	Federal Republic of Germany	France	Italy	European Economic Community	Developed market economy average
Food-stuffs (SITC 0-1)	3.0	13.0	-1.4	6.6	-0.1	11.0	4.5	3.7
Raw materials (SITC 2 and 4)	-2.0	9.0	-2.8	1.6	2.0	6.3	2.8	2.7
Fuels (SITC 3)	2.9	18.8	3.4	13.9	9.9	15.1	11.5	8.8
Chemicals (SITC 5)	10.6	16.1	10.8	6.1	-0.4	7.1	5.0	11.3
Machinery (SITC 7)	57.0	16.8	4.4	45.3	17.9	-6.1	9.0	17.3
Other manufactures (SITC 6 and 8)	18.1	32.0	9.4	11.2	13.1	16.1	12.4	14.8
All manufactures (SITC 5-8)	18.4	29.0	9.0	11.3	11.0	13.3	11.7	14.6
Non-ferrous metals (SITC 68)	16.7	31.8	7.3	6.5	11.7	13.9	9.8	11.7
Manufactures other than non-ferrous metals (SITC 5-8 excluding 68)	19.4	27.0	10.4	15.5	6.3	11.9	12.7	16.3
Cereals (SITC 041-045)	3.7	9.7	-4.0	-1.2	-1.3	10.5	5.9	5.6
Textile fibres (SITC 26)	-7.2	3.1	-3.2	-1.5	-2.0	3.8	0.7	-1.4
Textile yarn and fabrics (SITC 65)	9.9	53.0	1.7	11.9	13.6	16.3	10.9	8.4
Total	4.5	14.1	1.9	7.6	4.6	11.9	7.3	6.5

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Commodity Trade Statistics*; and Organisation for Economic Co-operation and Development, *Statistics of Foreign Trade, Series B* (Paris).

<sup>a</sup> Valued c.i.f., except in the case of the United States whose imports are valued f.o.b. The selected countries accounted for 77 per cent of all developed market economy imports from the developing countries in 1968-1969.

and south-eastern Asia, which provided almost 80 per cent of the electrical equipment and almost 90 per cent of the wood and textile manufactures. About 40 per cent of the fabric imports were of jute and only 15 per cent cotton, the rest consisting chiefly of man-made fibres.

At the beginning of the 1960s *Japan* accounted for less than 9 per cent of all developed market economy imports from the developing countries: by 1968-1969, as the result of a rate of increase of well over twice the developed market economy average, the share had risen above 14 per cent. As in the case of the United States, the lagging categories of imports were raw materials (imports of which rose at about 9 per cent a year), particularly textile fibres (imports of which increased at only 3 per cent a year in value in the 1960s). Notwithstanding this, Japan is one of the few countries in which raw materials remained the largest single category of imports from the developing countries: in 1966-1968 they still accounted for over 40 per cent of the total. Next to Belgium, Japan imported the most raw materials from the developing countries on a *per capita* basis (\$20 in 1968) and next to Portugal, the most in relation to manufacturing output (6 per cent). In contrast to the United States, Japan expanded its purchases of food-stuffs and fuel from the developing countries at or above the high average rate: the former maintained their share at around an eighth of the total while the latter rose sharply to constitute nearly 40 per cent of all imports from the developing countries by the end of the decade. There was a sevenfold expansion in the value of non-ferrous metal imports from the developing countries in the course of the decade. This remained the major manufactured item among imports from the developing countries, but there was a dramatic upsurge in other items so that, as a proportion of the total, manufactures rose from about 2 per cent at the beginning of the decade to over 6 per cent at the end.

Offsetting almost exactly the expansion in the relative importance of Japan as a market for developing country trade was a contraction in the importance of the *United Kingdom*: at the beginning of the 1960s, the United Kingdom absorbed 19 per cent of all developed market economy imports from the developing countries, by 1968-1969 the proportion had declined to 14 per cent. The principal categories responsible for the decline were food-stuffs and raw materials, imports of both of which were lower in value at the end of the decade than at the beginning. Imports of fuels from the developing countries rose at the modest rate of 3.4 per cent a year and imports of manufactures at the relatively rapid rate of 9 per cent or, if non-ferrous metals are excluded, 10.4 per cent. At the beginning of the decade, food-stuffs were the major import category

—a third of all imports from developing countries—but by 1966-1968 they had dropped below fuels in importance, accounting for only a fourth of the total, while fuels accounted for a third. The share of raw materials in imports from the developing countries dropped from a fourth to a sixth: there was a sharp reduction in fibre imports not fully compensated by a slow rise (1.7 per cent a year) in the purchases of finished textiles.

The *Federal Republic of Germany* continued to account for around 10 per cent of developed market economy imports from the developing countries in the 1960s. All the major categories of commodities shared the growth, but far from equally: imports of raw materials increased only a little faster than population, whereas imports of fuels and manufactured goods rose at 14 and 11 per cent a year, respectively. Thus, raw materials, which constituted almost 36 per cent of all imports from the developing countries at the onset of the 1960s, accounted for less than a fourth in 1966-1968, and the share of fuels in the total jumped from a fifth to almost a third. At the beginning of the decade non-ferrous metals constituted about three fourths of the manufactures imported by the Federal Republic of Germany from the developing countries; though metal imports continued to increase, other products outpaced them and they had fallen to about half by 1966-1968. As in the United Kingdom and United States, fibre imports declined while imports of fabrics rose sharply, helping to raise the proportion of manufactures (other than non-ferrous metals) in the import total to about 8 per cent, compared with 5 per cent in 1959-1961.

Similar structural changes occurred in the imports of *France* from the developing countries, though here there was no growth in food purchases and the over-all rate of increase was only 4.6 per cent a year, well below the developed market economy average. Again, the principal expansion was in fuel imports, which rose from 28 per cent to 40 per cent of the total from the developing countries. And again, a reduction in fibre imports was accompanied by an expansion in fabric imports, though the absolute values involved were relatively small. Non-ferrous metals remained the dominant component of the manufactured goods category. Food and raw material, which had constituted two thirds of all imports from the developing countries at the beginning of the 1960s, accounted for only half in 1966-1968.

The changes in the imports of *Italy* from the developing countries resemble those that occurred in Japan. There was almost as rapid an over-all growth that raised the share of Italy in developed market economy imports from the developing countries from 5 per cent to 7 per cent. The growth involved all major commodity groups, even raw materials, though

the expansion in imports of manufactured goods was below the developed market economy average. Again the most spectacular increase was in imports of fuels, which rose from 39 per cent of the total at the beginning of the 1960s to 48 per cent in 1966-1968. Food imports, though only half as large in absolute terms, increased at 11 per cent a year, a notable component being cereals, purchases of which rose to over 7 per cent of all imports from developing countries. Raw material imports from developing countries increased more rapidly in Italy than in any other developed market economy except Japan, though their share in manufacturing production (2.6 per cent in 1968) remained below that of many other industrial countries. Imports of manufactures from the developing countries increased considerably (13 per cent a year) partly because of the rise in the purchases of non-ferrous metals (14 per cent a year). Imports of textile yarn and fabrics jumped, but remained small in absolute terms, while imports of machinery and equipment were lower in 1966-1968 than earlier in the decade.

*Belgium-Luxembourg and the Netherlands* are among the most open of economies. Thus although imports from the developing countries are higher there than in almost any country in relation to population and total production, they remain below the developed market economy average as a proportion of imports from all sources. In Belgium, the most notable growth was in imports for use in the local metallurgical industries; thus the inflow of ores and non-ferrous metals was exceptionally high and, with the rise in the average price of the latter, increasing both absolutely and relatively. The Netherlands also had a high level of imports of raw materials but chiefly of agricultural origin, including rubber and oil-seeds. In both areas there was a particularly rapid rise in the inflow of crude petroleum as refining capacity was expanded.

Also a major importer—over \$1 billion from the developing countries in 1968—was the *Soviet Union*

which stands at the other end of the spectrum from Belgium and the Netherlands in respect of the significance of these imports in relation to domestic activities. Though the range of Soviet imports from the developing countries broadened noticeably in the 1960s, it remained very narrow in comparison with that of most developed market economy imports. Their value virtually doubled in the first half of the decade (as they had in the second half of the 1950s) and then remained more or less static until 1969. The principal change was in the movement of sugar: imports from Cuba increased more than threefold between 1960 (R 93 million) and 1965 (R 308 million) to constitute almost a third of all Soviet imports from the developing countries. They receded to R 209 million in 1969, just over a sixth of the total and roughly the same as imports from India and the United Arab Republic (see table 52).

Despite the reduction in sugar imports, the inflow of food-stuffs, beverages and tobacco was well maintained: there were offsetting increases in purchases of cocoa and coffee, fruit and vegetables and, in recent years, wine (from Algeria). Imports of manufactured goods, which had trebled in the first half of the decade, also continued to expand: by 1969 they constituted a sixth of all imports from the developing countries—almost three times the proportion obtaining at the beginning of the decade.

The remaining twenty-four partner countries absorbed about an eighth of all the exports of developing countries to the rest of the world. With the exception of mainland China, they were mostly smaller countries. Some of them imported a lot from the developing countries in relation to their population: Canada, Denmark, New Zealand, Norway and Switzerland all took more than the developed market economy average of \$44 per person in 1968. For some of them, trade with the developing countries was particularly important in relation to domestic production: in the case of Ireland, Portugal, South Africa and Spain, purchases from the developing

Table 52. Soviet Union: imports from the developing countries, by major source, 1960-1969

Source	Value of imports, f.o.b. (millions of roubles)			Percentage share		
	1960	1965	1969	1960	1965	1969
Developing countries, total	569.8	1,025.1	1,173.7	100.0	100.0	100.0
Africa	177.8	223.5	357.2	31.2	21.8	30.4
United Arab Republic	109.2	147.1	205.3	19.2	14.3	17.5
Asia	259.9	349.9	496.6	45.6	38.5	42.3
Iran	17.1	16.3	50.8	3.0	1.6	4.3
India	61.6	169.4	199.3	10.8	16.5	17.0
Malaysia	100.4	101.4	109.6	17.6	9.9	9.3
Latin America	125.5	405.0	302.4	22.0	39.5	25.8
Cuba	93.4	308.0	208.5	16.4	30.0	17.8

Source: *Vneshnaya Torgovlya SSSR 1959-1963, 1966, 1968, 1969* (Moscow).



countries exceeded 3 per cent of gross domestic product in 1968, and this ratio was above the developed market economy average in a number of other countries including Denmark, Greece, New Zealand, Norway, Sweden and Switzerland. Though most of these smaller countries, being less industrialized, tended to draw relatively more of their total imports from the more advanced countries, Portugal and Spain obtained more than the developed market economy average of one fifth of all imports from the developing countries in 1968. In several of them, moreover, the demand for imports from the developing countries was extremely responsive to internal growth: during the period 1960-1968 elasticities of two or more were recorded by Spain, Switzerland and Turkey and figures only a little lower than that by Denmark, Finland, Greece, Norway, Portugal and Sweden.

As in the case of the Soviet Union, the centrally planned economies of Eastern Europe increased their purchases quite rapidly in the 1960s—in most countries more rapidly than their domestic production. The totals remained small, however, whether measured against domestic production (less than 1 per cent except in the German Democratic Republic) or against population (less than \$10 per person except in Czechoslovakia) or against imports from all sources (less than 7 per cent except in the Soviet Union).

Additional light can be thrown on the import performance of individual countries by a more systematic examination of the movement of various categories of commodity. This is done, in the case of the developed market economies, in tables A.19 to A.22 in the statistical annex.

#### *Food-stuffs, beverages and tobacco*

Notwithstanding its large agricultural sector and its status as a major food exporter, the United States is by far the largest importer of food-stuffs from the developing countries: in 1968 it accounted for over a third of the \$9 billion of developed market economy imports of food-stuffs from developing countries. This reflects the importance of various tropical items in United States purchases—coffee, cocoa, bananas and so on. While for the developed market economies as a group less than 40 per cent of food imports come from the developing countries, the proportion in the case of the United States is over two thirds. On a *per capita* basis, however, United States expenditure on developing country food imports was only a little above the developed market economy average (\$12.5 in 1968) and in relation to total consumption it was only two thirds of the average (0.9 per cent in 1968).

The United Kingdom, the second largest importer of food-stuffs from the developing countries, obtains

almost three fourths of its food imports from other advanced countries. On a *per capita* basis (\$21 in 1968) and in relation to total consumption (1.8 per cent in 1968) its food imports from the developing countries are far above the developed market economy average. These relationships also characterize the Federal Republic of Germany, the third importer of developing country food-stuffs (\$0.9 billion in 1968). Japan obtained more of its food from the developing countries (41 per cent in 1968) but spent only \$7 per person in doing so. France (importing \$0.7 billion in 1968) was very close to the developed market economy average for each of the ratios. Italy obtained only a fourth of its food imports from the developing countries in 1968 (appreciably less than in 1965), spending only \$10 per person for the purpose.

The Netherlands has by far the highest *per capita* imports of food-stuffs from the developing countries (\$32 per person in 1968, 2.9 per cent of total consumption). This reflects the importance of the food-processing industry in that country for, at 36 per cent, the proportion of food imports coming from developing countries was slightly below the developed market economy average. Belgium, by contrast, purchases a much smaller fraction of its food imports from the developing countries (23 per cent in 1968) than most developed market economies, though on a *per capita* basis the amount is in the highest group (over \$20 in 1968). Canada, in contrast to the United States, spends less than the developed market economy average on developing country food-stuffs.

Among the countries importing less than \$0.2 billion of food-stuffs from the developing countries in 1968, the most notable features are the rapid rise in the purchases of Spain (which, like Portugal, obtained about half of its food imports from developing countries), the high *per capita* purchases of developing country food by Denmark and Sweden (\$21 per person in 1968) and the high ratio of developing country food imports to total consumption in Ireland (2.2 per cent), second only to the Netherlands, and reflecting again the importance of the livestock and food-processing industry.

There are inevitably wider differences among countries in the importation of individual items than in the case of food-stuffs as a whole. About half the imports of meat from the developing countries, for example, go to two countries—the United Kingdom and the United States. The latter obtained about a fourth of its meat imports from developing countries, the former only an eighth in 1968—less than the developed market economy average of 16 per cent. Spain was the only country to get more than half of its meat imports from developing countries; Belgium, Greece and the Netherlands got about 40 per cent. Those three countries, along with



Switzerland and the United Kingdom, had the highest *per capita* expenditure on meat purchases from the developing countries—between \$2 and \$3 in 1968, compared with the developed market economy average of less than \$1 (see table A.23 in the statistical annex).

As in the case of meat, the developed market economies draw the bulk of their imports of cereals from their own net exporters: only a fifth came from the developing countries in 1968. Spain, whose cereal imports rose sharply between 1965 and 1968, was again the only country to obtain more than half its supplies from developing countries, though Italy and Portugal were not far behind in this respect. Italy, indeed, was the largest importer of cereals from the developing countries, in both absolute and *per capita* terms. Japan was the second most important market, though on a *per capita* basis Japanese expenditure (about \$2, twice the developed market economy average) was exceeded by Belgium, Netherlands, Portugal and Spain as well as by Italy (\$4 per person).

In contrast to meat and cereals, the sugar imports of the developed market economies come largely from the developing countries (about two thirds of the total in 1968). This reflects chiefly the trading pattern of the United States which draws 90 per cent of its sugar imports from the developing countries and accounted for about 60 per cent of all such imports in 1968, spending over \$3 per person, twice the developed market economy average. On a *per capita* basis, the United Kingdom spends about the same as the United States on sugar imports from the developing countries, which provide almost two thirds of the country's supplies. A similar proportion of Japan's sugar imports comes from the developing countries; Japan is the third largest importer in absolute terms though expenditure *per capita* is below the developed market economy average. France, the fourth importer, gets the great bulk of its external supplies from its overseas departments. Canada, the fifth, is the only other developed market economy to obtain more than half its sugar imports from the developing countries; and, with Portugal, the only country other than the United Kingdom and the United States to spend more *per capita* than the developed market economy average (of \$1.5 in 1968).

Among the noteworthy changes in the patterns of trade in food items in the 1960s is the expansion in the imports of cocoa into the centrally planned economies. While world production and imports showed more year-to-year fluctuation than upward trend in the 1960s, imports into the centrally planned economies virtually doubled between 1960 and 1968: they constituted about 10 per cent of the total (of approximately 1 million tons) in the first half of

the decade and 18 per cent in 1968. All the Eastern European countries, with the exception of Czechoslovakia, shared in this growth. The only comparable expansion among the developed market economies was in imports into Japan and Yugoslavia: in the former, cocoa imports rose from 22,000 tons a year in the first half of the 1960s to 35,000 in 1968, and in the latter from 6,000 to 10,000 tons.

The largest importer of beverages and tobacco from the developing countries is France, though, with the drying up of the trade in North African wine, the level of imports was more than halved between 1965 and 1968. In 1965 France obtained three fourths of its beverage and tobacco imports from the developing countries; by 1968 the proportion had dropped to half. The purchases of the United Kingdom from the developing countries also receded sharply in this period, largely as a result of the boycott of Southern Rhodesia: tobacco previously obtained in Southern Rhodesia was being imported from the United States, and the developing country share of United Kingdom beverage and tobacco imports declined from 28 per cent to 17 per cent.

The highest *per capita* imports of beverages and tobacco from the developing countries were recorded by Denmark (almost \$3 in 1968), though here too there had been a rapid decline in the developing country share—from a third in 1965 to a fourth in 1968. The only countries in which *per capita* imports from the developing countries were higher in 1968 than in 1965 were Canada and Iceland (with less than the developed market economy average figure of 50 cents per person) and Norway, Spain and Switzerland (with over-average expenditure). Though all these countries (except Spain) imported a higher proportion of their beverages and tobacco from the developing countries in 1968 than in 1965, the figure remained below the developed market economy average of 13 per cent (as against 19 per cent in 1965). The period witnessed a major restructuring of the international tobacco and wine trade, away from the developing countries.

#### *Raw materials and fuels*

The principal importer of raw materials from the developing countries is Japan: these exceeded \$2 billion in 1968, \$20 per person (twice the developed market economy average) and 6 per cent of the value added in manufacturing (four times the developed market economy average). Only Belgium imported more from the developing countries per person (\$27 in 1968) and only in Portugal did raw material imports from developing countries constitute a higher proportion of the value added in domestic industry (7 per cent in 1968). Two thirds of the raw materials imported by Portugal came

from the developing countries (chiefly the overseas provinces); this was twice the developed market economy average. Japan also imported relatively more of its raw materials from developing countries than did other countries (43 per cent, slightly more than France which had the next highest ratio in 1968).

Far below Japan, the United States was the second largest importer of raw materials from the developing countries. On a *per capita* basis (\$6) and even more so in relation to manufacturing output (0.5 per cent in 1968), United States imports were relatively small. More important in these relative terms were the raw material imports of the United Kingdom, the third largest market for the developing countries. Both these countries drew about a third of their external supplies from the developing countries, which was the developed market economy average. The Federal Republic of Germany and France, in fourth and fifth places, respectively, had slightly lower ratios, particularly in the relationship of imports to manufacturing production. Italy obtained only a fourth of its raw material imports from the developing countries, but they constituted a rather higher proportion of manufacturing output than the developed market economy average, though not as high as some of the smaller importers such as Belgium (4.6 per cent in 1968), the Netherlands (3.4 per cent in 1968, down sharply from 1965), Greece (3.2 per cent) and Spain (2.8 per cent).

One of the raw materials that comes largely from the developing countries is rubber. Imports in 1968 totalled rather more than \$0.7 billion, less than in 1965 both absolutely and as a proportion of all rubber imports (60 per cent in 1968 as against 68 per cent in 1965). The principal importers are the United States, Japan and the United Kingdom which accounted for almost two thirds of the developed market economy total. These countries obtained 70 per cent or more of their imports from the developing countries; the smaller importers draw a much lower proportion of their external supplies from the developing countries—less than half in 1968 in all cases except the Federal Republic of Germany and Spain (see table A.24 in the statistical annex).

The decline in the share of total developed market economy imports provided by the developing countries was a general phenomenon, affecting all markets (except Spain and Turkey where the developing country proportion was the same in 1968 as in 1965). This reflects the longer-term trend towards the synthetic product. In the 1960s the output of natural rubber increased at about 3.5 per cent a year while that of synthetic types increased at almost 10 per cent a year in the developed market economies. In 1960, 53 per cent of the world's con-

sumption of rubber was natural: by 1968 it had fallen to 42 per cent. Most of the output of synthetic rubber is consumed in the country in which it is produced, but an increasing quantity is entering international trade where the share of the natural product is slowly but steadily declining. The rapid growth in the capacity to make synthetic rubber in the developed market economies has tended to raise the importance of the centrally planned economies as a market for the developing country producers of the natural product. Imports into the Soviet Union rose at about 7 per cent a year in the 1960s and despite a decline in Czechoslovakia (and in the German Democratic Republic in the second half of the decade), imports into Eastern Europe increased at about 5 per cent a year. The most rapid growth was in mainland China where imports of natural rubber rose at about 13 per cent a year. In 1968, the centrally planned economies of Europe were absorbing 19 per cent of the world output of natural rubber, compared with 17 per cent at the beginning of the decade.

The slow growth in imports of natural rubber into the developed market economies was not offset by a more rapid expansion in purchases of rubber manufactures. Only a few countries imported such products from the developing countries: the total was only \$17 million in 1968, less than 2 per cent of the amount spent by the developed market economies on external supplies.

More dynamic than rubber and larger in absolute terms have been the developed market economy imports of unmanufactured wood from the developing countries. These exceeded \$1 billion in 1968, almost half going to Japan. This was nearly double the 1965 level, though the proportion of raw wood imports drawn from the developing countries (40 per cent) was down sharply from the 1965 figure. The Federal Republic of Germany, France and the United Kingdom were next in importance as markets for the developing countries: they spent around \$2 per person on wood imports from the developing countries in 1968, less than half of the Japanese rate. France obtained half its raw wood imports from the developing countries (mostly in Africa), the Federal Republic of Germany about a third, and the United Kingdom less than a sixth.

Relatively high *per capita* purchases were also made by Denmark and the Netherlands—respectively three times and twice the developed market economy average in 1968. The United States remains a very small importer of rough wood from the developing countries. The country with the highest proportion of its imports from the developing countries is Portugal which gets the bulk of its modest wood requirements from its overseas provinces (see table A.25 in the statistical annex).

The United States and the major Western European countries—Federal Republic of Germany, United Kingdom, Italy and France—accounted for 85 per cent of developed market economy imports of hides and skins from developing countries in 1968. None of these countries obtained much more than a third of its import requirements from the developing countries, though the proportion was generally somewhat higher than in 1965. The only developed market economies to purchase more than half their imports of hides from the developing countries were Portugal and Spain. Imports were generally slightly higher in 1968 than in 1965, but only the Federal Republic of Germany, Italy and the United Kingdom spent more than \$1 per person on hide purchases in developing countries (see table A.26 in the statistical annex).

Much more important as an earner of foreign exchange are the textile fibres. Developed market economy imports of these from the developing countries totalled rather more than \$1.6 billion in 1968, down slightly from 1965. The principal importers were Japan, United Kingdom, Federal Republic of Germany, France, Italy and the United States, accounting between them for over three fourths of all developed market economy purchases from the developing countries. Except for the United States, whose fibre imports are very small on a *per capita* basis, these major importers spent around \$4 per person on such imports in 1968, marginally less than in 1965. *Per capita* imports were higher than this in several of the smaller countries, notably Belgium (almost \$9 in 1968), Portugal (\$7), Switzerland (\$5), and the Netherlands (\$4).

The major importers obtained around 40 per cent of their external supplies from the developing countries, except Italy which purchased rather more from other developed market economies, as did many of the smaller countries particularly Finland, Greece, Iceland, Norway, Sweden and Turkey, whose imports from developing countries were less than a fifth of their total fibre purchases (see table A.27 in the statistical annex).

The principal fibre import from the developing countries is cotton, which accounted for about 60 per cent of the total in 1968. By far the largest importer is Japan which took about a third of all cotton imports from the developing countries in 1968. The next three importers—Federal Republic of Germany, France and Italy—accounted for another third. These major cotton importers spent between \$2 and \$3 per person in 1968, about twice the developed market economy average but less than some of the smaller countries such as Belgium, Portugal and Switzerland. The United Kingdom, the fifth largest importer among the developed market economies, spent \$1.5 per person. Just over 60 per

cent of developed market economy supplies come from the developing countries, substantially more than that in the case of Australia, Federal Republic of Germany, Netherlands, Portugal and the United States, and much less—under 40 per cent—in the case of the Scandinavian countries, Ireland and Yugoslavia (see table A.28 in the statistical annex).

While cotton imports from the developing countries rose appreciably between 1965 and 1968, wool imports declined—to below \$400 million. The top four countries (United States, United Kingdom, Federal Republic of Germany and Japan) took two thirds of the total, and the next three (Italy, France and Belgium) a further fourth. It was the United States purchases that dropped most sharply between 1965 and 1968, to only \$0.3 per person—not much above half the developed market economy average. The highest *per capita* expenditure was by Belgium and the United Kingdom—around \$2.

On the average, just over a fifth of developed market economy wool imports come from the developing countries. The proportion is appreciably higher in the case of Spain, the United Kingdom and the United States, and appreciably lower in the case of the Scandinavian countries, Ireland and Yugoslavia (as for cotton imports) as well as Canada, Greece, Japan and Turkey, which buy the great bulk of their wool from other developed market economies, especially Australia, New Zealand and South Africa, the main sources of the longer-staple and finer merino wools.

As in the case of rubber, the 1960s saw an acceleration in the rate at which man-made fibres were replacing the natural product. Between 1960 and 1968 world consumption of wool rose at less than 1 per cent a year and of cotton at only a little over 1 per cent a year; by contrast, the consumption of cellulosic fibres increased at 4 per cent and synthetic fibres at no less than 23 per cent a year, raising their combined share from a fifth of the total at the beginning of the decade to over a third at the end. In the developed market economies, the share of cotton in total consumption dropped from over 60 per cent to about 40 per cent. The speed of substitution was not as great in the centrally planned economies but the direction of change is clearly the same: cotton usage in Eastern Europe and the Soviet Union declined from about three fourths to about two thirds of the total.

Jute and the hard fibres have also been facing increasing competition from man-made substitutes such as polypropylene and nylon (as well as from alternative materials and methods of operation in the various end uses). Exports of jute from the developing countries to the developed market economies drifted downwards in the course of the 1960s. Though the centrally planned economy off-

take increased rapidly in the first half of the decade, it too began receding. Thus total trade in 1968 was less than in the early years of the decade (see table 53). Imports of hard-fibre agaves into the developed market economies (all from developing countries) increased slowly to a peak in 1965 and by 1968 had dropped below the 1962 level. At a much lower figure, imports into the centrally planned economies rose much more steeply in the first half of the decade, reaching a peak in 1966, and falling back sharply thereafter. Trade in abaca peaked even earlier (in 1964) and has fallen steadily since: imports into the developed market economies in 1968 stood at not much more than half the 1964 figure.

This recession in the volume of natural fibre imports has been accentuated by a deterioration in price. As the competition of substitutes intensified, there was increased pressure on prices. And, except in the case of jute for which prices were generally well held, there was a downward movement in unit value: between 1959-1961 and 1966-1968 the decline averaged about 1 per cent a year in the case of cotton and wool, 4 per cent in the case of sisal and 8 per cent in the case of abaca.

Trade in oil-seeds and oils has also experienced strong competitive forces, partly as a result of the replacement of soap by detergents in various uses and partly as the result of the growth of domestic supplies of both vegetable oils (notably soya bean)

and animal fats (notably butter) in some of the principal markets. Offsetting this to some extent, however, has been the vigorous growth in the feed industry as the demand for meat has risen. Imports of oil-seeds into the developed market economies were valued at about \$0.6 billion in 1968: this represented about a third of developed market economy imports of this item, a markedly lower proportion than in 1965 (see table A.29 in the statistical annex).

Oil-seed imports tend to be more generally distributed than many other types of raw material, reflecting the wide spread of the oil-expressing industry and of the use of the products. The principal importers from the developing countries are France, Japan, Federal Republic of Germany, United States, Netherlands, Italy and United Kingdom, accounting between them for 80 per cent of the total. On a *per capita* basis, the Netherlands made by far the largest purchases—\$5 in 1968, six times the developed market economy average—but expenditure ranged between \$2 and \$3 per person in several other countries, including Belgium, Denmark, France, Portugal and Switzerland.

Some of the smaller importers drew very little of their oil-seed requirements from the developing countries: Australia, Austria, Canada, Denmark, Finland, Norway, Spain and Yugoslavia all obtained more than three fourths of their external supplies from other advanced countries, particularly the United

Table 53. Imports of jute and hard fibres by the more advanced countries, 1962-1968

(Thousands of tons)

<i>Fibre and importing region</i>	1962	1963	1964	1965	1966	1967	1968
<i>Jute and allied fibres</i>							
Developed market economies	755	724	682	775	647	699	629
Centrally planned economies	73	114	152	146	149	129	123
World	986	954	978	1,204	1,140	959	970
<i>Sisal, henequen and other hard fibres</i>							
Developed market economies	496	508	534	553	544	471	487
Centrally planned economies	12	11	32	38	63	37	38
World	526	532	581	606	622	525	542
<i>Abaca</i>							
Developed market economies	89	102	102	92	84	72	59
World	98	109	110	101	92	79	65

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Food and Agriculture Organization of the United Nations, *Commodity Review* (Rome), various issues.

States, the major exporter of soya beans. Even Japan drew less than a fifth of its imports from the developing countries. At the other end of the spectrum, however, were the countries that obtained the great bulk of their oil-seed imports from developing countries—France, Ireland, Portugal, Sweden and Switzerland and, of course, the United States itself, which ranked fourth among the developed market economies in 1968.

The United States imports more oil from the developing countries than seed: in 1968 it was by far the largest purchaser, absorbing a fourth of all developed market economy imports of vegetable oil from the developing countries. The United Kingdom also imports more oil than seed. This is not the case with the Federal Republic of Germany and France, which were the other leading oil importers accounting between them for almost a third of developed market economy imports in 1968. Italy and the Netherlands are the only other major importers of oil from the developing countries. Japan imports very little oil. The smaller importers tend to purchase more than half their supplies from exporters among the more advanced countries, but because of the size of flow to France, the United Kingdom and the United States, the bulk of the imports of the developed market economies as a group comes from the developing countries.

About three fourths of the oil imported from the developing countries belongs to the "hard" lauric acid category, a third of which was purchased by the United States in 1968. Another third of the imports went to the next three countries—Federal Republic of Germany, United Kingdom and France. The only country to spend more than \$1 per person on such imports, however, was the Netherlands. About three fourths of these hard-oil imports come from the developing countries, but many of the smaller purchasers obtain the bulk of their supplies from other developed market economies (see table A.30 in the statistical annex).

Only a third of developed market economy imports of the "soft" edible oils comes from the developing countries, mainly in the form of ground-nut oil bought by France and the United Kingdom, which together account for two thirds of the total. The Federal Republic of Germany and Italy, the only other significant importers of soft oils from the developing countries, obtain most of their supplies from other developed market economies, largely in the form of soya-bean oil from the United States. With the exception of Portugal, all the smaller importers also buy chiefly from the more advanced countries, including not only soya-bean oil and cottonseed oil from the United States but also olive oil from Spain, sunflower oil from the Soviet Union and rapeseed oil from several parts of Western Europe.

In contrast to the generally unfavourable market situation that faced most of the agricultural raw materials exported by the developing countries against the competition of supplies from the more advanced countries and man-made substitutes, the 1960s brought a strong and increasing demand for most of the minerals that the developing countries were able to produce. Trade in iron ore expanded rapidly as coastal facilities using high-grade imported ore replaced inland furnaces and mills located near old, lower-grade mines; trade in bauxite also expanded rapidly with the growth in demand for aluminium and the erection of new smelting capacity at power sources in the industrial countries. There was also an increase in the movement of nickel, lead and zinc ores and concentrates, and, on a much larger scale, of copper and other non-ferrous metals. The effect of this was accentuated by the steep rise in prices referred to earlier in this section.

In 1968 imports of ores and concentrates into the developed market economies from the developing countries were valued at about \$2.4 billion, of which over three fourths went to the four largest markets—Japan, United States, Federal Republic of Germany and United Kingdom. Japan, which obtained over half of its ore imports from developing countries, accounted for well over a third of the total—\$0.9 billion, up sharply from the 1965 level, though less sharply than imports from some of the more advanced countries, notably Australia. The other three leading importers obtained less than half their ore requirements from the developing countries, especially the Federal Republic of Germany which, drawing much of its iron ore from France and Sweden, bought only a third of its supplies from developing countries (see table A.31 in the statistical annex).

Among the smaller importers, the only countries spending more than the developed market economy average of \$3 per person on ore imports from the developing countries were Belgium, the Netherlands and Norway. Belgium, with its large metallurgical industry, spent \$9 per person in 1968 and yet obtained only a fifth of its ore imports from the developing countries. Norway, whose metallurgical industry is of more recent origin but growing fast, spent \$4 per person but obtained only an eighth of its ore imports from the developing countries. The Netherlands cut its ore imports from the developing countries very sharply between 1965 and 1968: at \$4 *per capita* in 1968 they were only half the earlier figure, reflecting a reorientation of the movement of tin concentrates.

France is also a sizable importer of ores from the developing countries, though expenditure was only \$2 *per capita* in 1968. It was even less in the case of Italy which obtains less than a fourth of its ore imports from the developing countries.

Almost half of the ores imported by the developed market economies from the developing countries were in the non-ferrous category. The major purchasers are the United States and Japan which together accounted for well over half the total in 1968. On a *per capita* basis, Japanese imports of non-ferrous ores and concentrates were twice the developed market economy average, but even higher figures were recorded by Belgium and Norway (between \$4 and \$5 in 1968) and also by Canada (\$3) which obtained 60 per cent of its imports from the developing countries, a proportion well above the developed market economy average, which had dropped sharply between 1965 and 1968 to below the 50 per cent mark.

In contrast to this decline in the proportion of supplies drawn from the developing countries in the case of ores and concentrates, the developed market economies were getting more of their non-ferrous metal imports from the developing countries in 1968 than in 1965. The total exceeded \$3 billion in 1968, of which \$0.6 billion went to the United States, \$0.5 billion to the United Kingdom, \$0.4 billion each to Belgium, Federal Republic of Germany and Japan, and \$0.2 billion each to France and Italy. Most of these major importers obtained rather more than a third of their external supplies from the developing countries, but in the case of Belgium, with its links to the Democratic Republic of the Congo, the proportion was almost twice that, and Japan, too, got over 60 per cent of its non-ferrous metals from the developing countries. Among the smaller countries, only Sweden imported more from the developing countries on a *per capita* basis—\$9 per person in 1968, about twice the developed market economy average.

As pointed out in the previous section, by the end of the 1960s, fuels had become the largest single category of trade between the developing countries and the developed market economies. In 1968 they accounted for almost \$13 billion, three fourths of which went to the six major importers—Japan, United States, United Kingdom, Federal Republic of Germany, France and Italy (see table A.19 in the statistical annex). In the case of the United States, imports were no greater than in 1965 and their value in relation to population and total domestic output was far below the developed market economy average of \$18 per person and 0.7 per cent of gross domestic product in 1968. In the other countries, fuel imports from the developing countries ranged between \$20 and \$30 *per capita* and between 1 and 2 per cent of the gross domestic product. In all six countries, between two thirds and three fourths of fuel imports were obtained from the developing countries. With the exception of Australia, Netherlands, New Zealand and Spain,

other developed market economies drew a smaller proportion of their external supplies from developing countries, less than an eighth in the case of Austria, Finland, Iceland and Turkey. The movement of this ratio is strongly influenced by the building and expansion of refinery capacity in the importing country, virtually all the imports of crude petroleum coming from the developing countries.

Expenditure on fuel imports from the developing countries was particularly high on a *per capita* basis in Belgium, Denmark and the Netherlands. In Belgium and Denmark this represents a sharp increase between 1965 and 1968; in the Netherlands the rate of growth was more moderate—in both years imports from developing countries amounted to 2.7 per cent of the country's gross output, the highest recorded ratio, four times the developed market economy average. In relation to domestic production, fuel imports from developing countries increased markedly between 1965 and 1968 in Spain, reaching a ratio of 1.8 per cent, well over twice the developed market economy average.

About a sixth of all the imports in the fuel category consisted of petroleum products in 1968. More than half of this—almost \$1 billion—went to the United States, largely as a result of the rapid increase in the local demand for so-called residual oil for space-heating purposes: of the total market for refined products, the share of imports rose from about 9 per cent at the beginning of the decade to over 12 per cent by 1968, virtually all coming from the Caribbean area. For much the same reason, imports of petroleum products into Canada were also high and rising—\$6 *per capita* in 1968, almost three times the developed market economy average (see table A.32 in the statistical annex).

Next to the United States, the largest market for petroleum products from the developing countries is Japan whose imports had risen steeply in the 1960s to almost \$0.3 billion in 1968, nearly a sixth of the developed market economy total. The United Kingdom is also a major importer of petroleum products, but in 1968 only a fourth came from the developing countries.

Among the smaller importers of petroleum products from the developing countries, several recorded purchases above the developed market economy average on a *per capita* basis—Sweden (\$9 in 1968), Denmark (\$5), New Zealand (\$4) and the Netherlands (between \$3 and \$4 per person). In all these countries the share of the developing countries in total imports had declined markedly since 1965—to less than a fourth, except in New Zealand where the proportion was close to the developed market economy average of 38 per cent. This, too, probably reflects the growth of refinery capacity in



the more advanced countries and the consequent increase in the exchange of various products.

This expansion in refinery capacity lies behind the 40 per cent increase between 1965 and 1968 in imports of crude fuels into the developed market economies from the developing countries. The main purchasers were Japan (\$1.7 billion in 1968), United Kingdom, France and Federal Republic of Germany (\$1.4 billion each), Italy (\$1.3 billion) and United States (\$0.9 billion), all of which drew the great bulk of their imports from developing countries, though some were also importers of coal (chiefly from the Federal Republic of Germany, Poland and the United States) and, in the case of Italy and the United States, of petroleum from the Soviet Union and Canada, respectively. There was also a considerable increase in the imports of Belgium, Netherlands and Spain and, on a smaller scale, Denmark and Sweden.

### *Manufactures*

Only a small fraction of the imports of manufactured goods by the developed market economies originates in the developing countries: it was about 8 per cent in 1968 on the average, ranging from less than 2 per cent in the case of Austria, Canada, Denmark, Finland, Greece, Iceland, Ireland, Netherlands and Yugoslavia to over 10 per cent in the case of Belgium, Japan, United Kingdom and United States. In *per capita* terms, imports of manufactures from the developing countries were highest in Belgium (\$56 in 1968, almost double the 1965 level), the United Kingdom (\$28), Sweden (\$19) and Norway (\$16), significantly lower in some of the major industrial countries such as France, Italy and Japan (where they averaged around \$6 in 1968) and lowest in some of the less industrialized countries such as Finland, Greece, Iceland, Ireland, Spain, Turkey and Yugoslavia (all below \$4). In relation to total output, the imports of manufactures from the developing countries were highest in Belgium, the United Kingdom and Portugal, around the developed market economy average of 0.5 per cent of gross domestic product in some of the principal industrial countries, but significantly lower in the United States and lowest in the least industrialized group (see table A.19 in the statistical annex).

Most of the manufactures imported from the developing countries are so-called "basic" items made from a specific raw material—almost three fourths in 1965, 70 per cent in 1968. And of this category of basic manufactures (SITC 6) by far the largest single group is that of non-ferrous metals examined above and in table A.31 in the statistical annex. Developed market economy imports of basic manufactures other than non-ferrous metals totalled

\$2.5 billion in 1968, up over one third from 1965. More than half of these other manufactures went to the United States (just under \$0.8 billion) and the United Kingdom (just under \$0.6 billion) and a further one fifth to the next three importers—Japan (\$185 million), Federal Republic of Germany (\$176 million) and Belgium (\$119 million)—and most of the remainder to Australia (\$73 million), Canada (\$71 million), France (\$66 million) and Portugal (\$58 million).

Over half of these basic manufactures other than non-ferrous metals consist of three categories of goods: textile yarns and fabrics (\$875 million in 1968), wood and cork products (\$249 million) and leather products (\$156 million).

Nearly 60 per cent of developed market economy imports of yarns and fabrics from the developing countries are purchased by the United States and the United Kingdom, and a further 30 per cent by the next four importers—Federal Republic of Germany, Australia, Japan and Canada. Around one third of all the imports of textiles into the United States, United Kingdom and Japan come from the developing countries—a much higher proportion than in any other developed market economy and over twice the average ratio. The only other countries to draw more than 5 per cent of their imports from developing countries in 1968 were New Zealand, Australia, Turkey, Canada, Federal Republic of Germany, Switzerland and Italy; and in most countries the developing country share was lower in 1968 than in 1965. The most notable growth in this interval was in imports into Japan, though on a *per capita* basis they did not reach even half the 1968 developed market economy average of \$1.2. The highest *per capita* purchases were in New Zealand (\$8), Australia (\$5), United Kingdom (\$3) and Switzerland, Canada and Denmark (around \$2). The smallest importers among the leading industrial countries were France and Italy (see table A.27 in the statistical annex).

The pattern of imports of clothing (SITC 84) does not balance that of yarn and fabrics; on the contrary, the degree of concentration is even greater. In 1968 the United States alone accounted for more than half the developed market economy total, and the top five importers—United States, United Kingdom, Federal Republic of Germany, Canada and Sweden—took over 90 per cent. Almost half the clothing imports of the United States and United Kingdom come from the developing countries; while among the smaller importers only Japan, Australia and Canada bought more than a fifth of their external supplies from developing countries in 1968.

The main contrast between textile imports and clothing imports from the developing countries is

rapid growth of the latter in the 1965-1968 period. Several countries, most notably the United States and Canada, doubled their *per capita* purchases of clothing from the developing countries in this interval, and there were sharp increases in Sweden and the United Kingdom, the only other countries to spend more than \$2 per person on such imports in 1968. The Federal Republic of Germany was the only member of the European Economic Community (EEC) to spend more than the developed market economy average of \$1 per person on clothing from developing countries in 1968.

The great bulk of United States imports of textiles and clothing comes from southern and south-eastern Asia. About two thirds of the fabric component consists of jute. In the second half of the decade (that is between 1964 and 1969), textile imports from the developing countries increased about 50 per cent in value, while imports of clothing almost quadrupled, exceeding \$0.5 billion in 1969. This rapid expansion and the high degree of concentration on the United States market served to accentuate the appeals for protection that were coming from local producers, even though *per capita* expenditure on such imports and their share of total domestic consumption were still quite modest.

Imports of wood manufactures from the developing countries were concentrated even more on the United States market, which in 1968 accounted for over 70 per cent of the developed market economy total (see table A.25 in the statistical annex). These products, too, came very largely from southern and south-eastern Asia, imports from which almost trebled in the period 1964-1969. The proportion of United States wood product imports coming from the developing countries was 42 per cent in 1968, twice the developed market economy average and appreciably higher than earlier in the decade. The only other countries to spend more than the developed market economy average of \$0.3 per person on such imports in 1968 were Canada and the United Kingdom.

Imports of leather manufactures are more equally distributed among the major countries: in 1968 the United Kingdom absorbed almost a fourth while the United States, Italy, Federal Republic of Germany and France each accounted for around a sixth. The principal expansion between 1965 and 1968 was in the imports of Italy, France and Federal Republic of Germany whose *per capita* expenditure rose to twice the developed market economy average of \$0.2. Among the smaller importers, Japan increased its purchases from the developing countries, from which it obtains more than half its external supplies—a higher proportion than any other country, including the United Kingdom whose *per capita* purchases of leather manufactures from the develop-

ing countries rose above three times the developed market economy average in 1968 (see table A.26 in the statistical annex).

The developed market economies imported about \$0.4 billion of manufactured chemicals from the developing countries in 1968. The United States absorbed about a third of this and the United Kingdom about an eighth, most of the remainder going to Norway, Japan, France, Netherlands and the Federal Republic of Germany. In relation to population and domestic manufacturing activity, Norway was by far the largest importer (\$12 per person and 2.2 per cent of the value added in manufacturing); it obtained almost a fifth of all its chemical imports from the developing countries, compared with a developed market economy average of about 4 per cent. Among the other countries, only the Netherlands spent as much as \$2 per person on purchases of chemicals from the developing countries.

Next to Norway, the United States obtained the highest proportion of its imports of chemicals from the developing countries: it was 15 per cent in 1968, down sharply from earlier figures, reflecting a marked reduction in purchases from Africa as well as a decline (since 1966) in imports from Latin America, its principal source of supply. With the exception of France, the other developed market economies were all buying appreciably more from developing countries in 1968 than they had earlier in the decade, though the trade remained very small by most standards.

There has been a remarkable upsurge in imports of machinery and equipment from the developing countries in recent years. This is accounted for very largely by trade that the United States has built up in electrical and electronic apparatus, described earlier in this chapter. Most of it has been organized through subsidiaries or subcontractors of United States firms operating in China (Taiwan), Philippines and Republic of Korea in labour-intensive segments of the telecommunications industry. United States imports of such equipment expanded more than fourfold between 1965 and 1968 when they constituted well over half the developed market economy total. This involved expenditure of \$1.2 per person, twice the developed market economy average, and was surpassed only by Belgium where, on a very small scale, there had also been a rapid expansion between 1965 and 1968.

Though significant in terms of a few of the items that are subsumed in this category of trade, these imports remain miniscule in the broader grouping of machinery and equipment: only in the United States, Japan and the United Kingdom did imports from the developing countries reach 2-3 per cent of the total inflow under this heading, and for the



developed market economies as a whole, the share was only 1 per cent.

Imports of other manufactures, chiefly finished consumer goods, totalled \$1.4 billion in 1968, of which over half consisted of clothing, discussed above. About 60 per cent of the remainder went to the United States, a slightly higher proportion than in 1965. United States imports of these consumer products more than doubled in value between 1965 and 1968, approaching \$0.4 billion. Among the items included in this expansion was foot-wear, purchases of which from the developing countries increased tenfold between 1964 and 1969 (to almost \$50 million), furniture, in which there was an eightfold increase (to \$40 million), toys and sporting goods (a fivefold increase to \$90 million) and miscellaneous plastic articles (a twelvefold increase to nearly \$90 million). The growth was almost entirely in imports from southern and south-eastern Asia, though there was a large proportionate, if small absolute, expansion in purchases from Latin America.

In comparison with the growth in these United States imports, the purchases in developing countries of manufactured consumer goods other than clothing were all on a modest scale. The largest amount was spent by the United Kingdom—\$97 million in 1968, up 50 per cent from 1965. The Federal Republic of Germany and Canada each spent around \$30 million in 1968, more or less double the 1965 amount. The other twenty countries accounted for the remaining 15 per cent of the \$635 million spent by the developed market economies as a whole on these miscellaneous consumer products from the developing countries in 1968.

While a country's import performance needs to be judged at least in part by the amount it spends on manufactured goods from the developing countries, trade data as discussed above cannot be viewed mechanically and in isolation. In the first place, it takes two parties to trade—poor import figures may reflect difficulties at the export end of the flow rather than in the market. These difficulties are likely to be greatest where the climatic and cultural differences between the trading countries are widest: making products for use in arctic conditions not a natural or easy undertaking for a tropical factory. They are likely to vary inversely with the size of the importing country: the larger the market and the more active and widespread its commercial links through buyers and banks and shippers, the easier is it likely to be for the producer in a developing country to discover what is salable, arrange financing for the production and handle the physical transfer of the goods. These factors are clearly at work in the case of the United Kingdom and the United States, making them so often the major importers

of particular manufactures from the developing countries.

Equally clearly, these are not the only factors at work. The trading posture of the country may facilitate or hinder exchanges with other countries: customs procedures and payments regulations and the degree of internal competition all help to determine whether a lower-cost item can be shipped from a developing country and successfully marketed. Thus wide disparities between countries in the imports of a particular item—relative to some common internal criterion—or in the rate of increase in such imports suggest the existence of obstacles to trade. And it is in this sense that an examination of comparative import performance constitutes the first step in appraising conditions and policies.

#### *An appraisal of policies affecting imports*

Of the various ways in which government policies impinge directly on the inflow of imports from developing countries, the ones that merit special scrutiny in a national appraisal are those that affect the nature and extent of domestic competition and those that determine the conditions of entry into the local market. The former include the policies governing the domestic production of the commodity concerned (or of substitutes for it) while the latter include trade policies as such as well as measures that affect the price of the commodity on the local market.

#### *Production policies*

Production policies are practised more in the centrally planned economies than in the developed market economies. The plans of the former, indeed, tend to include production targets for many of the commodities exported by the developing countries, and, from time to time, targets for an import component of total supply: the very nature of the centrally planned system requires that the level and composition of foreign trade be kept under control to ensure that they fit into the pattern of domestic production. Thus, although imports from the developing countries are the result of various types of trading arrangement, including barter deals and *ad hoc* transactions, the bulk of the flow is based on bilateral trade agreements containing short-term quotas and longer-term targets. In the second half of the 1960s, there appears to have been a general shift towards longer-term trade arrangements. In the period 1966-1968, over 80 per cent of the trade between the centrally planned economies and the developing countries was conducted in terms of agreements with specific targets. In 1968, long-term agreements accounted for over 80 per cent of the trade of Czechoslovakia, Poland and the Soviet Union with the developing countries with which they

had commercial arrangements.<sup>2</sup> By the end of the decade Poland had fifteen long-term agreements governing trade with the developing countries, Hungary, twelve, and Bulgaria, ten; and most of them were broadly co-ordinated with national economic plans.

Recent modifications of the foreign trade organizations in the centrally planned economies, while preserving the state monopoly, have been designed in part to expose domestic enterprises to a greater degree of competition from abroad. This has resulted in a significant expansion in the range of commodities imported from the developing countries. At the beginning of the 1960s, the three principal items—rubber, cotton and sugar—accounted for almost two thirds of the total value of Soviet imports from the developing countries; in 1969 those items constituted less than 40 per cent of the total, and the list of imports had been extended to include maize, wine, metal ores and concentrates and petroleum in various forms (see table 54).

The changing composition of imports from developing countries also reflects the difficulties experienced by the centrally planned economies in expanding their primary production in line with the rapid growth in industry and in personal incomes. Imports from the developing countries helped to

ease the strain on Soviet mining activities occasioned by the increase in requirements both for internal use and for the mineral-using industries in some of the Eastern European countries. During the second half of the 1960s, long-term contracts were concluded for the importation of petroleum from Iran and the United Arab Republic by Czechoslovakia, the German Democratic Republic, Hungary and Romania, of natural gas from Iran by the Soviet Union, and of phosphates from the United Arab Republic by Poland and Romania. These all involved the co-ordination of trade policies with domestic production policies.

The closest parallel to such production policies among the developed market economies is that presented by some of the nationalized industries. The deliberate running down of activity in the coal mines of the United Kingdom, for example, represents a policy of favouring imports, in this case chiefly of petroleum from the developing countries. In 1960, the United Kingdom derived over 76 per cent of its mechanical energy from coal and less than 24 per cent from petroleum; by 1968, the coal contribution had fallen to 59 per cent, that of petroleum rising to 38 per cent (the remaining 3 per cent coming from natural gas, hydro-power and nuclear reactors). Similar, if somewhat less controlled, cut-backs in coal production were effected under the auspices of the European Coal and Steel Community and in other countries of Western Europe

<sup>2</sup> *Vneshnaya Torgovlya*, No. 12, 1969 (Moscow), and *Czechoslovak Foreign Trade*, No. 3, 1969 (Prague).

Table 54. Soviet Union: imports from developing countries, by commodity, 1960, 1968 and 1969

(Value in millions of roubles; share in percentage)

Commodity <sup>a</sup>	1960		1968		1969	
	Value	Share	Value	Share	Value	Share
Imports, total	569.8	100.0	997.0	100.0	1,173.7	100.0
Natural rubber	136.7	24.0	104.8	10.5	127.5	10.9
Cotton fibre and yarn	130.3	22.8	133.7	13.4	161.9	13.8
Sugar, raw	93.4	16.4	213.1	21.3	161.9	13.8
Hides, raw	30.5	5.4	33.2	3.3	38.8	3.3
Wool	28.0	4.9	30.9	3.1	25.8	2.2
Cocoa beans and butter	26.3	4.6	61.2	6.1	88.9	7.6
Tea	16.5	2.9	24.7	2.5	29.0	2.5
Coffee	12.1	2.1	23.0	2.3	32.4	2.8
Rice	4.9	0.9	28.3	2.8	40.6	3.5
Maize	—	—	8.7	0.9	11.8	1.0
Fruits and vegetables, fresh	4.4	0.8	31.0	3.1	37.4	3.2
Grape wines	—	—	12.1	1.2	42.7	3.6
Foot-wear, leather	2.5	0.4	7.5	0.8	13.7	1.2
Textile fabrics <sup>b</sup>	0.8	0.1	17.9	1.8	26.4	2.2
Metal ores and concentrates	—	—	25.0	2.5	30.8	2.6
Natural gas, crude petroleum and products	—	—	10.1	1.0	27.0	2.3

Source: National statistics.

<sup>a</sup> Listed in descending order of importance in 1960.

<sup>b</sup> Cotton and woollen fabrics.

as well as Japan, and this is one of the principal explanations of the great upsurge in imports of petroleum into the developed market economies in the 1960s, discussed in the previous section.<sup>3</sup>

In many of the developed market economies, measures that are tantamount to a production policy have tended to evolve in the agricultural sector as a concomitant of efforts to sustain farm incomes. In the United States, the management of supply has entailed a combination of price supports for particular commodities and output quotas for individual farms, combined in some cases with the concept of a soil bank allowing designated acreages to be cultivated or kept fallow in specified years. In the United Kingdom, the market was left much freer for most of the 1960s, the difference between realized prices and those agreed to in advance by the Government being made good by so-called deficiency payments to farmers up to designated limits. In the European Economic Community, limitation on output has been much weaker, and the price supports arranged for various crops under the common agricultural policy have resulted in a more marked upswing in production.

The Community was self-sufficient in respect of butter, sugar and vegetables at the beginning of the decade, and by the end of the decade had become very nearly so in respect of grains, rice and wine. Even in the case of vegetable oils, the ratio of production to consumption was higher in 1967-68 (43 per cent) than at the beginning of the decade (37 per cent over the three years 1959/60-

<sup>3</sup> The policy measures used to keep the rundown of the coal industry under control included various forms of subsidy (such as low-cost capital for mechanization), differential taxation (particularly levies on fuel oil) and grants for the retraining and resettlement of displaced workers.

1961/62). The United States has remained a major net exporter of most temperate farm products though, as in EEC, its output of meat has continued to fall slightly short of consumption. In the case of sugar, domestic production provided 54 per cent of requirements in 1967-1968, compared with 46 per cent at the beginning of the decade (see table 55).

By 1967-1968, Sweden and the United Kingdom were self sufficient in barley, as the former continued to be in wheat and meat. Japan remained a major importer of a number of farm products, but its demand for rice fell away sharply in the face of declining consumption (as incomes rose) and rising production (in response to high support prices): imports which had reached almost 1 million tons in 1965 had dropped below 300,000 tons by 1968.

The embarrassment of surpluses has caused several countries to seek means of supporting incomes directly rather than through product prices. Most of the members of EEC increased rural pensions and retirement annuities in 1968, and Finland launched a soil bank system to reduce the area under cultivation. Austria, Sweden and Switzerland reduced the support prices payable for dairy products. In the case of Sweden, other agricultural supports were also lowered and positive efforts made to restructure the farm sector: by eliminating marginal units it was hoped to improve the over-all viability of the sector, reducing the average level of self-sufficiency from 95 per cent to 80 per cent.

Sweden was one of the few countries to reduce its output of sugar (relative to consumption) in the 1960s. In most other developed market economies there was an increase, and beet sugar, which constituted just over 40 per cent of world production at the beginning of the decade, had reached 45 per

Table 55. Temperate farm products: ratio of production to consumption in selected countries,<sup>a</sup>  
1959-1960 and 1967-1968  
(Percentage)

Commodity	EEC		Japan		Sweden		USSR		United Kingdom		United States	
	1959-1960	1967-1968	1959-1960	1967-1968	1959-1960	1967-1968	1960-1961	1968-1969	1960-1961	1968-1969	1959-1960	1967-1968
Wheat	91	103	38	29	115	127	80	105	60	48	210	177
Rice	79	89	102	100	—	—	45	79	—	—	220	175
Barley	91	99	99	62	93	109	105	102	88	108	120	105
Maize	62	49	—	1	—	—	102	99	—	—	120	114
Meat	96	95	94	86	108	108	..	..	68	77	98	97
Sugar	95	98	13	18	83	68	80 <sup>b</sup>	94 <sup>b</sup>	33	35	46	54

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Food and Agriculture Organization of the United Nations, *Production Yearbook and Trade Yearbook* (Rome); *Vneshnaya Torgovlya SSSR 1959-1963, 1965, 1967, 1969* (Moscow); *Narodnoe Khozyaistvo SSSR za 1961, 1962, 1965, 1967, 1969* (Moscow).

<sup>a</sup> Consumption is estimated on the basis of production plus imports minus exports.

<sup>b</sup> Based on data for refined sugar plus raw sugar at refined equivalent; the later ratio refers to 1967-1968.

cent by the end. In Europe the expansion in trade was largely in locally grown sugar. Developing countries furnished three fourths of the gross imports of EEC in 1959-1960 but only half in 1967-1968.

Production policies with price supports also contributed to the upsurge in the output of vegetable oils in the more advanced countries. The most spectacular gain was in United States soya bean production, but the output of sunflower seed in Eastern Europe and the Soviet Union also rose significantly. Thus, during the 1960s, while the output of lauric acid oils (chiefly coconut and palm kernel) declined, the output of soft oils increased at over 4 per cent a year. The developing countries, which contributed about a third of the world's supply of fats and oils at the beginning of the decade, accounted for less than 30 per cent in 1969. In the face of aggressive marketing by the United States, the developing country share of total exports declined even more.

One of the few agricultural supply management policies that resulted in a sharp reduction in output in the 1960s was that affecting cotton in the United States: at the beginning of the decade, the United States crop constituted almost a third of the world total, in 1967/68-1968/69 it was less than a fifth.<sup>4</sup> The share of the United States in raw cotton exports was halved in this interval—from 41 per cent to 21 per cent of the total. All the other regions increased their production, and exports from the developing countries rose from 1.7 million to 2.1 million tons or from 44 per cent to 56 per cent of the world total. Imports of the developed market economies totalled 2.1 million tons in 1969, three fourths coming from the developing countries, compared with about half in early years of the decade.

#### *Trade policies*

By and large, the 1960s were characterized by a liberalizing trend that must be judged strong by historical standards. The main impact of this was felt by the developed market economies, however, especially the more industrialized among them. The trade of the developing countries was less affected, in part because the principal flow of direct investment (and the consequential exports) was between the more advanced countries, and in part because a high proportion of the commodities exported by the developing countries continued to be subject to special constraints designed to protect particularly vulnerable groups in the developed market economies—farmers and some of the older, more labour-

<sup>4</sup> Apart from the application of a soil bank policy to the management of domestic cotton production, the United States introduced a system of differential supports in order to encourage a switch towards the longer-staple varieties, the only type of cotton still imported by the United States.

intensive industries. Nevertheless, the liberalizing forces did exert some influence on the imports of the developed market economies from the developing countries in the wake of the first session of the United Nations Conference on Trade and Development (UNCTAD), the adoption of part IV (on trade and development) of the General Agreement on Tariffs and Trade (GATT) and the reduction in duties resulting from the Kennedy Round of tariff negotiations.<sup>5</sup>

Temperate farm products were excluded from consideration in the Kennedy Round, and the most significant tariff reductions agreed to by the time the negotiations concluded in mid-1967 were those affecting industrial goods exchanged largely by the major developed market economies, which were the main participants in the bargaining. On the basis of a sample of 454 items weighted in accordance with the 1965 pattern of imports into the developed market economies, the average cut in tariff rates (*ad valorem*, c.i.f. valuation, "most favoured nation") in the four major trading areas (EEC, Japan, United Kingdom and United States) was 49 per cent for chemicals (subject to the abolition of the "American selling price"), 44 per cent for machinery and equipment, 31-32 per cent for other manufactures (subject to the continuation of the international Cotton Textiles Arrangement), and 13 per cent for oils and fats.<sup>6</sup> Food-stuffs other than those subject to domestic price support had their average tariff of 12.8 per cent cut by 17 per cent, while the average rate on the low-duty category of raw materials was reduced from 3.2 per cent to 2.2 per cent. In general, the simpler manufactures tended to have their duties cut less than those of the technologically complex items: the average reduction in the four major trading areas has been estimated at 38 per cent in the tariffs facing the more advanced countries and 28 per cent in those facing the developing countries.<sup>7</sup> This difference in the depth of the cut was accentuated by the fact that the effective height of the tariff—this is, the rate of duty expressed as a pro-

<sup>5</sup> In May 1963, the contracting parties to GATT adopted an "action programme" calling for a standstill on all new barriers to products of particular interest to less developed countries, duty-free entry of so-called "tropical products", the elimination of quantitative restrictions on imports from developing countries, the progressive reduction of fiscal charges on such imports and the eventual elimination of tariffs on semi-processed and processed products. See General Agreement on Tariffs and Trade, *Basic Instruments and Selected Documents*, Twelfth Supplement (Geneva, June 1964). Very little of this programme had been put into effect by mid-1967 when the Kennedy Round negotiations ended.

<sup>6</sup> See *The Kennedy Round Estimated Effects on Tariff Barriers* (United Nations publication, Sales No.: E 68.II. D.12), p. 60, table A.1.

<sup>7</sup> For making these estimates, the weighting pattern used was 1965 developed market economy imports from developing countries of sections 5-8 of the SITC (*ibid.*, p. 7).

portion of the value added to the raw materials in the process of manufacture—was generally much greater for the simple products exported by the developing countries than for the more complicated products exported by the more advanced countries.

Among the major importing areas, the largest cut in the average tariff on textile items of interest to the developing countries was made by Japan (39 per cent), which reduced its average rate to below 13 per cent on c.i.f. value; a 13 per cent cut reduced the common external tariff of EEC to about 15 per cent, while somewhat deeper cuts reduced the United Kingdom average to 17 per cent and the United States average to just below 19 per cent. In the case of clothing, the lowest post-Kennedy Round tariff was that of EEC (15 per cent, after a one fourth reduction). The Japanese tariff was cut more deeply (30 per cent) but ended up somewhat higher (just under 18 per cent); that of the United Kingdom was reduced to 23 per cent (by a 23 per cent cut) and that of the United States to 30 per cent (by the smallest of the concessions—an average of 7 per cent).

There were cuts in all four areas in the tariff on cotton yarn (except in the United Kingdom) and cotton fabrics, also in the tariff on jute fabrics (except in the United Kingdom). The United States, which made the deepest cut in the case of jute fabrics, joined the United Kingdom in retaining existing rates on sacks and bags. The deepest cuts in the case of carpets were made by EEC and Japan (see table A.33 in the statistical annex).

Other items in the category of manufactures classified by raw material (SITC 6) tend to have a lower tariff than textiles, and after cuts ranging from a fourth to a third, the average for the section as a whole was not much more than 8 per cent in EEC, the United Kingdom and the United States, and 10 per cent in Japan. Similarly, duties on clothing tend to be higher than those on other manufactured articles in SITC section 8, the average tariff on which was reduced to below 12 per cent in EEC, 15 per cent in Japan, 18 per cent in the United Kingdom and 21 per cent in the United States, after cuts ranging from a fifth to a third (see table 56). There was a similar tendency for the reductions in duties on foot-wear items to be less common and less generous than those on leather. In the case of the latter, Japan was the only country among the four major importers not to make any concession.

As indicated above, cuts on transport and equipment averaged between 40 and 50 per cent, reducing the average tariff for SITC section 7 to 6 per cent in the United States, around 8 per cent in EEC and Japan, and just over 9 per cent in the United Kingdom. Neither EEC nor the United Kingdom reduced their average tariff on chemicals, but at about 12 per

cent they were below the level reached by Japan (15 per cent) and the United States (17 per cent) after modest Kennedy Round cuts.

Most raw materials are admitted into the developed market economies duty free, and the average tariff for the commodities in SITC section 2 was less than 1 per cent in EEC, between 1 and 2 per cent in Japan and the United Kingdom, and between 3 and 4 per cent in the United States, after cuts of a fourth in Japan and the United States and 40-50 per cent in EEC and the United Kingdom. The most notable cases of retention of existing tariffs were those on oil-seeds in the United Kingdom and United States, combed wool (except in EEC where it was duty-free), zinc concentrates in the United States and unwrought lead in EEC and United States.

Fuels also tend to have low-tariff access to the developed market economies and there were few cuts in prevailing rates conceded in the Kennedy Round of negotiations. The exception was EEC, which reduced its common external tariff on petroleum products and retained duty-free entry for crude petroleum. In this category of fuels (SITC 3), and even more in the case of beverages and tobacco (SITC 1), duties tend to be imposed for fiscal purposes rather than in pursuit of any trade policy. Such fiscal duties may range very high but, being designed to raise revenue, they are likely to be levied on commodities for which demand does not fall away rapidly as prices rise. Except for a one fourth cut in the average EEC tariff on beverages and tobacco, very few reductions were conceded in the duties levied on commodities in these categories.

As indicated above, most temperate agricultural products were excluded from the bargaining: many of them remained the object of domestic production and price support which required the maintenance of strict control over the volume and price of foreign supplies entering the market. The tariff on other food items was reduced, however—by 12-15 per cent, bringing the average down to below 7 per cent in the United Kingdom and United States, 12 per cent in EEC and 22 per cent in Japan. Included among these items were the beverage crops, which accounted for an annual \$3.5 billion in the 1966-1968 imports of developed market economies from the developing countries. These entered the United States duty free (and the United Kingdom also in the case of tea); elsewhere the tariffs were cut—eliminated in the case of cocoa in Japan and the United Kingdom and coffee in Japan (subject to a quota), halved in the case of cocoa in the United Kingdom (to a nominal 75 pence per hundred-weight) and tea in EEC (to 11.5 per cent), and reduced by smaller proportions in the case of coffee (to 9.6 per cent) and cocoa (to 5.4 per cent) in EEC. Only in the case of tea imports into Japan

Table 56. Major developed market economies: average rates of duty before and after the Kennedy Round of negotiations<sup>a</sup>  
(Percentage)

SITC number	Number of items <sup>b</sup>	EEC		Japan		United Kingdom		United States	
		1964	1969	Reduction	1964	1969	Reduction	1964	1969
0	30	14.0	12.4	12	25.9	22.0	15	8.1	6.9
1	10	66.4	49.9	25	223.8	222.1	1	32.4	30.8
2	68	1.6	0.8	51	2.1	1.6	23	4.7	3.6
3	48	1.2	1.1	2	13.2	13.0	2	3.9	3.9
4	5	11.8	11.8	0	16.6	14.7	11	21.4	17.1
5	11	11.9	6.5	45	18.4	12.4	33	12.0	6.1
6	70	10.6	8.0	25	15.6	10.1	35	12.1	8.3
7	14	12.9	7.5	42	16.8	8.4	50	10.3	6.1
8	21	17.0	11.7	32	22.3	14.6	35	26.0	20.8
5-8	117	12.2	8.5	30	17.2	10.9	36	14.4	10.1
0-8	277	9.8	7.3	26	20.5	17.1	16	10.2	7.9

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *The Kennedy Round Estimated Effects on Tariff Barriers* (United Nations publication, Sales No.: E.68.II.D.12).

<sup>a</sup> Based on applied rates where those differed from the legal rates.

<sup>b</sup> Selected from a sample of 420 items on the basis of their interest to developing countries and weighted in accordance with the pattern of total developed market economy imports in 1965.

<sup>c</sup> Excluding revenue duties so declared.

were the previous barriers (35 per cent duty and a quota limitation) retained.

Among the other food items, the most notable cuts in duty were effected in the case of meat extracts and, except in the United Kingdom, cashew nuts and certain types of fish.

The various concessions agreed to during the negotiations were to be implemented in stages over the following five years. As indicated in table A.33 in the statistical annex, however, many of the tariff cuts were made in full within the first two years. Canada, Iceland and Ireland completed all their scheduled reductions in 1968 and 1969, and by mid-1968 many other parties to GATT—including Austria, Denmark, EEC, Finland, Japan, Norway, Sweden, Switzerland, United Kingdom and United States—had given full effect to their undertakings in respect of a large number of products exported by the developing countries. The number of items in the semi-manufactured and manufactured category that were the subject of this advance tariff cutting ranged from seven in the United States to fifty-nine in Switzerland: they included meat extracts, cocoa paste, preserved vegetables and fruits, sheep leather, sawn wood, jute fabrics, unwrought tin and various precious and semi-precious stones, and involved developed market economy imports from developing countries of \$225 million in 1967.<sup>8</sup>

Apart from the lowering of tariff barriers, the Kennedy Round of negotiations resulted in two other changes that were of immediate or potential advantage to the developing countries. The first was the establishment of the concept of non-reciprocity, recognizing that in trade negotiations, gross inequalities in the bargaining strength of the parties might be mitigated by an abrogation of the convention that each concession required some *quid pro quo* from the countries that might benefit. By and large, the tariff cuts arranged among the developed market economies were made applicable to the developing country members of GATT without any reciprocal concession on their part.

The second achievement was the initiation of a movement to re-examine tariff structures to see where they might be amended or subdivided in ways that would take better account of items that come solely or mainly from developing countries. Such items might then be given easier access to the importing country without any significant upsetting of the trade in other products which the tariff had previously grouped with them. In 1969, as a result of such reclassification, Canada, EEC and the Nordic countries reduced the duties on various types of

handicraft imported from the developing countries, including hand-woven cotton and silk fabrics and oriental carpets.

It is difficult to assess the significance of a change in a given rate of duty in terms of its effect on trade. If supply conditions are not favourable, even a sizable reduction in the tariff may not result in an expansion in the trade flow; there is a particular risk in cases in which the developing country is competing with alternative sources of supply in the more advanced countries which are often better placed to increase output in the short run and market the product more efficiently.

On the other hand, where entrepreneurs are alert to the opportunities created by technology and cost differentials, even a seemingly minor customs provision may have a profound effect on the pattern of trade. Such, for example, has been item 807 of the United States tariff schedule under which duty is charged only on the value added when components are assembled abroad. This has given rise to a very rapid increase in the export of electronic components and the import of finished products, notably from China (Taiwan). In 1969, 18 per cent of all United States imports of electronic apparatus (\$322 million out of \$1.8 billion) moved under this provision.<sup>9</sup>

In general, since the Kennedy Round of negotiations, emphasis has shifted away from tariffs as a policy instrument. This reflects, in part, the realization that well over half the imports of the developed market economies from developing countries enter duty free, and that after three years of bargaining only about an eighth of the imports of the four major customs areas from developing countries had had a cut in duty. It also reflects an increased awareness of the extent and effectiveness of other ("non-tariff") barriers to trade.

These non-tariff instruments involve quantitative controls administered through the specific licensing of imports, through the centralization of imports in a state trading entity, through the allocation of specific quotas to individual suppliers, through the designation of a ceiling to imports in a given period, or even through outright prohibition. They are used most frequently in situations requiring precise regulation of total supply in the interest of a particular production, price or income policy. Thus they are the basic instruments of trade policy in the centrally planned economies, while in the developed market economies, it is in the area of agricultural commodities that they are most commonly found (see table A.34 in the statistical annex).

<sup>8</sup> See "Liberalization of tariff and non-tariff barriers" (TD/B/C.2/78); and General Agreement on Tariffs and Trade, "Advance Implementation of Kennedy Round tariff reductions on Products of export interest to developing countries" (L. 2862/Rev.1 and addenda).

<sup>9</sup> See United States of America, Ninety-first Congress, second session, House of Representatives, Committee on Ways and Means, *Hearings on Tariff and Trade Proposals* (Washington, D.C., Government Printing Office, 1970), p. 2865.



If to the conventional forms of quantitative control the system of variable levies<sup>10</sup> is added, it is seen that almost all temperate farm products are affected—meat, cereals, sugar, oil-seeds and oils and certain types of fruit, along with wine and tobacco. In addition, Japan controls the inflow of tea and coffee, and the United States the inflow of cotton and petroleum. Coffee and jute fabrics are also subject to control in certain European countries and there is a wide-ranging international arrangement governing the movement of cotton textiles, supplemented in some countries by control over imports of various types of clothing.

Most of these restrictions are designed to facilitate control over the marketing of domestic production, but in some cases there is an additional—or alternative—purpose, namely, regularization of the trading pattern itself in the interest of quota agreements with partner countries. Such agreements are difficult to evaluate in the present context. Clearly they tend to distort the pattern of trade and hence militate against the most desirable international division of labour. For the countries that have the quotas, however, the situation is often quite advantageous: they have assured access to an external market and often at a favourable price, as in the case of the sugar imports of the United Kingdom and the United States. Even such an arrangement as that governing trade in cotton textiles was thought of, in 1962 when it was initiated, as a means of assuring the controlled access of developing country suppliers to developed market economy markets which might well be closed to them in the absence of such control. An appraisal of this aspect of trade policy calls for a careful separate analysis of each case of quantitative restriction and the way in which it is administered. In 1966 when Australia introduced a scheme for according preference to imports from developing countries, it did so by establishing a quota for the amount to be admitted at the favoured rates: this was set at \$A 13.3 million a year and raised to \$A 33.5 million in 1969.<sup>11</sup>

Arrangements that are similar in some of their essential features have been resorted to as a means of stabilizing the international market in the interest of producers. Thus, the coffee and tin agreements in force during the period under review and the Sugar Agreement worked out in 1968 all depend on a system of quotas as the principal means of

control—applied, however, at the export end rather than the import end of the trade flow, though accepted and, indeed in varying degree, policed by the importing countries.

Being easier than customs tariffs to institute and manipulate and more certain in their immediate effects, these quantitative forms of control have also been used for short-term effects—to defend the balance of payments, for example, as in the case of some of the restrictions or quota reductions imposed by Denmark, France, New Zealand and the United Kingdom during the second half of the 1960s. In some cases these measures were subsequently reversed when they had served their purpose or the situation had eased, and in some of the countries that were in payments surplus—such as the Federal Republic of Germany and Japan—various quotas were enlarged and restrictions relaxed in the period 1967-1969. There is some evidence that the marked slowing down in the growth of imports from developing countries into the centrally planned economies after 1965 was in part inspired by a similar desire to improve the external balance expressed through a change in the activities of the state trading machinery.

The liberalizing forces which were strong in the first half of the decade weakened perceptibly in the second half. The causes of this are many and complicated and not fully explored: they include the autarkic tendencies in EEC, the dramatic increase in the competition from Japan in many export markets, the failure of the Kennedy Round to come to grips with the problems of agricultural trade, the pace of technological change and the resultant accentuation of the disparity between modern and traditional industries and areas in the more advanced countries with its consequent pressure for internal protective and remedial measures, the economic imbalances that emerged between some of the more advanced countries and the consequent resort to various non-tariff measures to defend the external account. One of the factors behind these imbalances was the acceleration in inflationary pressures in several of the major countries and the consequent increase in the migration of various industrial activities to lower-cost areas, including, in particular, the developing countries of eastern Asia where the conditions for establishing subsidiaries in labour-intensive industries were especially favourable. The rapid rise in United States imports from such establishments began causing misgivings in the domestic labour force and some of the trade unions that had had a liberal trade outlook earlier in the decade began to take a more protectionist stance against the "export of jobs", adding their weight to the unions in the older and weaker industries—such as textiles, clothing and foot-wear and even steel—which had a longer history of seeking protection.

<sup>10</sup> The variable levies—used by EEC in connexion with its common agricultural policy—allow the entry price of imports to be raised to the controlled level specified for domestic production.

<sup>11</sup> Actual imports under the scheme amounted to only \$A 9.70 million in 1968/69, of which \$A 2.1 million was for handicrafts admitted duty free without limit. See General Agreement on Tariffs and Trade, "Australian tariff preferences for developing countries" (L.3282).



The decade ended without any notably protective legislation having been passed. Indeed, there were signs of a rallying of liberal forces out of fear of the consequences of a reversal of the factors that had made international trade so dynamic a component of economic growth in the 1960s. One sign of this was the effort in the United States to make better use of the law covering adjustment assistance which had been embodied in the Trade Expansion Act of 1962—the inspiration of the Kennedy Round of tariff negotiations—but had barely been called into play before. Towards the end of the decade, the machinery for supporting retraining and redeployment of workers whose jobs were being threatened by a relative rise in the contribution of imports to total supply was renovated and put into operation on several occasions as an alternative to more restrictive measures. Between 1962 and 1969, fourteen petitions had been received by the United States Tariff Commission for assistance under the Trade Expansion Act, but in no case had it been granted: the Commission was not persuaded (as required by the Act) that trade concessions were the major cause of the increase in imports, and that the increase in imports was, in turn, the major cause of the difficulties encountered by the applicant. Late in 1969, however, a reinterpretation of the standards laid down in the Act led the Commission to recommend relief in a series of eight cases in rapid succession. This change, along with a number of recommendations made by the Administration for the improvement of the original legislation, is a tacit acknowledgement of the pressure for new protective action—including import quotas for a significant range of products—that had mounted in the course of the decade.

#### THE COURSE OF RESOURCE TRANSFERS IN THE 1960s

At the beginning of the 1960s, the economically advanced countries undertook to try and provide financial resources to the developing countries equal each year to 1 per cent of their combined national income (see General Assembly resolution 1522 (XV) of December 1960). This undertaking was made somewhat more definite in 1964 at the first session of UNCTAD when “financial resources” were defined in terms of specific flows in the conventional balance of payment accounts, and made applicable to each of the more advanced countries separately. It was further refined at the second session of UNCTAD in 1968 by bringing into the undertaking the specific national accounts aggregate gross national product in place of the term “national income” that had been used in the original resolution.<sup>12</sup> The undertaking has never been made statis-

<sup>12</sup> It must be assumed that the term “national income” was used in this early resolution in a generic sense rather than as a strict national accounts aggregate. As the flow of

tically definitive by a specification of the destinations of the transfer regarded as eligible for inclusion in the total.<sup>13</sup>

Since early in the 1960s, when the Development Assistance Committee (DAC) of OECD was established, sixteen of the developed market economies have reported annually on the flow of resources (as defined in UNCTAD recommendation A.IV.2 of 1964)<sup>14</sup> to the less developed countries. It is possible, from published balance of payments statements and other material, to estimate the flow from the other developed market economies, most of which are very minor providers of resources for the developing world.<sup>15</sup> It is not possible to arrive at a reliable figure for the flow of resources from the centrally planned economies to the developing countries: these countries do not report on external payments, and the information concerning the origin of flows reported by the recipient countries is too limited and uncertain to allow an estimate to be built up from that direction. The performance of the centrally planned economies as aid givers must therefore be assessed separately and differently.

Because of the differences in the mechanisms involved and in their responsiveness to government policy decisions, it is useful to distinguish official flows from private flows. For the 1970s, indeed, a separate target has been set for official flows as such. In the 1960s, official transfers from the developed market economies to the developing countries crept slowly upwards from \$5.5 billion in 1961 to \$7.1 billion in 1969, a rise of about 3 per cent a year in current prices, 2 per cent if allowance is

resources from the developed market economies to developing countries in 1960 was already in excess of 1 per cent of their national income, strictly defined, it would have been nonsense to urge these countries to aim for a substantial increase in that flow so as to reach 1 per cent of the combined national income. In most of the countries concerned, the national income is about a fifth less than the gross national product. See *External Financing of Economic Development, 1962-1966* (United Nations publication, Sales No.: E 68.II.D 10), chapter IV, for a discussion of this point.

<sup>13</sup> Thus, over the decade, two series of figures have been in use to measure the transfers in question. The one published by the United Nations differs from that published by OECD chiefly because of the exclusion from the former and the inclusion in the latter of flows from OECD member countries to the countries of southern Europe. In the present chapter (as in the previous four chapters of this report), the United Nations concept of developing country is used, that is, the western hemisphere (other than Canada, Puerto Rico, United States and United States Virgin Islands), Africa (other than South Africa) and neighbouring South Atlantic and Indian Ocean islands, Asia (other than mainland China, Democratic People's Republic of Korea, Democratic Republic of Viet-Nam, Japan, Mongolia and Turkey) and Oceania (other than Australia and New Zealand).

<sup>14</sup> *Proceedings of the United Nations Conference on Trade and Development*; vol. I. *Final Act and Report* (United Nations publication, Sales No.: 64.II.B 11), p. 43.

<sup>15</sup> They include Cyprus, Finland, Greece, Iceland, Ireland, Luxembourg, Malta, New Zealand, South Africa, Spain, Turkey and Yugoslavia.

made for the inching up of the unit value of manufactured goods moving in international trade. Private flows were more erratic: the lowest figure was \$2.3 billion in 1963 and the highest \$5.6 billion in 1969. Together, the two flows rose from \$8.3 billion in 1961 to \$12.7 in 1969 (see table 57)—an average increase of about 5.5 per cent a year in current prices, or just over 4 per cent a year in real terms.

Over the decade as a whole, official transfers have constituted 63 per cent of the total; the highest ratio was 71 per cent in 1963 and the lowest 56 per cent in 1968, the trend being downwards, but by no means smoothly or precipitously. A small portion of the official flow was canalized each year through various international lending and assistance institutions: the amount was highest, absolutely as well as relatively, at the beginning and end of the decade when some of the larger agencies—notably the International Development Association—were being funded. The proportion of the official flow

going to the institutions declined from about 14 per cent in 1961 to around 7 per cent in the mid years of the decade and then rose to almost 16 per cent in 1969.

If sales of commodities for the recipients' non-convertible currency are regarded as being tantamount to a donation, then the bulk of official transfers has been non-repayable—almost two thirds over the decade as a whole. While the total amount provided as grants has remained virtually static at about \$3.5 billion a year, the amount provided on a loan basis has risen steadily from \$1.1 billion in 1961 to \$2.7 billion in 1968 and 1969. Thus the proportion of official funds lent to developing countries by the developed market economies doubled in the course of the decade, from about 20 per cent to about 40 per cent.

The main component of the private flow of funds to the developing countries has been direct invest-

Table 57. Developed market economies: net flow of resources to the developing countries and the multilateral agencies,<sup>a</sup> 1961-1969

(Millions of dollars)

Type of flow <sup>b</sup>	1961	1962	1963	1964	1965	1966	1967	1968	1969 <sup>c</sup>
Official	5,456	5,430	5,610	5,878	5,982	6,244	6,772	6,777	7,096
Bilateral	4,711	4,963	5,261	5,254	5,525	5,791	6,112	6,133	5,985
Grants <sup>d</sup>	3,582	3,741	3,719	3,768	3,717	3,769	3,633	3,393	3,333
Loans	1,129	1,222	1,542	1,486	1,808	2,022	2,479	2,740	2,652
Transactions with multilateral agencies <sup>e</sup>	745	467	349	424	457	453	660	644	1,111
Private	2,892	2,436	2,253	2,852	3,821	3,437	3,895	5,405	5,609
Bilateral	2,796	2,187	2,284	2,711	3,573	3,422	3,589	4,800	5,195
Direct investment <sup>f</sup>	1,712	1,408	1,539	1,628	2,326	2,059	1,931	2,428	2,159
Portfolio loans	593	218	280	398	675	435	775	880	1,260
Export credits	491	563	465	685	572	928	883	1,492	1,776
Transactions with multilateral agencies <sup>e</sup>	96	247	-31	141	248	15	306	605	414
Total transfers	8,349	7,865	7,863	8,530	9,804	9,681	10,668	12,181	12,705

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Organisation for Economic Co-operation and Development, *Development Assistance Efforts and Policies, 1967 Review; Report of the Chairman of the Development Assistance Committee, 1968 Review, and 1969 Review* (Paris); *Geographical Distribution of Financial Flows to Less Developed Countries (Disbursement), 1960-1964 and 1965* (Paris); *The Flow of Financial Resources to Less Developed Countries, 1961-1965* (Paris); and replies of Governments to the special questionnaire issued jointly by the United Nations and the International Monetary Fund for the years 1964-1966.

<sup>a</sup> Developed market economies comprise Australia, Austria, Belgium, Canada, Denmark, Federal Republic of Germany, Finland, France, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, South Africa, Sweden, Switzerland, United Kingdom and United States. Developing countries comprise all countries and territories in South and Central America, Africa (other than South Africa), Asia (other than mainland China, Cyprus, Japan, Mongolia, Democratic People's Republic of Korea, Democratic Republic of Viet-Nam and Turkey) and Oceania (other than Australia and New Zealand).

<sup>b</sup> The figures are net of repayment or repatriation of principal, disinvestment and retirement; they are not net of reverse flows of capital originating with residents of developing countries or of investment income.

<sup>c</sup> Preliminary, partly estimated.

<sup>d</sup> Including loans repayable in recipient's currency and other grant-like transfers.

<sup>e</sup> Including grants and other contributions, capital, subscriptions, repayments of loans made earlier by the agencies to the developed market economies, participations and purchases of bonds (all measured net of repayments to and disbursements in the developed market economies) relating to AsDB, EDF, EIB, FUNDWI, IBRD, IDA, IDB, IFC, OAS, UNDP, UNFC, UNHCR, UNICEF, UNKRA, UNRWA and WFP. Contributions to the regular budgets of the United Nations and specialized agencies are not included, except in the case of the regular technical assistance programme, for which net contributions and net disbursements have been estimated.

<sup>f</sup> Including reinvested earnings, sometimes on the basis of estimates.

ment which fluctuated around \$2 billion a year in the 1960s: its low point was \$1.4 billion in 1962, its peaks in 1965 (\$2.3 billion) and 1968 (\$2.4 billion). Over the decade, direct investment provided 70 per cent of all private funds going directly or indirectly to the developing countries and 22 per cent of total transfers, public and private. Private lending to developing countries has also fluctuated widely from year to year, though its trend has been upward. The bilateral component of it rose from \$0.2 billion in 1962 to \$1.3 billion in 1969, that is, from about 3 per cent of all transfers to about 10 per cent. The multilateral component was negligible in 1966 and negative in 1963, but, with a peak of \$0.6 billion in 1968, it averaged \$0.2 billion a year, providing about 8 per cent of the private flow and 2 per cent of all developed market economy transfers.

The last of the means by which funds are transferred to the developing countries is the so-called export credit. With the intensification of competition among the industrial countries after the mid-1950s, credit provided by exporters to finance specific transactions tended to become more important and hence more systematized and, with the support of Governments that began to provide insurance facilities, more institutionalized. As a result, the quality of the available data on such credits rapidly improved and it became possible to take them into the transfer account.<sup>16</sup> The total provided by the developed market economies amounted to about \$0.5 billion a year in the early part of the 1960s, and after rising erratically, it reached \$1.5 billion in 1968 and \$1.8 billion in 1969. Over the decade, export credit accounted for over a third of all private transfers and about 9 per cent of the over-all flow of resources.

The broad structure of the flow of resources to the developing countries may be seen by adding to the bilateral transactions between developed market economies and developing countries not the transfers made to the international agencies but those made by the agencies. This permits the abstraction of two of the major components of the total flow—food aid and technical assistance. The former has tended to diminish since reaching a peak in 1964; by the end of the 1960s food aid constituted only about 9 per cent of the total reaching the less developed countries<sup>17</sup> from the developed market economies and multilateral agencies, compared with

16 per cent in the early years of the decade. Technical assistance, on the other hand, has become steadily more important, rising from about 10 per cent of the total flow at the beginning of the decade to about 13 per cent at the end. In both cases the multilateral element, though quite small, grew more rapidly than that moving directly from the developed market economies to the less developed countries (see table 58).

Almost all technical assistance (including pre-investment studies and surveys) and, until recently, most food aid are provided on a grant basis. The amount transferred as grants for other purposes, such as relief or budget support, declined sharply during the 1960s: it constituted over a fourth of the total at the beginning of the decade but less than an eighth at the end. This was more than offset by a steep rise in lending—a threefold expansion in the course of the decade in which Governments, the international institutions and the private capital market all participated. Most of this lending was for the financing of specific projects, and in the case of official bilateral lending, the great bulk—all but about an eighth in the years 1966-1968, for example—was tied, that is, linked to the purchases made in the lending country.

#### *An appraisal of aid policies*

The ultimate test of a transfer is a twofold one: the extent to which it fills the resource gap for which it was intended in the recipient country and the efficiency with which it does so. The first concerns the nature, timing and magnitude of the transfer, the second involves its quality and cost. In the last analysis, therefore, an appraisal of aid performance requires a careful evaluation of each transaction, through to its final use in the recipient country. This can be done only at the national level, and one of the tests that should be applied to aid policies should consist of an assessment of the machinery that is available for such evaluation.

In the present context, only the preliminaries can be undertaken, in particular the assembly of the sort of data with which such national appraisals would need to start. These data include the volume of transfers during the period under review, their modality and the terms on which they are effected.

In absolute terms, aid flows are concentrated in much the same way as trade flows. At the beginning of the 1960s half the total value of the transfers from the developed market economies to developing countries came from the United States, and a further one third from the next three countries—France, United Kingdom and Federal Republic of Germany. There was only a slow growth in the outflow from the United States during the decade, so that by 1968-1969, its contribution had dropped below 40

<sup>16</sup> The need to do so was manifested at the other end of the process when developing countries that ran into liquidity difficulties and had to seek a rescheduling of debt repayments were found to have an inconveniently large amount of relatively short-term, high-interest debt arising from those export credit transactions.

<sup>17</sup> These data refer to transfers to the developing countries and southern Europe from the member countries of the Development Assistance Committee of OECD and the international development institutions.

Table 58. Net transfer of resources to less developed countries from major market economies and multilateral agencies,<sup>a</sup> 1962-1969

(Millions of dollars)

Item <sup>b</sup>	1962	1963	1964	1965	1966	1967	1968	1969 <sup>c</sup>
Direct investment	1,510	1,611	1,793	2,500	2,210	2,122	2,918	2,615
Private	1,495	1,603	1,783	2,489	2,185	2,103	2,899	2,566
Multilateral	15	8	10	11	25	19	19	49
Private export credits	572	660	860	750	1,124	1,006	1,579	2,040
Reparations	157	140	126	141	71	95	54	47
Food aid	1,276	1,478	1,527	1,334	1,334	1,169	1,117	1,179
Bilateral	1,256	1,455	1,494	1,302	1,280	1,115	1,050	1,100
Multilateral <sup>d</sup>	20	23	33	32	54	54	67	79
Technical assistance	829	973	1,073	1,186	1,389	1,489	1,654	1,714
Bilateral	748	873	951	1,053	1,235	1,330	1,462	1,528
Multilateral <sup>e</sup>	81	100	122	133	154	159	192	186
Other transfers <sup>f</sup>	3,774	4,056	3,949	4,684	4,610	5,480	5,393	5,753
Grants	2,423	2,136	1,857	1,909	1,932	1,881	1,645	1,491
Bilateral	2,325	2,019	1,734	1,766	1,775	1,726	1,479	1,316
Multilateral <sup>g</sup>	98	117	123	143	157	155	166	175
Loans	1,351	1,920	2,092	2,775	2,678	3,599	3,748	4,262
Private bilateral	147	327	416	687	502	809	880	1,260
Official bilateral	1,022	1,224	1,221	1,528	1,629	2,082	2,427	2,302
Multilateral <sup>h</sup>	182	369	455	560	547	708	441	700
Total, above	8,118	8,918	9,328	10,595	10,738	11,361	12,715	13,348

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Organisation for Economic Co-operation and Development, *The Flow of Financial Resources to Less Developed Countries, 1956-1963, 1961-1965 and 1962-1968; Development Assistance Efforts and Policies, 1966 Review, Report of the Chairman of the Development Assistance Committee; 1967 Review; 1968 Review, and 1969 Review; Geographical Distribution of Financial Flows to Less Developed Countries (Disbursements), 1960-1964, 1965, 1966-1967 and 1968; International Monetary Fund, Balance of Payments Yearbook* (Washington, D.C.), and annual reports of the multilateral agencies and other sources.

<sup>a</sup> Less developed countries comprise the developing countries plus Cyprus, Greece, Malta, Spain, Turkey and Yugoslavia.

Major market economies are the members of the Development Assistance Committee of OECD, namely, Australia, Austria, Belgium, Canada, Denmark, Federal Republic of Germany, France, Italy, Japan, Netherlands, Norway, Portugal, Sweden, Switzerland, United Kingdom and United States.

per cent of the total. The outflow from France and the United Kingdom lagged even more, and their share declined by about a fourth to 13 per cent and 7 per cent, respectively, of the developed market economy total. Offsetting much of this lag was the more vigorous growth in outflows from the next three countries—Federal Republic of Germany, Japan and Italy—whose relative contribution to the total almost doubled in the course of the decade, from 15 per cent to 27 per cent. This brought the Federal Republic of Germany into second position as a source of aid in 1969, and Japan into fourth place. With the exception of Switzerland, all the smaller contributors increased their outflow at over-average rates during the decade so that their combined share of the total rose from 9 per cent to 14 per cent (see table 59).

Multilateral agencies comprise AfDB, AsDB, EDF, EIB, IBRD, IDA, IDB, IFC, UNDP, UNFC, UNHCR, UNICEF, UNRWA and WFP.

<sup>b</sup> All figures are net of repayment or repatriation of principal, disinvestment, retirement; they are not net of reverse flows of capital originating with residents of developing countries or of investment income. In the case of multilateral institutions, the disbursement of loans or grants are net of subscriptions or contributions of less developed countries to the agencies, plus the increase or decrease of financial resources of these countries arising from transactions with IBRD and IDB concerning the funded debt instruments and sales of loan participations.

<sup>c</sup> Preliminary, partly estimated.

<sup>d</sup> WFP, UNHCR and UNRWA.

<sup>e</sup> IBRD, UNDP and the United Nations regular programme of technical assistance.

<sup>f</sup> Tied and untied, other than for food or technical assistance.

<sup>g</sup> UNRWA, EDF, UNICEF, including a small loan component from EDF and a small food component from UNICEF.

<sup>h</sup> IBRD, IDA, IDB, EIB, AfDB and AsDB.

In relation to gross national product there was a definite downward trend in the net outflow of resources not only from the three major suppliers of capital—United States, United Kingdom and France—but also from Belgium and Switzerland. The ratio of outflow to production was also lower at the end of the 1960s than at the beginning in the case of the Netherlands and Portugal, though the reduction in these countries occurred in the first half of the decade and not in the second.

The countries whose outflow showed a clear upward trend were Japan and a number of the smaller sources of capital—Australia, Canada, Sweden, Austria, Denmark and Norway. There was a sharp rise in the ratio in the second half in the Federal Republic of Germany and Italy, leaving the final figure substantially above the initial one.

Table 59. Developed market economies: resource transfer performance, 1961-1969

Country <sup>a</sup>	Average annual net outflow, 1961-1968		Average annual net outflow			Per capita, 1961-1968	Average annual rate of increase in real outflows (percentage)	Elasticity of outflow (relative to gross national product)	Share of total		Share of official flow	
	Total (millions of dollars)	Official (millions of dollars)	As percentage of GNP		1961-1962				1961-1962	1968-1969	1961-1962	1968-1969
			1961-1962	1968-1969		1961-1968	1968-1969					
United States .....	4,690	3,315	0.73	0.55	0.69	24.1	3.2	0.6	50.0	39.5	55.9	48.7
France .....	1,301	847	1.96	1.16	1.45	26.7	1.6	0.3	16.5	13.0	17.6	13.0
Germany .....	805	465	0.81	1.15	0.74	14.2	7.9	1.8	8.5	13.0	9.1	7.0
(Federal Republic of)												
United Kingdom .....	794	438	0.98	0.81	0.85	14.6	-3.0	-1.0	9.5	6.9	7.6	5.9
Japan .....	458	311	0.47	0.70	0.49	4.7	19.8	1.9	3.2	8.7	2.5	9.6
Italy .....	310	69	0.62	0.80	0.55	6.0	9.7	1.9	3.1	5.1	0.8	1.7
Netherlands .....	187	84	1.27	1.14	1.04	15.2	2.8	0.5	2.0	2.5	1.3	2.0
Canada .....	183	137	0.26	0.50	0.37	9.3	1.5	2.8	1.2	2.7	1.1	3.6
Belgium .....	169	90	1.11	1.02	1.04	17.9	2.8	0.6	1.7	1.8	1.5	1.7
Switzerland .....	154	8	1.77	0.83	1.17	25.9	2.4	0.6	2.2	1.2	0.2	0.3
Australia .....	138	125	0.48	0.84	0.63	12.1	9.3	1.8	1.0	2.0	1.5	2.8
Sweden .....	74	40	0.26	0.60	0.37	9.6	11.1	2.6	0.5	1.3	0.2	1.4
Portugal .....	44	35	1.23	1.23	1.24	4.8	2.4	0.4	0.5	0.5	0.8	0.7
Austria .....	29	16	0.11	0.52	0.29	4.0	20.6	5.2	0.1	0.5	-0.1	0.4
Denmark .....	26	15	0.18	0.77	0.25	5.5	6.9	1.6	0.2	0.9	0.1	0.7
Norway .....	24	11	0.16	0.74	0.31	6.4	10.0	2.0	0.1	0.6	0.1	0.5
Total or average .....	9,401	6,006	0.81	0.72	0.73	15.8	4.3	0.8	100.0	100.0	100.0	100.0

Source: See table 58.

<sup>a</sup> Countries are listed in descending order of average annual total net outflow of resources 1961-1968.

<sup>b</sup> Relative to mid-1965 population.

<sup>c</sup> The average of year-to-year changes with the higher of each pair of figures as denominator, deflated in each case by the annual average increase in the country's export unit value.

The countries that fulfilled the goal of the First United Nations Development Decade by reaching a net outflow of resources in excess of 1 per cent of the gross national product in 1968-1969 were Belgium, France, the Netherlands, Portugal and the Federal Republic of Germany. The first four of these countries, plus Switzerland, exceeded the 1 per cent ratio over the decade as a whole.

The net outflow of resources from the developed market economies during the 1960s averaged \$16 per person per year. France, Switzerland and the United States furnished much more than this, Belgium a little more (\$18) and the Netherlands, United Kingdom, Federal Republic of Germany and Australia a little less. The flow from the rest of the countries averaged less than \$10 per person and in the case of Austria, Japan and Portugal, less than \$5.

While from the point of view of the recipient country a dollar borrowed from a private source is no different from a dollar borrowed from a foreign Government, in assessing the performance of a donor country the distinction is very material. It may be assumed that the flow of private resources moves in response to some financial incentive—the expectation of profit in the case of direct investment, a commercial rate of interest in the case of a loan. The flow of public resources is a better test of official policy and hence merits separate appraisal. This is not to argue that a private transfer necessarily costs the donor economy less than a public transfer: the former may dispose of valuable skills and capital and earn little or no return while the latter may involve the sale of surplus stocks that have virtually no current market value. Rather, it is a question of intention and motive: the private transfer is made in response to its own criteria, the public transfer is, at least in principle, a response to a felt need in the country of destination, it is designed to fill a specific resource gap in line with the recipient's own criteria and priorities.

Furthermore, public transfers tend to be made at terms that are less than commercial. Indeed a new concept has emerged in recent years, separating from public transfer as such those components that are clearly commercial in their purpose—such as export finance—in order to arrive at an entity called “official development assistance” whose main characteristics are its intended use for “economic development” and its being made available on concessional terms, that is, at a cost below the going market rate. While “motive” is always likely to remain ambiguous, as is the distinction between a transfer that is “developmental” and one that is not, yet it is clear that the “official” component of the outflow of resources is an essential guide to government policy.

The 1960s saw a notable spread in the extent of official involvement in the provision of development assistance: at the beginning of the decade over 90 per cent of the official transfers from the developed market economies came from four countries—the United States, France, Federal Republic of Germany and United Kingdom—which by 1968-1969 accounted for less than three fourths of the total, all the smaller contributors except Portugal having increased their share by wide margins.

No target was set for official transfers in the 1960s, though one of 0.7 per cent of the gross national product has been incorporated in the international development strategy for the 1970s. Portugal was the only country to achieve such a ratio in the 1960s, though France did so in the first half of the decade. Several countries had a distinct downward trend in this ratio—Belgium, United Kingdom and United States as well as France, while the Federal Republic of Germany, Portugal and Switzerland recorded lower ratios at the end of the decade than at the beginning. The countries in which official transfers constituted a clearly rising proportion of total output were Australia, Canada, Denmark, Italy, Japan, Norway and Sweden. In the case of Austria the ratio rose sharply in the first half of the decade; in the Netherlands it dipped in the first half and then recovered. In 1967-1969, the countries with the highest ratios—over 0.50 per cent of gross national product—were Australia, Belgium, France and Portugal; those with the lowest were Italy and Switzerland (see table A.35 in the statistical annex).

The countries which canalized the highest proportion of their total transfers to developing countries through public grants and loans in the 1960s were Australia, Canada, Japan, Portugal and the United States. In Canada and Japan, the official share rose sharply in the first half of the decade and then receded slightly—to three fourths and two thirds of the total, respectively. In the other three countries the proportion moving through public channels declined steadily during the decade, though in 1967-1969 it was still as high as two thirds in Portugal and the United States and over 80 per cent in Australia (see table A.36 in the statistical annex).

At the other end of the spectrum were Italy and Switzerland where, although rising, the share of official flows in the total remained very low: 29 per cent in Italy in 1967-1969 and only 11 per cent in Switzerland. These countries have much less scope than other developed market economies to bring public policy directly to bear on the nature, direction and terms of resource transfers. Export credits constitute the main form of transfer from Italy and private lending the main form in Switzerland.

In between these extremes are the countries in which around half the net outflow to the developing countries is arranged by government. The proportion was rising in the 1960s in Sweden—to an average of 59 per cent in 1967-1969. It was falling in several cases, gently to about half in Norway and United Kingdom, rather more steeply in France (to 59 per cent in 1967-1969) and quite precipitously in the Federal Republic of Germany, from 72 per cent in 1961-1963 to 36 per cent in 1967-1969. The public contribution fluctuated more erratically in Austria, Belgium, Denmark and the Netherlands.

A small fraction of official transfers—about an eighth of the developed market economy total in 1967-1969, less in earlier years—is canalized through various international aid-giving institutions. The major donors handle much less of their outflow in this way than do most of the smaller countries: France, Japan and the United States passed less than 10 per cent of their public transfers to the multilateral agencies in 1967-1969, Federal Republic of Germany, Italy and United Kingdom around 15 per cent. In contrast, the smaller countries made much greater use of the agencies. Australia, Belgium and Switzerland transferred around a fourth of their public aid in this way, and the Scandinavian countries around 60 per cent. The proportion moving by way of the agencies from the Netherlands declined in the course of the decade—from a half of the official outflow to about a fourth—while that from Austria and Canada tended to rise, to about a fourth in the case of the latter to over 60 per cent in the case of the former.

Though the usefulness of a transfer depends principally on its appropriateness and timeliness—as a complement to the recipient's own resources being deployed in the development process—the terms and conditions on which it is made are important as determinants of its ultimate cost. Because so large a proportion of the total consists of bilateral official flows, the donor countries also have an interest in these terms, and it was with the object of harmonizing them that the first targets were set by the Development Assistance Committee in 1965.<sup>18</sup>

The first criterion recommended at that time was the proportion of the transfer made available as a grant. The target was 70 per cent by 1968. This was achieved by Australia, Belgium, Norway, Sweden, Canada, Switzerland and France. Of the remaining members of DAC, only Austria showed an upward trend in the grant ratio; Denmark, the Federal Republic of Germany, Italy and the Netherlands

all registered reductions in the proportion of grants; in the case of Portugal, the ratio fluctuated around 20 per cent (even when export credits are excluded), in Japan around 40 per cent and in the United Kingdom around 50 per cent (see table A.37 in the statistical annex).

As donor countries have tended to become more discriminating in their aid policies, easing the terms of transfer to developing countries that have special problems regarding external payments, such as an abnormally high debt service ratio, and offering somewhat harder terms to those whose external balance is stronger, there has been a good deal of year-to-year fluctuation in the grant ratio in many countries—a sharp decline in Canada in 1969, for example, and a sharp recovery in Denmark.

For countries that provide 30 per cent or more of their transfers as loans, three targets were set in 1965, one for interest rates, one for maturities and one for the so-called grace period before the loan requires servicing.

The interest rate target—that 81 per cent or more of the value of the transfers should be at an annual 3 per cent interest rate or less—was attained by all DAC members in 1969 except Austria, Federal Republic of Germany, Italy, Japan and Portugal. The most generous interest rate policy in recent years has been pursued by Australia (whose transfers are all gifts), Denmark (which has charged a zero rate since 1966) and the United Kingdom (whose average rate has been about 1 per cent since 1966). Rates charged by Norway, Sweden and Switzerland have come down to an average of around 2 per cent in recent years, and those charged by Japan to just below 4 per cent. Rates in Canada and the Netherlands fluctuated around 3 per cent in the 1964-1968 period, in the Federal Republic of Germany and Portugal around 4 per cent, and in Austria around 5 per cent. There was a definite, if slight, hardening of the average rates on loans from Belgium, the United States and France (between 3 and 4 per cent) and Italy (between 4 and 5 per cent), and, as these are among the largest lenders, the result was an increase in the average developed market economy rate from 3.1 per cent on loan commitments made in 1964 to 3.8 per cent on those made in 1967 (see table A.38 in the statistical annex).

In assessing country performance in respect of interest rates on official loans, conditions on the capital market should be borne in mind. This may be done country by country by comparing the rates actually charged with what the Government in question had to pay on its own borrowings on the market. It may be done on a standardized basis by calculating the "concessional element" in the lending by subtracting from the face value of the

<sup>18</sup> See Organisation for Economic Co-operation and Development, *Development Assistance Efforts and Policies, 1965 Review, Report of the Chairman of the Development Assistance Committee* (Paris, 1965), annex II.



loan the present value of all future debt service receipts, using a uniform rate of discount (10 per cent *per annum* was suggested by DAC in setting supplementary terms targets in 1969).

The maturity target set in 1965 was a minimum of 82 per cent of the value of the loan commitments to mature after twenty-five years. A majority of the DAC members achieved this in 1968, though those that did not included the major lenders—Federal Republic of Germany, Italy, Japan and France (which, having satisfied the grant ratio was not subject to this test on its loans)—as well as Austria and Portugal.

Between 1964 and 1968, the weighted average maturity of loan commitments showed a definite lengthening in Canada, Sweden and Switzerland (to over thirty years), in Denmark, the Netherlands and Norway and also (to a modest seventeen-year average) in Austria. The remaining countries registered a fluctuating average maturity, the United States around thirty years, the United Kingdom around twenty-four years, Portugal and Belgium around twenty years, Federal Republic of Germany around eighteen years, France and Japan around sixteen years and Italy around ten years (see table A.39 in the statistical annex).

The third lending target was a weighted average grace period of seven years. This was achieved by few countries in the 1960s; by only Denmark, Sweden, Switzerland and the United States in 1968, though Canada and the Netherlands were only fractionally short of the goal. Between 1964 and 1968 there was a fairly distinct lengthening of the average grace period in Belgium (to six years in 1968) and a fairly distinct shortening in France (to less than two years). In the other member countries there was a good deal of fluctuation, around six years in Norway, five years in the United Kingdom, four years in the Federal Republic of Germany and Japan, three years in Portugal, two years in Austria and one year in Italy (see table A.40 in the statistical annex).

The spread of the practice of tailoring transfer terms to the circumstances of the recipient country makes it desirable to examine each of the aspects of transfer policy separately. For some purposes a more comprehensive measure of performance may be useful, especially one that takes into account not only the terms of transfer but also the volume. This is provided by relating the calculated concessional element in total official development assistance (other transfers having no such element) to a common denominator such as the gross national product. If the average ratio of concessional element is taken as 100, individual country ratios can be expressed as index numbers or performance relatives which constitute a convenient basis for ranking countries

in an over-all assessment. This reveals the wide spectrum of effort: in 1969, for example, the share of total production committed to the developing countries on a grant equivalent basis was five or six times as great in France, Australia and Denmark as in Switzerland, Italy and Austria. It also shows that some of the largest donors—such as the Federal Republic of Germany, Japan and the United States—were below the developed market economy average in their performance (see table 60).

Table 60. Major developed market economies: ranking by ratio of concessional element to gross national product, 1968 and 1969

(Index, average of 16 countries = 100)

Country <sup>a</sup>	Index in	
	1968	1969
France	214	216
Australia	197	194
Denmark	154	186
Netherlands	180	153
Belgium	131	150
Portugal	110	133
Canada	74	128
Sweden	94	100
United Kingdom	113	100
Germany (Federal Republic of)	87	90
United States	96	89
Norway	74	80
Japan	44	64
Switzerland	39	40
Italy	33	36
Austria	30	29

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Organisation for Economic Co-operation and Development, *Development Assistance: Efforts and Policies of the Members of the Development Assistance Committee, 1970 Review* (Paris), statistical annex table 14.

<sup>a</sup> Countries are ranked in descending order of the index in 1969.

The flow of resources from the centrally planned economies to the developing countries cannot be evaluated in the same way as that from the developed market economies: the donor countries publish no information and too few recipient countries analyse their balance of payment transactions geographically to make this a feasible alternative. It is necessary to fall back on two proxies which, if cautiously interpreted, help to throw some light on the actual transfers. These are the various reports (often unofficial) that are made in connexion with the commitment of credit for specific purposes and the trade balances between individual centrally planned economies and the developing countries which reflect the actual flow of goods from the former not paid for by the reverse flow of goods from the latter.

The aid commitments of the centrally planned economies increased substantially during the period



under review, reaching an average of about \$1 billion a year for the group as a whole in the second half of the 1960s, over twice the average for the corresponding period in the 1950s. Proportionately, the gains tended to be largest among the smaller countries (notably Bulgaria and the German Democratic Republic), though in some cases the pace of advance slackened between the first and second halves of the 1960s (as in Hungary and Romania), while in Poland the volume of credit dropped back to nearer the average for the 1950s (see table 61).

The annual average volume of commitments in the period 1966-1970 was equivalent to about \$1 per person in the centrally planned economies as a whole and about \$2.6 in the Eastern European group, where the range was from about \$0.9 in Poland to \$6 in the German Democratic Republic and \$8 in Czechoslovakia. As a proportion of the estimated gross domestic product,<sup>19</sup> annual commitments averaged just over 0.2 per cent in Eastern Europe; it was about a third of this in the case of Poland and over double in the case of Bulgaria and Czechoslovakia.

On a year-to-year basis, these credits show something of a cyclical pattern, a year of heavy commitments being followed by two or more years of

<sup>19</sup> Based on the experimental method of deriving this aggregate described in *Economic Survey of Europe, 1969*.

reduced activity. The years of greatest activity—1961 and 1966-1967, for example—tend to coincide with the beginnings of a new five-year plan period, suggesting both the increasing importance of long-term trade agreements in economic relations with the developing countries and the closer linking of such agreements with domestic development plans.

No information is available on the relationship between the commitment of credit and the actual disbursement.<sup>20</sup> Over a period of time they are reflected in trade, and as a first approximation it might be assumed that the balance of trade between the centrally planned economies and the developing countries—which was active throughout the 1960s in all the Eastern European countries except Hungary which was in deficit in 1963 and 1964 and again in 1966 and 1968, and Poland which was in deficit in 1965 and 1966—would provide a measure of what was being financed by the credits. As trade is not the only occasion for payments and as not all

<sup>20</sup> Assuming all reported commitments were fully implemented and disbursed in equal annual instalments over the four years beginning the year after the commitment, and that the debt was amortized by the recipient country in twelve equal annual instalments beginning the fifth year after commitment, the average annual transfer from the centrally planned economies combined would have been \$140 million in the second half of the 1950s, \$610 million in the first half of the 1960s (reflecting the upsurge in commitments in 1959-1961) and \$460 million in the second half of the 1960s.

Table 61. Centrally planned economies: commitments of bilateral economic assistance to the developing countries<sup>a</sup>

(Millions of dollars)<sup>b</sup>

Country	Total			Annual average				
	1954-1960	1961-1965	1966-1970	1954-1960	1961-1965	1966-1970		
						Total	Per capita <sup>c</sup> (dollars)	As percentage of gross domestic product <sup>d</sup>
Total commitments	3,133	3,571	5,139	448	714	1,028	0.95	
Centrally planned economies in Europe, total	2,933	2,936	4,396	419	587	879	2.59	0.21
Bulgaria	—	40	199	—	8	40	4.78	0.46
Czechoslovakia	321	328	562	46	65	112	7.80	0.47
German Democratic Republic	62	249	498	9	50	100	6.25	0.34
Hungary	40	177	237	6	35	47	4.58	0.40
Poland	116	300	138	17	60	28	0.87	0.07
Romania	12	173	201	2	35	40	2.03	0.24
USSR	2,382	1,669	2,561	340	334	512	2.15	0.17
China (mainland)	200	635	743	29	127	149	0.20	

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Bank for International Settlements, *Bulletin* (Basle); *Dengi i Kredit* (Moscow); *Byulleten Inostrannoy Kommercheskoy Informatsii* (Moscow); *Vneshnaya Torgovlya* (Moscow); *Far Eastern Economic Review* (Hong Kong); and other official and unofficial information.

<sup>a</sup> These data differ from those presented in earlier versions of this table. The changes reflect revisions of both

totals and year-by-year distribution; they have been made in the light of the latest available information. Credits provided to Cuba and Turkey are not included.

<sup>b</sup> National currencies converted into dollars at official rates of exchange.

<sup>c</sup> On the basis of estimated mid-1968 population.

<sup>d</sup> On the basis of the 1968 gross domestic product estimates cited in table A.1 in the statistical annex.

trade is paid for on a purely bilateral basis,<sup>21</sup> the correspondence between the credits granted and the country's trade surplus is by no means a precise one year by year. In general, however, there was a clear tendency for the size of the annual trade surplus to increase in the course of the 1960s. Except in the case of Bulgaria, the trade surplus increased faster than the credit commitments (see table 62). The ratio of commitments to surplus was lower in the second half of the decade than in the first, both for identical periods and when the trade denominator is lagged by one year. This suggests that, even though single-year trade data do not provide a sure measure of loan disbursement, the extent of credit utilization was increasing during the decade.

#### OTHER FEATURES OF THE EXTERNAL ENVIRONMENT

The world in which the economically younger countries must grow up is one that is shaped very largely by the requirements and initiatives of the more advanced countries, which account for four

fifths of all international trade and seven eighths of all production. The institutions and policies that are devised in the more advanced countries, both for internal regulation and to govern economic relations among them, impinge in countless ways on the developing countries, establishing a framework that at any moment of time tends to define the external environment within which their development must proceed.

This is not to say that this external environment is always static or necessarily hostile or quite unresponsive to the needs of the world's smaller and weaker economies. On the contrary, it is in a state of constant flux, and any international appraisal of the development process should include an examination of at least its major features and the changes affecting them. All that can be attempted in the present context, however, is a brief comment—for illustrative purposes—on a few of the institutional and policy developments of special significance during the period under review.

That there has been an increase in the general awareness of the problem faced by the developing countries and the implications for them of these external conditions is borne out by establishment of UNCTAD in 1964 and the spread and intensification of discussions of various aspects of the problem in international forums, culminating in the adoption after lengthy debate of an International Development

<sup>21</sup> The developing countries may pay for some imports from the centrally planned economies by means of convertible currencies, and some transactions between the centrally planned economies and the developing countries involve multilateral practices, as, for example, when in 1969 balances of Indian rupees were shared between Bulgaria and Hungary in terms of one agreement and between Czechoslovakia and the German Democratic Republic in terms of another.

Table 62. Centrally planned economies in Europe: aid commitments to and trade surpluses with the developing countries,<sup>a</sup> 1961-1969  
(Millions of dollars)

Country		1961	1962	1963	1964	1965	1966	1967	1968	1969	Annual average	
											1961-1965	1966-1969
Bulgaria	A	..	3	15	3	15	25	20	14	..	9 <sup>b</sup>	20 <sup>c</sup>
	B	12	—	6	5	17	15	47	35	20	7 <sup>b</sup>	32 <sup>c</sup>
Czechoslovakia	A	26	54	25	52	55	75	60	115	122	42	93
	B	146	1	20	118	43	192	88	200	37	65	129
German Democratic Republic	A	25	7	1	2	14	42	38	33	35	10	37
	B	46	—	—	71	132	—	231	8	134	50	93
Hungary	A	19	6	—6	—18	6	—21	5	—19	21	2	—4
	B	111	—	14	10	42	52	45	40	21	35	40
Poland	A	25	13	10	8	—39	—2	39	8	32	3	19
	B	128	88	8	54	22	—	63	20	30	60	28
Romania	A	5	4	3	16	14	30	73	75	...	8	59 <sup>c</sup>
	B	100	—	—	73	—	—	14	45	132	35	20 <sup>c</sup>
USSR	A	19	405	262	337	309	333	565	543	559	266	500
	B	302	214	205	618	330	1,033	133	368	402	334	484
Total	A	...	492	310	400	374	482	800	769	...	394 <sup>b</sup>	684 <sup>c</sup>
	B	845	303	253	949	586	1,292	621	716	776	525 <sup>b</sup>	876 <sup>c</sup>

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on national statistics.

Note: A = trade surplus, exports minus imports, both valued f.o.b.; B = aid commitments.

<sup>a</sup> Cuba not included.

<sup>b</sup> 1962-1965.

<sup>c</sup> 1966-1968.

Strategy for the 1970s, in which the more advanced countries have been called upon to pursue a number of policies in support of the efforts to be made by the developing countries themselves to accelerate their economic and social progress.

That special consideration can be given to the developing countries in matters which concern, primarily, relations among the more advanced countries was illustrated in the Kennedy Round of tariff negotiations in which, as indicated above, the benefits of cuts in the most-favoured nation (MFN) rates were extended to the developing countries: on a non-reciprocal basis. This period also saw the beginning of negotiations relating to the preferential access to developed market economy markets for various manufactured products from the developing countries. These, too, were intended to be on a non-reciprocal basis. On several occasions during the second half of the 1960s, when imbalances between the developed market economies caused deficit countries to take defensive action, efforts were made to shield the developing countries from the consequences. Thus the restraints placed on the outflow of capital from the United States in 1968 were not extended to the developing countries, while later, in the United Kingdom, the imports made subject to a prior deposit did not include most of the goods obtained from the developing countries.

Another area in which the trade of developing countries is dependent on the co-operation of the more advanced countries is that of stabilization agreements. The most notable of these in the period under review was that governing the international trade in coffee, an exclusively developing country commodity. This was negotiated in 1966, and renewed at the end of 1968; its aim was to stabilize prices by controlling the flow of supplies by means of adjustable export quotas; its success was con-

tingent upon the participation of importing countries in its administration. In order to avoid any undue accumulation of stocks, provision was made for the control of production and a diversification fund was set up to assist developing countries that were overdependent on coffee cultivation to transfer resources to other activities. This was an instance in which the goals of a stable price and the viability of the exporters were evidently considered by the more advanced countries to be worth the risk of a higher coffee price than might otherwise have prevailed (see table 63).

The International Tin Agreement was renewed for the third time in March 1967. Notwithstanding the compensatory use of a buffer stock to hold the price of the metal between agreed limits, the tin market was subject to strong pressures during the 1960s, first because of deficient supply, and, after 1967, from deficient consumption. Perhaps the most significant aspect of the situation was the use by the United States—which was not one of the consumer participants in the Agreement—of its own strategic stockpile to reinforce the action of the producers' buffer stock: earlier, supplies were released from the stockpile and then, in mid-1968, an embargo was placed on further sales.

The only agricultural commodity to be discussed in the course of the Kennedy Round was wheat, and the outcome was an International Grains Arrangement embodying a Wheat Trade Convention and a Food Aid Convention. The former set a schedule of maximum and minimum prices for ordinary wheat transactions among participating countries;<sup>22</sup> the latter committed members to contribute to a grain fund an annual 4.5 million tons of wheat or equiva-

<sup>22</sup> Argentina, Australia, Canada, Denmark, EEC, Finland, Japan, Norway, Sweden, Switzerland, United Kingdom and United States.

Table 63. International prices of commodities subject to international agreement, 1960-1969  
(Index, 1960 = 100)

Commodity	1961	1962	1963	1964	1965	1966	1967	1968	1969
All primary commodities	98	97	101	104	104	105	102	101	104
Beverage crops	93	91	95	114	105	107	105	105	114
Coffee, <i>robusta</i>	79	85	114	144	125	134	134	136	133
Hard <i>arabica</i>	98	93	93	128	122	112	103	102	113
Mild <i>arabica</i>	97	91	88	109	108	106	93	95	100
Non-ferrous metals	96	95	95	113	128	147	135	142	159
Tin	112	113	115	156	177	163	151	142	157
Cereals	102	107	108	111	107	112	115	111	110
Wheat	103	107	106	110	101	108	109	103	99
Olive oil	96	112	157	100	113	113	117	116	115
Sugar	95	99	172	135	91	91	95	97	113

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on data compiled by the Statistical Office of the United Nations.

lent in coarse grains, or cash. The Convention, having raised the minimum price level 12 per cent above that specified in the 1962 Wheat Agreement, was soon in difficulties: large crops in 1968/69 and rising inventories caused some of the major exporters—first Canada, then the United States and the EEC—to begin selling at below the new minimum. Since, in recent years, the developing countries have been large net importers of grains, this failure to stabilize prices at a higher level was hardly an unfavourable development. More interesting in the present context, however, was the arrangement under the Food Aid Convention that a fourth of the cash contributions (or the amount required to buy 200,000 tons of grain) should be used to make purchases in developing countries. In 1968/69, 90 per cent of the cash contribution came from the United Kingdom and 70 per cent was used to buy wheat and wheat products in Argentina.

Though the international sugar market was uncontrolled after the breakdown of the 1958 Agreement upon the withdrawal of Cuba, about half the tonnage traded during the 1960s moved in terms of special arrangements between the United States and various developing countries, the United Kingdom and various Commonwealth suppliers, France and the African and Malagasy producers and the Soviet Union and Cuba, at prices that were below those on the free market in 1963 and 1964 but substantially above for the rest of the decade. It was not until the beginning of 1969 that a new International Sugar Agreement came into force, reintroducing quota control over exports from the thirty-four participating producer countries and aiming to stabilize the price at well above the low level it had sunk to in 1967. The quotas that were allocated deliberately increased the share of the developing countries in the free market, and a special reserve (of 150,000 tons) was created for use in the case of hardship on the part of small developing countries heavily dependent on earnings from sugar.

The search for stability was also the dominant theme of the Long-Term Arrangement for International Trade in Cotton Textiles negotiated in 1962. It covers all textiles (other than handmade) consisting of more than half cotton by weight and was intended to permit the controlled, "non-disruptive" expansion of trade by means of a quota system organized bilaterally among the thirty-three participating countries, including the eleven major developing country exporters. Quotas were enlarged during the decade by a number of importing countries, notably the United States, EEC and the Scandinavian countries. But there were also some tightening of restraints, to protect domestic producers, against Hong Kong, for example, by the Federal Republic of Germany, Sweden, United Arab Republic and the Benelux countries, and against several

non-member countries by the United States. While it is impossible to say whether any or all exporters gained from the Arrangement, it has been claimed to be a relatively liberal alternative to the protective measures that might otherwise be used in defence of the traditional textile industry in the more advanced countries. Certainly it did not prevent a rapid rise in developed market economy imports of textiles and clothing from the developing countries: between 1960-1962 and 1969 there was a doubling of imports of yarns and fabrics (to nearly \$0.9 billion) and a sixfold increase in imports of clothing (to nearly \$1 billion) in which cotton goods appear to have fully shared. However, when the question of extending the arrangement to other (non-cotton) sections of the textile industry was mooted in 1968, the participating developing countries were opposed.

During the 1960s the developing countries became increasingly concerned about another market in the more advanced countries, namely, that for special skills. As the educational system began to turn out larger numbers of graduates with professional and associated skills, imbalances began to emerge in many of the developing countries between the supply of certain types of labour and the opportunities for appropriate employment open to them. Reinforced by the disparity in wage scales between the developing countries and the more advanced countries, this imbalance gave rise to a movement of skilled personnel from the former to the latter. This "brain drain", as it was termed, dramatized some of the aspects of the external environment with which it has proved very difficult to deal, because at the core of the problem lies a cleavage between private and public interest. For the more advanced countries to reduce their offers of training to the nationals of developing countries, or make their research facilities less accessible or set up legal barriers to the employment of such nationals would be a course of action clearly detrimental to the individuals concerned and of doubtful benefit to the countries from which they come.

While some of the more advanced countries have in fact tightened the rules under which developing country nationals receive training abroad—making it more difficult for them not to return home when their training is complete—the general drift of legislation governing immigration has been to favour quality over quantity: increased emphasis has been placed on the skill and employability of the would-be immigrant. The effects of this can be seen most clearly from the immigration into the United States, which is not only one of the strongest magnets influencing the international movement of skill but also a country that changed its immigration law in the middle of the 1960s, eliminating national origin as the main criterion for admission and elevating personal qualifications. Though the 1965 Immigration

and Nationality Act set a limit of 170,000 on the number of persons who might be admitted from the developing countries, there was a steep rise in the immigration of "professional, technical and kindred workers": their numbers rose from about 29,000 in 1963/64 to about 49,000 in 1967/68, half the increase coming from the developing countries of Asia.<sup>23</sup> The number of skilled immigrants from Asia rose from less than 3,000 in 1963/64 to over 13,000 in 1967/68. There was also a doubling (to 1,000) in the number coming from Africa. Over 60 per cent of the skilled immigrants from Asia originated in China (Taiwan), India or Philippines, and of these 40 per cent were scientists, engineers or physicians.

There was similar influx of trained personnel into Canada where the immigration law was changed in 1967. The number coming from developing countries more than doubled between 1965 and 1968 (to reach 14,600), while the number skilled in agriculture, biology, engineering and medicine trebled (to reach 33,000), the main increases coming from the Philippines, China (Taiwan), the West Indies, India and the United Arab Republic.<sup>24</sup> Though it cannot be statistically documented, there was also a sizable movement of skilled workers to some of the countries of Western Europe, notably the United Kingdom but also the Federal Republic of Germany, France and the Netherlands. The movement of professionals from developing countries to Australia was also facilitated by changes in the immigration law in 1966.

The loss occasioned to the country of origin by such migration depends in part on whether the move is indeed a permanent one and in part on the contribution the individual would have made had he entered employment in his own country. It also depends on the volume of remittances sent back by the migrant to the home he left.<sup>25</sup> At the very least there is the loss of the investment made by the country in which the migrant was educated.<sup>26</sup>

Another problem to which there is no easy solution is the technological gap that separates much of the developing world from the more advanced countries that dominate the external environment. The pattern of research and technical development is

<sup>23</sup> See United States Department of Justice, *Annual Indicator of the In-migration into the United States of Aliens in Professional and Related Occupations, Fiscal Year 1968* (Washington, D.C., 1967).

<sup>24</sup> See Canada, *Immigration Statistics* for the years 1965 and 1968 (Ottawa).

<sup>25</sup> In most of the countries in which such remittances are significant—in northern and southern Africa, for example—the migrants tend to belong to the less skilled category and in many cases their absence from home is not permanent.

<sup>26</sup> Estimated at \$20,000 per professional in Latin America. The combined educational cost of the professionals that left India in 1967 has been estimated at \$5.5 million (see "Outflow of trained personnel from developing countries" (A/7294)).

inevitably geared to the needs of the advanced countries in which it is carried out. Premised on the resource endowment pattern of those countries, it tends constantly to substitute capital for labour and raw materials, thus yielding products and techniques that are not only inappropriate for use in the developing countries but also erosive of the demand for many of the commodities exported by the developing countries.

The 1960s saw the growth of a new awareness of the consequences of this widening technological rift and hence the beginnings of some attempts to direct more research into the two broad areas of most obvious need if the process is to be slowed down. First is the development of what has come to be known as "intermediate technology", that is, technical progress that is in conformity with the pattern of resources available to the developing countries. And, secondly is the application of scientific methods to some of the problems that tend to be peculiar to the developing countries, such as the diseases and pests of the tropics.

Neither of these new efforts to harness the knowledge of the more advanced countries to problem-solving in the less advanced has yet proceeded very far. But the work of geneticists in evolving new high-yield varieties of rubber trees and wheat and rice has already had consequences important enough in some of the developing countries to be designated the "green revolution". This initial success has also encouraged Governments to insert in the International Development Strategy for the 1970s, targets for the research effort to go into solving the various problems specifically pertaining to the developing countries.

Another feature of the external environment that has been the subject of both discussion and action in the 1960s is the multilateralization of the payments system through which trade between the developing countries and the centrally planned economies is effected. As the volume of this trade has expanded, so the inconveniences of barter deals and bilateral clearing arrangements and even hard currency settlements have become more apparent. This has led to the study of the possible use of a common currency—perhaps a convertible rouble—or a system of multilateral settlements among the members of the Council for Mutual Economic Assistance (CMEA) in their dealings with the developing countries. Up to now, various difficulties, including in particular the price differences that exist within CMEA, have stood in the way of a new institutional solution.

In contrast, a new institutional solution has been attempted to another of the problems that beset the relations between the developing countries and the rest of the world, namely, that of inadequate inter-

national liquidity. The problem grew more acute during the 1960s partly because of the failure of gold production to rise but chiefly because of the efforts made by the United States to reduce its external deficit, thereby slowing down the rate at which dollars were being fed into the world monetary system. The response, worked out towards the end of the decade, was the creation of a system of new reserve assets in the form of Special Drawing Rights (SDR) on the International Monetary Fund. The first round of such reserve creation involved the allocation of \$9.5 billion of SDR over a period of three years beginning in 1970. Each participating member had its reserves increased by a uniform proportion (16.8 per cent) of its IMF quota. In 1970, one fourth of the total went to the developing countries (an amount of \$853 million) and three fourths to the developed market economies (\$2,276 million).<sup>27</sup>

The new facility, administered separately through a Special Drawing Account of IMF, entitles the participating country to use its SDR to acquire an equivalent amount of other convertible currencies, primarily when it is faced with balance of payments difficulties or adverse developments in its official reserves. The Fund designates the countries whose currencies could be acquired with SDR (presumably those with ample reserves), aiming at a balanced distribution of holdings of the new facility, subject to a maximum and a minimum (or reconstitution) provision.

<sup>27</sup> The following member countries of IMF did not participate in the 1970 account: Portugal among the developed market economies, and China (Taiwan), Ethiopia, Iraq, Kuwait, Lebanon, Libyan Arab Republic, Nepal, Saudi Arabia, Singapore and Thailand among the developing countries.

As additional SDR can be created (by the decision of 85 per cent of the IMF voting rights), a powerful instrument now exists for preventing any shrinkage of international liquidity and thus for obviating the need for a country that has moved into deficit on external account to take over-hasty defensive action that is destructive to trade and may lead to similar action in partner countries. This is an important advantage for the developing countries not only because they tend to have a precarious external balance but also because it shields them against the premature cutting of demand for their exports. It serves to supplement the special compensatory drawing facility created by IMF earlier in the decade to assist countries that tend to experience sudden fluctuations in export prices and proceeds.

The SDR might be used even more directly for the benefit of the developing countries. It has been suggested that a portion of newly created SDR allocated to the more advanced countries could be transferred, possibly through one of the multilateral agencies such as IDA, to the developing countries, enhancing their external purchasing power in much the same way as the current aid flow but at less budgetary cost and inconvenience.<sup>28</sup> This link between liquidity creation and aid financing has not been accepted, but that it is still on the agenda of international discussions for the 1970s is itself tangible evidence of the widespread recognition of the importance of the external environment to the developing countries and of the general desire to make it more conducive to economic and social progress in those countries.

<sup>28</sup> For details of the proposal, see *International Monetary Reform and Co-operation for Development* (United Nations publication, Sales No.: E.70.II.D.2), a report of an expert group on international monetary issues.

## Statistical annex





Table A.1. Total production, by country, 1960-1968<sup>a</sup>

Country	Gross domestic product, b 1967		Average annual rate of growth (percentage) <sup>c</sup>		Planned rate of growth		Actual rate of growth from beginning of plan until 1968
	Total (millions of dollars)	Per capita (dollars)	1960-1967	1967-1968	Period of plan	Percentage per annum	
<i>Developing countries<sup>d</sup></i>	281,831	180	4.7	6.1			
<i>Western hemisphere<sup>d</sup></i>	110,337	446	4.7	6.4			
Argentina	15,017	646	3.0	4.7	1965-1969	5.9	2.4
Barbados	105	423	4.6	5.6	1965-1968	4.0	6.0
Bolivia	756	166	5.2	7.2	1962-1971	7.0	6.0
Brazil	32,607	381	4.6	8.8	1968-1970	6.0	
British Honduras	45	391	7.2				
Chile	5,592	612	4.9	2.6	1967-1971	5.5	2.6
Colombia	6,115	319	4.7	6.1	1961-1970	5.6	4.9
Costa Rica	694	436	6.5	8.2	1965-1968	6.2	9.1
Cuba							
Dominican Republic	1,104	284	2.9	3.1	1965-1967		6.2
Ecuador	1,310	238	4.4	4.3	1964-1973	6.2	4.5
El Salvador	886	281	6.1	3.7	1965-1969	6.5	4.7
Guatemala	1,453	308	5.1	5.6	1965-1969	5.9	5.1
Guyana	246	352	2.7	1.0	1966-1972	5.0-6.0	2.5
Haiti	412	90	1.1	1.9			
Honduras	592	254	5.7	5.1	1965-1969	6.6	6.0
Jamaica	1,044	557	5.2	7.1	1963-1968	5.0	6.6
Mexico	24,560	538	6.3	7.1	1966-1970		6.8
Netherlands Antilles	251	1,184	-0.4	3.0			
Nicaragua	676	379	7.7	4.6	1965-1969	7.0	4.3
Panama	801	602	8.2	6.9	1963-1970	5.5	7.3
Paraguay	492	228	4.5	5.4	1965-1967	5.2	4.4
Peru	3,591	290	6.0	3.4	1967-1970	6.0	3.4
Surinam	206	567	6.4	5.9	1965-1975		8.2
Trinidad and Tobago	834	826	5.4	3.0	1964-1968	5.1	4.2
Uruguay	1,725	620	0.1	1.2	1965-1974	4.8	-0.8
Venezuela	9,224	986	4.5	5.8	1965-1968	7.0	4.0
<i>Africa<sup>d</sup></i>	41,645	135	4.7	5.2			
Algeria	3,192	255	-1.5	6.1	1967-1969		6.1
Angola	898	170	2.6	3.0	1965-1967		2.3
Botswana	59	99	5.5	3.9	1968-1973	6.0	
Burundi	174	52	2.7	1.5	1968-1972		
Cameroon	891	163	6.0	3.1	1966-1971	5.8	4.0
Central African Republic	178	122	1.8	4.1	1967-1970	7.0	4.1
Chad	241	70	2.0	2.9	1966-1970	5.9	-0.2
Congo (Democratic Republic of)	1,353	83	2.4	7.8	1965-1969		4.5
Dahomey	208	83	1.2	9.9	1966-1970	4.0	4.5
Equatorial Guinea	28	100					
Ethiopia	1,486	63	4.6	2.9	1968-1972	6.0	
Gabon	238	504	5.6	3.7	1966-1970	7.5	4.4
Gambia	42	122	6.8	6.5	1967-1970	4.2	6.5
Ghana	2,063	253	2.5	1.9	1968-1970	6.0	
Guinea	323	87	5.0	5.8	1964-1970		4.6
Ivory Coast	1,117	279	6.9	11.6	1960-1970	7.5	7.5
Kenya	1,209	122	4.5	6.7	1966-1970	6.3	4.9
Lesotho	75	85	7.9	-1.3	1967-1971	5.0	-1.3
Liberia	330	297	4.8	4.9	1967-1970		4.9
Libyan Arab Republic	2,218	1,276	30.0	36.4	1963-1968		27.0

Table A.1 (continued)

Country	Gross domestic product, <sup>b</sup> 1967		Average annual rate of growth (percentage) <sup>c</sup>		Planned rate of growth		Actual rate of growth from beginning of plan until 1968
	Total (millions of dollars)	Per capita (dollars)	1960-1967	1967-1968	Period of plan	Percentage per annum	
<i>Africa (continued)</i>							
Madagascar	737	116	2.1	2.9	1964-1969	4.9	1.7
Malawi	274	66	3.3	-0.5	1965-1969		4.6
Mali	414	88	2.2	0.9	1961-1966	5.0	2.0
Mauritania	178	162	10.3	5.8	1968-1971		
Mauritius	200	258	5.4	-0.5	1966-1970		1.8
Morocco	2,688	190	2.9	13.0	1965-1967	3.7	4.2
Mozambique	1,131	159	5.6	4.3	1965-1967		4.8
Namibia	420	707	7.6	7.9	1967-1971		7.9
Niger	350	95	5.7	1.3	1967-1970	4.7	1.3
Nigeria	4,321	70	1.3	-6.5	1962-1968	4.0	-0.5
People's Republic of the Congo	228	265	7.7	7.0	1964-1968	7.2	9.1
Rwanda	151	46	2.7	2.1	1965-1969		2.7
Senegal	787	217	1.8	9.1	1965-1969	5.5	3.7
Sierra Leone	393	161	3.8	12.6	1966-1971		8.1
Somalia	159	61	3.5	4.4	1968-1970		
Southern Rhodesia	1,093	229	3.6	2.4	1965-1968		2.5
Sudan	1,568	109	4.1	8.8	1961-1970	5.0	3.1
Swaziland	75	194	8.8	4.4	1965-1968		1.4
Togo	229	133	7.1	7.2	1966-1970	5.6	3.7
Tunisia	1,011	210	3.7	6.8	1965-1968	6.5	2.1
Uganda	774	98	4.3	2.5	1966-1971	6.3	2.8
United Arab Republic	5,773	187	3.9	1.0	1960-1970		3.5
United Republic of Tanzania	874	73	3.4	3.5	1964-1969	6.7	3.8
Upper Volta	246	49	2.4	5.0	1967-1970	4.0	5.0
Zambia	1,248	316	7.1	4.4	1966-1970	11.7	4.7
<i>Asia<sup>d</sup></i>	129,849	129	5.0	6.2			
Afghanistan	1,383	88	2.0	3.6	1967-1971	4.3	3.6
Burma	1,803	70	2.7	11.4	1966-1969	8.0	4.8
Ceylon	1,862	159	3.9	11.5			
China (Taiwan)	3,581	272	9.8	9.4	1965-1968	7.0	9.6
Fiji	165	340	5.7	7.1			
Hong Kong	2,328	602	11.6	12.5			
India	41,467	81	3.6	2.4	1969-1973		
Indonesia	10,303	94	2.1	6.7	1969-1973		
Iran	7,881	300	7.8	10.0	1968-1973	9.0	
Iraq	2,381	273	5.8	13.8	1965-1970	8.0	4.9
Israel	4,031	1,510	7.3	15.2	1965-1969		5.6
Jordan	544	267	10.0	-3.9	1964-1970	7.3	5.2
Khmer Republic	957	134	2.8	-23.3	1968-1972	5.0	
Kuwait	2,442	3,757	6.1	9.1	1967-1972	6.5	9.1
Laos	194	70	2.0	7.8	1966-1967		8.2
Lebanon	1,220	484	3.1	7.6	1965-1969		2.3
Malaysia	3,251	324	6.0	4.1	1965-1970	4.9	4.9
Maldives							
Nepal	872	83	2.4	3.5	1965-1969	3.6	4.8
Pakistan	13,875	129	5.9	6.0	1965-1969	6.9	6.4
People's Democratic Republic of Yemen	230	200					
Philippines	10,572	305	4.5	2.8	1967-1969	6.2	2.8
Republic of Korea	4,733	159	8.1	15.7	1967-1971	10.0	15.7
Republic of Viet-Nam	2,849	168	2.7	-5.3	1968-1972		
Saudi Arabia	3,201	458	8.7	6.5			
Singapore	1,247	638	4.9	38.9	1966-1967	5.0	22.0
Syria	1,177	211	7.8	6.8	1966-1970	7.2	6.7
Thailand	5,074	155	8.1	8.0	1967-1971	8.5	8.0
Yemen	550	110					

Table A.1 (continued)

Country	Gross domestic product, <sup>b</sup> 1967		Average annual rate of growth (percentage) <sup>c</sup>		Planned rate of growth		Actual rate of growth from beginning of plan until 1968
	Total (millions of dollars)	Per capita (dollars)	1960-1967	1967-1968	Period of plan	Percentage per annum	
<i>Developed market economies<sup>d</sup></i>	1,633,125	2,232	5.2	5.6			
Australia	27,100	2,295	4.7	8.6			
Austria	10,731	1,465	4.1	4.0			
Belgium	19,340	2,019	4.5	3.8	1966-1970	4.0	3.3
Canada	58,372	2,856	5.3	4.8			
Cyprus	443	722	6.2	4.6	1967-1971	7.0	4.6
Denmark	12,188	2,519	4.6	4.0			
Finland	8,799	1,886	4.5	2.4			
France	115,860	2,338	5.6	4.2	1966-1970	5.0	4.8
Germany (Federal Republic of)	124,000	2,149	4.0	7.4	1966-1970	3.5-4.0	3.3
Greece	6,900	792	7.4	6.2	1968-1972	7.5-8.5	
Iceland	546	2,744	4.6	-2.8	1963-1966		3.4
Ireland	3,052	1,053	3.6	6.6	1964-1970	4.3	3.8
Italy	69,688	1,331	5.5	5.7	1966-1970	5.0	6.0
Japan	120,008	1,201	10.4	14.3	1965-1971	8.2	10.5
Luxembourg	714	2,131	3.3	4.0			
Malta	175	549	3.0	10.1			
Netherlands	22,735	1,805	4.8	6.6	1966-1970	4.8	5.1
New Zealand	5,558	2,039	4.0	1.8			
Norway	8,540	2,257	5.4	3.7	1966-1969	4.9	4.6
Portugal	4,574	488	6.0	5.8	1968-1973	7.0	
South Africa	13,616	727	6.3	3.3	1965-1968	5.1	5.9
Spain	26,770	829	8.0	4.5	1968-1971	6.0	
Sweden	24,143	3,069	4.6	3.3	1966-1970	4.2	3.1
Switzerland	15,481	2,550	4.3	3.4			
Turkey	11,522	352	4.2	6.7	1968-1972	7.0	
United Kingdom	108,791	1,976	2.9	3.1	1965-1970	3.8	2.3
United States	804,000	4,038	4.8	4.8			
Yugoslavia	9,479	475	5.8	3.6	1966-1970	7.5-8.5	3.7
<i>Centrally planned economies<sup>d</sup></i>	398,522	1,183	6.6	7.0			
Albania							
Bulgaria	8,252	973	8.0	6.5	1966-1970	8.5	8.9
Czechoslovakia	22,173	1,550	3.1	7.5	1966-1970		7.7
China (mainland)							
German Democratic Republic	27,635	1,618	3.5	5.3	1966-1970	5.4	5.3
Hungary	11,300	1,106	5.3	5.0	1966-1970	3.9	7.0
Mongolia	469	400	4.2				
Poland	34,563	1,082	6.3	9.0	1966-1970	6.5	6.9
Romania	15,274	792	9.2	7.9	1966-1970	7.0	7.4
USSR	278,856	1,184	7.0	7.2	1966-1970	6.7-7.1	7.3

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on the Statistical Office of the United Nations, *Yearbook of National Accounts Statistics* and *Monthly Bulletin of Statistics*, supplemented by estimates of the United Nations regional commissions, official national sources, International Bank for Reconstruction and Development, Organisation for Economic Co-operation and Development, United States Agency for International Development, and unofficial sources.

<sup>a</sup> Calendar years except for Afghanistan, Australia, Burma, Haiti, India, Iran, Kuwait, Lesotho, Nepal, New Zealand, Nigeria, Pakistan, Swaziland, Sudan and United Arab Republic, and the plans of Afghanistan, Burma, Ethiopia, Gambia, Ghana, India, Indonesia, Iraq, Japan, Kuwait, Lesotho, Mauritania, Nepal, Pakistan, Philippines and Sudan for which the data refer to fiscal years beginning in the years indicated.

<sup>b</sup> At market prices. The data for the centrally planned economies (other than Mongolia) are based on the results of an experimental method of estimation used by the secretariat of the Economic Commission for Europe in *Economic Survey of Europe, 1969*. The 1965 figures estimated by ECE have been up-dated to 1967 by applying the ECE estimates of real growth rates. No adjustment has been made for price changes between 1965 and 1967. The figures are thus not fully comparable with those for other countries.

<sup>c</sup> Compound rate between terminal years. Based on gross domestic product at market prices except in the case of the centrally planned economies for which the basis is net material product at market prices.

<sup>d</sup> Regional subtotals are based on the data for the countries listed.

Table A.2. Growth of agricultural production, 1960-1968

(Percentage per annum)

Country	Value added in agriculture <sup>b</sup>	Average annual rate of increase <sup>a</sup> in					
		Gross agricultural production index			Gross food <sup>c</sup> production index		
		National	FAO <sup>d</sup>	USDA <sup>e</sup>	National	FAO <sup>d</sup>	USDA <sup>e</sup>
<i>Developing countries<sup>f</sup></i>	2.5	...	2.6	2.5	...	2.6	2.6
<i>Western hemisphere<sup>f</sup></i>	2.8	...	3.1	3.0	...	3.0	3.8
Argentina	1.9	...	2.3	2.3	...	1.4	2.7
Barbados	3.4	...	...	...	...	...	...
Bolivia	1.7	...	2.0	0.9	...	2.0	0.8
Brazil	...	4.6	1.9	2.7	...	3.6	4.3
Chile	0.9 <sup>g</sup>	...	1.9	2.0	...	2.0	2.1
Colombia	3.5	...	2.8	2.4	...	3.3	3.1
Costa Rica	...	...	3.4	2.6	...	2.8	3.7
Cuba	...	...	-0.9	...	...	-0.7	...
Dominican Republic	...	...	-1.9	-1.2	...	-1.8	-1.2
Ecuador	3.0 <sup>g</sup>	...	4.1	2.5	...	3.7	2.4
El Salvador	3.6 <sup>g</sup>	...	...	2.9	...	...	3.5
Guatemala	3.6	...	4.1	4.7	...	3.5	4.3
Guyana	1.0 <sup>g</sup>	...	...	0.8	...	...	0.5
Haiti	...	...	...	-1.3	...	...	-2.3
Honduras	2.7	...	4.7	4.7	...	4.9	4.5
Jamaica	...	...	...	0.1	...	...	-0.2
Mexico	...	...	3.9	4.3	...	4.3	5.0
Nicaragua	...	...	...	6.8	...	...	6.9
Panama	5.8	...	4.2	5.8	...	4.4	5.9
Paraguay	3.1	...	3.4	2.1	...	2.9	0.7
Peru	2.6	...	2.4	0.3	...	2.5	0.3
Trinidad and Tobago	...	...	...	0.3	...	...	-0.1
Uruguay	0.3	...	0.5	0.5	...	0.7	0.7
Venezuela	5.3	...	5.8	4.6	...	6.1	5.3
<i>Africa<sup>f</sup></i>	1.9	...	3.0	1.6	...	2.8	1.5
Algeria	...	...	-0.3	1.1	...	-0.3	-1.1
Angola	...	...	...	3.2	...	...	1.8
Botswana	...	...	...	...	...	...	...
Burundi	...	...	...	2.1	...	...	2.1
Cameroon	...	...	...	3.0	...	...	2.7
Central African Republic	...	...	...	...	...	...	...
Chad	...	...	...	...	...	...	...
Congo (Democratic Republic of)	...	...	...	0.8	...	...	-0.4
Dahomey	...	...	...	1.4	...	...	1.4
Equatorial Guinea	...	...	...	...	...	...	...
Ethiopia	1.7 <sup>h</sup>	...	2.8	2.3	...	2.6	2.4
Gabon	...	...	...	...	...	...	...
Ghana	...	...	...	1.0	...	...	1.0
Gambia	...	...	...	...	...	...	...
Guinea	...	...	...	1.3	...	...	1.4
Ivory Coast	...	...	...	3.3	...	...	4.2
Kenya	...	...	...	4.2	...	...	4.1
Lesotho	...	...	...	...	...	...	...
Liberia	...	...	...	2.1	...	...	0.6
Libyan Arab Republic	...	...	6.0	...	...	6.0	...
Madagascar	...	...	...	1.8	...	...	1.9
Malawi	...	...	...	2.1	...	...	4.7
Mali	...	...	...	0.1	...	...	-0.7
Mauritania	...	...	...	...	...	...	...
Mauritius	...	...	...	...	...	...	...
Morocco	4.5	...	4.3	4.5	...	4.5	4.6
Niger	...	...	...	2.3	...	...	2.3
Nigeria	1.3 <sup>i</sup>	...	...	0.7	...	...	0.7
People's Republic of the Congo	...	...	...	...	...	...	...

Table A.2 (continued)

Country	Average annual rate of increase <sup>a</sup> in						
	Value added in agriculture <sup>b</sup>	Gross agricultural production index			Gross food <sup>c</sup> production index		
		National	FAO <sup>d</sup>	USDA <sup>e</sup>	National	FAO <sup>d</sup>	USDA <sup>e</sup>
<i>Africa (continued)</i>							
Rwanda			2.4			2.4	
Senegal			1.0			0.9	
Sierra Leone			1.3			1.3	
Somalia			0.7			1.8	
Southern Rhodesia							
Sudan		3.1	3.4		2.8	1.7	
Swaziland							
Togo			1.4			1.2	
Tunisia	-0.9	0.7	-1.4		-1.0	-1.6	
Uganda	2.8 <sup>g</sup>		2.9			1.6	
United Arab Republic		1.9	0.7		2.9	1.5	
United Republic of Tanzania	2.7 <sup>g</sup>		3.0			2.7	
Upper Volta			0.6			0.3	
Zambia			4.6			5.4	
<i>Asia<sup>f</sup></i>	2.5	2.8	2.5		3.0	2.4	
Afghanistan							
Burma	2.9 <sup>g</sup>		2.3		2.3	1.0	
Ceylon	2.5		3.1		3.5	4.5	
China (Taiwan)	5.1	5.0	4.3		4.4	4.6	
India	1.4 <sup>g</sup>	1.7	1.6	2.0	1.7	1.8	
Indonesia	2.1		1.9		1.7	1.7	
Iran	2.8 <sup>g</sup>		4.2		4.0	4.9	
Iraq			5.8		6.1	2.9	
Israel	3.4		6.6		6.2	6.2	
Jordan						5.0	
Khmer Republic			-1.2			-2.6	
Kuwait							
Laos							
Lebanon			6.3			6.4	
Malaysia (West)	4.5 <sup>h</sup>		4.6		3.3	5.1	
Maldives							
Nepal							
Pakistan	3.6	3.9	3.0	3.5	3.2	2.8	
People's Democratic Republic of Yemen							
Philippines	4.9	5.4	3.5	3.2		3.6	
Republic of Korea	3.6		3.7	4.0		3.2	
Republic of Viet-Nam				-1.7			
Saudi Arabia							
Singapore							
Syria	4.8	5.8	4.3	4.5		4.1	
Thailand	3.4	5.0	4.0	3.7		4.1	
<i>Developed market economies<sup>t</sup></i>							
Australia	1.7		2.7	2.1		3.0	
Austria			3.7	4.0		4.4	
Belgium <sup>j</sup>	1.5 <sup>g</sup>		2.3	2.1		2.3	
Canada	0.6 <sup>g</sup>		2.1	1.7		2.4	
Cyprus	2.6 <sup>g</sup>		2.7			2.9	
Denmark			6.2	6.7		6.3	
Federal Republic of Germany	0.9 <sup>g</sup>		1.0	1.5		0.9	
Finland							
France	1.8 <sup>g</sup>		2.1	1.8		2.1	
Greece			1.5	1.0		1.5	
Iceland			2.8	2.8		2.8	
Ireland	4.7 <sup>g</sup>		3.8	3.9		4.0	
Italy							
Japan	0.1 <sup>h</sup>		3.2	2.5		3.2	
Malta	2.7 <sup>g</sup>		2.5	2.7		2.5	
			3.9	2.4		4.0	

Table A.2 (continued)

Country	Value added in agriculture <sup>b</sup>	Average annual rate of increase <sup>a</sup> in					
		Gross agricultural production index			Gross food <sup>c</sup> production index		
		National	FAO <sup>d</sup>	USDA <sup>e</sup>	National	FAO <sup>d</sup>	USDA <sup>e</sup>
<i>Developed market economies (continued)</i>							
Netherlands	1.2s		1.8	2.0		1.9	
New Zealand			3.1	2.7		3.3	2.6
Norway	-0.7s		1.2	1.0		1.2	0.6
Portugal	1.4s		2.2	2.4		2.2	2.3
South Africa			2.7	2.6		3.1	2.7
Spain			3.1	4.6		3.3	5.0
Sweden	0.6s		1.2	1.6		1.2	1.0
Switzerland			1.7	2.0		1.6	1.7
Turkey	2.1s		3.4	3.1		2.7	2.7
United Kingdom	2.4s		2.2	2.4		2.2	2.4
United States	1.4		1.6	1.5		2.0	
Yugoslavia			2.6	2.2		2.7	1.9
<i>Centrally planned economies<sup>f</sup></i>							
		2.8	4.1	3.4		4.4	3.4
Albania							
Bulgaria		3.0		2.4			2.7
China (mainland)							
Czechoslovakia		2.4		2.3			1.9
German Democratic Republic	1.4 <sup>l</sup>			2.4			1.0
Hungary		2.5		2.4			1.9
Mongolia							
Poland		2.0		3.0			3.0
Romania		3.5		2.9			2.8
USSR		2.9		3.9			3.8

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Yearbook of National Accounts Statistics*, 1969, vol. I (United Nations publication, Sales No.: E.71.XVII.2); Food and Agriculture Organization of the United Nations, *Production Yearbook*, 1969 (Rome, 1970) and *Monthly Bulletin of Agricultural Economics and Statistics*, vol. 19 (Rome, January 1970); Organisation for Economic Co-operation and Development, *National Accounts of OECD Countries, 1950-1968* (Paris, July 1970); United States Department of Agriculture, *Indices of Agricultural Production 1960-1969 in Africa and Near East; The 1969 Agricultural Data Book for the Far East and Oceania; Indices of Agricultural Production in Western Europe 1950-1968; Indices of Agricultural Production in Eastern Europe and the Soviet Union 1950-1969; Indices of Agricultural Production for the Western Hemisphere*, revised 1960 through 1968 (Washington, D.C.); Brazil, Institute of Economics, *Conjuntura Economica*, vol. XVI, No. 5, May 1969 (Rio de Janeiro); China (Taiwan), Directorate-General of Budgets, Accounts and Statistics, *Monthly Statistics of the Republic of China*, December 1969 (Taiwan); India, Central Statistical Organization, *Statistical Abstract of India*, 1968 (New Delhi); Pakistan, Central Statistical Office, *Monthly Statistical Bulletin*, vol. 17, May 1969 (Karachi); Philippines, Department of Economic Research of the Central Bank, *Statistical Bulletin*, vol. XX, No. 4, December 1968 (Manila); Syria, Central Bureau of Statistics, *Statistical Abstract* (Damascus, 1968); Thailand, Bank of Thailand, *Monthly Report*, vol. IX, No. 11, November 1969 (Bangkok).

<sup>a</sup> Average of year-to-year changes with the larger of each pair of figures as denominator.

<sup>b</sup> Based on national accounts in constant prices; including forestry, hunting and fishing.

<sup>c</sup> Food includes all the edible products which contribute energy to the human diet regardless of the extent to which they are actually used for food in the country or region where produced: cereals, starchy roots, sugar, pulses, edible oil crops, nuts, fruit, vegetables, wine, cocoa and livestock products.

<sup>d</sup> The FAO index numbers are computed by a Laspeyres-type formula, applying average regional wheat-based price relatives as weights. The regional wheat-based price relatives of commodities are the arithmetic averages of the national wheat-based price relatives weighted by the country production of the commodities concerned. The national wheat-based price relative consists of the national producer price of the commodity expressed as a percentage of the national producer price of an equal weight of wheat. The prices represent averages of producer prices for the 1952-1956 period.

<sup>e</sup> The USDA country indices are calculated by Laspeyres's base-weighted aggregative formula. The weights are estimates of 1957-1959 average prices received by farmers, expressed in dollars per metric ton. The regional indices are computed from the sums of the country aggregates for the various regions.

<sup>f</sup> Regional averages include all the countries for which the relevant data are available.

<sup>g</sup> 1960-1967.

<sup>h</sup> 1961-1967.

<sup>i</sup> 1960-1966.

<sup>j</sup> Including Luxembourg in the case of the gross production indices.

Table A.3. Growth of industrial production, by country, 1960-1968

(Percentage per annum)<sup>a</sup>

Country	Industry <sup>b</sup>		Manufacturing, mining, electricity, gas and water		Manufacturing		Mining		Electricity, gas and water		Construction	
	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>
<i>Developing countries<sup>e</sup></i>	7.5	7.8	7.0	6.8	7.0	11.3	6.0	13.2	10.9	6.9	11.8	
<i>Western hemisphere<sup>e</sup></i>	6.2	6.2	5.4	6.9	6.0	4.0	3.0	13.4	9.7	6.0	5.4	
Argentina	4.7	4.9	5.0	4.5	4.5	9.0	9.7	10.1	11.3	3.1	6.4	
Bolivia	10.0	8.2		6.8	9.8	10.2		6.8		15.2		
Brazil			4.8		4.7		9.8		6.0			-1.7
Chile	7.0	7.2		9.0	4.9	8.0	3.6	8.3		5.6		
Colombia	5.4	5.1	5.1	5.5	5.5	1.9	2.7	8.9	9.0	7.8		
Costa Rica												
Cuba				2.2	3.6	4.3		8.2		13.4		
Dominican Republic	4.3	2.6		5.9	11.5	0.9		8.3		4.6		
Ecuador	5.3	5.5		10.4	12.0	0.0		12.3	11.8	8.1		
El Salvador	10.0	12.1										
Guatemala	7.5	8.0	5.2	9.2	3.6	1.1		12.3	12.8	4.6		
Guyana	6.0	6.0		5.7		16.0				-8.5		
Haiti				9.9	13.9	21.0		14.6		12.5		
Honduras	10.6	10.4		7.3		6.0		11.8		1.3		
Jamaica	5.2	6.9										
Mexico	8.0	7.9	7.9	8.3	8.3	0.9	3.1	10.5	9.9	8.4	9.5	
Nicaragua					7.5							
Panama	11.1	11.8		12.1	13.1	9.2		10.8		9.5		
Paraguay	4.9	4.7		4.7	5.7	9.6		5.0		7.1		
Peru	6.8	7.1		8.3	8.5	3.3		9.8		5.1		
Trinidad and Tobago												
Uruguay	1.4	2.6	1.2	2.8	-0.1	2.8		4.2	4.8	-1.7		
Venezuela	4.4	4.5	4.2	6.9	7.6	3.5	2.1	13.8	14.0	3.1		
<i>Africa<sup>e</sup></i>	16.7	19.3	7.8	6.9	9.4	37.0	4.8	9.7	10.3	10.6		
Algeria							2.8		0.1			
Angola												
Botswana												
Burundi												
Cameroon												
Central African Republic												
Chad												
Congo (Democratic Republic of)												
Dahomey												
Equatorial Guinea												
Ethiopia	10.5	11.7		11.1		21.7		17.7		9.0		
Gabon												
Gambia			7.5		11.1		-2.1		18.9			
Ghana												
Guinea												
Ivory Coast												
Kenya	5.7	5.1		5.7	5.9	-1.7		3.5		7.6		
Lesotho												
Liberia												
Libyan Arab Republic	41.4	44.7		11.4		51.0		25.0		28.0		
Madagascar												
Malawi												
Mali												
Mauritania												
Mauritius												
Morocco	4.2	3.3	3.4	3.7	3.8	1.2	0.9	6.7	7.6	9.1		
Niger												
Nigeria	14.4	18.4		8.8		40.4		16.9		7.0		

Table A.3 (continued)

Country	Industry <sup>b</sup>		Manufacturing, mining, electricity, gas and water		Manufacturing		Mining		Electricity, gas and water		Construction	
	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>
<i>Africa (continued)</i>												
People's Republic of the Congo												
Rwanda												
Senegal			4.1		1.8		28.1		9.0			
Sierra Leone	3.6	2.7		3.7		2.1		12.8		9.0		
Somalia											9.0	
Southern Rhodesia			4.9		9.0		3.2		11.2			
Sudan												
Swaziland												
Togo												
Tunisia	7.0	8.1	6.4	6.4	5.8	19.6	7.3	6.0	10.0	4.8		
Uganda												
United Arab Republic			12.8		12.4		19.1		12.5			
United Republic of Tanzania	7.8	7.6		11.6		2.9		8.0		9.0		
Upper Volta												
Zambia			3.4		4.4		2.6		0.2			
<i>Asia<sup>e</sup></i>												
Afghanistan	7.2	7.5	8.8	6.7	8.2	9.9	9.9	13.7	12.5	6.7	32.8	
Burma	5.6	4.5		4.6		3.4		6.7		8.7		
Cambodia												
Ceylon	7.6	14.0	5.4	14.9	5.2	38.1	6.8	5.9	5.8	1.3		
China (Taiwan)			15.6		16.9		4.1		13.5		52.7	
India	4.7	5.4	6.2	5.0	5.9	6.8	4.8	12.6	13.2	1.9		
Indonesia	12.6	13.0	12.1	12.3	11.1	12.7	12.6	27.4	15.1	10.4		
Iran	5.9	6.1		5.8		6.1		23.9		3.8		
Iraq			11.8		11.9		11.9					
Israel												
Jordan												
Kuwait												
Laos												
Lebanon												
Malaysia (West)	9.3	8.9		11.0		4.3		12.3		11.3		
Maldives												
Nepal												
Pakistan	10.3	8.4	10.9	8.0	11.2	8.1	7.6	17.5		17.6		
People's Democratic Republic of Yemen												
Philippines	5.2	4.9	6.9	4.8	6.5	7.8	6.5	4.5	9.6	7.5	19.3	
Republic of Korea	16.0	15.5	17.6	16.2	18.6	10.1	7.6	20.8	17.4	18.5		
Republic of Viet-Nam			10.1		10.1				11.5			
Saudi Arabia												
Syria			9.7		10.1		5.3		6.7			
Thailand	11.7	11.0		10.4		10.4		22.9		14.1		
Yemen												
<i>Developed market economies<sup>e</sup></i>												
Australia	5.3	5.4	5.9	5.6	6.0	2.3	1.2	6.4	7.5	3.5	3.2	
Austria			5.5		5.4				7.9			
Belgium	4.2	4.2	4.3	4.0	4.4	4.0	-4.3	6.8	6.8	4.3		
Canada	5.3	5.7	4.7	5.9	5.3	-2.2	-2.9	10.7	7.5	3.2	4.3	
Cyprus	6.5	6.6	6.5	6.6	6.6	6.0	5.8	8.0	8.0	5.6	6.2	
Denmark	4.1	4.2		5.8		5.1	22.2	10.3	10.4	4.1		
Finland	5.4	5.3		5.0	5.2	-7.8		10.9		5.9		
France	5.0	5.8	6.2	5.6	6.0	4.0	4.5	7.6	7.8	2.6		
Germany (Federal Republic of)	6.4	6.1	5.0	6.2	5.3	-0.7	0.0	8.3	7.2	8.0	5.9	
Greece	4.8	4.2	4.9	4.5	5.1	-1.1	-0.5	5.6	7.2	3.5	3.9	
	8.6	8.2	9.7	7.7	7.7	8.8	4.8	12.8	15.0	9.8		



Table A.3 (continued)

TABLE 112 (continued)

Country	Industry <sup>b</sup> National accounts <sup>c</sup>	Manufacturing, mining, electricity, gas and water		Manufacturing		Mining		Electricity, gas and water		Construction	
		National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>	National accounts <sup>c</sup>	Production index <sup>d</sup>
<i>Developed market economies (continued)</i>											
Ireland	6.4	...	7.3	...	6.8	...	14.6	...	7.9	...	...
Italy	6.7	7.4	7.4	7.6	7.6	3.1	3.9	7.7	7.3	3.8	...
Japan	...	...	13.4	...	13.8	...	1.7	...	10.8	...	...
Luxembourg	2.3	...	1.5	...	1.6	...	-1.5	...	4.1	...	-2.3
Netherlands	6.5	...	6.5	...	6.0	...	6.9	...	12.7	...	12.2
New Zealand	...	...	...	...	7.1	...	...	...	...	...	...
Norway	4.9	5.1	5.5	4.9	5.2	6.7	7.5	7.0	6.9	3.8	...
Portugal	8.0	8.5	7.5	8.6	7.7	1.7	1.5	9.0	8.4	5.4	...
South Africa	...	...	...	...	9.1	...	5.1	...	...	...	...
Spain	9.8	9.5	10.7	9.9	12.2	2.2	1.0	9.9	11.7	11.3	...
Sweden	6.4	6.6	6.3	6.6	6.3	3.5	5.8	8.1	5.6	5.8	...
Switzerland	...	...	4.9	...	4.6	...	...	...	5.1	...	...
Turkey	8.1	8.2	12.5	8.2	14.0	8.2	7.1	...	12.2	7.5	...
United Kingdom	3.0	3.0	3.0	3.1	3.1	-1.9	-1.8	5.6	5.6	3.6	3.7
United States	5.1	5.6	5.5	5.8	5.6	2.9	2.8	5.8	7.2	1.2	1.3
Yugoslavia	...	...	8.0	...	8.3	...	4.4	...	10.8	...	...
<i>Centrally planned economies<sup>e</sup></i>											
Albania	...	8.8	...	...	...	...	...	...	...	...	...
Bulgaria	...	...	8.5	...	...	...	...	...	16.3	...	8.1
China (mainland)	...	10.7	11.8	...	...	...	...	...	...	13.9	...
Czechoslovakia	4.9	5.3	5.8	...	6.2	...	2.3	...	7.4	5.1	...
German Democratic Republic	5.2	5.1	5.9	...	6.1	...	2.9	...	6.3	6.2	...
Hungary	7.5	7.7	6.7	...	7.6	...	2.7	...	6.6	5.6	6.9
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Poland	8.4	8.6	8.5	...	8.5	...	4.2	...	10.1	7.2	...
Romania	...	13.1	13.1	...	13.3	...	7.3	...	19.8	8.5	13.1
USSR	8.8	9.3	8.8	...	8.9	...	6.3	...	11.0	5.7	...

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Yearbook of National Accounts Statistics, 1969*, vol. I (United Nations publication, Sales No.: E.71.XVII.2); *Statistical Yearbook, 1967 and 1969* (United Nations publications, Sales No.: E.68.XVII.1 and E.70.XVII.1); *Monthly Bulletin of Statistics*, January 1970 and November 1970; Organisation for Economic Co-operation and Development, *National Accounts of OECD Countries, 1950-1968* (Paris, July 1970); Bulgaria, State Department of Information of the Council of Ministers, *Yearbook of National Accounts Statistics, 1969*, vol. I (Sofia), p. 76; Czechoslovakia, Statni Statistickiy Urad, *Statistical Yearbook of Czechoslovakia, 1968* (Prague); German Democratic Republic, Staats Verlag der DDR, *Statistisches Jahrbuch der DDR, 1970* (Berlin); Hungary, Központi Statisztikai Hivatal, *Yearbook of National Accounts Statistics, 1969*, vol. I (Budapest); Poland, Główny Urząd Statystyczny, *Rocznik Statystyczny, 1970* (Warsaw); Romania, *Statistical Yearbook, 1968*, (Bucharest); USSR, Statistical Board, *Narodnoe Khoziaistvo, 1968* (Moscow).

<sup>a</sup> Averaged over the period 1960-1968 with the earlier of each pair of figures as denominator.

<sup>b</sup> The sum of value added in mining, manufacturing, electricity, gas and water, and construction—major divisions 2, 3, 4 and 5, respectively, of the United Nations International Standard Industrial Classification of all Economic Activities (defined in United Nations publication, Sales No.: 68.XVII.8). This is the non-agricultural component of physical production set forth in table 6.

<sup>c</sup> Based on constant prices, 1960 in the case of the developing countries and Czechoslovakia, 1963 in the case of the developed market economies and Eastern Germany, 1957 for Bulgaria, 1959 for Hungary, and 1961 for Poland. The source does not identify the year in the case of Ro-

mania. For the USSR the data are in current prices. In the centrally planned economies the data refer to net material product in the sector concerned. For the following countries the data cover less than the full period: 1960-1967 for Burma, Ecuador, El Salvador, India, Iran, Mexico, Morocco, Sweden and United Republic of Tanzania; 1960-1966 for Jamaica, Malaysia and Nigeria; 1960-1965 for Guyana; 1961-1967 for Ethiopia; 1962-1968 for Libyan Arab Republic; 1963-1968 for Sierra Leone; 1964-1968 for Kenya.

<sup>d</sup> Based in most cases on the value added in constant prices (the quantum of production). The value added is "census value added" which differs from the contribution to gross domestic product chiefly through the inclusion of payments to others for non-industrial business services. Some national series—in particular those of the USSR and the countries of Eastern Europe—relate to the value, at constant prices, of gross industrial output. For the following countries the data cover less than the full period: 1960-1967 for Brazil, Colombia, Dominican Republic, Eastern Germany (manufacturing), Romania (construction), Venezuela; 1960-1966 for Brazil (construction), Ceylon, Turkey, Uruguay; 1960-1964 for Albania (construction); 1961-1967 for Algeria; 1961-1968 for Mexico (construction), New Zealand, Zambia; 1962-1968 for Argentina (construction), El Salvador (electricity), Ghana (manufacturing), Netherlands (construction), Paraguay, Republic of Viet-Nam, Southern Rhodesia, Sweden (electricity); 1962-1966 for Bolivia, Honduras; 1962-1965 for Nicaragua; 1966-1968 for Tunisia.

<sup>e</sup> In each industrial category, regional averages include all the countries for which appropriate data are available, except in the case of the developed market economy subtotal which excludes Ireland, New Zealand, South Africa, Switzerland and Yugoslavia. The centrally planned economy subtotal is based on estimated weights.

Table A.4. Total consumption, by country, 1960-1968<sup>a</sup>

Country	Consumption, 1967		Average annual rate of growth (percentage)		Planned rate of growth		Actual rate of growth from beginning of plan until 1968 <sup>b</sup>
	Total (millions of dollars) <sup>a</sup>	Per capita (dollars)	1960-1967	1967-1968	Period	Percentage per annum	
<i>Developing countries<sup>d</sup></i>	236,476	152	4.2	4.8			
<i>Western hemisphere<sup>d</sup></i>	89,229	360	4.8	5.6			
Argentina	11,867	510	3.1	3.8	1965-1969	6.0	2.3
Barbados	108	433	2.4	6.8	1965-1968		
Bolivia	674	148	6.3	-0.5	1962-1971	5.2	5.8
Brazil	26,558	310	4.7	6.7	1968-1970	5.3	
British Honduras	39	340	4.8	2.5			
Chile	4,650	509	5.0	4.2	1961-1970	4.4	4.8
Colombia	4,960	258	5.4	5.8	1961-1970	4.8	5.3
Costa Rica	580	365	5.1	4.7	1965-1968	5.3	7.3
Cuba							
Dominican Republic	992	255	4.6	5.3	1965-1967		
Ecuador	1,143	208	5.1	7.1	1964-1973	6.4	5.7
El Salvador	772	245	5.4	3.8	1965-1969	6.0	5.2
Guatemala	1,299	275	4.4	3.8	1965-1969		
Guyana	193	276	3.1	3.5	1965-1969		
Haiti	364	79	0.8	1.2			
Honduras	496	212	4.8	5.2	1965-1969	4.9	5.1
Jamaica	842	449	4.8	7.0	1963-1968	5.1	6.0
Mexico	20,056	439	6.0	7.3	1966-1970		
Netherlands Antilles	215	1,016	0.6	2.5			
Nicaragua	589	330	7.6	2.3	1965-1969	6.4	5.1
Panama	639	481	7.1	3.2	1964-1970	5.7	5.8
Paraguay	428	198	5.5	5.5	1965-1967	4.7	5.7
Peru	2,937	237	7.7	-2.3	1967-1970	5.1	-2.3
Surinam	159	438	8.6	9.6			
Trinidad and Tobago	625	619	5.4	3.1	1964-1968	5.0	3.2
Uruguay	1,501	539	0.2	-0.8	1965-1974	3.7	0.1
Venezuela	6,543	700	4.8	6.8	1965-1968	5.9	4.9
<i>Africa<sup>d</sup></i>	35,177	114	2.7	2.2			
Algeria	2,561	204	-4.6	3.5	1967-1969		
Angola	767	145	2.2	2.1	1965-1967		
Botswana	57	96	5.9	4.0	1968-1973		
Burundi	169	51	2.4	3.0			
Cameroon	763	140	5.1	2.3	1966-1971	5.3	6.5
Central African Republic	165	113	2.6	7.4	1967-1970	5.2	7.4
Chad	249	73	3.1	1.4	1966-1970	4.9	-0.2
Congo (Democratic Republic of)	1,162	71	5.1	7.6	1965-1969		
Dahomey	204	81	2.2	2.7	1966-1970	2.8	
Equatorial Guinea							
Ethiopia	1,309	55	4.1	4.3	1968-1972		
Gabon	158	334	5.0	1.9	1966-1970	5.1	2.9
Gambia	40	117	7.5	3.9	1967-1970		
Ghana	1,849	227	2.2	6.0	1968-1970	4.8	
Guinea	299	81	4.8	2.9	1964-1970		
Ivory Coast	886	221	7.9	6.7	1967-1970	7.0	6.7
Kenya	981	99	4.7	10.1	1966-1970	5.9	6.7
Lesotho	94	106	8.9	-0.4	1967-1971		
Liberia	205	185	2.9	6.7	1967-1970		
Libyan Arab Republic	1,150	661	12.0	6.6	1963-1968		
Madagascar	704	111	1.5	4.3	1964-1969	3.9	1.9
Malawi	266	64	3.0	2.4	1965-1969		
Mali	388	83	2.5	6.2	1961-1966		
Mauritania	122	111	3.8	-1.8	1963-1966	4.5	3.8
Mauritius	175	226	3.8	-4.9	1966-1970		

Table A.4 (continued)

Country	Consumption, 1967		Average annual rate of growth (percentage)		Planned rate of growth		Actual rate of growth from beginning of plan until 1968 <sup>b</sup>
	Total (millions of dollars) <sup>a</sup>	Per capita (dollars)	1960-1967	1967-1968	Period	Percentage per annum	
<i>Africa (continued)</i>							
Morocco	2,377	168	3.3	5.8	1965-1967	3.1	3.1
Mozambique	1,021	143	4.3	5.1	1965-1967		
Namibia	374	630	7.6	8.1			
Niger	302	82	4.8	2.5	1967-1970		
Nigeria	3,866	63	0.1	-3.3	1962-1968	3.7	-0.3
People's Republic of the Congo	164	191	2.9	5.2	1964-1968		
Rwanda	134	40	3.8	2.4	1965-1969		
Senegal	712	197	1.2	5.5	1965-1969		
Sierra Leone	350	144	4.6	4.6	1966-1971		
Somalia	150	57	3.4	1.9	1968-1970		
Southern Rhodesia	899	188	3.1	4.3	1965-1968		
Sudan	1,406	98	3.7	10.9	1961-1970	4.9	3.5
Swaziland	56	145	9.9	3.0	1965-1968		
Togo	201	117	5.3	5.4	1966-1970		
Tunisia	875	182	2.7	4.9	1965-1968	4.0	1.4
Uganda	623	78	3.8	2.0	1966-1971	5.7	0.1
United Arab Republic	5,233	169	4.0	4.3	1960-1965	4.9	5.1
United Republic of Tanzania	698	59	1.8	5.7	1964-1969	4.7	1.7
Upper Volta	232	46	2.3	2.1	1967-1970		
Zambia	781	198	8.9	2.3	1966-1970	13.9	10.6
<i>Asia<sup>d</sup></i>	112,070	112	4.3	5.0			
Afghanistan	1,340	85	2.8	8.1	1967-1971		
Burma	1,637	63	4.5	9.0	1966-1969		
Ceylon	1,611	138	2.2	7.3			
China (Taiwan)	2,770	211	7.4	9.6	1965-1968	5.9	7.7
Fiji	147	304	4.8	1.7			
Hong Kong	1,754	457	8.3	8.8			
India	38,307	75	3.6	1.0			
Indonesia	10,312	94	2.3	4.8			
Iran	5,923	225	6.2	10.0	1968-1973		
Iraq	1,654	190	5.5	7.2	1965-1969	6.1	1.5
Israel	3,829	1,435	9.2	12.6			
Jordan	574	281	8.3	3.4	1964-1970	3.9	7.4
Khmer Republic	829	129	2.1	-24.5	1968-1972		
Kuwait	1,162	1,788	-4.7	7.3	1967-1971	7.3	7.3
Laos	211	77	2.8	6.9			
Lebanon	1,188	471	3.7	5.1			
Malaysia	2,555	255	5.3	4.9	1966-1970	5.8	2.7
Maldives	...	...	...	...			
Nepal	757	72	0.7	2.7	1965-1969		
Pakistan	12,167	113	5.5	5.9	1965-1970	5.7	5.6
People's Democratic Republic of Yemen	...	...	...	...			
Philippines	8,541	246	4.4	5.9	1967-1969		
Republic of Korea	4,289	144	5.7	11.6	1967-1971	5.4	11.6
Republic of Viet-Nam	3,046	179	1.5	-1.6			
Saudi Arabia	1,630	233	7.0	10.7			
Singapore	1,068	546	5.8	6.6	1966-1967		
Syria	948	171	6.1	8.9	1966-1970	6.2	5.3
Thailand	3,822	117	6.2	9.6	1967-1971	9.2	9.6
Yemen	...	...	...	...			
<i>Developed market economies<sup>d</sup></i>	1,275,511	1,744	5.0	4.7			
Australia	20,326	1,721	4.8	3.9			
Austria	7,938	1,084	4.4	3.7			
Belgium	14,940	1,559	3.8	5.2	1966-1970	4.0	4.2

Table A.4 (continued)

Country	Consumption, 1967		Average annual rate of growth (percentage)		Planned rate of growth		Actual rate of growth from beginning of plan until 1968 <sup>b</sup>
	Total (millions of dollars) <sup>c</sup>	Per capita (dollars)	1960-1967	1967-1968	Period	Percentage per annum	
<i>Developed market economies (continued)</i>							
Canada	43,698	2,138	4.8	4.0			
Cyprus	368	600	5.7	7.2	1966-1971	6.2	8.3
Denmark	9,695	2,003	5.0	2.4			
Finland	6,441	1,380	5.0	1.2			
France	84,337	1,702	5.3	5.0	1966-1970	4.7	4.8
Germany (Federal Republic of)	90,500	1,568	4.7	2.9	1966-1970	3.4	2.0
Greece	5,874	674	7.1	5.2	1968-1972	7.9	
Iceland	411	2,068	5.1	-2.5			
Ireland	2,563	884	3.0	6.5	1964-1970	4.0	3.3
Italy	54,397	1,039	5.7	4.2	1966-1970		
Japan	74,585	746	8.5	9.3	1966-1971	6.6	
Luxembourg	504	1,504	4.3	4.3			
Malta	157	492	3.5	10.9			
Netherlands	16,685	1,324	5.3	5.0	1966-1970	3.8	4.9
New Zealand	4,196	1,539	3.6	-0.5			
Norway	5,992	1,584	4.6	4.3	1966-1969	4.3	4.9
Portugal	3,791	404	5.3	6.2	1968-1973	5.9	
South Africa <sup>c</sup>	9,870	527	5.6	8.0			
Spain	21,372	662	7.7	3.8	1968-1971	5.5	
Sweden	18,347	2,332	4.6	5.0	1966-1970	3.7	4.0
Switzerland	11,151	1,837	4.9	2.7			
Turkey	9,766	298	3.8	3.1	1968-1972	5.8	
United Kingdom	89,519	1,626	2.7	2.0	1965-1970	3.2	2.2
United States	662,657	3,328	4.9	4.9			
Yugoslavia	5,431	272	5.8	6.4			
<i>Centrally planned economies<sup>d</sup></i>							
Albania	252,311	749	5.9	7.6			
Bulgaria	5,293	637	8.1	12.4	1966-1970		
Czechoslovakia	14,520	1,015	3.9	9.9			
German Democratic Republic	18,449	1,018	2.9	4.7	1966-1970		4.5
Hungary	7,959	779	4.4	5.6	1966-1970		5.5
Mongolia							
Poland	22,584	707	5.2	6.7	1966-1970		
Romania	10,163	527					
USSR	173,343	736	6.5	7.8	1966-1970		

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics* and *Monthly Bulletin of Statistics*, supplemented by estimates of the United Nations regional commissions, official national sources, International Bank for Reconstruction and Development, Organisation for Economic Co-operation and Development, United States Agency for International Development, and unofficial sources.

<sup>a</sup> Calendar years except for Afghanistan, Australia, Burma, Haiti, India, Iran, Kuwait, Lesotho, Nepal, New Zealand, Nigeria, Pakistan, Swaziland, Sudan and United Arab Republic; and the plans of Afghanistan, Burma, Ethiopia, Gambia, Ghana, India, Indonesia, Iraq, Japan, Kuwait,

Lesotho, Mauritania, Nepal, Pakistan, Philippines and Sudan for which the data refer to fiscal years beginning in the years indicated.

<sup>b</sup> Or to end of plan.

<sup>c</sup> For the centrally planned economies the data are based on estimates made by the Economic Commission for Europe by methods explained in *Economic Survey for Europe, 1969*. The 1965 figures calculated by the Commission have been updated to 1967 by applying the real rate of growth of gross domestic product for the period concerned. Even more than usual caution is therefore required in making international comparisons.

<sup>d</sup> Regional subtotals and averages are based on the countries listed.

<sup>e</sup> Including Botswana, Lesotho, Namibia and Swaziland.

Table A.5. Developing countries: public and private consumption, 1960-1968<sup>a</sup>

Country	Proportion of gross domestic product (percentage)				Private consumption			
	1960-1962 <sup>b</sup>		1966-1968 <sup>c</sup>		1967		Average annual rate of growth (percentage)	
	Public	Private	Public	Private	Total (millions of dollars)	Per capita (dollars)	1960-1967	1967-1968
Developing countries					203,932	131	4.2	4.5
Western hemisphere					78,076	315	4.9	5.4
Argentina	10	69	12	68	10,139	436	3.3	4.1
Barbados	12	87	14	83	92	368	1.7	6.1
Bolivia	9	84	10	77	592	130	6.2	-1.6
Brazil	13	69	11	73	22,844	267	5.2	6.2
British Honduras					32	274	4.9	1.7
Chile	11	75	12	71	4,000	438	5.2	3.9
Colombia	7	74	7	75	4,542	237	5.4	6.0
Costa Rica	12	72	13	70	486	306	4.6	4.6
Cuba	13	68	12	70				
Dominican Republic	13	70	13	78	852	219	5.3	5.9
Ecuador	13	72	14	74	965	175	5.0	7.1
El Salvador	10	78	9	80	691	219	5.5	4.7
Guatemala	7	85	8	81	1,187	252	4.6	4.1
Guyana	12	65	15	64	155	221	2.1	4.0
Haiti	9	84	10	87	324	71	0.7	1.2
Honduras	10	78	9	75	441	189	5.0	5.3
Jamaica	10	73	12	71	720	384	4.5	6.5
Mexico	5	81	6	76	18,640	408	5.9	7.3
Netherlands Antilles	13	73	15	72	176	828	0.1	2.0
Nicaragua	10	75	11	75	515	289	7.4	2.1
Panama	11	74	13	67	536	403	6.9	2.4
Paraguay	7	78	8	80	389	180	5.5	4.9
Peru	9	67	11	70	2,533	205	7.8	-4.4
Surinam	22	47	22	57	115	315	8.8	10.0
Trinidad and Tobago	11	59	12	62	521	516	4.8	3.7
Uruguay	11	76	13	72	1,255	451	0.1	-1.8
Venezuela	14	56	13	58	5,336	571	4.4	6.3
Africa					28,599	93	2.5	1.7
Algeria	38	50	25	54	1,778	142	-2.7	2.4
Angola	12	70	16	67	626	118	1.2	1.5
Botswana	16	87	23	72	43	73	6.9	2.1
Burundi	3	92	8	90	156	47	2.1	2.2
Cameroon	15	73	17	68	613	112	4.8	2.0
Central African Republic	18	72	18	73	131	90	2.5	0.9
Chad	13	84	18	85	206	60	2.4	2.3
Congo (Democratic Republic of)	20	54	21	60	868	53	5.1	-2.8
Dahomey	20	71	17	79	169	68	2.9	2.6
Equatorial Guinea								
Ethiopia	7	83	10	79	1,158	49	3.9	4.4
Gabon	15	42	20	46	109	230	3.9	—
Gambia	28	65	12	81	35	102	11.1	5.7
Ghana	11	76	16	73	1,492	183	0.6	4.8
Guinea	18	79	26	66	215	58	2.7	2.5
Ivory Coast	12	69	14	64	729	182	7.2	7.5
Kenya	12	72	14	67	804	81	3.7	11.1
Lesotho	19	108	21	104	78	88	8.3	-1.1
Liberia	12	75	13	52	163	147	1.5	7.8
Libyan Arab Republic	14	73	13	37	854	491	9.9	6.3
Madagascar	22	74	22	74	547	86	1.3	3.3
Malawi	17	84	17	81	220	53	2.8	1.7
Mali	14	79	19	77	307	65	1.5	6.9
Mauritania	24	71	14	54	97	88	4.4	0.5
Mauritius	14	73	17	72	142	183	9.4	-3.2

Table A.5 (continued)

Country	Proportion of gross domestic product (percentage)				Private consumption			
	1960-1962 <sup>b</sup>		1966-1968 <sup>c</sup>		1967		Average annual rate of growth (percentage)	
	Public	Private	Public	Private	Total (millions of dollars)	Per capita (dollars)	1960-1967	1967-1968
Africa (continued)								
Morocco	14	78	14	73	1,996	141	3.1	5.2
Mozambique	14	75	15	76	583	120	5.1	5.4
Namibia	14	74	15	71	309	520	7.4	7.9
Niger	15	75	13	75	259	70	5.0	2.0
Nigeria	7	87	7	82	3,588	58	0.1	-2.9
People's Republic of the Congo	18	71	18	54	123	143	1.7	5.9
Rwanda	16	68	20	68	105	32	3.2	-2.3
Senegal	23	69	19	71	564	156	2.1	5.6
Sierra Leone	9	80	7	81	321	131	4.9	4.6
Somalia	14	83	15	78	125	48	3.4	2.1
Southern Rhodesia	11	68	13	70	761	159	3.1	4.9
Sudan	10	78	13	79	1,222	85	3.2	8.6
Swaziland	18	52	13	59	46	120	11.5	1.8
Togo	13	84	7	79	184	107	5.3	4.8
Tunisia	17	74	19	66	684	142	2.3	3.8
Uganda	6	76	8	75	568	72	3.5	1.7
United Arab Republic	18	70	20	66	3,928	127	2.7	-7.7
United Republic of Tanzania	11	76	13	80	593	50	1.1	6.6
Upper Volta	17	83	10	84	208	41	3.3	2.5
Zambia	11	53	12	47	621	157	7.7	1.6
Asia					97,257	97	4.1	4.5
Afghanistan	6	86	4	93	1,274	81	3.2	6.7
Burma	14	72	19	73	1,294	50	3.7	8.9
Ceylon	14	73	13	74	1,375	117	2.2	8.2
China (Taiwan)	19	68	17	60	2,153	164	8.2	9.5
Fiji	13	73	14	68	123	253	4.5	1.3
Hong Kong	23	70	19	58	1,315	343	8.3	8.8
India	8	79	9	78	34,436	67	3.3	-0.2
Indonesia	11	84	7	93	9,552	87	3.0	5.2
Iran	10	69	13	63	4,915	187	5.3	10.0
Iraq	20	50	24	44	1,046	120	3.9	6.9
Israel	19	67	27	66	2,652	994	7.7	12.9
Jordan	25	87	26	84	444	218	8.4	-3.3
Khmer Republic	19	70	16	69	660	103	3.0	-22.2
Kuwait	12	29	15	30	784	1,207	2.1	7.2
Laos	7	98	17	91	151	55	1.5	8.9
Lebanon	7	75	11	77	1,054	418	2.7	3.9
Malaysia	14	63	18	51	1,965	196	4.2	4.1
Maldives								
Nepal	3	92	3	83	733	70	0.7	2.1
Pakistan	6	83	7	82	11,256	105	5.4	5.2
People's Republic of Yemen								
Philippines	8	78	9	72	7,620	220	4.1	5.7
Republic of Korea	14	84	11	77	3,776	127	6.0	11.4
Republic of Viet-Nam	19	81	26	80	2,420	143	-0.5	-3.3
Saudi Arabia	9	39	14	29	1,223	175	3.8	11.8
Singapore	7	84	9	74	942	481	5.3	5.3
Syria	17	72	19	66	750	135	5.9	4.1
Thailand	9	72	9	65	3,345	102	6.2	9.6
Yemen								

Source: See table A.4.

<sup>a</sup> Calendar years except for Afghanistan, Burma, Cameroon, Haiti, India, Iran, Kuwait, Lesotho, Nepal, Nigeria, Pakistan, Saudi Arabia, Sierra Leone, Swaziland, Sudan

and United Arab Republic for which data refer to fiscal years beginning in the years indicated.

<sup>b</sup> 1962 only in the case of Afghanistan, Cuba and Kuwait.

<sup>c</sup> 1966 only in the case of Cuba.

Table A.6. Changes in mortality experience, 1960-1968

Country <sup>a</sup>	Crude death rate (per thousand of the population) <sup>b</sup>		Infant mortality rate (per thousand live births) <sup>c</sup>		Expectation of life at birth <sup>d</sup> (years)	Annual rate of natural increase <sup>e</sup> (percentage)
	Around 1960	Around 1968	Around 1960	Around 1968		
<i>Developing countries</i>						
<i>Western hemisphere:</i>						
Argentina	8.7	8.7	59	58	64-70	1.4
Bahamas	6.7	5.8	48	46		1.7
Barbados	9.1	8.1	60	46	63-67	2.2
Bolivia	21	21		77	45	2.3
Brazil		11		93	61	3.1
British Honduras					45-49	3.4
Chile	12	11	125	92	54-60	2.4
Colombia	11	13	90	78	58	2.9
Costa Rica	8.6	8.0	70	62	67	3.6
Cuba	6.4	8.0		38		2.6
Dominican Republic		15	102	73	67	3.1
Ecuador	14	14	96	88	61	3.4
El Salvador	11	15	76	59	57-60	3.3
Grenada	9.3	8.0	52	34	60-66	2.1
Guadeloupe	8.1	8.1		50	62-66	2.2
Guatemala	17	19	92	94	55	2.8
Guyana	9.5	9.0		40	51	3.1
Haiti		22		190	45	2.5
Honduras		16			49	3.2
Jamaica	8.8	8.0	51	35	62-67	3.1
Leeward Islands						
Martinique	8.6	7.6		37	62-66	1.9
Mexico	11	10	74	66	63	3.4
Netherlands Antilles						1.8
Nicaragua		15	65	55	50	3.3
Panama	8.0	10	54	41	64	3.1
Paraguay		13		52	59	3.0
Peru	11	13	93		58	3.1
St. Lucia	13	7.1	102	42	55-58	3.4
Surinam	8.8	6.5	48	30	62-67	3.4
Trinidad and Tobago	7.9	8.0	45	36	62-66	3.0
Uruguay	9.1	9.0		50	65-72	1.5
Venezuela	7.1	9.0	53		64	3.7
<i>Africa:</i>						
Algeria		10		86	35	3.1
Angola					35	2.5
Botswana						3.0
Burundi		26		150	33-38	2.0
Cameroon		26		137	43	2.2
Cape Verde Islands		11	106	100		3.2
Central African Republic	26	30	190		33-36	1.8
Chad		31	160		29-35	1.4
Comoro Islands						3.9
Congo (Democratic Republic of)	20		104		38-40	2.3
Dahomey	26		110		37	2.8
Ethiopia	22		84		35	2.1
Equatorial Guinea					40	1.3
Gabon	30		229		25-45	1.9
Gambia	21			72	43	1.8
Ghana	24		156		37	2.5
Guinea	40		216		26-28	2.2

Table A.6 (continued)

Country <sup>a</sup>	Crude death rate (per thousand of the population) <sup>b</sup>		Infant mortality rate (per thousand live births) <sup>c</sup>		Expectation of life at birth <sup>d</sup> (years)	Annual rate of natural increase <sup>e</sup> (percentage)
	Around 1960	Around 1968	Around 1960	Around 1968		
<i>Africa (continued):</i>						
Ivory Coast	33	...	138	...	35	2.3
Kenya	20	...	...	132	40-45	2.0
Lesotho	...	23	...	181	45	1.7
Liberia	28	...	188	...	36-39	1.6
Libyan Arab Republic	...	...	...	...	38	3.3
Madagascar	...	25	...	102	37-38	2.1
Malawi	...	...	...	148	...	3.5
Mali	30	...	120	...	35	2.5
Mauritania	...	28	...	187	40	1.7
Mauritius	11	8	69	70	59-62	1.9
Morocco	19	...	149	...	47	2.7
Mozambique	...	...	...	92	45	1.4
Namibia	...	...	...	...	...	1.8
Niger	27	...	200	...	37	2.5
Nigeria	...	...	...	...	37	2.1
People's Republic of the Congo	24	...	180	...	37	1.7
Portuguese Guinea	...	...	...	...	...	1.2
Réunion	...	9	...	62	54-61	2.6
Rwanda	...	14	...	137	...	3.8
Senegal	17	...	93	...	37	2.7
Sierra Leone	...	18	148	136	...	1.5
Somalia	...	26	...	...	...	2.9
Southern Rhodesia <sup>f</sup>	...	14	122	...	50	3.4
Spanish North Africa	...	...	...	...	...	1.0
Sudan	...	19	...	94	40	3.3
Swaziland	...	...	...	...	44	2.9
Togo	29	...	127	...	32-38	2.6
Tunisia	...	26	74	110	...	2.1
Uganda	...	20	...	160	...	2.2
United Arab Republic	17	14	108	119	52-54	2.2
United Republic of Tanzania	...	22	...	163	40-41	2.5
Upper Volta	35	30	182	174	32	1.8
Zambia	20	...	259	...	40	3.2
<i>Asia and Oceania:</i>						
Afghanistan	...	...	...	...	...	...
Bahrain	...	...	...	36	...	3.3
Bhutan	...	...	...	...	...	...
British Solomon Islands	...	...	...	...	...	1.9
Brunei	6.9	6.4	51	42	...	3.7
Burma	35	...	200	114	31	1.5
Ceylon	8.6	7.9	57	48	62	2.4
China (Taiwan)	6.9	5.3	30	19	66-70	2.0
Fiji	...	5.2	...	25	...	2.5
French Polynesia	...	9	...	52	...	3.5
Gaza Strip	...	8	...	...	...	3.6
Guam	4.7	3.7	27	23	...	2.2
Hong Kong	6.3	5.0	34	23	67-73	1.6
India	23	...	139	...	40-42	1.9
Indonesia	21	...	125	...	47	2.2
Iran	24	...	...	...	...	...
Iraq	...	14	...	...	...	1.5
Israel	5.7	6.8	31	23	70-73	1.9
Jordan	...	16	36	28	52	3.1
Khmer Republic	20	...	127	...	43	2.2



Table A.6 (continued)

Country <sup>a</sup>	Crude death rate (per thousand of the population) <sup>b</sup>		Infant mortality rate (per thousand live births) <sup>c</sup>		Expectation of life at birth <sup>d</sup> (years)	Annual rate of natural increase <sup>e</sup> (percentage)
	Around 1960	Around 1968	Around 1960	Around 1968		
<i>Asia and Oceania</i>						
(continued):						
Kuwait		6.2		36		5.5
Laos	23				52	2.4
Lebanon						2.4
Macao			45			1.4
Malaysia (West)	9.5	7.5	69	45	63-66	2.8
Maldives		23				2.7
Mongolia	10	9.7			64	3.0
Muscat and Oman						
Nepal	21				33	2.0
New Guinea						
Pakistan		18	142		49-54	3.1
Papua						
People's Democratic Republic of						
Yemen	9.6	8.1	120	80		
Philippines	7.8	6.9	99	72	49-53	1.8
Portuguese Timor						0.8
Republic of Korea						
Republic of Viet-	16		45		51-54	2.9
Nam	18		43			1.7
Saudi Arabia					35	2.3
Sikkim		16		208		1.3
Singapore	6.3	5.1	35	21	62	1.7
Syria					40	2.9
Thailand	8.4	13	51	28	54-59	3.3
Trucial Oman						
Western Samoa				26		2.3
Yemen					35	
<i>Rest of the world</i>						
<i>Europe:</i>						
Albania	10	8	83	87	65-67	2.8
Austria	13	13	37	25	67-73	0.3
Belgium	12	12	31	23	68-73	0.2
Bulgaria	8.1	8.6	45	28	69-73	0.8
Channel Islands	12	13	21	19		0.3
Cyprus	5.6	6.8	30	28	63-69	1.8
Czechoslovakia	9.2	11	23	23	67-74	0.4
Denmark	9.5	9.7	21	16	70-75	0.7
East Berlin	17	16	31	21	69-74	0.1
Finland	9	9.8	21	14	65-73	0.5
France	11	11	27	16	65-75	0.6
German Democratic Republic	13	14	32	20	69-74	-0.1
Germany (Federal Republic of)	11	12	29	23	68-74	0.3
Greece	7.3	8.3	40	32	67-71	1.0
Hungary	10	11	48	36	67-72	0.4
Iceland	6.6	6.9	13	14	71-76	1.4
Ireland	11	11	29	21	68-72	1.0
Italy	9.7	10	44	30	67-72	0.7
Luxembourg	12	12	31	17	62-66	0.1
Malta	8.6	9.4	38	24	67-72	0.7
Netherlands	7.7	8.3	18	13	71-76	1.0
Norway	9.1	9.9	19	14	71-76	0.8
Poland	7.5	8.1	57	34	67-73	0.8
Portugal	11	10	77	61	61-66	0.9
Romania	8.7	10	76	55	66-71	1.3
Spain	8.8	9.2	44	30	67-72	1.1

Table A.6 (continued)

Country <sup>a</sup>	Crude death rate (per thousand of the population) <sup>b</sup>		Infant mortality rate (per thousand live births) <sup>c</sup>		Expectation of life at birth <sup>d</sup> (years)	Annual rate of natural increase <sup>e</sup> (percentage)
	Around 1960	Around 1968	Around 1960	Around 1968		
<i>Europe (continued):</i>						
Sweden	10	10	17	13	72-77	0.3
Switzerland	9.7	9.2	21	16	69-74	0.7
Turkey	...	16	...	155	54	2.7
United Kingdom	11	12	22	19	68-75	0.5
West Berlin	17	19	33	25	64-69	0.8
Yugoslavia	9.9	9.2	88	56	62-66	1.0
USSR	7.1	7.7	35	26	70	1.0
<i>Other:</i>						
Australia	8.6	9.1	20	18	68-74	1.1
Canada	7.8	7.3	27	21	68-74	1.0
China (mainland)	11	...	...	...	...	2.3
Japan	7.6	6.7	31	15	68-74	1.4
New Zealand	8.8	8.7	23	17	68-74	1.4
Democratic People's Republic of Korea	11	...	...	...	...	2.5
Democratic Repub- lic of Viet-Nam	...	...	...	...	...	3.1
Puerto Rico	6.7	5.6	42	28	67-72	1.9
Ryukyu Islands	5.4	5.3	...	12	69-76	1.6
South Africa	8.8	9.0	29	26	65-70	1.4
United States	9.5	9.5	26	21	67-74	0.8

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Monthly Bulletin of Statistics*, *Demographic Yearbook*, 1965, 1967, 1968 and 1969 (United Nations publications, Sales Nos.: 66.XIII.1, E/F.68.XIII.1, E/F.69.XIII.1, E/F.70.XIII.1); *Statistical Yearbook*, 1968 (United Nations publication, Sales No.: E/F.69.XVII.1); "World population situation" (E/CN.9/231, September 1969); 1967 *Report on the World Social Situation* (United Nations publication, Sales No.: E.68.IV.9); *Population and Vital Statistics Report*, Statistical Papers, Series A, vol. XXII, No. 1 (1 January 1970) and vol. XXIII, No. 3 (1 July 1970); *Statistical Yearbook for Asia and the Far East*, 1968 (United Nations publication, Sales No.: E/F.69.II.F.5); "Social change and social development policy in Latin America" (E/CN.12/826, February 1969); Inter-American Development Bank, *Socio-Economic Progress in Latin Amer-*

*ica* (Washington, D.C., 1968).

<sup>a</sup> Including all countries and territories with a 1968 population of over 100,000.

<sup>b</sup> The number of all deaths per 1,000 of the population. Where a decimal is cited the figures are based on registration; otherwise, they are official or unofficial estimates.

<sup>c</sup> The number of deaths within one year of birth per 1,000 live births; in most developing countries the figures are largely estimates.

<sup>d</sup> Estimates based on mortality experience in various segments of the 1960s.

<sup>e</sup> Based in most cases on the latest estimates of birth rates and death rates; in the case of Bahrain, British Solomon Islands, Comoro Islands, Democratic People's Republic of Korea, Democratic Republic of Viet-Nam, German Democratic Republic, Macao, Mozambique, Namibia, Portuguese Guinea the figures are intercensal rates of population increase.

<sup>f</sup> Estimate for African population.

<sup>g</sup> White population only.

Table A.7. Availability of selected medical facilities, 1960-1966

Country	Thousands of inhabitants per					
	Physician		Nurse		Hospital bed	
	Around 1960	Around 1966	Around 1960	Around 1966	Around 1960	Around 1966
<i>Developing countries</i>						
<i>Western hemisphere:</i>						
Argentina	0.7	0.7	0.8	0.8	0.16	0.16
Bahamas	1.7	1.4	0.3	0.3	0.20	0.17
Barbados	3.0	2.4	0.9	0.7	0.08	0.15
Bolivia	3.9	3.1	4.6	3.7	0.58	0.40
Brazil	3.6	2.1	2.0	3.5	0.36	0.29
British Honduras	3.7	3.3	0.6	1.0	0.23	0.21
Chile	1.8	2.1	0.6	0.6	0.22	0.26
Colombia	2.4	2.3	3.8	3.5	0.36	0.40

Table A.7 (continued)

Country	Thousands of inhabitants per					
	Physician		Nurse		Hospital bed	
	Around 1960	Around 1966	Around 1960	Around 1966	Around 1960	Around 1966
<i>Western hemisphere</i>						
(continued):						
Costa Rica	2.6	1.9	1.5	1.2	0.22	0.25
Cuba	1.0	1.1	1.4	0.8	0.22	0.18
Dominican Republic	1.6	1.9	7.0	7.3	0.31	0.35
Ecuador	2.6	3.0	14.0	14.1	0.52	0.42
El Salvador	5.4	4.7	1.4	1.3	0.48	0.46
Grenada	4.5	4.6	0.6	0.8	0.16	0.16
Guadeloupe	2.4	2.1	0.7	1.2	0.16	0.11
Guatemala	4.9	4.8	8.1	7.9	0.35	0.41
Guyana	...	3.4	0.5	0.7	0.18	0.17
Haiti	10.6	14.0	14.0	14.3	1.79	1.99
Honduras	...	5.1	2.2	1.8	0.59	0.63
Jamaica	2.6	1.8	0.5	0.4	0.25	0.26
Martinique	2.4	2.1	0.8	0.8	0.10	0.10
Mexico	1.7	1.8	7.5	5.1	0.54	0.51
Netherlands Antilles	1.4	1.7	0.3	0.8	0.11	0.11
Nicaragua	2.8	2.6	2.8	4.9	0.44	0.43
Panama	2.7	2.0	1.7	1.5	0.26	0.33
Paraguay	1.8	1.9	1.3	3.6	0.35	0.50
Peru	2.1	1.7	3.1	...	0.42	0.41
St. Lucia	6.7	6.1	1.3	1.6	0.21	0.20
Surinam	2.4	2.3	0.5	1.0	0.22	0.19
Trinidad and Tobago	2.4	3.8	0.7	0.8	0.18	0.28
Uruguay	1.1	0.9	...	5.4	0.20	0.20
Venezuela	1.5	1.2	2.7	0.5	0.28	0.31
<i>Africa:</i>						
Algeria	5.5	8.9	...	11.8	0.33	0.29
Angola	8.3	11.4	6.4	3.6	0.43	0.41
Botswana	11.0	27.6	4.8	3.2	0.28	0.37
Burundi	63.0	61.8	4.8	7.5	0.73	0.90
Cameroon	35.0	26.7	6.4	5.2	0.32	0.48
Cape Verde Islands	12.0	9.1	4.0	3.2	0.41	0.49
Central African Republic	37.0	35.9	2.6	2.4	0.63	0.64
Chad	70.0	90.8	4.8	13.4	1.30	0.90
Comoro Islands	16.0	16.9	3.7	3.5	0.43	0.47
Congo (Democratic Republic of)	63.0	26.6	2.8	...	0.18	0.28
Dahomey	47.0	31.3	12.0	...	0.71	0.93
Ethiopia	91.0	64.6	15.1	24.4	3.00	2.47
Equatorial Guinea	5.9	5.4	4.4	4.1	0.20	0.16
Gabon	7.7	5.8	1.0	0.7	0.14	0.11
Gambia	17.0	18.7	1.3	1.4	0.72	0.69
Ghana	21.0	13.3	5.1	2.6	1.60	0.77
Guinea	48.0	46.9	3.7	4.1	1.12	0.53
Ivory Coast	22.0	17.9	2.1	2.4	0.57	0.51
Kenya	10.0	14.8	2.3	1.8	0.75	0.78
Lesotho	19.0	19.1	7.4	4.2	0.46	0.53
Liberia	16.0	11.1	4.5	3.6	0.73	0.60
Libyan Arab Republic	5.8	3.1	2.9	1.8	0.36	0.31
Madagascar	9.4	9.8	3.2	3.6	0.43	0.35
Malawi	33.0	46.9	13.6	41.0	0.70	0.80
Mali	77.0	51.1	4.7	3.8	1.40	1.34
Mauritania	34.0	36.9	6.0	6.8	3.30	3.72
Mauritius	4.5	3.8	2.4	1.1	0.21	0.24
Morocco	9.4	12.1	4.6	4.5	0.62	0.66
Mozambique	21.0	17.6	5.5	4.4	0.73	0.65
Niger	77.0	57.2	8.7	7.1	2.30	1.34

Table A.7 (continued)

Country	Thousands of inhabitants per					
	Physician		Nurse		Hospital bed	
	Around 1960	Around 1966	Around 1960	Around 1966	Around 1960	Around 1966
<i>Africa (continued):</i>						
Nigeria	33.0	27.9	8.0	5.8	2.50	2.19
People's Republic of the Congo	19.0	11.6	1.2	0.7	0.20	0.19
Portuguese Guinea	20.0	25.2	7.4	4.9	0.53	0.62
Réunion	3.3	2.8	1.3	0.5	0.15	0.15
Rwanda		76.3		21.2		0.75
Senegal	35.0	15.2	4.6	3.8	0.95	0.66
Sierra Leone	26.0	16.4	5.5	9.0	1.45	1.21
Somalia	30.0	30.0	33.5		0.57	0.56
Southern Rhodesia	6.2	5.0	1.0	1.2	0.25	0.28
Spanish North Africa	0.5	0.9			0.12	0.25
Sudan	31.0	24.6		3.4	1.01	1.01
Swaziland	9.0	7.3	2.0	1.2	0.45	0.42
Togo	34.0	22.1	4.6	4.7	0.46	0.74
Tunisia	10.0	8.3	2.0	3.5	0.33	0.39
Uganda	15.0	8.9	12.0	2.9	0.68	0.89
United Arab Republic	2.6	2.2	6.8	4.6	0.46	0.56
United Republic of Tanzania	18.0	17.3	10.7	2.6	0.53	0.56
Upper Volta	100.0	76.2	5.4	4.4	1.66	1.68
Zambia	7.4	18.6	13.7	6.0	0.35	0.38
<i>Asia and Oceania:</i>						
Afghanistan	40.0	21.4	40.6	33.1	8.00	5.81
Bahrain	2.1	1.9	0.5	0.5	0.21	0.24
British Solomon Islands	5.6	4.4	4.2	1.2	0.10	0.17
Brunei	7.3	3.5	0.9	0.8	0.22	0.26
Burma	11.0	9.6	9.2	11.6	1.20	1.03
Ceylon	4.5	4.2	4.8	3.2	0.33	0.32
China (Taiwan)	1.5	2.3	6.8	6.2	2.70	1.03
Fiji	2.1	2.5	0.8	0.9	0.24	0.28
French Polynesia	2.3	1.8	0.8	0.5	0.12	0.12
Guam	3.9	2.5	0.7	0.7	0.21	
Hong Kong	2.9	2.5	1.4	1.0	0.37	0.28
India	5.8	4.8	11.2	8.7	2.5	1.67
Indonesia	48.0	29.5	5.4	9.6	1.35	1.45
Iran	3.8	3.7	8.1	4.2	0.95	0.89
Iraq	5.6	4.0	7.2	6.8	0.52	0.53
Israel	0.4	0.4	0.4	0.3	0.13	0.13
Jordan	3.6	4.0	2.0	6.5	0.53	0.58
Khmer Republic	84.0	22.5	3.4	3.7	1.23	1.32
Kuwait	0.9	0.8	0.3	0.5	0.15	0.14
Laos	100.0	24.6	5.5	5.3	2.40	1.65
Lebanon	1.1	1.4	3.0	2.8	0.19	0.24
Macao	2.4	2.9	2.8	1.9	0.15	0.16
Malaysia (West)	6.5	5.3	2.8	1.5	0.29	0.25
Maldives		50.5		4.6		5.05
Muscat and Oman		24.6		37.7		2.73
Nepal	72.0	41.2	356.0	85.8	8.00	6.95
New Guinea	17.0	15.2	4.5	2.6	0.14	0.12
Pakistan	11.0	6.0	21.1	16.2	5.60	2.82
Papua	10.0	7.9	3.1	1.3	0.17	0.12
People's Democratic Republic of Yemen	2.3	2.1			1.28	0.23
Philippines	1.6	1.4	6.6	1.3	1.18	0.73
Portuguese Timor		23.3	20.7	7.1	2.17	0.78
Republic of Korea		2.5	6.5	2.9	2.60	2.20
Republic of Viet-Nam	29.0	37.4	4.1	6.0	0.68	0.59
Saudi Arabia	13.0	13.1	8.9	5.4	1.58	1.15
Singapore	2.4	1.8	1.0	0.6		0.29

Table A.7 (continued)

Country	Thousands of inhabitants per					
	Physician		Nurse		Hospital bed	
	Around 1960	Around 1966	Around 1960	Around 1966	Around 1960	Around 1966
<i>Asia and Oceania</i>						
(continued):						
Syria	4.6	5.1	6.8	7.2	0.86	0.90
Thailand	7.8	8.8	5.6	3.4	1.30	1.09
Western Samoa		2.2		1.0	0.19	0.24
Yemen		62.5	312.0		3.33	2.30
<i>Rest of the world</i>						
<i>Europe:</i>						
Albania	3.6	1.9	0.6	0.6	0.19	0.17
Austria	0.6	0.5	0.4	0.6	0.10	0.09
Belgium	0.8	0.7	0.7	0.6	0.13	0.13
Bulgaria	0.7	0.6	0.6	0.4	0.13	0.14
Channel Islands	1.4	1.0		0.2	0.09	0.09
Czechoslovakia	0.6	0.5	0.3	0.2	0.08	0.10
Denmark	0.8	0.7	0.3	0.2	0.10	0.11
East Berlin		0.8				0.08
Finland	1.6	1.2	0.3	0.2	0.11	0.09
France	0.9	0.8	0.6	0.4	0.13	0.12
German Democratic Republic		0.8			0.08	0.08
Germany (Federal Republic of)	0.6	0.6	0.5	0.4	0.10	0.09
Greece	0.8	0.7	3.0		0.17	0.17
Hungary	0.6	0.6	0.5	0.3	0.20	0.13
Iceland	0.9	0.7	0.7	0.6	0.10	0.09
Ireland	1.0	0.9	0.2	0.2	0.05	0.07
Italy	0.6	0.6	1.3		0.11	0.10
Luxembourg	0.9	1.0	0.5		0.08	0.09
Malta	1.0	0.7	2.2	0.3	0.11	0.10
Netherlands	0.9	0.9	0.9	0.8	0.13	0.20
Norway	0.8	0.8	0.3	0.3	0.10	0.11
Poland	1.1	0.8	0.5	0.4	0.14	0.13
Portugal	1.3	1.2	2.6	1.3	0.18	0.17
Romania	0.7	0.7	0.6	0.6	0.14	0.13
Spain	1.0	0.8	1.3		0.23	0.32
Sweden	1.1	0.9	0.1	0.3	0.06	0.07
Switzerland	0.7	0.7	0.3	0.4	0.08	0.08
Turkey	2.8	2.8	6.1	6.3	0.56	0.55
United Kingdom	1.0	0.9	0.4	0.5	0.10	0.10
West Berlin	0.6	0.6		0.4	0.10	0.09
Yugoslavia	1.5	1.2	2.2	0.9	0.20	0.17
<i>Other:</i>						
Australia	0.9	0.8	0.2	0.2	0.09	0.08
Canada	0.9	0.8	0.2	0.1	0.09	0.09
Cyprus	1.5	1.3	1.4	0.8	0.23	0.19
Japan	0.9	0.9	0.5	0.4	0.11	0.09
Mongolia	0.9	0.7	0.3	0.3	0.10	0.11
Puerto Rico	1.4	0.9	0.3	0.3	0.20	0.22
Ryukyu Islands	1.9	2.4	1.4	0.9	0.26	0.29
South Africa	2.0	1.5	0.8	0.5	0.17	0.19
United States	0.8	0.7	0.3	0.2	0.11	0.12
USSR	0.5	0.5	0.3	0.3	0.11	0.10

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Statistical Yearbook, 1962 and 1963* (United Nations publications, Sales Nos.: 63.XVII.1 and 64.XVII.1); *1967 Report on the World Social Situation*; *Statistical Yearbook for Asia and the Far East, 1968*; World Health Organization, *World Health*

*Statistics Annual, 1962*, vol. III, 1965, vol. III and 1966, vol. III (Geneva, 1966, 1969 and 1970); *Fourth Report on the World Health Situation*, part II and addendum (Geneva, April 1970).

Note: Information is based on registration or estimates from official or unofficial sources.

Table A.8. Estimated calorie and protein content of *per capita* average daily food supply, 1960-1967

(Grammes, except as indicated)

Country	Assumed require- ments per person per day <sup>a</sup>		Calories			Total protein			Protein of animal origin		
			Around 1960	Around 1967		Around 1960	Around 1967		Around 1960	Around 1967	
	Calories	Protein		Total	Percentage of require- ment <sup>a</sup>		Total	Percentage of require- ment <sup>a</sup>		Total	Percentage of total protein re- quirement <sup>a</sup>
<i>Developing countries</i>											
<i>Western hemisphere:</i>											
Argentina	2,400	66	2,810	3,130	130	81.6	87.6	133	52.4	50.7	77
Barbados											
Bolivia	2,400	66	1,990	2,060	86	48.6	51.8	79	12.4	13.1	20
Brazil	2,400	66	2,720	2,700	113	66.4	66.5	101	17.9	18.5	28
Chile	2,400	66	2,480	2,720	113	71.0	77.8	118	26.0	26.3	40
Colombia	2,400	66	2,370	2,280	95	55.6	53.3	81	25.2	23.3	35
Costa Rica	2,310	62	2,420	2,610	113	54.9	57.9	93	21.9	21.8	35
Cuba											
Dominican Republic	2,310	62	1,930	2,000	87	40.1	43.6	70	14.1	15.6	25
Ecuador	2,400	66	1,990	2,020	84	48.5	50.3	76	17.0	17.5	27
El Salvador	2,310	62	1,890	1,840	80	50.2	44.2	71	10.5	9.4	15
Guatemala	2,310	62	2,050	2,220	96	53.4	56.8	92	8.2	8.3	13
Guyana											
Haiti											
Honduras	2,310	62	2,160	2,010	87	56.4	51.0	82	14.9	14.5	23
Jamaica	2,310	62	2,230	2,430	105	51.1	54.7	88	18.2	19.6	32
Mexico	2,310	62	2,500	2,600	113	65.0	66.8	108	15.5	15.1	24
Nicaragua	2,310	62	2,300	2,350	102	56.5	59.0	95	22.6	20.1	32
Panama	2,310	62	2,350	2,420	105	61.6	62.3	101	23.6	25.5	41
Paraguay	2,400	66	2,520		105	63.3		96	23.7		36
Peru	2,400	66	2,260	2,300	96	55.5	55.4	84	20.0	18.9	29
Surinam	2,400	66	1,920	2,510	105	47.0	62.3	94	17.4	21.9	33
Trinidad and Tobago											
Uruguay	2,400	66	3,200	3,140	131	110.5	111.7	169	75.5	77.4	117
Venezuela	2,400	66	2,300	2,490	104	58.7	65.9	100	23.0	26.4	40
<i>Africa:</i>											
Algeria	2,360	70	2,180	1,950	83	64.6	55.4	79	10.5	6.6	9
Botswana											
Burundi											
Cameroon	2,220	60	2,130		96	54.4		91	10.0		17
Central African Republic											
Chad											
Congo (Democratic Republic of)											
Dahomey											
Ethiopia											
Equatorial Guinea											
Gabon	2,220	60	1,910	2,200	99	35.9	60.4	101	15.7	26.1	44
Gambia	2,230	64	2,300	2,320	104	60.4	62.2	97	12.2	14.7	23
Ghana	2,230	64	2,160	2,130	96	48.6	46.9	73	10.5	9.6	15
Guinea											
Ivory Coast	2,230	64	2,290	2,440	109	52.3	59.6	93	10.3	13.4	21
Kenya	2,270	63	2,120	2,240	99	64.4	67.9	108	12.1	13.3	21
Lesotho											
Liberia											
Libyan Arab Republic	2,360	70	1,770	2,560	109	48.3	59.6	85	9.4	15.2	22
Madagascar	2,270	63	2,330	2,360	104	52.3	54.0	86	9.4	9.9	16
Malawi											
Mali	2,230	64	2,120	2,130	96	64.2	68.5	107	10.9	15.0	23

Table A.8 (continued)

Country	Assumed require- ments per person per day <sup>a</sup>		Calories			Total protein			Protein of animal origin		
			Around 1960	Around 1967		Around 1960	Around 1967		Around 1960	Around 1967	
	Calories	Protein		Total	Percentage of require- ment <sup>a</sup>		Total	Percentage of require- ment <sup>a</sup>		Total	Percentage of total protein re- quirement <sup>a</sup>
<i>Africa (continued):</i>											
Mauritania											
Mauritius	2,230	64	2,330	2,300	103	47.2	46.2	72	12.3	13.5	21
Morocco	2,360	70	2,080	2,180	92	54.6	59.7	85	8.6	10.0	14
Mozambique	2,270	63		2,050	90		44.8	71		4.2	7
Niger											
Nigeria	2,230	64		2,170	97	59.3	59.5	93	5.3	5.1	8
People's Republic of the Congo											
Rwanda	2,270	63		1,900	84		57.0	91		3.6	6
Senegal											
Sierra Leone											
Somalia	2,230	64		1,770	79		56.9	89		22.2	35
Sudan	2,360	70		2,080	88		58.1	83		18.0	26
Swaziland											
Togo											
Tunisia	2,360	70	1,730	2,190	93	52.3	66.2	95	10.1	10.7	15
Uganda	2,270	63	2,090	2,160	95	50.1	55.9	89	10.2	15.1	24
United Arab Republic	2,360	70	2,690	2,960	125	77.3	76.3	109	10.7	10.7	15
United Republic of Tanzania	2,270	63	2,080	2,140	94	58.1	60.1	95	9.1	12.4	20
Upper Volta											
Zambia											
<i>Asia and Oceania:</i>											
Afghanistan	2,330	62	2,040	1,990	91	62.5	59.6	97	7.8	7.8	13
Burma											
Ceylon	2,200	56	2,080	2,150	98	46.1	46.2	83	7.9	8.5	15
China (Taiwan)	2,200	56	2,350	2,510	114	58.5	64.8	116	15.3	20.5	37
Fiji											
India	2,200	56	2,020	1,900	86	50.1	47.8	85	6.2	6.1	11
Indonesia	2,200	56		1,870	85		41.4	74		8.4	15
Iran	2,330	62	2,050	1,950	84	59.6	52.1	84	13.4	11.8	19
Iraq	2,330	62	1,920		82	54.9		86	15.5		25
Israel	2,330	62	2,810	2,930	126	84.5	88.9	143	36.0	41.6	67
Jordan	2,330	62	2,220	2,620	112	61.5	65.4	106	9.9	8.2	13
Khmer Republic											
Kuwait											
Laos											
Lebanon	2,330	62	2,160	2,540	109	61.2	73.0	118	18.0	26.0	42
Malaysia	2,200	56		2,190	100		47.7	85		14.5	26
Maldives											
Mongolia											
Nepal											
Pakistan	2,280	53	2,090	2,230	98	47.8	50.6	96	9.9	10.1	19
People's Democratic Republic of Yemen											
Philippines	2,200	56	1,880	2,010	91	48.0	51.9	93	17.7	19.9	36
Republic of Korea	2,200	56	2,090	2,430	111	59.0	69.5	124	6.1	8.1	15
Saudi Arabia	2,330	62		1,830	79		49.8	80		11.5	19
Singapore											
Syria	2,330	62	2,350	2,480	106	69.7	74.5	120	12.2	10.0	16
Thailand											
Yemen											

Table A.8 (continued)

Country	Assumed require- ments per person per day <sup>a</sup>		Calories			Total protein			Protein of animal origin		
			Around 1960	Around 1967		Around 1960	Around 1967		Around 1960	Around 1967	
	Calories	Protein		Total	Percentage of require- ment <sup>a</sup>		Total	Percentage of require- ment <sup>a</sup>		Total	Percentage of total protein re- quirement <sup>a</sup>
<i>Rest of the world</i>											
<i>Europe:</i>											
Albania	2,579	74	...	2,370	92	...	71.3	96	...	21.2	29
Austria	2,660	74	2,970	2,990	112	86.8	87.1	118	47.5	51.4	70
Belgium	2,660	74	3,060	3,150	118	89.6	88.6	120	49.0	49.5	67
Bulgaria	2,570	74	...	3,110	121	...	90.2	122	...	24.5	33
Czechoslovakia	2,570	74	...	2,990	116	...	83.3	113	...	38.9	53
Cyprus	...	...	...	...	...	...	...	...	...	...	...
Denmark	2,660	74	3,260	3,180	120	88.4	89.2	121	56.3	60.4	82
Finland	2,660	74	3,110	2,890	109	93.8	87.8	119	54.5	56.6	77
France	2,660	74	3,090	3,180	120	99.2	99.8	135	53.4	60.3	82
German Democratic Republic	2,570	74	...	3,170	123	...	76.4	103	...	40.7	55
Germany (Federal Republic of)	2,660	74	2,990	2,960	111	80.5	80.5	109	49.2	51.6	70
Greece	2,660	74	2,940	2,900	109	96.3	98.9	134	31.3	43.0	58
Hungary	2,570	74	3,030	3,140	122	91.7	97.0	131	37.2	41.3	56
Iceland	...	...	...	...	...	...	...	...	...	...	...
Ireland	2,660	74	3,480	3,450	130	91.6	93.2	126	54.7	58.9	80
Italy	2,660	74	2,690	2,940	111	78.7	87.2	118	29.8	37.8	51
Luxembourg	2,660	74	3,060	3,150	118	89.6	88.6	120	49.0	49.5	67
Malta	...	...	...	...	...	...	...	...	...	...	...
Netherlands	2,660	74	3,160	3,030	114	84.9	84.2	114	50.4	53.7	73
Norway	2,660	74	2,930	2,910	109	82.1	81.5	110	49.7	51.2	69
Poland	2,570	74	3,350	3,110	117	...	93.2	126	37.6	42.6	61
Portugal	2,660	74	2,530	2,930	110	72.4	86.5	117	27.3	33.5	45
Romania	2,570	74	3,160	3,020	118	...	87.0	118	...	26.2	35
Spain	2,660	74	2,820	2,680	101	77.8	81.9	111	24.0	36.9	50
Sweden	2,660	74	2,990	2,880	108	82.6	80.7	109	54.0	54.1	73
Switzerland	2,660	74	3,210	2,990	112	90.2	84.3	114	51.4	51.1	69
Turkey	2,660	74	3,110	2,860	108	97.5	78.2	106	15.9	14.8	20
USSR	2,600	74	...	3,150	121	...	91.5	124	...	35.8	48
United Kingdom	2,660	74	3,270	3,180	120	88.9	88.0	119	53.4	54.0	73
Yugoslavia	2,660	74	2,970	3,200	120	90.5	93.3	126	20.4	22.1	30
<i>Other:</i>											
Australia	2,540	73	3,140	3,110	122	89.8	91.6	126	59.7	62.0	85
Canada	2,710	74	3,020	3,180	117	91.2	95.4	129	64.2	64.1	87
Japan	2,390	65	2,330	2,460	103	70.7	75.7	117	22.8	29.5	45
New Zealand	2,540	73	3,490	3,290	130	109.4	107.3	147	74.8	74.3	102
South Africa	2,410	65	2,820	2,870	119	80.2	78.2	120	31.5	29.5	45
United States	2,710	74	3,120	3,240	120	92.4	96.1	129	65.1	69.6	94

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *Statistical Yearbook, 1968, 1967 Report on the World Social Situation, International Action to Avert the Impending Protein Crisis* (United Nations publications, Sales Nos.: E/F.69.XVII.1, E.68 IV.9, E.68.XIII.2); Food and Agriculture Organization of the United Nations, *The State of Food and Agriculture, 1966, 1968 and 1969* (Rome); Inter-American Development Bank, *Socio-Economic Progress in*

*Latin America, Annual Report, 1968* (Washington, D.C.); United States Department of Agriculture, *The World Food Budget, 1970, Foreign Agricultural Economic Report No. 19* (Washington, D.C., 1964); United States Agency for International Development, *Selected Economic Data for Less Developed Countries* (Washington, D.C., 1969).

<sup>a</sup> FAO/WHO reference standard of physiological needs of various subregions. Percentage is calculated on 1960 figure if 1967 data are lacking.



Table A.9. Urban households and dwellings, early 1960s<sup>a</sup>

Country	Number of households (thousands)	Average density		Percentage of dwellings with			
		Persons per room	Percentage of dwellings with 3 or more persons per room	1 or 2 rooms	Piped water	Electricity	Flush toilet
<i>Western hemisphere</i>							
Argentina . . . . .	4,076	1.3	12	37	60	87	77
Barbados (T) . . . . .	58	1.2	..	33	..	..	..
Brazil . . . . .	6,551	1.3 <sup>b</sup>	5 <sup>b</sup>	13 <sup>b</sup>	42	72	..
British Honduras . . . . .	10	1.8	..	54	4	51	10
Chile . . . . .	940	1.6	19	39	79	86	45 <sup>b</sup>
Colombia . . . . .	1,284	..	..	36	89	88	80
Costa Rica . . . . .	86	1.3	8	17	98	94	64
Dominican Republic . . . . .	185	1.6	..	46	71	58	36
Ecuador . . . . .	293	2.1	40	64	87	79	61
El Salvador . . . . .	188	2.2	..	80	77	..	30
Guyana . . . . .	16	1.7	..	..	..	..	..
Honduras . . . . .	76	1.8	26	48	77	57	51
Jamaica . . . . .	104	1.6	34	79	90	..	65
Mexico . . . . .	3,670	2.6	47	71	32 <sup>b</sup>	47	..
Netherlands Antilles (T) . . . . .	27	1.0	3	11	62	38	49
Nicaragua . . . . .	106	2.2	42	63	49	71	28
Panama . . . . .	99	2.1	38	73	40	83	77
Paraguay . . . . .	123	2.6 <sup>b</sup>	53 <sup>b</sup>	75 <sup>b</sup>	23	33	13
Peru . . . . .	921	2.0	34	59	44	51	45
Surinam (T) . . . . .	64	1.7	19	48	45	18	22
Trinidad and Tobago (T) . . . . .	211	1.8	..	56	46	66	24
Uruguay . . . . .	558	..	..	16	..	89	68
Venezuela (T) . . . . .	1,343	1.6	21	37	67	78	50
<i>Africa</i>							
Central African Republic (T) . . . . .	261	3.4	..	98	..	..	..
Ethiopia . . . . .	124	2.7	..	..	74	58	..
Kenya . . . . .	137	2.5	41	77	..	..	..
Malawi . . . . .	40	1.9	..	76	44	20	33
Mauritius (T) . . . . .	138	1.9	29	54	75	61	31
Morocco . . . . .	787	2.1	31	57	58 <sup>b</sup>	85	..
Nigeria . . . . .	93	3.0	41	93	..	81	7
People's Republic of the Congo (T) . . . . .	134	2.7	..	86	..	..	..
Southern Rhodesia . . . . .	161	1.9	..	68	..	..	..
Sudan . . . . .	32	2.5	..	..	96	55	..
United Arab Republic . . . . .	1,992	1.6	16	24	40	38	..
Zambia . . . . .	90	..	..	31	..	29	..
<i>Asia</i>							
Ceylon . . . . .	196	2.3	..	42	46	32	20
China (Taiwan) (T) . . . . .	2,311	1.9	..	..	95 <sup>c</sup>	100	51
Hong Kong . . . . .	156	..	..	..	..	..	..
India . . . . .	14,841	2.6	..	78	..	..	..
Indonesia . . . . .	2,814	..	..	82	..	..	..
Iran . . . . .	1,961	..	..	..	57	69	..
Israel . . . . .	564	1.5	11	53	100	99	87
Jordan . . . . .	129	..	..	69 <sup>b</sup>	69	39	23
Kuwait . . . . .	53	2.2	..	51	..	..	..
Malaysia . . . . .	30	3.0	51	62	75	67	35

Table A.9 (continued)

Country	Number of households (thousands)	Average density		Percentage of dwellings with			
		Persons per room	Percentage of dwellings with 3 or more persons per room	1 or 2 rooms	Piped water	Electricity	Flush toilet
<i>Africa (continued)</i>							
Nepal	46	2.0	20	30	64	37	9
Pakistan	2,118	3.1	59	81	..	..	..
Philippines (I)	4,653	..	..	..	20	17	8
Republic of Korea	1,255	2.8	59	78	47	67	1
Republic of Viet-Nam	230	..	..	..	24	71	..
Singapore	332	2.9	..	69	91	87	54
Syria	307	2.1	36	45	77	88	..
<i>Developed market economies</i>							
Australia	2,664	0.7	..	5	..	99	..
Austria	1,347	..	..	30	100	99	..
Canada	3,280	0.7	..	4	98	..	97
Cyprus	51	1.3	12	40	96	90	54
Denmark	1,087	0.7	..	7	99 <sup>c</sup>	100	96
Finland	609	1.2	7	56	73	100	63
France	9,478	1.0	5	40	92	98	50
Germany (Federal Republic of)	7,663	..	..	..	100	100	96
Greece	1,249	1.4	14	52	85	82	24
Iceland	22	0.9	—	4	100	100	94
Ireland	325	0.9	2	11	97	98	96
Japan	14,447	1.2	7	34	78	..	13
Luxembourg	63	0.8	1	14	99	100	92
New Zealand	563	..	..	..	100	..	97
Norway	422	0.8	1	20	100	..	86
Portugal	486	1.0	7	24	82 <sup>c</sup>	89	84
Sweden	2,195	0.8	—	25	99	..	94
Switzerland	890	0.7 <sup>b</sup>	—	7 <sup>b</sup>	97 <sup>c</sup>	100	..
Turkey	769	..	..	..	56	85	..
United Kingdom	11,825	0.7	..	5	94	..	96
United States	38,320	0.6	..	7	99	..	98
Yugoslavia	1,775	1.7	7	50	42 <sup>c</sup>	93	35
<i>Centrally planned economies</i>							
Bulgaria	1,278	1.4	9	36	55	98	26
Czechoslovakia	1,954	..	..	..	70 <sup>c</sup>	99	..
Democratic German Republic	4,093	1.2	..	..	80 <sup>c</sup>	..	41
Hungary	1,444	..	..	..	68	93	51
Poland	4,355	1.5	12	54	68	99	36

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Demographic Yearbook* and *Statistical Yearbook*.

<sup>a</sup> Mostly between 1960 and 1965; total households—designated by (T)—in the case of Barbados, Central African Republic, China (Taiwan), Mauritius, Netherlands Antilles, People's Republic of the Congo, Philippines, Surinam, Trinidad and Tobago and Venezuela; the capital city in the case of Ethiopia, Nigeria,

Republic of Viet-Nam and Sudan; Sabah and Sarawak in the case of Malaysia; data for several cities in the case of Nepal; 20 cities representing 46.2 per cent of the total city population in the case of Turkey; England and Wales in the case of the United Kingdom; data are for Africans only in the case of Southern Rhodesia and Zambia. The countries listed are those for which at least one indicator of the status of urban housing was available.

<sup>b</sup> Percentage of total dwellings.

<sup>c</sup> Inside piped water.

Table A.10. Educational status of the population,<sup>a</sup> beginning of the 1960s<sup>b</sup>

Country <sup>c</sup>	Percentage of adult population that				
	Are literate	Have had no formal education	Have completed formal education up to		
			Primary level	Secondary level	Tertiary level
<i>Developing countries</i>					
<i>Western hemisphere:</i>					
Argentina	91	(38)	(57)	(4)	(1)
Barbados	(91)	7	88	5	—
Bolivia	32	(85)	(12)	(3)	(1)
Brazil	61	(80)	(16)	(3)	(1)
British Honduras	45	85	13	2	1
Chile	84	42	45	12	2
Colombia	73	(52)	(40)	(6)	(1)
Costa Rica	84	57	37	3	3
Cuba	(78)	(52)	(44)	(3)	(1)
Dominican Republic	65	(89)	(10)	(—)	(—)
Ecuador	67	64	26	8	1
El Salvador	49	(87)	(10)	(3)	(—)
Guatemala	38	86	12	2	1
Guyana	80	25	71	3	—
Haiti	(11)	(94)	(5)	(1)	(—)
Honduras	45	85	13	2	1
Jamaica	82	27	67	6	1
Mexico	65	74	23	2	1
Nicaragua	50	79	19	2	—
Panama	73	51	41	7	1
Paraguay	74	(79)	(19)	(1)	(—)
Peru	61	43	45	10	3
Trinidad and Tobago	89	25	61	14	1
Uruguay	90	59	30	9	2
Venezuela	66	68	28	3	1
<i>Africa:</i>					
Algeria	15	(99)	(1)	(—)	(—)
Angola	3	..	..	..	..
Botswana	20	87	13	1	—
Burundi	10	..	..	..	..
Cameroon	12	..	..	..	..
Central African Republic	15	..	..	..	..
Chad	7	..	..	..	..
Congo (Democratic Republic of)	(15)	(89)	(10)	(— 1 —)	..
Dahomey	10	..	..	..	..
Equatorial Guinea	..	..	..	..	..
Ethiopia	5	..	..	..	..
Gabon	12	..	..	..	..
Gambia	10	..	..	..	..
Ghana	25	86	12	1	1
Guinea	5	..	..	..	..
Ivory Coast	20	..	..	..	..
Kenya	22	90	8	2	—
Lesotho	40	..	..	..	..
Liberia	9	94	5	1	1
Libyan Arab Republic	22	97	2	—	—
Malagasy Republic	35	..	..	..	..
Malawi	15	..	..	..	..
Mali	2	..	..	..	..
Mauritania	3	..	..	..	..
Mauritius	61	82	15	2	1
Morocco	14	..	..	..	..

Table A.10 (continued)

Country <sup>a</sup>	Percentage of adult population that				
	Are literate	Have had no formal edu- cation	Have completed formal education up to		
			Primary level	Secondary level	Tertiary level
<i>Africa (continued):</i>					
Mozambique .....	2	...	...	...	...
Namibia .....	38	67	18	13	2
Niger .....	3	...	...	...	...
Nigeria .....	25	...	...	...	...
People's Republic of the Congo ..	20	...	...	...	...
Rwanda .....	10	...	...	...	...
Senegal .....	6	...	...	...	...
Sierra Leone ..	7	...	...	...	...
Somalia .....	5	...	...	...	...
Southern Rhodesia ..	20	88	13		
Sudan .....	12	(97)	(3)	(—)	
Swaziland .....	36	...	...	...	...
Togo .....	7	...	...	...	...
Tunisia .....	30	...	...	...	...
Uganda .....	25	90	9	1	
United Arab Republic .....	20	(98)	(1)	(1)	(—)
United Republic of Tanzania .....	17	...	...	...	...
Upper Volta .....	7	...	...	...	...
Zambia .....	17	86	12	1	—
<i>Asia:</i>					
Afghanistan .....	8	...	...	...	...
Burma .....	70	(97)	3		(—)
Ceylon .....	75	38	47	15	—
China (Taiwan) ..	70	(58)	(34)	(5)	(3)
Hong Kong .....	71	34	53	9	4
India .....	28	91	6	3	—
Indonesia .....	43	76	24	1	—
Iran .....	23	89	8	2	1
Iraq .....	20	...	...	...	...
Israel .....	84	28	49	14	10
Jordan .....	32	81	16	3	1
Khmer Republic ..	58	...	...	...	...
Kuwait .....	47	90	5	4	1
Laos .....	15	...	...	...	...
Lebanon .....	86	...	...	...	...
Malaysia .....	47	71	25	2	2
Maldives .....	...	...	...	...	...
Nepal .....	9	99	1	—	—
Pakistan .....	19	90	7	2	—
People's Democratic Republic of Yemen .....	...	...	...	...	...
Philippines .....	72	51	39	8	4
Republic of Korea ..	70	58	33	7	1
Republic of Viet-Nam .....	60	...	...	...	...
Saudi Arabia .....	...	...	...	...	...
Singapore .....	75	...	...	...	...
Syria .....	29	95	3	2	1
Thailand .....	68	62	36	3	—
Yemen .....	10	...	...	...	...

Table A.10 (continued)

Country <sup>a</sup>	Percentage of adult population that				
	Are literate	Have had no formal edu- cation	Have completed formal education up to		
			Primary level	Secondary level	Tertiary level
<i>Rest of world</i>					
Albania	(71)	(73)	(26)	(1)	(—)
Australia					
Austria		93		5	2
Belgium	97				
Bulgaria	85	28	61	9	2
Canada		10	68	19	3
Cyprus	76	43	47	9	1
Czechoslovakia		1	82	15	2
Denmark					
Finland		90		6	4
France	96	59	31	8	2
Germany (Federal Republic of)					
Greece	80	53	37	8	3
Hungary	97	9	83	6	3
Iceland		86		10	4
Ireland					
Italy	92	22	72	5	2
Japan	98	3	66	25	6
Luxembourg					
Mongolia	95				
Netherlands		—	88	11	1
New Zealand					
Norway			84	14	2
Poland	95	9	72	17	3
Portugal	62	45	50	4	1
Romania	89	7	86	5	3
South Africa		50	36	13	—
Spain	87	28	67	4	1
Sweden					
Switzerland		—	69	22	9
Union of Soviet Socialist Republics	98	—	70	26	4
United States	98	8	51	33	8
Yugoslavia	77	33	56	9	2

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on United Nations Educational, Scientific and Cultural Organization, *Statistical Yearbook, 1965 and 1967* (Paris), and national sources.

<sup>a</sup> In the case of literacy, the figures refer to the proportion of the population fifteen years or over in most cases; except six years or more in the case of Italy and Kuwait; nine years or more in the case of Albania; ten years or more in the case of Brazil; fourteen years or more in the case of Argentina, France, Israel, Poland and United States; sixteen years or more in the case of Burma and Uganda; seventeen years or more in the case of Peru; nine years to forty-nine years in the case of the Union of Soviet Socialist Republics, and nine years to fifty years in the case of Mongolia.

In the case of formal education the figures refer to the proportion of population twenty-five years or over; except five years or more in the case of Bolivia and United Arab Republic; six years or more in the case of Kuwait;

seven years or more in the case of Panama; ten years or more in the case of Nicaragua and Thailand; fifteen years or more in the case of Guyana, Hong Kong and Trinidad and Tobago; sixteen years or more in the case of Uganda; seventeen years or more in the case of Southern Rhodesia; twenty years or more in the case of Argentina; twenty-three years or more in the case of Zambia; thirty years or more in the case of Mexico; total population in the case of Albania, Dominican Republic, India, Pakistan and Spain.

<sup>b</sup> Figures in parentheses refer to educational status at the beginning of the 1950s.

<sup>c</sup> Excluding tribal and jungle Indians in the case of Bolivia and Brazil; only the Moslem population in the case of Algeria; not including Sabah and Sarawak in the case of Malaysia; excluding West Irian in the case of Indonesia; only rural areas in the case of Burma; England and Wales only in the case of the United Kingdom; only forty-eight States, excluding Alaska and Hawaii, in the case of the United States.

Table A.11. Developing countries: enrolment in primary, secondary and tertiary levels of education in the 1960s<sup>a</sup>

Country	Enrolment at							
	Primary level <sup>b</sup>			Secondary level (1965) <sup>c</sup>			Tertiary level <sup>d</sup> (1965)	
	Average annual rate of increase, 1960-1967 (percentage)	1965		All types of school (thousands)	General education		Number (thousands)	Percentage of secondary enrolment
		Number (thousands)	Percentage of relevant age group		Number (thousands)	Percentage of relevant age group		
Western hemisphere								
Argentina	2	3,125	71	795	185	40	247.8	31
Barbados	.	39	68	15	15	86	0.4	3
Bolivia	6	496	46	98	83	23	13.4	14
Brazil	6	9,923	46	2,154	1,554	26	155.8	7
British Honduras	.	28	91	3	3	31	0.1	3
Chile	6	1,525	69	351	218	41	43.6	12
Colombia	6	2,274	43	420	266	23	49.9	12
Costa Rica	6	283	67	51	41	37	7.2	14
Cuba	3	1,232	74	220	149	31	30.5	14
Dominican Republic	2	585	61	57	56	24	6.6	12
Ecuador	6	801	65	117	63	24	15.4	13
El Salvador	4	398	49	55	39	19	3.6	7
Guatemala	6	405	34	49	36	8	7.7	16
Guyana	4	163	92	18	15	26	0.3	2
Haiti	3	284	26	25	20	11	1.6	6
Honduras	7	284	40	24	18	11	2.6	11
Jamaica	6	324	66	38	35	22	1.9	5
Mexico	7	6,916	39	891	727	21	133.4	15
Netherlands Antilles	.	40	100	12	9	79	—	—
Nicaragua	13	206	41	27	19	17	3.3	12
Panama	4	203	66	55	35	46	7.2	13
Paraguay	3	357	61	34	30	17	4.1	12
Peru	.	1,877	62	326	261	28	46.3	14
Surinam	.	71	75	13	10	44	0.1	8
Trinidad and Tobago	.	216	85	35	34	36	0.9	3
Uruguay	1	335	70	123	91	57	17.1	14
Venezuela	3	1,453	61	296	190	34	46.8	16
Africa								
Algeria	8	1,358	43	132	95	11	8.1	6
Angola	16	219	16	25	13	5	0.6	2
Botswana	12	66	42	2	1	3	—	—
Burundi	9	147	17	6	2	2	0.2	3
Cameroon	8	714	74	41	29	14	1.6	4
Central African Republic	14	128	36	5	4	5	—	—
Chad	16	164	20	7	5	3	—	—
Congo (Democratic Republic of)	6	2,067	53	118	70	9	3.8	4
Dahomey	7	4	20	12	11	6	—	—
Equatorial Guinea	.	28	59	3	2	9	—	—
Ethiopia	9	379	7	56	50	2	2.3	4
Gabon	6	79	72	7	5	19	0.1	1
Gambia	15	14	17	4	4	12	—	—
Ghana	13	1,294	70	201	171	27	4.3	2
Guinea	11	164	18	23	17	9	0.4	2
Ivory Coast	8	354	32	31	28	11	2.3	7
Kenya	5	1,011	52	54	49	7	3.0	6
Lesotho	4	167	83	4	3	5	0.3	7
Liberia	9	73	30	10	8	8	0.7	7
Libyan Arab Republic	9	190	46	27	23	28	1.9	7
Madagascar	.	672	42	66	55	13	3.1	5
Malawi	3	108	36	10	8	3	0.9	9

Table A.11 (continued)

Country	Enrolment at							
	Primary level <sup>b</sup>			Secondary level (1965) <sup>c</sup>			Tertiary level <sup>d</sup> (1965)	
	Average annual rate of increase, 1960-1967 (percentage)	1965		All types of school (thousands)	General education		Number (thousands)	Percentage of secondary enrolment
		Number (thousands)	Percentage of relevant age group		Number (thousands)	Percentage of relevant age group		
<i>Africa (continued)</i>								
Mali	16	140	14	3	1	1	0.1	3
Mauritania	12	19	9	2	1	2	—	—
Mauritius	4	140	64	40	39	46	0.1	—
Morocco	5	1,116	32	211	195	15	9.0	4
Mozambique		358	26	29	8	2	0.4	1
Namibia		72						
Niger	18	62	7	3	2	1	—	—
Nigeria	4	2,912	30	251	199	6	9.4	3
People's Republic of the Congo	9	187	80	16	13	21	0.8	5
Rwanda		360	53	8	2	3	—	—
Senegal	10	219	23	33	26	12	2.8	8
Sierra Leone	8	126	19	15	13	6	0.7	5
Somalia	6	29	5	10	7	5	0.1	1
Southern Rhodesia	5	628	58	15	11	3	0.8	5
Sudan	6	427	13	97	90	7	7.7	8
Swaziland	8	50	46	3	3	9	0.1	3
Togo	8	156	33	13	11	11	0.1	1
Tunisia	8	734	61	119	104	25	6.2	5
Uganda	9	527	29	76	69	10	1.2	2
United Arab Republic	5	3,450	46	997	819	34	177.1	18
United Republic of Tanzania	9	710	27	27	22	2	0.5	2
Upper Volta	14	108	8	8	5	2	—	—
Zambia	8	410	44	22	17	6	0.3	1
<i>Asia</i>								
Afghanistan	14	358	11	45	34	4	3.5	8
Burma		2,635	34	343	339	22	20.5	6
Ceylon	3	1,781	60	823	818	78	14.1	2
China (Taiwan)	3	2,258	62	664	543	58	85.3	13
Hong Kong	7	636	66	196	184	57	10.6	5
India	7	49,639	40	15,050	14,570	34	1,145.5	8
Indonesia		11,578	45	1,469	1,012	17	110.7	8
Iran	9	2,412	33	658	637	28	36.7	6
Iraq	4	978	41	254	241	29	28.4	11
Israel	2	450	77	108	66	41	35.9	33
Jordan	8	295	57	102	99	49	3.2	3
Khmer Republic	7	794	53	84	79	15	7.4	9
Kuwait		50	51	32	29	80	0.4	1
Laos	10	161	37	7	4	4	0.1	1
Lebanon	6	354	52	85	82	33	20.3	24
Malaysia (West)	3	1,215	53	355	346	44	12.7	4
Maldives		5	18	—	—	8	—	—
Nepal	21	386	15	65	57	6	8.1	12
Pakistan	5	6,814	21	2,485	2,449	24	265.6	11
People's Democratic Republic of Yemen	3	30	13	13	13	12	—	—
Philippines	7	5,578	65	1,037	1,037	31	450.8	43
Republic of Korea	6	4,941	63	1,201	1,082	43	141.6	13
Republic of Viet-Nam	6	1,661	62	389	371	23	27.3	7
Saudi Arabia	17	261	15	34	24	5	1.9	6
Singapore	4	357	68	116	103	68	13.8	12

Table A.11 (continued)

Country	Enrolment at							
	Primary level <sup>b</sup>			Secondary level (1965) <sup>a</sup>			Tertiary level <sup>a</sup> (1965)	
	Average annual rate of increase, 1960-1967 (percentage)	1965		All types of school (thousands)	General education		Number (thousands)	Percentage of relevant age group
		Number (thousands)	Percentage of relevant age group		Number (thousands)	Percentage of relevant age group		
<i>Asia (continued)</i>								
Syria	7	707	45	198	183	38	32.7	17
Thailand	3	4,640	48	380	317	12	50.7	13
Yemen		69	5	2	2	—	—	—

Source: Centre for Developing Planning, Projections and Policies of the United Nations Secretariat, based on United Nations Educational, Scientific and Cultural Organization, *Statistical Yearbook, 1968* (Paris, 1969).

<sup>a</sup> 1965 in most cases, but 1966 in the case of Dominican Republic, Iran and Lesotho; 1964 in the case of Barbados, Maldives Islands, Mauritania, Peru, Philippines and Surinam; 1963 in the case of India, Rwanda and Trinidad and Tobago; Tanganyika only in the case of United Republic of Tanzania; excluding Sabah and Sarawak in the case of Malaysia.

<sup>b</sup> Including evening primary schools in the case of Costa Rica, Dominican Republic and Ecuador; including pre-primary schools in the case of Liberia and Zambia; public education only in the case of Afghanistan, Barbados, Guyana, Trinidad and Tobago, Uganda and United Republic of Tanzania; African education only in the case of Malawi and Southern Rhodesia; including UNRWA school enrolment in the case of Jordan (covering about one fifth of the total enrolment), Lebanon (covering about 6 per cent of

the total enrolment) and Syria (covering about 6 per cent of the total enrolment in 1966).

<sup>c</sup> Public education only in the case of Afghanistan, Barbados, Guyana, Laos, Libyan Arab Republic and Uganda; including teacher training at the third level in the case of British Honduras, Colombia, Kenya, Uganda, United Republic of Tanzania and Uruguay; African education only in the case of Malawi and Southern Rhodesia; including in-service teacher training in the case of Costa Rica and Cuba; not including religious schools in the case of Yemen; including UNRWA schools in the case of Jordan (covering about 13 per cent of the total enrolment in 1966), Lebanon (covering about 4 per cent of the total enrolment) and Syria (covering about 3 per cent of the total enrolment).

<sup>d</sup> Excluding teacher training in the case of Colombia, Ghana, Kenya and Sierra Leone; universities or colleges only in the case of Bolivia, Ceylon, Guatemala, Guyana, India, Jamaica, Peru, Southern Rhodesia, Trinidad and Tobago, Uganda and Uruguay; National University of Asunción only in the case of Paraguay.

Table A.12. Changes in investment and savings rates, 1960-1968  
(Percentage of gross domestic product)

Country	Gross domestic fixed capital formation <sup>a</sup>			Gross domestic savings			Gross foreign savings <sup>b</sup>		
	Average		Change	Average		Change	Average		Change
	1960-1962	1966-1968		1960-1962	1966-1968		1960-1962	1966-1968	
Developing countries	16.6	17.4	0.8	14.7	16.1	1.4	1.9	1.4	-0.6
Western hemisphere	18.1	17.1	-1.0	16.5	15.9	-0.6	1.6	1.2	-0.4
Argentina	22.5	18.8	-3.7	20.3	20.4	0.1	2.4	-1.4	-3.8
Barbados	22.7	24.3	1.6	2.8	11.1	8.3	20.9	13.5	-7.4
Bolivia	14.4	17.0	3.4	5.7	2.8	-2.9	9.5	16.7	7.2
Brazil	18.3	17.1	-1.2	16.7	16.0	-0.7	1.6	1.1	-0.5
Chile	16.5	15.6	-1.0	12.6	9.4	-3.2	5.2	7.6	2.4
Colombia	18.1	16.3	-1.8	18.0	14.9	-3.1	2.2	3.8	1.6
Costa Rica	19.1	19.7	0.6	16.1	19.4	3.3	4.0	2.7	-1.3
Dominican Republic	10.7	18.1	7.4	14.7	6.9	-7.8	-2.1	12.0	14.1
Ecuador	13.1	10.9	-2.2	12.3	8.8	-3.5	2.5	3.8	1.3
El Salvador	11.8	13.7	1.9	11.8	12.4	0.6	1.3	2.3	1.0
Guatemala	9.6	11.7	2.1	7.0	10.3	3.3	2.2	1.2	-1.0
Guyana	13.2	24.7	1.5	13.6	8.9	-4.7	9.6	15.8	6.2
Haiti	6.1	6.2	0.1	8.4	8.4	0.0	-2.3	-2.2	0.1
Honduras	12.6	17.4	4.8	11.6	12.4	0.8	1.5	6.3	4.8
Jamaica	19.3	20.8	1.5	13.6	17.7	4.1	6.8	3.5	-3.3
Mexico	14.4	15.6	1.2	11.9	14.0	2.1	2.5	1.6	-0.9
Nicaragua	13.1	18.7	5.6	14.2	18.3	4.1	0.9	2.7	1.8
Panama	16.1	20.3	4.2	13.6	15.2	1.6	4.5	7.4	2.9
Paraguay	15.4	15.6	0.2	13.8	10.1	-3.7	1.6	5.5	3.9
Peru	19.1	20.9	1.8	21.3	13.8	-7.5	1.2	11.3	10.1
Trinidad and Tobago	27.0	18.1	-8.9	19.8	21.6	1.8	7.2	-3.5	-10.7
Uruguay	16.1	11.7	-4.4	12.1	10.9	-1.2	5.0	0.7	-4.3
Venezuela	16.6	18.0	1.4	23.1	21.1	-2.0	-5.9	-1.9	4.0



Table A.12 (continued)

Country	Gross domestic fixed capital formation <sup>a</sup>			Gross domestic savings			Gross foreign savings <sup>b</sup>		
	Average		Change	Average		Change	Average		Change
	1960-1962	1966-1968		1960-1962	1966-1968		1960-1962	1966-1968	
<i>Africa</i>	16.2	15.9	-0.3	12.3	16.5	4.2	4.1	-0.3	-4.4
Algeria	24.2	18.4	-5.8	11.2	17.3	6.1	13.1	1.1	-12.0
Angola	9.5	14.0	4.5	11.0	13.5	2.5	-1.5	0.5	2.0
Botswana		18.4			1.1			19.7	
Cameroon	10.1	16.3	6.2	14.3	17.4	3.1	-4.2	-1.1	3.1
Central African Republic	17.8	21.2	3.4	10.2	8.0	2.2	7.6	13.2	5.6
Chad	11.0	10.9	-0.1	2.9	-0.3	-3.2	8.1	11.2	3.1
Congo (Democratic Republic of)	9.9	16.0	6.1	16.8	12.3	-4.5	-6.9	3.7	10.6
Dahomey									
Ethiopia	11.9	13.3	1.4	10.0	9.1	-0.9	1.9	4.2	2.3
Gabon	41.4	29.2	-12.2	43.5	43.7	0.2	-2.1	-14.5	-12.4
Gambia		13.9			9.9			4.0	
Ghana	19.3	15.0	-4.3	14.0	17.5	3.5	5.1	-1.8	-6.9
Ivory Coast	14.5	18.1	3.6	19.2	19.9	0.7	-4.7	-1.8	2.9
Kenya	15.2	14.7	-0.5	11.6	13.3	1.7	3.6	1.4	-2.2
Lesotho		10.4			-16.2			27.0	
Liberia	20.8	15.3	-5.5	4.3	1.9	-2.4	16.5	13.4	-3.1
Libyan Arab Republic	48.8	20.4	-28.4	11.6	41.9	30.3	37.2	-21.5	-58.7
Madagascar	9.2	10.2	1.0	5.9	5.5	-0.4	3.3	4.7	1.4
Malawi	9.6	12.4	2.8	9.5	4.4	-5.1	0.1	8.0	7.9
Mali									
Mauritania	53.7	19.3	-34.4	4.8	34.6	29.8	48.9	-15.3	-64.2
Mauritius	22.1	13.2	-8.9	13.7	12.6	-1.1	8.4	0.6	-7.8
Morocco	10.6	14.1	3.5	10.0	11.9	1.9	0.6	2.2	1.6
Mozambique	17.9	29.4	11.5	18.7	19.7	1.0	-0.8	9.7	10.5
Niger	10.9	14.4	3.7	10.1	14.1	4.0	0.6	0.3	0.3
Nigeria	11.8	12.3	0.5	7.7	9.2	1.5	4.1	3.1	-1.0
People's Republic of the Congo	50.8	33.8	-17.0	10.8	30.4	19.6	40.0	3.4	-36.6
Rwanda									
Senegal	10.1	12.7	2.6	8.5	13.6	5.1	1.6	-0.9	-2.5
Sierra Leone	11.5	13.7	2.2	10.6	8.5	-2.1	0.9	5.2	4.3
Southern Rhodesia	19.1	12.6	-6.5	19.4	23.4	4.0	1.5	-9.5	-11.0
Sudan	15.9	10.3	-5.6	12.5	11.2	-1.3	3.4	-0.9	-4.3
Togo	11.0	16.6	5.6	7.2	14.1	6.9	3.8	2.5	-1.3
Tunisia	19.0	22.1	3.1	8.4	11.1	2.7	9.7	11.2	1.5
Uganda	19.1	15.1	4.0	19.5	23.9	4.4	-8.4	-8.8	-0.4
United Arab Republic	16.7	18.8	2.1	13.2	18.0	4.8	3.5	0.8	-2.7
United Republic of Tanzania	11.9	14.8	2.9	10.3	20.6	10.3	1.6	-5.8	-7.4
Upper Volta	9.8	13.7	3.9	0.8	7.5	6.7	9.0	6.2	-2.8
Zambia	17.2	21.6	4.4	28.4	30.3	1.9	-6.2	-2.3	3.9
<i>Asia</i>	15.3	17.9	2.6	13.8	16.2	2.4	1.5	1.7	0.2
Afghanistan	18.7	20.4	1.7	8.8	3.6	-5.2	9.9	16.8	6.9
Burma	17.1	7.6	-9.5	12.0	3.6	-8.4	5.1	4.0	-1.1
Ceylon	14.3	13.8	-0.5	12.7	20.3	7.6	1.3	-4.9	-6.2
China (Taiwan)	16.7	24.1	7.4	13.1	24.2	11.1	7.6	4.5	-3.1
Hong Kong	23.8	20.6	-3.2	5.8	22.2	16.4	18.0	-1.6	-19.6
India	15.9	16.5	0.6	13.0	13.2	0.2	2.9	3.3	0.4
Indonesia	9.4	8.8	-0.6	7.0	8.1	1.1	2.4	0.7	-1.7
Iran	14.7	18.9	4.2	14.9	19.2	4.3	-0.2	-0.3	-0.1
Iraq	19.4	15.5	-3.9	18.3	21.6	3.3	1.1	-6.1	-7.2
Israel	25.8	19.0	-6.8	12.0	4.6	-7.4	15.7	15.0	-0.7

Table A.12 (continued)

Country	Gross domestic fixed capital formation <sup>a</sup>			Gross domestic savings			Gross foreign savings <sup>b</sup>		
	Average		Change	Average		Change	Average		Change
	1960-1962	1966-1968		1960-1962	1966-1968		1960-1962	1966-1968	
Asia (continued)									
Jordan	16.7	16.3	-0.4	8.8	3.6	-5.2	7.9	12.7	4.8
Khmer Republic	19.1	19.2	0.1	9.8	13.5	3.7	9.3	5.7	-3.6
Kuwait	11.9	18.2	6.3	84.2	72.7	-11.5	-72.3	-54.5	17.8
Lebanon	22.0	22.5	0.5	14.5	8.0	-6.5	7.5	14.5	7.0
Malaysia	16.1	16.2	0.1	25.6	28.3	2.7	-9.5	-12.1	-2.6
Pakistan	13.2	14.3	1.1	11.6	10.1	-1.5	2.5	5.3	2.8
Philippines	13.4	18.3	4.9	11.3	12.4	1.1	4.0	7.7	3.7
Republic of Korea	11.4	24.7	13.3	4.2	18.1	13.9	7.6	7.5	-0.1
Republic of Viet-Nam	10.0	18.3	8.3	1.4	12.3	10.9	8.6	6.0	-2.6
Saudi Arabia	14.5	15.8	1.3	29.9	35.8	5.9	-15.4	-20.0	-4.6
Singapore	17.1	25.7	8.6	21.4	12.4	-9.0	-4.3	13.3	17.6
Syria	17.0	17.4	0.4	11.1	17.2	6.1	5.9	0.2	-5.7
Thailand	18.0	29.2	11.2	17.1	25.8	8.7	0.9	3.4	2.5
Developed market economies									
Australia	21.7	24.0	2.3	21.6	22.4	0.8	1.7	3.0	1.3
Austria	24.3	26.6	2.3	25.8	27.0	1.2	-0.3	1.4	1.7
Belgium	25.1	25.3	0.2	24.3	23.1	-1.2	3.6	5.1	1.5
Canada	20.4	21.8	1.4	19.7	21.5	1.8	1.2	0.9	-0.3
Cyprus	21.7	23.5	1.8	20.3	23.6	3.3	2.2	1.0	-1.1
Denmark	16.5	19.1	2.6	8.8	8.9	0.1	9.0	11.1	2.1
Finland	21.1	24.4	3.3	20.6	19.4	-1.2	3.4	5.9	2.5
France	27.0	24.4	-2.6	26.9	26.4	-0.5	0.5	1.0	0.5
Germany (Federal Republic of)	21.0	25.4	4.4	25.6	27.4	1.8	-1.5	-0.2	1.3
Greece	24.2	24.3	0.1	25.7	24.9	-0.8	0.6	0.1	-0.5
Iceland	24.0	25.2	1.2	14.9	16.5	1.6	10.7	9.3	-1.4
Ireland	24.0	32.4	8.4	25.1	24.9	-0.2	-1.2	8.3	9.5
Italy	15.5	20.8	5.3	14.9	17.0	2.1	2.2	4.3	2.1
Japan	22.2	19.3	-2.9	24.3	23.3	-1.0	-0.3	-3.3	-3.0
Luxembourg	28.8	32.9	4.1	32.1	38.0	5.9	0.2	-0.8	-1.0
Malta	24.7	27.5	2.8	31.2	27.2	-4.0	-6.0	0.6	-6.6
Netherlands	19.6	24.3	4.7	7.8	7.1	-0.7	13.8	22.7	8.9
New Zealand	23.7	27.5	3.8	29.4	27.6	-1.8	-2.6	1.4	4.0
Norway	21.6	21.9	0.3	23.7	25.6	1.9	-0.8	-1.5	-0.7
Portugal	28.4	29.6	1.2	25.2	27.7	2.5	3.3	2.9	-0.4
South Africa	17.1	20.2	3.1	12.1	16.6	4.5	6.2	3.1	-3.1
Spain	19.6	23.8	4.2	24.1	25.1	1.0	-3.2	0.5	3.7
Sweden	19.7	24.4	4.7	22.5	23.1	0.6	-1.4	3.9	5.3
Switzerland	22.4	24.1	1.7	23.9	23.8	-0.1	0.3	0.7	0.4
Turkey	25.3	26.0	0.7	25.6	24.9	-0.7	3.0	2.1	-0.9
United Kingdom	14.5	17.1	2.6	11.2	15.5	4.3	3.3	1.6	-1.7
United States	16.4	19.0	2.6	18.0	20.0	2.0	-0.3	-0.5	-0.2
	16.6	16.7	0.1	18.2	18.3	0.1	-0.9	-0.5	0.4

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Yearbook of National Accounts Statistics* and *Monthly Bulletin of Statistics*, supplemented by estimates of the United Nations regional commissions, official national sources, International Bank for Reconstruction and Development, Organisation for Economic Co-operation and Development, United States Agency for International Development, and unofficial sources.

<sup>a</sup> Ratio of gross domestic fixed capital formation to gross domestic product measured at constant 1960 market prices. In the case of countries lacking data on stock changes—Afghanistan, Algeria, Angola, Brazil, Burma, Cameroon,

Central African Republic, Chad, Democratic Republic of the Congo, Ethiopia, Gabon, Gambia, Guyana, Haiti, Hong Kong, India, Indonesia, Iraq, Jordan, Kenya, Khmer Republic, Kuwait, Lebanon, Liberia, Libyan Arab Republic, Madagascar, Malawi, Malaysia, Mauritius, Morocco, Mozambique, Nigeria, Paraguay, People's Republic of the Congo, Republic of Viet-Nam, Saudi Arabia, Sierra Leone, Singapore, Sudan, Syria, Thailand, Togo, Trinidad and Tobago, Uganda, United Republic of Tanzania—gross domestic capital formation was used.

<sup>b</sup> Difference between gross domestic capital formation (gross domestic fixed capital formation in the case of Iran, Mexico and Turkey) and gross domestic savings, expressed as a percentage of gross domestic product.

Table A.13. Electric power capacity and energy consumption, 1960-1968

Region and country	Electricity generating capacity				Energy consumption			
	1960 <sup>a</sup>	1968 <sup>b</sup>	Change per annum		1960 <sup>c</sup>	1968 <sup>d</sup>	Change per annum	
	(megawatts)		Per-centage	Kilowatts per capita	(tons coal equivalent)		Per-centage	Kilogrammes coal equivalent per capita
<i>Developing countries</i>	36,199.0	73,980.0	9.3	2.3	292.36	479.35	6.4	9.6
<i>Western hemisphere</i>	18,213.3	32,835.8	7.7	5.0	138.40	218.98	5.9	21.4
Argentina	3,474.0	5,836.0	6.7	10.1	22.31	33.32	5.1	40.4
Bahamas	22.2	46.1	9.6	8.0	0.13	0.66	22.2	302.6
Barbados	11.8	31.6	13.1	9.4	0.08	0.13	6.3	20.3
Bermuda	24.5	51.7	11.3	68.2	0.08	0.13	6.3	84.6
Bolivia	147.0	222.0	5.3	1.1	0.52	0.97	8.1	6.9
Brazil	4,800.0	8,555.0	7.5	3.5	23.53	39.74	6.8	14.1
British Honduras	3.3	5.2	7.9	1.8	0.02	0.06	14.7	35.5
Chile	1,143.0	1,720.0	5.2	4.4	6.45	10.77	6.7	39.0
Colombia	911.0	2,120.0	11.1	6.0	7.29	11.42	5.8	7.5
Costa Rica	109.1	236.6	10.2	7.2	0.25	0.57	10.9	16.4
Cuba	944.0	1,255.0	3.6	2.1	5.76	8.28	4.6	22.4
Dominican Republic	70.3	192.6	13.4	3.1	0.47	0.83	7.4	5.9
Ecuador	118.0	290.0	11.9	3.0	0.80	1.49	8.1	9.4
El Salvador	74.0	171.0	11.0	2.8	0.31	0.65	9.7	9.0
French Guiana	2.9	5.8	14.9	15.6	0.01	0.04	18.9	65.6
Guadeloupe	8.4	14.6	11.7	3.1	0.08	0.11	4.1	8.9
Guatemala	73.0	140.0	9.7	1.2	0.64	1.17	7.8	8.8
Guyana	51.6	80.8	6.6	3.5	0.32	0.65	9.3	41.6
Haiti	28.0	35.0	3.2	0.1	0.16	0.15	-0.7	-0.8
Honduras	33.0	91.0	13.5	2.5	0.30	0.52	7.1	7.1
Jamaica	150.0	205.0	4.6	2.5	0.84	1.93	11.0	61.1
Martinique	9.6	15.8	10.5	3.1	0.08	0.13	6.3	13.6
Mexico	3,048.0	5,969.0	8.8	5.2	32.01	50.30	5.9	18.6
Netherlands Antilles	164.0	259.0	9.6	78.2	3.11	3.80	2.5	0.2
Nicaragua	78.4	156.6	9.0	3.7	0.27	0.64	11.4	20.0
Panama	64.8	123.7	9.7	4.6	0.52	1.79	16.7	101.3
Paraguay	30.0	108.4	17.4	3.9	0.15	0.32	9.9	6.8
Peru	841.0	1,518.0	7.7	4.4	4.90	8.09	6.5	17.4
Surinam	28.7	232.5	51.6	117.4	0.21	0.78	17.8	160.0
Trinidad and Tobago	129.0	253.0	8.8	11.6	1.63	4.31	13.1	285.9
Uruguay	406.0	439.0	1.1	-0.6	2.07	2.22	0.9	-7.9
Venezuela	1,214.0	2,455.0	10.6	13.9	19.31	24.63	3.1	0.9
<i>Africa</i>	5,544.0	10,013.3	7.7	1.4	26.64	39.60	5.1	3.3
Algeria	439.0	639.0	4.8	1.1	2.77	5.37	9.0	19.8
Angola	88.3	288.9	16.0	4.5	0.40	0.78	8.7	7.8
Burundi	4.4	5.2	4.2	—	0.02	0.03	5.2	0.6
Cameroon	160.0	168.0	0.8	-0.4	0.26	0.46	7.4	2.5
Cape Verde Islands	0.9	3.0	18.8	1.1	0.02	0.02	—	-2.0
Central African Republic	6.1	9.8	8.2	0.3	0.04	0.05	2.8	-0.1
Chad	2.8	9.8	28.4	0.4	0.03	0.06	9.0	0.9
Congo (Democratic Republic of)	900.0	900.0	—	-1.4	1.19	1.43	2.3	0.1
Dahomey	5.9	10.2	11.6	0.3	0.08	0.08	—	-1.3
Equatorial Guinea	94.6	292.0	21.7	1.3	0.16	0.54	16.4	1.8
Ethiopia	8.2	16.0	10.0	2.2	0.08	0.21	12.8	31.4
Gabon	4.0	6.3	6.7	0.7	0.01	0.01	—	-0.5
Gambia	103.0	631.0	25.4	7.5	0.67	1.08	6.1	3.6
Guinea	17.0	73.0	34.0	3.0	0.20	0.37	8.0	4.0
Ivory Coast	39.0	98.0	21.6	2.6	0.22	0.69	15.4	12.3
Kenya	82.3	153.0	8.6	0.6	1.14	1.48	3.3	0.5
Lesotho	2.6	3.2	5.4	0.1	—	—	—	—
Liberia	24.2	152.1	30.0	15.8	0.08	0.32	18.9	25.4
Libyan Arab Republic	33.4	168.5	22.1	8.6	0.04	0.90	10.7	27.5
Madagascar	66.1	82.4	4.5	0.3	0.20	0.39	8.7	2.9

Table A.13 (continued)

Region and country	Electricity generating capacity				Energy consumption			
	1960 <sup>a</sup> (megawatts)	1968 <sup>b</sup>	Change per annum 1960-1968		1960 <sup>c</sup> (tons coal equivalent)	1968 <sup>d</sup>	Change per annum 1960-1968	
			Per- centage	Kilowatts per capita			Per- centage	Kilogrammes coal equivalent per capita
Asia (continued)								
Malawi	18.9	49.1	21.0	1.3	0.13	0.17	3.9	0.9
Mali	9.0	16.0	12.2	0.3	0.06	0.10	6.6	0.8
Mauritania	1.8	25.0	67.2	4.1	0.02	0.07	17.0	5.3
Mauritius	67.6	101.4	5.6	3.0	0.08	0.12	5.6	3.4
Morocco	366.0	438.0	2.6	-0.9	1.61	2.64	6.4	5.3
Mozambique	122.0	270.0	12.2	2.8	0.72	1.09	5.3	4.6
Niger	2.9	5.9	15.3	0.2	0.01	0.06	25.1	1.1
Nigeria	173.0	485.0	13.8	0.6	1.43	1.82	3.1	0.2
People's Republic of the Congo	27.0	28.0	—	-0.4	0.11	0.18	6.3	7.8
Portuguese Guinea	3.0	5.6	8.1	0.6	0.01	0.03	14.7	5.4
Réunion	5.1	11.7	18.1	2.9	0.04	0.09	10.7	11.5
Rwanda	9.0	22.5	25.7	0.9	0.03	0.03	—	-0.3
Senegal	56.0	95.0	6.8	1.0	0.30	0.54	7.6	6.4
Sierra Leone	21.2				0.10	0.15	5.6	1.8
Somalia	2.3	6.2	13.2	0.2	0.04	0.07	7.2	0.6
Southern Rhodesia	801.0	1,191.0	6.8	8.2	2.28	2.75	2.7	2.9
Spanish Sahara	0.3	3.4	35.6	5.6				
Sudan	43.5	97.4	10.6	0.4	0.60	1.31	10.2	4.8
Togo	8.2	20.4	16.4	1.1	0.03	0.08	13.0	2.4
Tunisia	129.0	262.0	9.3	2.9	0.70	1.10	5.8	8.6
Uganda	146.0	165.0	2.5	—	0.22	0.50	10.8	3.6
United Arab Republic	1,167.0	2,725.0	11.2	5.1	7.53	9.43	2.9	1.0
United Republic of Tanzania	44.4	71.6	8.3	0.3	0.44	0.65	5.0	0.6
Upper Volta	4.4	10.6	11.6	0.1	0.03	0.05	6.6	0.4
Zambia	284.0	262.0	-1.1	-3.2	1.51	2.25	5.9	13.4
Asia	11,779.1	29,542.6	12.1	1.9	127.32	220.77	7.1	8.0
Afghanistan	49.3	275.0	24.0	1.7	0.20	0.44	10.4	1.5
Brunei	16.8	34.8	9.5	13.8	0.01	0.28	51.8	16.4
Burma	250.0	260.0	0.5	-0.2	1.18	1.53	3.3	0.5
Ceylon	94.0	217.0	11.0	1.1	1.08	1.37	2.8	0.5
China (Taiwan)	782.0	2,062.0	12.9	9.9	5.44	10.98	9.2	37.9
Hong Kong	365.0	1,054.0	14.2	18.7	1.42	2.99	9.8	37.4
India	5,654.0	14,314.0	12.3	1.8	60.52	96.37	6.0	5.5
Indonesia	308.0	590.0	9.7	0.3	12.58	11.21	-1.4	-4.4
Iran	480.0	1,089.0	31.4	5.1	6.94	12.93	8.1	16.8
Iraq	275.0	651.0	15.4	6.0	3.51	5.56	5.9	14.1
Israel	410.0	1,012.0	12.0	21.9	2.62	5.53	9.8	96.4
Jordan	15.0	52.0	23.0	2.7	0.32	0.59	7.9	11.0
Khmer Republic	20.0	57.0	16.1	0.7	0.17	0.31	7.8	1.5
Kuwait	73.0	163.0	22.6	30.0	3.52	6.43	7.8	-94.4
Laos	3.8	10.2	17.9	0.4	0.04	0.08	9.1	8.7
Lebanon	146.0	374.0	12.5	9.5	1.09	1.77	6.2	20.9
Macao	7.2	17.5	11.7	3.1	0.02	0.08	18.9	21.2
Malaysia	312.6	814.2	12.7	5.1	2.26	4.37	8.6	23.4
Nepal	25.2	37.7	14.4	0.3	0.04	0.11	13.5	0.8
Pakistan	658.0	1,731.0	12.9	0.9	6.33	10.61	6.7	3.5
People's Democratic Republic of Yemen	44.8	82.7	8.0	0.6	0.28	0.51	7.8	3.8
Philippines	765.0	1,222.0	8.1	1.4	3.91	8.91	10.8	13.1
Republic of Korea	439.0	1,453.0	16.1	3.7	6.44	16.92	12.8	36.8
Republic of Viet-Nam	90.0	438.0	21.8	2.4	0.73	5.66	29.2	34.1
Saudi Arabia	94.0	150.1	26.4	3.8	1.43	3.62	12.3	34.6
Singapore	152.0	464.0	15.0	17.6	0.98	1.36	4.2	10.3
Syria	119.0	216.0	7.7	1.5	1.25	2.48	8.9	21.6

Table A.13 (continued)

Region and country	Electricity generating capacity				Energy consumption			
	1960 <sup>a</sup> (megawatts)	1968 <sup>b</sup>	Change per annum 1960-1968		1960 <sup>c</sup> (tons coal equivalent)	1968 <sup>d</sup>	Change per annum 1960-1968	
			Per- centage	Kilowatts per capita			Per- centage	Kilogrammes coal equivalent per capita
<i>Asia (continued)</i>								
Thailand	191.1	687.0	20.1	2.0	1.65	6.66	19.0	17.0
Yemen					0.03	0.07	11.2	0.9
<i>Europe</i>	248,220.6	450,394.3	7.8	31.2	1,742.19	2,544.44	4.9	112.0
Albania	53.0	152.0	20.0	7.4	0.49	1.17	11.5	34.1
Austria	4,088.0	7,056.0	7.1	47.5	15.19	20.98	4.1	87.4
Belgium	4,520.0	6,648.0	5.7	28.6	37.48 <sup>d</sup>	52.13 <sup>d</sup>	4.2	159.8
Bulgaria	925.0	3,462.0	17.9	37.0	10.22	27.81	13.3	253.0
Cyprus	84.6	162.3	11.5	20.3	0.46	0.81	7.3	60.1
Czechoslovakia	5,662.0	10,071.0	7.5	35.8	64.90	82.95	3.1	127.6
Denmark	1,953.0	3,920.0	9.1	47.3	12.95	22.84	7.4	232.6
Finland	2,834.0	4,635.0	6.3	43.6	7.31	15.66	10.0	211.1
France	21,851.0	34,133.0	5.7	25.7	110.54	163.99	5.0	107.9
German Democratic Republic	7,905.0	11,673.0	5.0	30.1	80.34	92.04	1.7	90.9
Germany (Federal Republic of)	27,665.0	47,054.0	6.9	36.4	203.56	269.79	3.6	101.4
Greece	611.0	1,605.0	14.8	15.8	3.69	8.96	11.7	71.8
Hungary	1,465.0	2,601.0	7.4	13.4	20.76	28.89	4.2	92.0
Iceland	142.0	193.0	3.9	19.2	0.64	0.84	3.5	81.9
Ireland	724.0	1,230.0	7.9	24.1	5.22	8.39	6.1	129.8
Italy	17,686.0	30,264.0	6.9	27.2	56.35	116.86	9.6	135.0
Luxembourg	270.0	1,153.0	19.9	321.5	<sup>d</sup>	<sup>d</sup>		
Malta	25.0	55.0	11.9	13.8	0.16	0.31	8.6	60.8
Netherlands	5,262.0	9,296.0	7.4	34.0	30.89	51.13	6.5	165.1
Norway	6,607.0	11,085.0	7.8	154.9	9.81	16.27	6.5	190.0
Poland	6,316.0	11,591.0	7.9	18.1	91.99	123.60	3.8	91.1
Portugal	1,335.0	2,030.0	5.4	7.9	3.34	5.12	5.5	20.3
Romania	1,779.0	5,611.0	15.4	23.5	25.84	47.07	7.8	122.8
Spain	6,567.0	12,898.0	10.1	26.1	25.06	43.05	7.0	61.3
Sweden	8,957.0	13,731.0	5.5	67.1	26.11	42.44	6.3	233.6
Switzerland	5,840.0	9,500.0	6.3	57.1	10.39	18.58	7.5	134.3
Turkey	1,272.0	1,973.0	5.6	1.6	6.83	15.12	10.4	25.5
United Kingdom	36,702.0	59,628.0	6.3	47.2	258.45	277.27	0.9	12.1
USSR	66,721.0	142,504.0	10.0	36.0	607.12	965.22	6.0	153.4
Yugoslavia	2,402.0	4,480.0	7.0	13.4	16.10	25.15	5.7	46.5
<i>Other countries</i>	246,542.7	422,088.9	7.0	51.5	1,751.06	2,636.68	5.3	241.3
Australia	5,953.0	12,095.0	9.3	53.2	40.28	61.65	5.5	150.8
Canada	23,035.0	35,933.0	5.7	55.5	101.42	176.21	7.1	352.5
Canal Zone	64.0	110.6	7.1	56.4	0.17	0.32	8.2	175.1
Japan	23,657.0	52,650.0	10.5	62.0	108.64	254.25	11.2	168.9
New Zealand	1,566.0	3,138.0	9.1	60.1	4.81	7.37	5.5	81.1
Puerto Rico	472.0	1,119.0	13.1	30.8	3.43	7.40	10.1	158.3
Ryukyu Islands	115.0	259.0	12.3	19.9	0.24	0.51	9.9	32.8
South Africa	5,135.0	6,560.0	6.3	7.0	41.95	59.03	4.4	47.9
United States	186,534.0	310,125.0	6.6	63.7	1,453.96	2,078.17	4.6	285.5
Virgin Islands	11.7	99.3	30.6	168.3	0.06	0.39	26.3	592.6

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Statistical Yearbook, 1969*, *Monthly Bulletin of Statistics and World Energy Supplies*, Statistical Papers, Series J; United States Federal Power Commission, *World Power Data, 1960, 1961 and 1966* (Washington, D.C.).

<sup>a</sup> 1961 for Cape Verde Islands, Liberia and Togo; 1962 for Rwanda and Uganda; 1963 for People's Republic of the Congo, Lesotho, Malawi and Mauritania; 1964 for Burundi and Iran; and 1965 for Nepal and Saudi Arabia.

<sup>b</sup> 1964 for Kuwait and Saudi Arabia; 1965 for Chad, Dahomey, French Guiana, Guadeloupe, Madagascar, Mar-

tinique, Netherlands Antilles, Niger, Réunion and Surinam; 1966 for British Honduras, Cameroon, Central African Republic, Cyprus, Ethiopia, Laos, Philippines, Rwanda, Southern Rhodesia and United Republic of Tanzania; 1967 for Belgium, Bermuda, Gabon, Gambia, Greece, Guatemala, Guyana, Haiti, Indonesia, Ireland, Jamaica, Khmer Republic, Lesotho, Malta, Morocco, Mozambique, Norway, Panama, Ryukyu Islands, Saudi Arabia, Spain, Thailand, Togo, Uganda, Uruguay, Venezuela and Zambia.

<sup>c</sup> 1961 for Malawi, Southern Rhodesia and Zambia.

<sup>d</sup> Luxembourg included with Belgium.

Table A.14. Developing countries: third level education, by field of study, around 1966

Region and country		Number of students		Percentage distribution by known fields of study <sup>a</sup>					
		Total	Per 100,000 of population	Agriculture	Engineering	Natural science	Medical science	Education	Non-technical <sup>b</sup>
<i>Western hemisphere</i>									
Argentina	G	16,194	71	2	10	3	32	c	54
	E	247,800	1,092	2	13	7	21	c	58
Barbados	G	...	...	...	...	...	...	...	...
	E	417	171	—	—	16	—	38	46
Bolivia	G	...	...	...	...	...	...	...	...
	E	13,312	355	4	16	13	25	—	41
Brazil	G	20,182	25	4	11	4	18	8	56
	E	180,109	217	4	15	—	16	c	66
Chile	G	3,440	41	7	11	3	23	32	24
	E	56,491	630	5	23	5	12	35	21
Colombia	G	3,257	18	6	16	8	21	6	43
	E	49,930	268	8	25	2	14	11	40
Costa Rica	G	1,033	84	2	3	1	6	80	8
	E	7,502	487	3	6	c	5	11	75
Cuba	G	1,680	23	3	9	3	18	32	36
	E	33,704	432	7	20	6	20	31	17
Dominican Republic	G	728	23	4	9	d	32	c	56
	E	6,774	180	3	12	d	26	c	59
Ecuador	G	952	18	7	17	3	27	26	20
	E	16,047	301	9	21	2	14	12	42
El Salvador	G	156	7	—	13	10	21	40	16
	E	3,627	124	—	20	12	16	c	51
Guadeloupe	G	55	18	—	—	—	—	—	100
	E	209	68	—	—	—	—	—	100
Guatemala	G	277	6	7	17	6	27	14	29
	E	9,338	199	4	15	3	15	c	64
Guyana	G	...	...	...	...	...	...	...	...
	E	449	68	—	—	25	—	—	75
Haiti	G	381	9	11	6	—	13	5	66
	E	1,527	34	3	6	—	29	12	50
Honduras	G <sup>e</sup>	110	6	33	7	—	22	24	14
	E	2,578	113	—	15	4	19	3	59
Jamaica	G	187	11	—	—	20	8	12	59
	E	2,073	113	—	—	32	18	6	44
Martinique	G	...	...	...	...	...	...	...	...
	E	423	194	—	—	17	—	—	83
Mexico	G	18,570	47	1	10	6	22	50	13
	E	154,289	338	3	19	12	15	2	49
Nicaragua	G	214	13	3	16	—	52	8	21
	E	3,343	202	5	12	1	11	16	55
Panama	G	316	26	4	5	10	14	24	44
	E	7,247	582	2	5	21	7	13	51
Paraguay	G <sup>e</sup>	213	12	—	3	32	36	—	29
	E	4,124	205	7	z	15	11	—	67
Peru	G	4,304	40	7	30	2	32	8	22
	E	46,336	423	7	9	6	11	21	46
Surinam	G	195	65	—	—	—	3	87	10
	E	667	206	—	—	—	4	51	44
Trinidad and Tobago	G	...	...	...	...	...	...	...	...
	E	964	97	15	18	20	—	—	47
Uruguay	G	785	29	10	4	4	53	2	28
	E	17,087	629	7	3	s	31	—	59
Venezuela	G	2,942	37	3	9	1	27	15	44
	E	46,825	537	6	14	3	17	14	46
<i>Africa</i>									
Algeria	G	...	...	...	...	...	...	...	...
	E	8,503	70	1	5	18	20	4	52
Angola	G	...	...	...	...	...	...	...	...
	E	754	14	12	34	—	16	—	39
Burundi	G	...	...	...	...	...	...	...	...
	E	268	8	6	—	11	15	—	68
Cameroon	G	71	1	7	—	—	—	27	66
	E	1,804	34	2	—	11	—	11	76
Congo (Democratic Republic of)	G	337	2	2	—	4	13	24	57
	E	3,799	24	4	8	18	13	10	47

Table A.14 (continued)

Region and country		Number of students		Percentage distribution by known fields of study <sup>a</sup>					
		Total	Per 100,000 of population	Agriculture	Engineering	Natural science	Medical science	Education	Non-technical <sup>b</sup>
Africa (continued)									
Dahomey	G	10	—	—	—	100	—	—	—
	E	53	2	—	—	100	—	—	—
Ethiopia	G	493	2	12	6	3	5	30	44
	E	4,894	21	8	13	9	7	28	35
Gabon	G	...	...	...	...	...	...	...	...
	E	100	22	—	—	—	—	—	—
Ghana	G	1,755	24	1	—	5	—	80	15
	E	4,478	56	4	7	14	6	22	48
Guinea	G	...	...	...	...	...	...	...	...
	E	376	11	3	7	54	24	—	13
Ivory Coast	G	...	...	...	...	...	...	...	...
	E	2,211	56	—	—	36	6	—	58
Kenya	G	515	5	16	7	3	25	37	12
	E	3,814	40	13	22	16	—	2	47
Lesotho	G <sup>e</sup>	36	5	—	—	25	—	19	56
	E	344	41	—	—	29	—	8	63
Liberia	G	89	8	15.7	—	24	—	33	28
	E	797	73	10	—	9	1	24	56
Libyan Arab Republic	G	207	13	—	6	24	—	e	70
	E	2,215	132	2	10	15	—	e	73
Madagascar	G	...	...	...	...	...	...	...	...
	E	3,178	51	2	1	22	2	4	70
Malawi	G	41	1	—	—	—	—	76	24
	E	936	23	14	13	23	4	19	27
Mali	G	37	1	—	—	—	—	51	49
	E	206	4	—	—	—	—	57	43
Mauritius	G	32	4	100	—	—	—	—	—
	E	93	12	100	—	—	—	—	—
Morocco	G	893	7	—	4	33	—	16	47
	E	10,505	76	1	3	6	9	22	59
Mozambique	G	...	...	...	...	...	...	...	...
	E	388	7	11	38	4	25	20	3
Nigeria	G	1,546	3	5	5	12	4	15	59
	E	10,976	18	10	9	18	10	7	45
People's Republic of the Congo	G	...	...	...	...	...	...	...	...
	E	810	121	—	—	11	18	20	51
Réunion	G	74	18	—	—	28	—	—	72
	E	405	99	—	—	24	—	—	76
Rwanda	G	...	...	...	...	...	...	...	...
	E	127	4	—	—	20	27	—	54
Senegal	G	282	8	—	—	17	5	—	78
	E	2,755	79	—	2	28	12	4	55
Sierra Leone	G	147	6	—	—	15	20	8	58
	E	932	38	15	4	9	—	27	45
Somalia	G	11	—	—	—	—	—	—	100
	E	60	2	—	—	—	—	—	100
Southern Rhodesia	G	151	4	1	—	24	—	29	47
	E	858	19	3	—	26	9	9	53
Sudan	G	1,042	8	5	16	9	8	22	41
	E	7,701	57	4	12	9	6	10	59
Swaziland	G	...	...	...	...	...	...	...	...
	E	69	18	100	—	—	—	—	—
Togo	G	53	3	—	—	—	—	—	100
	E	85	5	—	—	—	—	—	100
Tunisia	G	525	118	—	—	9	—	35	56
	E	5,903	132	—	—	19	5	23	53
Uganda	G	...	...	...	...	...	...	...	...
	E	1,860	23	9	—	15	21	15	39
United Arab Republic	G	18,312	62	14	13	7	7	7	53
	E	179,100	594	13	16	5	11	7	48
United Republic of Tanzania	G	34	3	—	—	—	—	—	100
	E	778	7	—	—	12	—	2	87
Upper Volta	G	...	...	...	...	...	...	...	...
	E	28	1	—	—	—	—	—	100

Table A.14 (continued)

Region and country		Number of students		Percentage distribution by known fields of study <sup>a</sup>					
		Total	Per 100,000 of population	Agri- culture	Engi- neering	Natural science	Medical science	Edu- cation	Non- technical <sup>b</sup>
Africa (continued)									
Zambia	G	...	...	...	...	...	...	...	...
	E	689	17	...	...	30	...	16	54
Asia									
Afghanistan	G	380	2	7	8	6	19	7	52
	E	3,426	22	4	9	10	19	17	42
Burma	G	4,040	17	5	2	17	4	15	58
	E	32,174	127	2	9	23	12	4	51
Ceylon	G	2,298	22	—	2	8	7	2	81
	E	14,466	126	1	4	6	12	2	75
China (Taiwan)	G	14,319	112	8	16	7	7	8	54
	E	113,855	889	6	18	6	9	7	54
Hong Kong	G	1,354	37	—	5	11	4	40	41
	E	11,343	304	—	16	15	5	23	40
India	G	208,385	45	3	5	—	3	11	79
	E	1,675,630	344	2	6	31	5	2	54
Indonesia	G	...	...	...	...	...	...	...	...
	E	110,677	103	5	11	3	11	17	52
Iran	G	5,272	23	5	12	7	24	12	41
	E	36,742	145	4	13	6	20	5	53
Iraq	G	2,942	37	2	13	4	10	19	52
	E	28,410	347	3	10	15	14	3	54
Israel	G	3,122	122	4	20	24	4	c	48
	E	39,126	1,488	2	17	17	4	c	62
Jordan	G	623	32	—	—	—	—	85	15
	E	4,409	214	3	3	6	3	46	39
Khmer Republic	G	...	...	...	...	...	...	...	...
	E	7,364	120	1	2	3	10	47	35
Kuwait	G	...	...	...	...	...	...	...	...
	E	418	85	—	—	21	—	—	79
Laos	G	...	...	...	...	...	...	...	...
	E	235	9	—	—	—	52	—	48
Lebanon	G	2,149	87	2	6	13	9	—	70
	E	23,475	954	1	4	5	5	4	81
Malaysia (West)	G	3,230	35	2	7	6	—	72	14
	E	14,834	179	4	10	7	3	57	19
Nepal	G	...	...	...	...	...	...	...	...
	E	10,230	99	—	—	33	—	3	64
Pakistan	G	40,171	39	2	2	18	2	8	69
	E	265,588	258	3	4	20	6	4	63
Philippines	G	54,338	180	1	7	1	12	44	36
	E	359,465	1,189	2	14	2	5	31	45
Republic of Korea	G	44,454	161	8	13	7	7	9	56
	E	170,941	574	11	21	8	8	11	41
Republic of Viet-Nam	G	1,392	8	—	4	9	27	21	38
	E	31,643	191	1	1	20	14	5	59
Saudi Arabia	G	...	...	...	...	...	...	...	...
	E	1,893	28	4	12	11	2	8	63
Singapore	G	2,763	148	—	9	15	6	43	27
	E	13,184	689	—	12	13	8	37	30
Syria	G	2,751	53	4	7	6	10	5	68
	E	31,938	590	2	6	8	5	1	79
Thailand	G	5,528	18	10	7	7	17	17	43
	E	50,722	166	5	5	4	10	15	61

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on United Nations Educational, Scientific and Cultural Organization, *Statistical Yearbook, 1968* (Paris, 1969), tables 2.10, 2.11, 2.13 and 2.14.

Note: G refers to graduating students; E refers to enrolled students.

<sup>a</sup> The following percentages of students graduated without a declared field of study: Ceylon 1, Guatemala 2, Honduras 2, Iraq 2, Jordan 10, Mexico 43 and Peru 3. In the following countries more than 5 per cent of enrolled

students were not distributable according to field of study: Democratic Republic of the Congo (22), Dominican Republic (32), Guatemala (47), Honduras (44), Iraq (7), Khmer Republic (23), Philippines (14) and Zambia (12).

<sup>b</sup> Including fine arts, humanities, law and social sciences.

<sup>c</sup> Included with non-technical.

<sup>d</sup> Included with medical science.

<sup>e</sup> Data refer to around 1960.

<sup>f</sup> Included with natural science.

<sup>g</sup> Included partly with natural science, partly with non-technical.



Table A.15. Structure of and changes in the consumer price index, 1960-1968

Country	Percentage of population covered <sup>a</sup>	Base year <sup>b</sup>	Percentage weight of food, drink and tobacco	Average annual percentage change, 1960-1967	Percentage change			
					From previous year <sup>c</sup>		During <sup>d</sup>	
					1967	1968	1967	1968
Algeria	8	1964	52	...	0.4	...	2.7	...
Angola	5	1939	...	...	...	...	...	...
Argentina	14	1960	59	26.0	29.4	16.0	27.0	9.8
Australia	58	1952/53	32	2.0	3.2	2.7	3.2	2.7
Austria	40	1966	37	3.6	1.5	2.8	3.9	3.0
Barbados	100	1965	59	2.4	3.6	7.5	3.6	9.2
Belgium	100	1953	53	3.0	2.9	2.8	3.4	2.5
Bolivia	...	1957	85	5.4	11.6	5.2	...	...
Brazil	5	1951	43	60.0	29.6	24.4	25.4	24.9
British Honduras	45	1958	50	1.7	1.5	...	2.0	...
Bulgaria	...	...	...	...	...	...	...	...
Burma	4	1958	72	...	...	...	...	...
Cameroon	2	1966	49	4.7	3.3	2.0	4.0	1.8
Canada	100	1949	33	2.2	3.5	4.1	4.0	4.0
Cape Verde Islands	100	1950	...	3.8	3.9	-0.5	3.9	0.4
Central African Republic	8	1960	51	7.9	...	...	...	...
Ceylon	5	1952	62	1.5	2.2	5.9	6.0	6.7
Chad	3	1964	45	5.2	3.2	1.0	0.1	1.6
Chile	26	1958	48	27.0	18.2	26.7	21.8	27.8
China (Taiwan)	21	1956	62	2.0	3.3	7.9	4.2	6.2
Colombia	10	1954/55	49	14.0	8.2	5.7	6.6	5.6
Congo (Democratic Republic of)	3	1961	37	23.0	36.8	53.3	76.5	18.5
Costa Rica	23	1964	43	1.6	1.3	4.1	2.6	3.5
Cuba	...	...	...	...	...	...	...	...
Cyprus	18	1957	54	0.4	0.7	3.8	—	3.6
Czechoslovakia	...	1961	26	0.7	1.5	...	1.0	...
Denmark	100	1964	35	5.9	7.5	8.0	10.3	4.3
Dominican Republic	15	1941	39	2.7	1.2	—	3.4	-0.1
Ecuador	8	1951	57	4.0	3.8	4.2	-2.2	3.5
El Salvador	10	1954	54	0.3	1.5	2.5	3.0	1.5
Ethiopia	3	...	...	6.0	0.8	0.2	...	0.5
Falkland Islands	1	1948	...	4.8	5.3	...	4.0	...
Fiji	12	1960	52	2.6	1.4	3.8	3.6	2.5
Finland	100	1957	39	5.3	5.7	8.4	7.3	5.6
France	100	1962	45	3.6	2.7	4.6	3.4	5.3
French Polynesia	39	1966	55	7.8	4.4	3.5	5.4	2.8
Gabon	10	1962	65	3.5	2.4	2.1	2.3	2.1
Gambia	...	...	...	...	...	...	...	...
Germany (Federal Republic of)	100	1962	44	3.0	1.7	1.5	0.4	3.1
Ghana	7	1963	55	9.4	-7.3	10.0	5.1	12.5
Gibraltar	100	1966	39	3.5	2.6	6.5	6.1	2.1
Greece	40	1959	49	2.2	1.6	0.4	-1.4	2.5
Greenland	100	1956/57	49	...	...	...	...	...
Grenada	...	1964	67	5.2	6.0	9.0	9.5	4.7
Guatemala	13	1946	57	0.3	0.5	1.9	-1.0	4.4
Guyana	26	1956	49	2.1	3.1	3.0	3.9	2.0
Haiti	6	1948	69	4.1	-2.7	1.7	-13.5	6.6
Honduras	8	1948	59	2.6	2.6	2.2	-0.7	2.7
Hong Kong	100	1963/64	52	2.1	5.7	2.7	6.7	—
Hungary	19	...	52	1.0	0.9	0.7	-0.2	1.9
Iceland	41	1959	35	11.0	3.5	15.6	6.9	15.0
India	10	1944	61	8.1	13.9	2.6	8.9	0.6
Indonesia	3	1957/58	63	225.0	170.0	125.3	112.2	85.1
Iran	26	1959/60	54	1.5	1.6	0.7	1.4	0.6
Iraq	21	1963	56	0.9	2.4	1.4	2.8	2.0
Ireland	100	1953	41	4.1	3.1	4.8	2.9	5.4
Israel	100	1964	33	6.8	1.6	2.1	0.2	1.9

Table A.15 (continued)

Country	Percentage of population covered <sup>a</sup>	Base year <sup>b</sup>	Percentage weight of food, drink and tobacco	Average annual percentage change, 1960-1967	Percentage change			
					From previous year <sup>c</sup>		During <sup>d</sup>	
					1967	1968	1967	1968
Italy	100	1966	46	4.6	3.7	1.4	3.0	0.9
Ivory Coast	7	1960	51	2.2	2.2	5.6	1.5	9.3
Jamaica	8	1955	51	2.5	2.9	6.0	1.9	4.0
Japan	100	1965	43	5.7	4.0	5.4	5.6	3.9
Jordan						-0.3		
Kenya	3	1964	75	2.3	1.8	0.5	1.9	0.7
Khmer Republic	7	1949	60	2.8	-0.6	6.0	3.6	6.8
Kuwait								
Laos	7	1959	56	55.1	7.9	5.1	9.0	4.7
Lebanon	30	1939	38					
Lesotho								
Liberia	8	1964	40	4.4	5.5	2.5		3.9
Libyan Arab Republic	14	1964	45	5.4	3.6	4.4	-2.1	7.2
Luxembourg	24	1965	50	2.5	2.2	2.6	3.1	2.3
Madagascar	5	1964	56	2.3	0.8	0.9	0.1	1.3
Malawi	3	1962	32					
Malaysia (West)		1959	74	1.4	4.2	0.1	4.6	-3.0
Maldives								
Mali								
Malta	100	1960	52	1.5	0.8	2.0	3.4	1.1
Mauritania	1	1961	51	5.2	3.9	3.5		3.7
Mauritius	100	1962	57	1.1	1.9	6.9	4.0	3.7
Mexico	7	1939	76	2.5	3.0	2.3	3.0	1.8
Mongolia								
Morocco	8	1958/59	55	2.9	-0.8	0.5	-1.5	1.9
Mozambique	3	1956/57	48	2.2	3.4	4.1	3.4	4.9
Nepal				6.7	-2.7	2.6		
Netherlands		1959/60	33	3.9	3.6	3.7	4.3	4.8
Netherlands Antilles	49	1958	42	0.8	0.9	1.3	1.2	1.2
New Caledonia	40	1957		2.7	2.9	2.7	1.5	2.9
New Zealand	100	1965	30	3.0	6.0	4.3	6.6	5.1
Nicaragua	16	1956	60	2.3	2.1		0.1	
Niger	11	1962/63	45	5.1	0.4	-2.7	-1.8	-0.2
Nigeria	1	1960	54	3.3	-3.9	1.1	-6.3	7.1
Norway	13	1959	45	4.1	4.4	3.5	8.9	3.3
Pakistan	2	1961	57	3.7	6.9	0.2	2.2	2.0
Panama	27	1962	45	0.8	1.4	1.6	1.6	1.9
Paraguay	16	1964	50	3.5	1.4	0.6	0.6	2.7
People's Republic of the Congo	17	1964	51	5.3	3.6	3.7	3.5	3.9
People's Democratic Republic of Yemen	21	1958	59	2.4	2.0		3.8	
Peru	15	1966	52	9.6	9.8	19.0	-16.0	9.8
Philippines	4	1955	48	7.0	6.9	0.6	6.7	19.4
Poland		1949	47	1.5	1.5	1.6	-1.7	1.1
Portugal	9	1948/49	53	3.3	5.5	6.1	9.3	4.0
Republic of Korea	32	1965	53	15.0	10.9	10.8	11.5	11.0
Republic of Viet-Nam	9	1959	52	18.0	43.8	26.9	32.0	24.6
Romania								
Ryukyu Islands	29	1961	54	3.4	4.3	6.3	6.4	2.6
Rwanda								
St. Lucia	100	1964	63					
Saudi Arabia								
Senegal	12	1945	51	2.9	-0.6	0.5	-1.1	4.4
Sierra Leone	6	1961	59	4.1	4.8	1.4	2.6	2.7
Singapore	100	1960	51	1.4	3.3	0.7	5.0	-2.7
Somalia	7	1950	76	4.7	-0.5	3.6	-2.4	-12.7
South Africa	80	1958	32	2.5	3.4	1.8	1.9	2.7
Southern Rhodesia	12	1960		2.6	1.4	2.3		
Spain	100	1958	55	8.0	6.5	4.9	6.5	2.9

Table A.15 (continued)

Country	Percentage of population covered <sup>a</sup>	Base year <sup>b</sup>	Percentage weight of food, drink and tobacco	Average annual percentage change, 1960-1967	Percentage change			
					From previous year <sup>c</sup>		During <sup>d</sup>	
					1967	1968	1967	1968
Sudan	3	1951	61	3.2	10.9	-10.0	-7.8	3.4
Surinam	34	1953	52	3.9	10.8	—	6.4	5.3
Swaziland	...	...	...	...	...	...	...	...
Sweden	100	1949	38	4.3	4.3	1.9	3.4	2.0
Switzerland	100	1966	36	3.7	3.9	2.4	3.5	18.8
Syria	11	1962	52	2.7	4.5	1.8	4.4	4.2
Thailand	7	1962	48	2.1	4.0	2.2	2.8	1.1
Togo	...	...	...	...	...	...	...	...
Trinidad and Tobago	100	1960	57	2.6	2.2	8.2	3.5	7.5
Tunisia	16	1962	55	2.8	2.9	2.4	2.8	2.5
Turkey	6	1958	34	5.8	14.0	6.0	12.9	3.8
Uganda	1	1951	85	2.8	5.1	-5.1	1.7	3.4
Ukrainian SSR	...	...	...	...	...	...	...	...
USSR	...	...	...	...	...	...	...	...
United Arab Republic	14	1939	42	4.2	0.7	3.9	-0.5	-19.5
United Kingdom	100	1962	43	3.6	2.5	4.7	2.5	5.9
United Republic of Tanzania	2	1951	84	2.0	2.6	3.3	2.3	2.7
United States	100	1957-1959	22	1.7	2.8	4.2	3.1	4.6
Upper Volta	...	...	...	...	...	...	...	...
Uruguay	44	1962	54	42.0	89.1	125.3	135.9	65.4
Venezuela	20	1945	43	0.6	—	1.3	-1.5	5.5
Yemen	...	...	...	...	...	...	...	...
Yugoslavia	31	1961	53	15.0	7.1	5.1	4.1	7.5
Zambia	18	1962	68	4.1	4.9	10.9	0.2	10.1

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Monthly Bulletin of Statistics and Supplement to the Statistical Yearbook and the Monthly Bulletin of Statistics, 1967* (United Nations publication, Sales No.: E.68.XVII.9).

<sup>a</sup> Based on the population of the localities in which prices are sampled. In the case of Cameroon, Central African

Republic, Chad, Malawi, Mauritania, People's Republic of the Congo, Senegal and South Africa, the index is based on the composition of purchases of European inhabitants.

<sup>b</sup> Year of survey on which the commodity weights are based.

<sup>c</sup> Based on annual averages

<sup>d</sup> Based on change between December in one year and December in the next year; otherwise between final quarters.

Table A.16. Developing countries: measures of external balance, 1960-1968

Country	Trade balance as percentage of exports of goods		Current account balance as percentage of exports of goods and services		Percentage change in international liquidity <sup>a</sup>		Official external debt service as percentage of exports of goods and services	
	Average 1960-1967 <sup>b</sup>	1968 <sup>c</sup>	Average 1960-1967 <sup>d</sup>	1968	1960 to 1967 <sup>e</sup>	1967 to 1968	Average 1960-1967 <sup>f</sup>	1968 <sup>g</sup>
<i>Western hemisphere</i>								
Argentina	9.8	14.5	-0.9	-0.8	38.5	4.5	24.1	27.8
Barbados	-79.0	-142.1	...	...	...	...	...	...
Bolivia	-16.9	-2.8	-36.7	-32.6	465.7	4.2	8.0	5.4
Brazil	15.0	1.4	13.0	-25.2	-42.3	29.1	25.8	22.5
Chile	-5.2	12.3	-22.6	-13.5	13.5	64.9	16.4	16.4
Colombia	-0.6	-2.0	-21.1	-24.1	-53.4	108.4	14.1	12.9
Costa Rica	-19.6	-13.9	-30.2	-25.0	35.8	13.0	8.3	10.4
Cuba	-35.1	...	...	...	...	...	...	...
Dominican Republic	-9.9	-20.4	-17.2	-43.0	23.1	10.2	13.0	9.5
Ecuador	18.0	-0.9	-13.6	-35.3	68.3	17.1	7.7	8.1
El Salvador	-2.6	6.5	-13.5	-9.8	66.1	13.1	3.1	2.8
Guatemala	-2.5	-1.8	-18.1	-21.2	20.6	0.6	6.1	7.4
Guyana	6.7	6.3	-11.1	-9.6	25.2	25.0	4.0	4.6
Haiti	-17.1	-6.9	-34.7	-22.2	-60.0	30.0	...	...
Honduras	4.3	6.4	-10.8	-15.6	88.7	25.7	2.6	1.7

Table A.16 (continued)

Country	Trade balance as percentage of exports of goods		Current account balance as percentage of exports of goods and services		Percentage change in international liquidity <sup>a</sup>		Official external debt service as percentage of exports of goods and services	
	Average 1960-1967 <sup>b</sup>	1968 <sup>c</sup>	Average 1960-1967 <sup>a</sup>	1968	1960 to 1967 <sup>a</sup>	1967 to 1968	Average 1960-1967 <sup>c</sup>	1968 <sup>c</sup>
<i>Western hemisphere (continued)</i>								
Jamaica	-14.4	-48.9	-12.0	-29.3	46.7	39.5	2.0	2.8
Mexico	-37.7	-56.4	-19.4	-30.2	32.6	12.1	20.0	26.8
Nicaragua	-0.4	-5.0	-19.6	-23.7	174.4	51.1	4.8	6.9
Panama	-124.8	-111.1	-14.2	-4.5	96.5	30.1	2.1	3.6
Paraguay	-6.3	-39.6	-25.8	-46.0	h	-0.3	6.8	8.1
Peru	10.9	22.1	-14.9	-3.2	65.2	-11.5	6.6	20.9
Surinam	-19.8	15.1	-41.1	-16.5	60.0			
Trinidad and Tobago	-6.6	9.8	-11.0	-0.4	30.2	61.4	1.9	3.3
Uruguay	2.9	11.1	-10.2	8.2	-6.4	3.1	8.4	19.5
Venezuela	51.5	37.6	12.3	-5.5	43.2	5.7	3.0	2.2
<i>Africa</i>								
Algeria	-32.9	-3.8						
Angola	4.5	-11.8						
Botswana								4.2
Burundi					-69.4	-14.7		3.8
Cameroon	-1.6	0.5			21.2	67.8		1.2
Central African Republic	-21.7	-11.1			763.6	-1.1		2.6
Chad	-36.4	-39.3			-20.0	15.3		5.0
Congo (Democratic Republic of)	40.8	41.4	-0.6	16.3	7.9	103.9		1.8
Dahomey	-138.2	-122.2			-10.1	25.0		7.4
Equatorial Guinea								
Ethiopia	-11.6	-36.5	-20.0	-24.4	22.8	2.6	5.6	9.3
Gabon	-36.2	47.6			-0.7	-42.0		4.9
Gambia	26.3	-40.9						
Ghana	-20.0	16.4	-31.6	-11.2	-64.0	12.4		12.3
Guinea								7.5
Ivory Coast	13.3	23.5	-1.4	6.5	102.9	13.0		5.8
Kenya	-64.2	-43.6	-4.3	-9.6		32.0	5.4	6.9
Lesotho								1.2
Liberia	0.9	30.2						6.8
Libyan Arab Republic	44.8	65.3	6.0	19.5	367.4	40.0		—
Madagascar	-43.8	-46.9			-10.6	-28.7		5.2
Malawi	-36.0	-43.1	-63.3	-69.3	-10.7	—	5.3	7.0
Mali	-92.1	-70.1	-144.4	-119.5	-90.9	-40.0	28.6	13.7
Mauritania	28.1	47.9			31.1	-7.5		2.2
Mauritius	2.5	-0.5	-9.6	-6.6				6.5
Morocco	-8.2	-13.6	-9.2	-17.0	-63.1	11.8	4.2	7.9
Niger	33.9	-9.5			-85.5	145.5		4.6
Nigeria	-6.9	8.2	-32.0	-42.8	-71.9	3.3	8.0	6.3
People's Republic of the Congo	-89.2	-79.4			-48.8	182.8		
Rwanda	-42.7	-51.0			59.5	-12.6		2.9
Senegal	-26.8	-19.2			-51.3	-58.0		1.7
Sierra Leone	-13.3	12.9	-31.1	-5.9	16.9	73.0	6.8	5.2
Somalia	-46.2	-52.1	-6.4	-53.4	—	-40.7	3.2	1.8
Southern Rhodesia	8.5	-12.8		-12.5				
Sudan	-13.0	-11.8	-22.7	-17.9	-67.1	-12.7		7.5
Swaziland								8.4
Togo	-50.0	-20.5			205.5	14.3		6.9
Tunisia	-78.5	-38.9	-56.4	-27.0	-52.9	-10.7	12.6	24.0
Uganda	39.4	34.0	-2.9	-1.4		40.4	3.1	8.0
United Arab Republic	-65.6	-27.9	-29.2	-30.6	-3.4	-14.3		
United Republic of Tanzania	4.6	-11.0	-0.5	-5.1		25.8	2.3	6.7
Upper Volta	-208.6	-91.4			50.0	20.7		7.9
Zambia	39.9	40.3	13.2	1.4		39.5	2.9	2.6

Table A.16 (continued)

Country	Trade balance as percentage of exports of goods		Current account balance as percentage of exports of goods and services		Percentage change in international liquidity <sup>a</sup>		Official external debt service as percentage of exports of goods and services	
	Average 1960-1967 <sup>b</sup>	1968 <sup>c</sup>	Average 1960-1967 <sup>d</sup>	1968	1960 to 1967 <sup>e</sup>	1967 to 1968	Average 1960-1967 <sup>f</sup>	1968 <sup>g</sup>
<i>Asia</i>								
Afghanistan	-54.3	-106.0	...	...	-9.5	2.1	...	...
Brunei	59.5	24.6	...	...	...	...	...	...
Burma	7.3	-62.8	-5.7	-74.8	21.1	-1.6	...	...
Ceylon	-10.6	-19.4	-9.5	-16.6	-45.5	-7.3	1.7	6.9
China (Taiwan)	-18.7	-9.0	-16.5	-12.9	273.5	-8.4	3.3	3.4
Hong Kong	-39.4	-18.0	...	...	...	-15.8	...	...
India	-66.9	-35.3	-56.9	-39.2	-1.2	3.0	12.8	24.0
Indonesia	0.3	4.8	-31.3	-28.5	-57.9	90.1	15.1	8.6
Iran	-34.2	20.3	-6.3	-18.6	65.8	-4.3	7.4	6.9
Iraq	48.0	61.1	3.3	13.7	43.2	22.9	0.7	1.4
Israel	-76.7	-52.2	-76.9	-62.6	225.7	-7.3	...	10.3
Jordan	-552.2	-301.0	-98.7	-119.3	425.9	16.6	1.2	1.8
Khmer Republic	-31.6	-11.1	-30.9	-13.6	5.8	-14.3	...	...
Kuwait	67.9	56.1	...	...	-78.8	-6.0	...	...
Laos	-2,600.0	-800.0	...	...	-45.5	...	...	...
Lebanon	-488.6	-295.6	...	...	103.6	18.1	...	4.6
Malaysia	14.5	16.4	3.2	7.4	7.3	12.7	1.5	2.1
Maldives	...	...	...	...	...	...	...	...
Nepal	...	...	...	...	31.6	33.1	...	...
Pakistan	-72.5	-50.2	-76.9	-68.6	-49.2	56.5	10.5	19.4
People's Democratic Republic of Yemen	-39.1	-84.5	...	...	...	4.2	...	...
Philippines	-7.6	-33.5	-5.6	-34.2	41.7	-11.1	5.0	5.3
Republic of Korea	-251.4	-171.9	-105.0	-75.7	126.8	9.8	3.0	7.5
Republic of Viet-Nam	-617.5	-1,515.2	-104.8	-73.3	54.6	-16.5	...	...
Saudi Arabia	66.2	57.2	17.7	10.3	311.4	-13.0	...	...
Singapore	-24.1	-32.6	-3.1	-9.0	25.8	8.6	0.1	0.2
Syria	-52.6	-72.2	...	-14.1	64.3	-9.5	...	18.7
Thailand	-25.0	-77.9	-8.3	-19.7	172.0	1.2	3.2	3.5
Yemen	...	...	...	...	...	...	...	...

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on International Monetary Fund, *Balance of Payments Yearbook*, vols. 19 and 21, and *International Financial Statistics* (Washington, D.C.); and International Bank for Reconstruction and Development, *External Medium- and Long-term Public Debt—Past and Projected Amounts Outstanding, Transactions and Payments, 1956-1976, Annual Report 1970* (Washington, D.C.).

<sup>a</sup> Holdings of gold and convertible currencies plus reserve position with the International Monetary Fund, valued at the end of the indicated year.

<sup>b</sup> 1961-1967 for Guyana, United Republic of Tanzania and Upper Volta; 1960-1966 for Afghanistan; 1963-1967 for Ivory Coast and Singapore; 1966-1967 for Mali; 1965-1967 for Mauritania; 1964-1967 for Malawi, Mauritius and Zambia.

<sup>c</sup> 1967 for Afghanistan and Gambia.

<sup>d</sup> 1961-1967 for United Republic of Tanzania; 1963-1967 for Sierra Leone and Ivory Coast; 1964-1967 for Democratic Republic of the Congo, Kenya, Malawi, Mauritius, Singapore and Zambia; 1966-1967 for Mali; 1967 for Uganda.

<sup>e</sup> 1961-1967 for Afghanistan, Guyana and United Arab Republic; 1962-1967 for Dahomey, Ivory Coast, Madagascar, Mali, Mauritania, Niger, Senegal, Togo and Upper Volta; 1963-1967 for Kuwait, Laos, Malaysia, Nepal, Surinam and Syria; 1964-1967 for Burundi and Rwanda; 1965-1967 for Malawi.

<sup>f</sup> 1965-1967 for Argentina, Bolivia, Dominican Republic, Iraq, Mali, Sierra Leone, Singapore, Somalia and Trinidad and Tobago; 1961-1967 for China (Taiwan); 1962-1967 for Guyana, Israel and Morocco; 1963-1967 for Brazil, Jamaica, Jordan, Kenya and Republic of Korea; 1960-1964 for Iran; 1964-1967 for Malaysia and Malawi; 1965-1966 for Zambia.

<sup>g</sup> 1967 for Lesotho and Togo; 1966 for Cameroon. The ratios are preliminary in many cases. Including the servicing of private debt in the case of Brazil. As a percentage of exports of goods only in the case of Botswana, Lesotho, Madagascar, Swaziland and Syria. The debt of the East African Community has been distributed equally among Kenya, Uganda and United Republic of Tanzania.

<sup>h</sup> Increase from \$0.5 million to \$12.3 million.

Table A.17. Utilization of installed electric generating capacity, 1967-1968<sup>a</sup>

Country	National output at full capacity <sup>b</sup> (millions of kilowatt-hours)	Actual production of electricity (millions of kilowatt-hours)	Ratio of capacity utilization (percentage)
<i>Developing countries</i>			
<i>Western hemisphere:</i>			
Argentina	49,884	13,452	27.0
Barbados	277	109	39.4
Bolivia	1,910	587	30.7
Brazil	72,694	38,184	52.5
British Honduras	46	14	30.4
Chile	14,406	6,912	48.0
Colombia	17,485	6,036	34.5
Costa Rica	2,048	753	36.8
Cuba	10,315	4,250	41.2
Dominican Republic	1,476	800	47.4
Ecuador	2,365	760	32.1
El Salvador	1,503	554	36.9
Guatemala	1,187	485	40.9
Guyana	665	240	36.1
Haiti	285	78	27.4
Honduras	700	233	33.3
Jamaica	2,037	602	29.6
Mexico	52,044	22,728	43.7
Nicaragua	1,382	400	28.9
Panama	1,062	520	49.0
Paraguay	564	195	34.6
Peru	12,834	4,884	38.1
Surinam	1,191	244	20.5
Trinidad and Tobago	2,238	1,118	50.0
Uruguay	4,013	1,950	48.6
Venezuela	20,393	9,480	46.5
<i>Africa:</i>			
Algeria	5,598	1,308	23.4
Angola	2,522	475	18.8
Burundi	43	17	38.8
Cameroon	1,472	1,066	69.0
Central African Republic	79	25	31.6
Chad	86	22	25.0
Dahomey	89	22	24.3
Ethiopia	2,558	318	12.4
Gabon	167	56	33.5
Gambia	55	11	20.0
Ghana	5,515	2,588	46.9
Guinea	639	202	31.6
Ivory Coast	858	372	43.4
Kenya	1,168	402	34.4
Lesotho	27	52	19.3
Liberia	1,350	480	35.6
Libyan Arab Republic	662	212	32.0
Madagascar	681	107	15.7
Malawi	430	102	23.7
Mali	140	35	24.9
Mauritania	198	38	19.4
Mauritius	889	127	14.3
Morocco	3,837	1,344	35.0
Mozambique	2,365	149	6.3
Niger	16	16	31.6
Nigeria	4,096	1,109	27.0
People's Republic of the Congo	219	55	25.1
Portuguese Guinea	35	7	20.0
Réunion	104	37	35.9
Rwanda	197	48	24.4
Senegal	832	247	29.7
Somalia	36	14	38.9
Southern Rhodesia	10,385	4,212	40.6
Spanish Sahara	19	5	26.9
Sudan	802	318	39.7
Togo	179	20	11.4

Table A.17 (continued)

Country	Notional output at full capacity <sup>b</sup> (millions of kilowatt-hours)	Actual production of electricity	Ratio of capacity utilization (percentage)
<i>Africa (continued):</i>			
Tunisia	2,037	546	26.8
Uganda	1,445	704	48.7
United Arab Republic	13,797	5,895	42.7
United Republic of Tanzania	623	252	40.4
Upper Volta	93	23	24.5
Zambia	2,295	600	26.1
<i>Asia:</i>			
Afghanistan	2,304	390	16.9
Brunei	385	100	30.0
Burma	2,287	409	17.9
Ceylon	1,901	650	34.2
China (Taiwan)	16,434	9,804	59.7
Hong Kong	8,773	3,948	45.0
India	120,306	43,812	36.4
Indonesia	5,168	2,020	39.1
Iran	8,695	2,760	31.7
Israel	8,822	5,508	62.4
Jordan	456	110	24.1
Khmer Republic	420	95	22.6
Kuwait	1,428	647	45.3
Laos	89	21	23.6
Lebanon	3,276	1,036	31.6
Malaysia	6,869	3,004	43.7
Nepal	272	30	11.0
Pakistan	9,855	3,903	39.6
People's Democratic Republic of Yemen	724	237	32.7
Philippines	10,105	4,620	45.7
Republic of Korea	11,108	6,024	54.2
Republic of Viet-Nam	3,307	808	24.4
Saudi Arabia	1,226	377	30.8
Singapore	4,065	1,639	40.3
Syria	2,059	773	37.5
Thailand	5,377	1,910	35.5
<i>Other countries</i>			
Australia	101,174	46,524	46.0
Belgium	58,236	26,460	45.4
Canada	300,889	175,428	58.3
France	287,968	117,924	41.0
Germany (Federal Republic of)	317,765	203,928	64.2
Japan	447,720	270,612	60.4
Netherlands	78,687	33,624	42.7
United Kingdom	505,509	221,448	43.8
United States	2,620,598	1,436,028	54.8
USSR	1,201,132	638,664	53.2

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Statistical Yearbook* and *Monthly Bulletin of Statistics*.

<sup>a</sup> For most of the countries listed, actual production data refer to 1967 or 1968, and national output at full capacity to an average of 1967 and 1968 (for comparison with 1968 actual production) or to an average of 1966

and 1967 (for comparison with 1967 actual production). 1966 for British Honduras, Central African Republic, Ethiopia, Laos, Pakistan, Philippines, Rwanda, Saudi Arabia, Southern Rhodesia, United Arab Republic and United Republic of Tanzania; 1965 for Chad, Dahomey, Madagascar, Niger, Réunion and Surinam; 1964 for Kuwait.

<sup>b</sup> Twenty-four hours a day and 365 days a year.

Table A.18. Distribution of imports from developing countries,<sup>a</sup>  
1960-1961 and 1968-1969

(Percentage of total)

Country <sup>b</sup>	Average, 1960-1961	Average, 1968-1969
United States	26.0	23.4
Japan	7.9	13.4
United Kingdom	16.2	11.4
Germany (Federal Republic of)	9.3	9.7
France	9.8	8.1
Italy	4.7	6.4
Netherlands	3.6	3.7
Belgium-Luxembourg	3.0	3.4
USSR	2.4	3.0
Canada	3.0	2.6
Spain	1.1	2.3
Australia	1.9	1.4
Sweden	1.5	1.4
South Africa	1.2	1.2
China (mainland) and other centrally planned economies in Asia	1.3	0.9
Switzerland	0.8	0.9
Denmark	0.8	0.9
Portugal	0.6	0.8
Norway	0.6	0.6
Czechoslovakia	0.8	0.6
Poland	0.5	0.5
German Democratic Republic	0.5	0.4
Yugoslavia	0.4	0.4
Greece	0.3	0.4
Austria	0.4	0.4
Finland	0.3	0.3
Ireland	0.3	0.3
Hungary	0.2	0.3
New Zealand	0.3	0.3
Bulgaria	0.1	0.2
Romania	0.1	0.2
Turkey	0.1	0.2
Iceland	—	—
Total	100.0	100.0

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Statistical Office of the United Nations, *Monthly Bulletin of Statistics*; Organisation for Economic Co-operation and Development, *Statistics of Foreign Trade* (Paris); International Monetary Fund, *Direction of Trade* (Washington, D.C.); and national sources.

<sup>a</sup> Imports are valued c.i.f.; imports originally reported f.o.b. have been converted to a c.i.f. valuation by adding 10 per cent in the case of Australia, Canada, South Africa and United States, and 15 per cent in the case of the centrally planned economies.

<sup>b</sup> Countries ranked in descending order according to their share in 1968-1969.



Table A.18 follows

Table A.19 follows

*Table A.19 follows*

Table A.19. Developed market economies: imports from

(Million)

Importing country	Food-stuffs (SITC 0)		Beverages and tobacco (SITC 1)		Raw materials (SITC 2)		Fuels (SITC 3)		Oils and fats (SITC 4)	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	52	59	6	5	62	59	264	265	3	1
Austria	55	61	4	3	45	54	—	2	7	1
Belgium—										
Luxembourg	167	201	15	12	247	266	283	419	13	1
Canada	198	213	3	4	116	122	383	471	9	1
Denmark	109	100	20	14	59	50	99	151	5	1
Finland	62	64	2	2	15	13	13	14	—	—
France	727	718	190	80	695	665	1,111	1,374	94	7
Germany (Federal Republic of)	927	913	45	43	921	871	938	1,384	86	7
Greece	33	49	—	—	27	32	48	57	—	—
Iceland	3	3	—	—	—	—	—	2	—	—
Ireland	43	46	2	1	18	22	42	45	2	—
Italy	527	501	4	1	417	478	869	1,294	33	3
Japan	489	734	15	10	1,524	2,060	1,197	1,995	6	3
Netherlands	301	408	16	16	267	235	520	671	35	3
New Zealand	23	19	2	2	13	9	58	64	—	—
Norway	68	65	1	3	33	33	58	96	1	—
Portugal	45	69	3	2	100	112	50	62	12	—
Spain	154	199	17	20	138	166	243	459	10	—
Sweden	160	165	4	2	79	61	157	225	3	—
Switzerland	106	113	8	9	70	66	16	85	4	—
Turkey	1	2	—	—	5	6	48	43	—	—
United Kingdom	1,241	1,154	109	76	921	890	1,398	1,604	81	8
United States	2,413	3,067	33	38	1,205	1,141	1,808	1,802	86	12
Yugoslavia	48	58	—	—	91	54	10	22	—	—
Total, above	7,952	8,980	497	344	7,064	7,466	9,615	12,606	492	47

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on

Statistical Office of the United Nations, *World Trade Annual and Monthly Bulletin of Statistics*; Organisation

Table A.20. Developed market economies: imports from developing countries, 1965-1968

(Percentage)

Importing country	Food-stuffs (SITC 0)		Beverages and tobacco (SITC 1)		Raw materials (SITC 2)		Fuels (SITC 3)		Oils and fats (SITC 4)	
	1965 to consumption	1968 to consumption	1965 to consumption	1968 to consumption	1965 to manufacturing production	1968 to manufacturing production	1965 to gross domestic product	1968 to gross domestic product	1965 to manufacturing production	1968 to manufacturing production
Australia	0.4	0.3	—	—	1.0	—	1.1	0.9	0.1	—
Austria	1.0	0.9	0.1	0.1	1.5	—	—	—	0.2	—
Belgium—										
Luxembourg	1.5	1.5	0.1	0.1	5.2	4.6	1.6	2.0	0.3	0.2
Canada	0.7	0.6	—	—	1.0	—	0.8	0.7	0.1	—
Denmark	1.7	1.3	0.3	0.2	2.0	1.5	1.0	1.2	0.2	0.1
Finland	1.3	1.4	—	0.1	0.8	0.7	0.2	0.2	—	—
France	1.2	0.9	0.3	0.1	2.0	1.5	1.1	1.1	0.3	0.2
Germany (Federal Republic of)	1.5	1.2	0.1	0.1	2.0	1.6	0.8	1.0	0.2	0.1
Greece	0.7	0.8	—	—	3.3	3.2	0.8	0.8	—	—
Iceland	0.9	0.9	—	—	—	—	0.1	0.4	—	—

veloping countries, by class of commodity,<sup>a</sup> 1965 and 1968

dollars)

Chemicals (SITC 5)		Basic manu- factures (SITC 6)		Machinery (SITC 7)		Other manu- factures (SITC 8)		Total manu- factures (SITC 5-8)		All commo- dities (SITC 0-9)	
1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
6	4	78	81	2	5	17	28	103	118	495	514
6	9	12	18	—	1	3	5	22	33	133	157
3	4	286	525	3	18	5	6	298	553	1,024	1,462
6	6	69	85	2	5	27	75	105	171	816	998
3	5	17	14	1	1	8	12	28	32	319	351
1	3	10	12	—	—	3	2	13	17	106	110
30	30	170	266	3	11	7	14	209	320	3,027	3,234
19	24	410	608	7	17	85	108	522	758	3,454	4,059
2	1	9	14	1	2	1	1	13	18	122	155
—	—	—	—	—	—	—	—	1	1	4	5
1	3	4	4	—	—	1	2	7	9	113	126
9	11	147	257	5	7	6	8	167	283	2,024	2,596
21	32	212	590	29	26	9	23	271	672	3,508	5,499
13	27	40	56	2	11	12	20	67	114	1,207	1,480
1	1	28	27	—	1	2	2	31	31	127	125
29	46	6	6	1	1	6	9	41	61	203	260
1	1	35	62	1	4	1	2	38	69	249	321
10	16	29	34	2	2	6	7	47	59	609	908
8	14	70	92	1	1	24	39	103	147	507	605
11	9	49	73	1	1	8	17	69	100	273	374
6	11	3	7	1	—	—	—	11	18	64	69
48	65	898	1,191	59	68	138	216	1,143	1,540	4,926	5,382
68	167	1,092	1,492	51	237	358	780	1,669	2,676	7,348	9,085
3	3	20	12	1	2	1	1	25	18	174	154
05	490	3,695	5,525	176	424	727	1,378	5,003	7,818	30,830	38,030

r Economic Co-operation and Development, *Statistics of Foreign Trade* (Paris).

<sup>a</sup> Imports are valued c.i.f., except in the case of Australia, Canada and the United States where the values are f.o.b.

ass of commodity, as a ratio of selected national accounts aggregates, 1965 and 1968

ntage)

Chemicals (SITC 5)		Basic manu- factures (SITC 6)		Machinery (SITC 7)		Other manu- factures (SITC 8)		Total manu- factures (SITC 5-8)		All commo- dities (SITC 0-9)	
1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
to manufacturing		to manufacturing		to manufacturing		to manufacturing		to gross domestic product		to gross domestic product	
0.1		1.3		—		0.3		0.4	0.4	2.1	1.7
0.2		0.4		—		0.1		0.2	0.3	1.4	1.4
0.1	0.1	6.0	9.1	0.1	0.3	0.1	0.1	1.7	2.6	5.9	6.9
0.1		0.6		—		0.2		0.2	0.3	1.7	1.6
0.1	0.2	0.6	0.4	—	—	0.3	0.4	0.3	0.3	3.1	2.8
—	0.1	0.6	0.6	—	—	0.1	0.1	0.2	0.2	1.3	1.4
0.1	0.1	0.5	0.6	—	—	—	—	0.2	0.3	3.1	2.6
—	—	0.9	1.1	—	—	0.2	0.2	0.5	0.6	3.0	3.1
0.3	0.1	1.2	1.4	—	0.2	—	0.1	0.2	0.2	2.1	2.1
								0.1	0.1	0.9	1.2

Table A.2

Importing country	Food-stuffs (SITC 0)		Beverages and tobacco (SITC 1)		Raw materials (SITC 2)		Fuels (SITC 3)		Oils and fats (SITC 4)	
	1965 to consumption	1968	1965 to consumption	1968	1965 to manu- facturing pro- duction	1968	1965 to gross domestic product	1968	1965 to manufacturing	1968
Ireland	2.2	2.2	0.1	—	2.3	2.6	1.5	1.5	0.2	0.2
Italy	1.4	1.1	—	—	3.0	2.6	1.5	1.7	0.2	0.2
Japan	1.0	1.0	—	—	7.7	6.0	1.4	1.4	—	—
Netherlands	2.7	2.9	0.1	0.1	5.1	3.4	2.7	2.7	0.7	0.5
New Zealand	0.7	0.7	0.1	0.1	—	—	1.1	1.3	—	—
Norway	1.8	1.3	—	0.1	1.9	1.6	0.8	1.1	0.1	0.1
Portugal	1.6	1.9	0.1	0.1	8.8	7.0	1.4	1.3	1.0	0.5
Spain	0.9	1.0	0.1	—	2.5	2.8	1.1	1.8	0.2	0.1
Sweden	1.4	1.2	—	—	1.1	—	0.8	0.9	0.1	—
Switzerland	1.3	1.1	0.1	0.1	—	—	0.1	0.5	—	—
Turkey	—	—	—	—	0.4	0.3	0.5	0.3	—	—
United Kingdom	1.9	1.8	0.2	0.1	3.0	3.0	1.4	1.6	0.3	0.3
United States	0.6	0.6	—	—	0.6	0.5	0.3	0.2	—	0.1
Yugoslavia	1.3	1.0	—	—	3.7	1.7	0.2	0.3	—	—
Average	1.0	0.9	0.1	—	1.8	1.6	0.7	0.7	0.1	0.1

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on the

Table A.21. Developed market economies: imports from developing countries (D)

Importing country	Food-stuffs (SITC 0)		Beverages and tobacco (SITC 1)		Raw materials (SITC 2)		Fuels (SITC 3)		Oils and fats (SITC 4)	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	4.6	4.9	0.5	0.5	5.4	4.9	23.2	22.0	0.3	0.3
Austria	7.6	8.3	0.5	0.5	6.2	7.4	—	0.3	1.0	0.5
Belgium-Luxembourg	17.1	20.2	1.5	1.2	25.0	26.7	28.9	42.1	1.4	1.0
Canada	10.1	10.3	0.1	0.2	5.9	5.9	19.5	22.7	0.5	0.5
Denmark	22.8	20.5	4.2	2.8	12.3	10.3	20.9	31.0	1.0	0.7
Finland	13.4	13.7	0.4	0.4	3.3	2.8	2.9	3.1	—	—
France	14.9	14.4	3.9	1.6	14.3	13.3	22.8	27.5	1.9	1.5
Germany (Federal Republic of)	16.3	15.7	0.8	0.7	16.2	15.0	16.5	23.9	1.5	1.3
Greece	3.9	5.5	—	—	3.2	3.6	5.6	6.5	—	—
Iceland	14.0	12.9	0.3	0.5	1.0	0.5	2.4	8.4	—	—
Ireland	15.1	15.9	0.5	0.3	6.1	7.6	14.5	15.6	0.6	0.7
Italy	10.2	9.5	0.1	—	8.1	9.1	16.8	24.5	0.6	0.6
Japan	5.0	7.3	0.1	0.1	15.6	20.4	12.2	19.7	0.1	0.1
Netherlands	24.5	32.1	1.3	1.3	21.7	18.5	42.3	42.8	2.8	2.6
New Zealand	8.7	6.9	0.9	0.7	4.8	3.4	22.0	23.2	0.1	0.1
Norway	18.4	16.9	0.4	0.7	8.9	8.7	15.6	25.2	0.4	0.6
Portugal	4.9	7.2	0.3	0.2	10.9	11.9	5.4	6.6	1.3	0.8
Spain	4.9	6.1	0.5	0.6	4.4	5.1	7.7	14.1	0.3	0.1
Sweden	20.7	20.8	0.5	0.3	10.2	7.8	20.3	28.4	0.4	0.6
Switzerland	17.9	18.4	1.3	1.5	11.7	10.7	2.8	13.9	0.6	0.3
Turkey	—	0.1	—	—	0.1	0.2	1.5	1.3	—	—
United Kingdom	22.7	20.8	2.0	1.4	16.9	16.1	25.6	29.0	1.5	1.4
United States	12.4	15.2	0.2	0.2	6.2	5.7	9.3	9.0	0.4	0.6
Yugoslavia	2.4	2.9	—	—	4.6	2.7	0.5	1.1	—	0.1
Average	11.4	12.5	0.7	0.5	10.1	10.4	13.8	17.5	0.7	0.7

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on the

continued)

Chemicals (SITC 5)		Basic manu- factures (SITC 6)		Machinery (SITC 7)		Other manu- factures (SITC 8)		Total manu- factures (SITC 5-8)		All commo- dities (SITC 0-9)	
1965 to manufacturing	1968 to manufacturing	1965 to manufacturing	1968 to manufacturing	1965 to manufacturing	1968 to manufacturing	1965 to manufacturing	1968 to manufacturing	1965 to gross domestic product	1968 to gross domestic product	1965 to gross domestic product	1968 to gross domestic product
0.1	0.3	0.6	0.5	—	—	0.1	0.2	0.2	0.3	4.1	4.3
0.1	0.1	1.1	1.4	—	—	—	—	0.3	0.4	3.5	3.5
0.1	0.1	1.1	1.7	0.2	0.1	—	0.1	0.3	0.5	4.0	3.9
0.2	0.4	0.8	0.8	0.1	0.2	0.2	0.3	0.4	0.5	6.4	5.9
								0.6	0.6	2.4	2.5
1.7	2.2	0.3	0.3	—	0.1	0.3	0.4	0.6	0.7	2.9	2.9
0.1	0.1	3.1	3.9	0.1	0.3	0.1	0.1	1.0	1.4	6.7	6.4
0.2	0.3	0.5	0.6	—	—	—	0.1	0.2	0.2	2.8	3.6
0.1		1.0		—		0.3		0.5	0.6	2.5	2.4
								0.5	0.6	2.0	2.2
0.5	0.6	0.3	0.4	—	—	—	—	0.1	0.1	0.7	0.5
0.2	0.2	3.0	4.0	0.2	0.2	0.5	0.7	1.2	1.5	5.0	5.3
0.1	0.1	0.6	0.6	—	0.1	0.2	0.3	0.2	0.3	1.1	1.0
0.1	0.1	0.8	0.4	—	0.1	—	—	0.4	0.2	2.9	1.9
0.1	0.1	0.9	1.1	—	0.1	0.2	0.3	0.4	0.5	2.3	2.2

sources indicated in table A.19, and Statistical Office of the United Nations, *Yearbook of National Accounts Statistics*.

ountries, per capita, by class of commodity, 1965 and 1968

irs)

Chemicals (SITC 5)		Basic manu- factures (SITC 6)		Machinery (SITC 7)		Other manu- factures (SITC 8)		Total manu- factures (SITC 5-8)		All commo- dities (SITC 0-9)	
1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
0.6	0.4	6.8	6.7	0.2	0.4	1.5	2.3	9.0	9.8	43.5	42.7
0.9	1.2	1.7	2.5	0.1	0.1	0.4	0.7	3.1	4.5	18.4	21.4
0.3	0.4	29.2	52.8	0.3	1.8	0.5	0.6	30.4	55.6	104.5	146.8
0.3	0.3	3.5	4.1	0.1	0.2	1.4	3.6	5.3	8.2	41.5	48.3
0.6	1.0	3.6	2.9	0.1	0.3	1.6	2.5	6.0	6.7	67.1	72.1
0.2	0.5	2.2	2.5	—	—	0.5	0.4	2.9	3.6	22.9	23.6
0.6	0.6	3.5	5.3	0.1	0.2	0.1	0.3	4.3	6.2	62.1	64.8
0.3	0.4	7.2	10.5	0.1	0.3	1.5	1.9	9.2	13.1	60.8	70.0
0.3	0.1	1.1	1.6	0.1	0.2	0.1	0.1	1.6	2.0	14.2	17.6
—	0.1	1.9	0.7	0.1	0.1	1.4	2.1	3.4	3.0	21.2	25.3
0.4	0.9	1.5	1.5	0.1	0.1	0.4	0.7	2.3	3.2	39.2	43.3
0.2	0.2	2.9	4.9	0.1	0.1	0.1	0.1	3.2	5.4	39.2	49.2
0.2	0.3	2.2	5.8	0.3	0.3	0.1	0.2	2.8	6.7	35.8	54.4
1.0	2.2	3.2	4.4	0.2	0.9	1.0	1.6	5.4	9.0	98.2	116.3
0.5	0.4	10.5	9.9	0.1	0.4	0.8	0.7	11.9	11.4	48.3	45.5
7.7	12.0	1.6	1.5	0.2	0.3	1.6	2.3	11.1	16.1	54.6	68.2
0.1	0.1	3.8	6.5	0.1	0.4	0.1	0.2	4.1	7.2	26.9	34.0
0.3	0.5	0.9	1.0	0.1	0.1	0.2	0.2	1.5	1.8	19.3	27.8
1.0	1.8	9.1	11.6	0.2	0.1	3.1	5.0	13.4	18.5	65.5	76.4
1.6	1.4	8.3	11.9	0.2	0.2	1.4	2.7	11.5	16.2	45.9	60.9
0.2	0.3	0.1	0.2	—	—	—	—	0.3	0.6	2.1	2.1
0.9	1.8	16.5	21.5	1.1	1.2	2.5	3.9	20.9	27.8	90.2	97.2
0.9	0.8	5.6	7.4	0.3	1.2	1.8	3.9	8.6	13.3	37.8	45.2
0.1	0.1	1.0	0.6	0.1	0.1	0.1	0.1	1.3	0.9	8.9	7.7
0.6	0.7	5.3	7.7	0.3	0.6	1.0	1.9	7.2	10.9	44.2	52.9

sources indicated in table A.19.

Table A.22. Developed market economies: share of developing countries

Importing country	Food-stuffs (SITC 0)		Beverages and tobacco (SITC 1)		Raw materials (SITC 2)		Fuels (SITC 3)		Oils and fats (SITC 4)	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	22.8	42.2	13.6	11.2	26.2	22.1	93.1	95.9	19.0	21.1
Austria	21.0	26.8	15.3	11.9	22.3	24.5	—	1.2	27.1	16.1
Belgium-Luxembourg	23.3	22.6	13.9	10.3	24.8	23.4	48.3	52.8	32.3	22.1
Canada	30.5	27.4	5.6	8.8	19.1	20.2	66.1	64.5	25.8	34.1
Denmark	36.4	37.4	33.7	23.7	22.1	20.0	33.5	40.6	27.4	33.1
Finland	43.9	44.3	11.2	12.8	10.0	10.2	8.3	6.9	1.7	0.1
France	47.8	40.8	74.3	49.9	44.3	41.4	69.4	72.2	71.1	61.1
Germany (Federal Republic of)	27.7	27.0	14.7	12.7	32.6	29.3	18.8	67.3	44.6	44.1
Greece	20.8	28.9	0.5	0.6	23.6	24.0	50.7	57.0	6.5	7.1
Iceland	19.2	17.3	2.2	3.4	3.3	0.2	3.9	11.3	—	—
Ireland	25.6	29.2	7.2	2.6	24.5	25.2	47.2	46.3	29.4	31.1
Italy	33.6	27.0	0.9	0.7	26.6	24.9	75.1	77.3	45.7	31.1
Japan	34.5	40.5	27.1	14.7	48.1	42.8	73.6	74.6	11.5	14.1
Netherlands	34.2	36.2	14.8	13.2	31.7	25.8	68.5	71.2	41.5	35.1
New Zealand	36.2	39.4	18.3	13.5	20.6	16.2	81.3	77.8	6.9	7.1
Norway	36.2	32.2	8.3	9.3	14.8	11.7	35.5	45.3	16.0	30.1
Portugal	46.7	50.0	35.7	22.5	60.1	64.5	65.3	63.0	56.6	65.1
Spain	35.3	47.1	32.8	31.8	34.8	29.2	80.7	84.9	14.4	19.1
Sweden	36.9	33.5	8.0	3.5	25.7	20.5	32.7	35.6	13.8	19.1
Switzerland	21.2	22.6	9.1	9.2	27.7	24.6	7.1	28.5	21.3	10.1
Turkey	4.6	53.3	—	—	10.3	11.3	84.3	6.7	1.8	—
United Kingdom	28.2	28.1	28.4	16.5	31.4	32.5	81.0	73.8	44.9	48.1
United States	69.8	67.0	5.9	4.9	39.7	34.6	81.4	71.2	74.1	77.1
Yugoslavia	25.2	47.0	8.0	6.1	41.7	27.5	14.5	22.2	1.9	5.1
Average	37.8	38.5	19.1	13.0	34.9	32.5	67.9	67.2	42.7	44.1

Source and foot-note: See table A.19.

total imports, by class of commodity,<sup>a</sup> 1965 and 1968

(*in millions of dollars*)

	<i>Chemicals</i> (SITC 5)		<i>Basic manu- factures</i> (SITC 6)		<i>Machinery</i> (SITC 7)		<i>Other manu- factures</i> (SITC 8)		<i>Total manu- factures</i> (SITC 5-8)		<i>All commo- dities</i> (SITC 0-9)	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
1	1.1	10.3	10.5	0.2	0.3	6.8	8.6	4.1	3.9	14.8	13.3	
6	3.4	2.8	3.3	0.1	0.1	1.8	2.0	1.6	1.8	6.4	6.3	
7	0.7	18.7	23.5	0.2	0.9	1.2	1.1	7.6	10.4	16.1	17.5	
3	1.0	4.8	5.1	0.1	0.1	3.7	7.0	1.8	1.9	10.2	8.7	
2	1.7	2.4	1.8	0.1	0.1	3.9	4.3	1.5	1.4	11.4	10.9	
5	1.4	3.0	3.5	—	—	2.9	2.0	1.2	1.5	6.4	6.9	
3	2.6	9.2	9.6	0.1	0.3	1.1	1.2	4.0	3.8	29.3	23.2	
2	2.0	10.1	12.3	0.3	0.6	7.6	7.0	6.3	7.2	19.8	20.2	
3	0.9	4.4	6.1	0.3	0.3	1.7	1.7	1.8	1.8	10.7	11.1	
0	0.1	1.1	0.4	—	0.1	2.0	3.2	0.7	0.6	3.0	3.7	
1	2.3	2.0	1.8	0.1	0.1	1.6	2.3	1.1	1.3	10.8	10.7	
9	1.5	13.7	16.2	0.5	0.4	2.3	1.9	5.8	6.2	27.5	25.3	
2	4.7	38.5	45.7	4.1	2.1	5.2	7.6	14.8	19.1	42.9	42.4	
5	3.6	2.4	2.7	0.1	0.5	1.8	2.2	1.4	1.9	16.2	15.9	
1	1.0	8.8	10.6	0.1	0.5	3.5	3.3	3.8	4.5	12.2	14.0	
7	19.3	1.4	1.2	0.1	0.1	3.8	3.7	2.6	3.1	9.2	9.6	
3	0.7	18.3	26.1	0.3	1.1	3.1	4.4	6.8	9.2	26.9	27.3	
0	4.3	5.2	7.5	0.2	0.3	5.4	4.5	2.7	3.1	20.3	25.9	
3	3.1	6.9	8.3	0.1	0.1	5.7	6.7	3.4	4.1	11.6	11.8	
8	1.9	5.7	7.1	0.2	0.1	1.8	2.6	2.7	3.0	7.4	8.3	
8	7.0	2.6	5.5	0.5	0.1	1.1	1.5	2.4	2.8	11.3	9.0	
0	6.5	29.5	29.1	3.5	2.4	17.9	19.5	18.1	17.0	30.5	28.4	
5	14.7	19.7	18.5	1.7	3.0	18.2	23.3	14.8	13.0	34.4	27.4	
2	1.4	7.0	2.9	0.4	0.3	2.6	1.2	3.1	1.4	13.5	8.6	
0	4.3	13.6	15.4	0.7	1.0	8.2	10.3	7.1	7.7	23.9	22.0	





Table A.24. Developed market economies: imports of rubber and rubber manufactures from developing countries,<sup>a</sup> 1965 and 1968

Importing country	Crude rubber (SITC 23)						Rubber manufactures (SITC 62)					
	Value (millions of dollars)		Per capita (dollars)		As percentage of total		Value (millions of dollars)		Per capita (dollars)		As percentage of total	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	18	14	1.6	1.1	..	47.1	1	1	0.1	0.1	..	2.0
Austria	7	6	0.9	0.8	46.6	40.0	—	—	—	—	0.2	0.1
Belgium-Luxembourg	8	7	0.8	0.7	36.5	28.0	—	—	—	—	0.1	0.1
Canada	19	15	0.9	0.7	44.1	34.7	—	—	—	—	0.8	0.5
Denmark	3	3	0.7	0.6	55.1	40.9	—	—	0.1	—	0.9	0.5
Finland	4	3	0.9	0.6	56.0	39.7	—	—	—	—	0.2	0.3
France	62	49	1.3	1.0	60.1	49.5	—	1	—	—	0.4	1.0
Germany (Federal Republic of)	84	65	1.5	1.1	62.8	54.0	1	3	—	—	0.9	1.9
Greece	2	1	0.2	0.1	37.9	29.5	—	—	—	—	2.5	1.5
Iceland	—	—	—	—	—	—	—	—	—	—	—	0.1
Ireland	2	1	0.6	0.5	46.0	35.1	—	—	—	—	—	0.7
Italy	42	38	0.8	0.7	57.4	44.3	—	—	—	—	0.6	0.1
Japan	101	95	1.0	0.9	78.9	72.0	—	—	—	—	6.6	0.5
Netherlands	10	9	0.8	0.7	49.0	40.6	—	—	—	—	0.1	0.3
New Zealand	4	3	1.6	1.1	59.8	44.4	—	—	—	—	0.8	0.7
Norway	3	2	0.7	0.5	51.2	37.5	—	—	—	—	0.3	0.6
Portugal	3	2	0.4	0.3	54.8	39.7	—	—	—	—	—	0.1
Spain	20	21	0.6	0.6	55.3	55.4	—	—	—	—	0.1	0.1
Sweden	15	9	1.9	1.2	47.4	30.6	—	—	—	—	0.4	0.1
Switzerland	4	2	0.6	0.4	41.6	26.5	—	—	—	—	—	0.1
Turkey	1	1	—	—	8.6	8.6	—	—	—	—	1.4	1.0
United Kingdom	102	80	1.9	1.5	76.6	69.4	2	2	—	—	4.7	3.0
United States	194	195	1.0	1.0	90.1	86.8	—	5	—	—	0.4	4.1
Yugoslavia	9	7	0.5	0.3	57.9	47.2	5	3	0.2	0.2	26.6	13.3
Total or average	716	629	1.0	0.9	67.9	59.6	11	17	—	—	1.6	1.7

Source and foot-note: See table A.19.

Table A.25. Developed market economies: imports of wood from developing countries,<sup>a</sup> 1965 and 1968

Importing country	Imports from developing countries											
	Wood, lumber and cork (SITC 24)						Wood and cork manufactures (SITC 63)					
	Value (millions of dollars)		Per capita (dollars)		As percentage of total		Value (millions of dollars)		Per capita (dollars)		As percentage of total	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	16	17	1.4	1.4	36.4	31.3	1	3	0.1	0.3	5.3	21.3
Austria	2	3	0.3	0.4	13.0	14.2	—	—	—	—	0.3	0.8
Belgium-Luxembourg	16	19	1.6	1.9	19.7	22.1	—	1	—	0.1	1.2	3.1
Canada	3	5	0.2	0.2	5.1	6.8	5	12	0.2	0.6	14.3	24.0
Denmark	21	19	4.3	4.0	23.4	27.1	—	1	0.1	0.2	1.7	3.4
Finland	1	1	0.2	0.2	7.8	3.7	—	—	—	—	0.8	1.7
France	87	109	1.8	2.2	45.2	50.5	5	6	0.1	0.1	15.1	9.4
Germany (Federal Republic of)	112	114	2.0	2.0	28.9	35.6	5	11	0.1	0.2	4.8	10.3
Greece	1	4	0.1	0.5	2.8	9.9	1	—	0.1	—	16.3	4.9
Iceland	—	—	0.5	0.4	2.6	3.0	—	—	—	—	0.1	0.2
Ireland	2	4	0.8	1.5	11.1	17.0	—	1	0.1	0.3	4.4	9.8
Italy	47	59	0.9	1.1	19.6	19.2	—	1	—	—	4.2	4.6
Japan	259	462	2.6	4.6	52.2	39.6	1	3	—	—	9.1	5.6
Netherlands	25	33	2.0	2.6	13.2	17.8	2	3	0.2	0.3	5.5	6.0
New Zealand	2	1	0.8	0.3	21.7	17.1	—	—	—	—	2.1	2.5
Norway	3	4	0.9	1.1	7.0	6.5	—	—	0.1	0.1	3.0	1.9
Portugal	5	9	0.6	1.0	89.4	91.5	—	—	—	—	8.0	32.4

Table A.25 (continued)

Importing country	Imports from developing countries											
	Wood, lumber and cork (SITC 24)						Wood and cork manufactures (SITC 63)					
	Value (millions of dollars)		Per capita (dollars)		As percentage of total		Value (millions of dollars)		Per capita (dollars)		As percentage of total	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Spain	9	13	0.3	0.4	17.0	21.3	—	1	—	—	8.9	15.2
Sweden	9	9	1.2	1.1	29.1	34.4	1	1	0.1	0.1	2.3	1.8
Switzerland	9	9	1.6	1.4	22.5	23.2	1	1	0.1	0.1	2.7	2.1
Turkey	—	—	—	—	—	0.6	—	—	—	—	—	3.9
United Kingdom	86	85	1.6	1.5	13.9	15.3	20	28	0.4	0.5	10.2	12.1
United States	35	45	0.2	0.2	8.5	7.6	91	177	0.5	0.9	33.1	42.2
Yugoslavia	1	1	—	—	19.5	7.2	—	—	—	—	0.5	—
Total or average	757	1,025	1.1	1.4	24.3	25.9	133	249	0.2	0.3	15.6	21.0

Source and foot-note: See table A.19.

Table A.26. Developed market economies: imports of hides and leather from developing countries,<sup>a</sup> 1965 and 1968

Importing country	Imports from developing countries											
	Hides and skins (SITC 21)						Leather manufactures (SITC 61)					
	Value (millions of dollars)		Per capita (dollars)		As percentage of total		Value (millions of dollars)		Per capita (dollars)		As percentage of total	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	—	—	—	—	—	15.2	—	1	—	—	—	8.3
Austria	1	1	0.2	0.2	12.6	12.1	1	1	0.1	0.1	3.6	2.6
Belgium-Luxembourg	2	2	0.2	0.2	7.8	6.7	2	2	0.2	0.2	5.3	6.2
Canada	1	1	—	0.1	1.8	3.3	—	—	—	—	0.7	0.9
Denmark	—	—	0.1	—	0.2	0.1	1	1	0.2	0.1	4.4	3.5
Finland	2	2	0.4	0.4	26.6	28.4	—	—	—	—	0.6	1.2
France	36	34	0.7	0.7	32.3	32.1	12	23	0.2	0.5	32.0	35.7
Germany (Federal Republic of)	53	61	0.9	1.1	28.1	31.6	13	23	0.2	0.4	11.7	15.3
Greece	3	3	0.4	0.3	51.8	51.7	—	—	—	—	0.1	—
Iceland	—	—	—	—	—	—	—	—	—	—	—	—
Ireland	—	—	—	—	0.6	2.6	—	—	0.1	—	2.4	0.5
Italy	36	52	0.7	1.0	33.3	37.0	6	24	0.1	0.4	20.0	43.8
Japan	7	7	0.1	0.1	11.0	8.5	6	9	0.1	0.1	64.4	56.1
Netherlands	5	4	0.4	0.3	14.9	13.2	1	1	0.1	0.1	2.2	3.4
New Zealand	—	—	—	—	—	—	1	—	0.2	0.2	27.6	41.6
Norway	1	—	0.3	0.1	21.4	8.3	—	—	—	—	0.2	0.4
Portugal	3	3	0.3	0.3	78.1	61.0	—	—	—	—	2.8	0.5
Spain	15	15	0.5	0.5	62.5	51.9	1	1	—	—	14.1	14.7
Sweden	5	4	0.6	0.5	25.0	19.8	2	3	0.2	0.4	7.4	12.4
Switzerland	1	1	0.2	0.2	14.9	19.0	1	1	0.1	0.2	2.5	2.2
Turkey	—	—	—	—	2.7	1.2	—	—	—	—	—	—
United Kingdom	53	60	1.0	1.1	34.2	39.6	34	36	0.6	0.7	46.5	45.1
United States	67	67	0.3	0.3	34.9	37.0	22	28	0.1	0.1	25.0	24.6
Yugoslavia	9	4	0.5	0.2	43.4	21.1	2	2	0.1	0.1	66.9	24.8
Total or average	301	322	0.4	0.4	24.6	29.5	105	156	0.2	0.2	18.1	20.8

Source and foot-note: See table A.19.

Table A.27. Developed market economies: imports of fibres, textiles and clothing from developing countries,<sup>a</sup> 1965 and 1968

Importing country	Imports from developing countries																	
	Textile fibres (SITC 26)					Textile yarn and fabric (SITC 65)					Clothing (SITC 84)							
	Value (millions of dollars)		Per capita (dollars)		As percent- age of total	Value (millions of dollars)		Per capita (dollars)		As percent- age of total	Value (millions of dollars)		Per capita (dollars)		As percent- age of total			
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968		
Australia	13	12	1.1	1.0	28.9	32.1	59	57	5.2	4.7	21.3	19.7	5	11	0.4	0.9	...	34.9
Austria	16	20	2.2	2.7	26.8	33.7	5	5	0.7	0.7	3.3	2.9	2	3	0.2	0.4	6.1	5.6
Belgium-Luxembourg	80	85	8.1	8.5	24.3	28.3	9	10	0.9	1.0	3.0	2.5	2	2	0.2	0.2	2.5	1.1
Canada	19	28	1.0	1.3	14.7	25.3	37	40	1.9	1.9	11.4	10.9	15	47	0.7	2.3	17.8	34.1
Denmark	10	6	2.0	1.1	35.9	28.0	13	9	2.7	1.8	6.8	4.5	5	7	1.1	1.5	11.5	10.9
Finland	1	1	0.3	0.3	5.8	5.5	2	2	0.4	0.4	2.5	2.2	2	1	0.4	0.2	15.7	5.5
France	188	162	3.8	3.3	42.0	40.0	13	15	0.3	0.3	5.0	3.6	1	3	—	0.1	1.0	1.8
Germany (Federal Republic of)	209	210	3.7	3.6	44.5	45.1	84	96	1.5	1.7	8.3	8.8	69	76	1.2	1.3	16.1	14.2
Greece	7	8	0.9	0.9	17.8	18.8	2	2	0.2	0.2	4.2	3.1	—	—	—	—	2.4	2.5
Iceland	—	—	0.4	—	—	—	—	—	1.2	0.6	2.1	1.7	—	—	1.1	1.5	5.2	7.5
Ireland	7	7	2.4	2.4	30.3	25.6	3	3	1.2	1.2	5.7	4.4	—	—	—	0.1	1.4	1.3
Italy	133	145	2.6	2.8	31.5	31.6	15	14	0.3	0.3	9.7	6.1	2	2	—	—	5.0	3.1
Japan	368	388	3.8	3.8	43.5	40.8	4	49	—	0.5	9.1	35.7	2	10	—	0.1	20.0	38.7
Netherlands	54	51	4.4	4.0	40.6	42.0	12	15	1.0	1.1	2.7	2.7	7	13	0.6	1.0	3.2	3.9
New Zealand	3	1	1.1	0.5	28.1	20.9	24	23	9.0	8.2	22.0	26.0	1	—	0.2	0.2	11.6	14.1
Norway	2	1	0.6	0.3	14.3	10.2	3	3	0.9	0.8	3.0	2.8	5	7	1.2	1.8	8.1	7.9
Portugal	55	62	5.9	6.6	52.6	60.5	2	2	0.2	0.2	5.5	4.3	—	—	—	0.1	11.1	12.9
Spain	26	43	0.8	1.3	35.5	40.7	1	1	—	—	2.6	2.6	2	1	0.1	—	26.5	10.5
Sweden	7	4	0.9	0.5	15.2	11.2	10	12	1.3	1.6	3.9	4.4	19	31	2.4	4.0	15.9	17.3
Switzerland	29	30	4.8	4.9	34.9	33.6	15	14	2.5	2.2	8.9	7.0	5	9	0.8	1.5	4.4	5.7
Turkey	2	2	0.1	0.1	9.7	10.2	2	6	0.1	0.2	10.8	25.3	—	—	—	—	—	—
United Kingdom	256	231	4.7	4.2	39.4	43.9	140	156	2.6	2.8	33.0	28.1	77	119	1.4	2.2	48.2	45.1
United States	178	123	0.9	0.6	40.9	36.3	300	338	1.5	1.7	37.6	35.1	190	399	1.0	2.0	35.0	46.7
Yugoslavia	51	25	2.6	1.2	43.6	25.9	7	3	0.4	0.2	13.8	3.3	1	—	—	—	21.9	0.4
Total or average	1,716	1,646	2.5	2.3	37.7	37.8	763	875	1.1	1.2	14.2	13.5	410	743	0.6	1.0	19.7	23.4

Source and foot-note: See table A.19.

Table A.28. Developed market economies: imports of wool and cotton from developing countries,<sup>a</sup> 1965 and 1968

Importing country	Imports from developing countries											
	Wool and animal hair (SITC 262)						Cotton (SITC 263)					
	Value (millions of dollars)		Per capita (dollars)		As percentage of total		Value (millions of dollars)		Per capita (dollars)		As percentage of total	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	2	2	0.2	0.2	...	25.3	5	5	0.4	0.4	38.9	84.3
Austria	3	6	0.4	0.9	11.7	25.7	10	11	1.4	1.5	55.5	68.6
Belgium-Luxembourg	22	25	2.3	2.5	13.1	18.2	25	30	2.6	3.0	49.7	60.5
Canada	2	1	0.1	—	4.0	3.0	8	23	0.4	1.1	12.1	44.6
Denmark	1	1	0.2	0.1	12.4	14.5	3	2	0.6	0.3	49.6	37.6
Finland	—	—	—	—	2.4	2.8	1	1	0.1	0.1	6.2	6.3
France	46	34	0.9	0.7	22.8	22.5	104	103	2.1	2.1	66.8	65.3
Germany (Federal Republic of)	42	43	0.7	0.7	22.0	25.6	131	136	2.3	2.3	68.5	71.9
Greece	3	2	0.3	0.2	13.9	10.8	2	3	0.2	0.4	21.7	42.3
Iceland	—	—	—	—	—	—	—	—	—	—	—	—
Ireland	—	1	0.2	0.4	4.5	8.0	2	2	0.8	0.6	57.2	36.8
Italy	47	36	0.9	0.7	22.8	20.5	70	93	1.3	1.8	55.2	57.6
Japan	34	40	0.3	0.4	9.6	10.7	297	309	3.0	3.1	67.3	60.5
Netherlands	8	7	0.7	0.5	17.8	21.0	35	34	2.8	2.6	66.5	71.6
New Zealand	—	—	—	—	—	—	—	—	0.1	—	69.6	98.5
Norway	1	—	0.2	—	10.5	2.7	1	1	0.2	0.2	22.2	30.9
Portugal	2	2	0.2	0.2	22.0	26.1	37	44	4.0	4.7	62.0	73.7
Spain	5	10	0.1	0.3	31.1	50.0	12	23	0.4	0.7	55.8	61.8
Sweden	2	1	0.3	0.2	11.7	13.5	2	1	0.3	0.1	17.2	9.4
Switzerland	7	6	1.1	1.0	22.6	23.1	20	22	3.4	3.6	64.3	64.4
Turkey	—	—	—	—	3.1	1.4	—	—	—	—	—	100.0
United Kingdom	110	97	2.0	1.8	30.0	35.5	83	84	1.5	1.5	55.5	60.7
United States	114	70	0.6	0.3	40.2	35.2	22	22	0.1	0.1	88.9	89.2
Yugoslavia	6	2	0.3	0.1	19.1	5.4	39	19	2.0	0.9	59.3	36.6
Total or average	458	388	0.7	0.5	22.1	22.4	908	967	1.3	1.3	60.2	61.4

Source and foot-note: See table A.19.

Table A.29. Developed market economies: imports of oil-seeds and oils from developing countries,<sup>a</sup> 1965 and 1968

Importing country	Imports from developing countries											
	Oil-seeds, nuts, kernels (SITC 22)						Fixed vegetable oils, fats (SITC 42)					
	Value (millions of dollars)		Per capita (dollars)		As percentage of total		Value (millions of dollars)		Per capita (dollars)		As percentage of total	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	—	—	—	—	3.3	2.9	3	3	0.3	0.2	...	25.0
Austria	1	—	0.1	0.1	20.4	15.4	7	4	1.0	0.5	33.1	20.8
Belgium-Luxembourg	23	23	2.4	2.3	50.2	40.1	11	9	1.1	0.9	47.3	32.9
Canada	2	1	0.1	0.1	3.9	3.3	9	11	0.4	0.5	31.3	40.7
Denmark	12	12	2.6	2.5	20.6	21.7	2	2	0.4	0.3	47.5	41.0
Finland	2	2	0.5	0.4	24.5	18.0	—	—	—	—	5.0	2.0
France	122	101	2.5	2.0	77.9	79.9	88	73	1.8	1.5	91.8	76.0
Germany (Federal Republic of)	95	73	1.7	1.3	35.2	26.6	73	59	1.3	1.0	53.3	49.8
Greece	3	2	0.4	0.3	61.3	57.4	—	—	—	—	—	1.8
Iceland	—	—	—	—	—	—	—	—	—	—	—	—
Ireland	1	1	0.4	0.5	58.1	73.4	2	2	0.6	0.7	43.6	47.5
Italy	36	52	0.7	1.0	31.0	32.3	31	30	0.6	0.6	69.0	40.0
Japan	52	74	0.5	0.7	15.7	17.8	5	6	0.1	0.1	63.1	65.1

Table A.29 (continued)

Importing country	Imports from developing countries									
	Oil-seeds, nuts, kernels (SITC 22)						Fixed vegetable oils, fats (SITC 42)			
	Value (millions of dollars)		Per capita (dollars)		As percent-age of total		Value (millions of dollars)		Per capita (dollars)	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Netherlands	53	62	4.3	4.9	46.7	41.9	26	22	2.1	1.7
New Zealand	1	1	0.3	0.3	38.6	29.4	—	—	—	—
Norway	6	6	1.6	1.4	26.7	23.0	—	—	0.1	—
Portugal	26	27	2.8	2.8	96.9	99.3	12	7	1.3	0.7
Spain	10	11	0.3	0.3	18.5	9.2	10	4	0.3	0.1
Sweden	16	11	2.0	1.4	93.0	86.4	3	4	0.4	0.5
Switzerland	20	16	3.4	2.6	88.4	84.5	4	1	0.6	0.2
Turkey	—	—	—	—	—	43.9	—	—	—	—
United Kingdom	68	42	1.2	0.8	49.0	41.8	70	72	1.3	1.3
United States	59	68	0.3	0.3	93.7	91.6	76	113	0.4	0.6
Yugoslavia	3	—	0.2	—	76.0	3.5	—	1	—	0.1
Total or average	612	586	0.9	0.8	40.0	34.6	431	421	0.6	0.6

Source and foot-note: See table A.19.

Table A.30. Developed market economies: imports of vegetable oils from developing countries,<sup>a</sup> 1965 and 1968

Importing country	Imports from developing countries									
	Fixed vegetable oils, soft (SITC 421)						Fixed vegetable oils, other (SITC 422)			
	Value (millions of dollars)		Per capita (dollars)		As percent-age of total		Value (millions of dollars)		Per capita (dollars)	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	1	1	0.1	0.1	13.7	20.4	2	2	0.2	0.2
Austria	3	2	0.5	0.2	20.6	12.6	4	2	0.6	0.3
Belgium-Luxembourg	3	2	0.3	0.2	35.3	16.5	8	7	0.8	0.7
Canada	1	2	—	0.1	6.1	21.2	8	8	0.4	0.4
Denmark	—	—	—	—	2.1	13.7	2	2	0.4	0.3
Finland	—	—	—	—	7.7	—	—	—	—	—
France	19	48	0.4	1.0	88.5	82.5	70	25	1.4	0.5
Germany (Federal Republic of)	13	10	0.2	0.2	19.6	20.1	60	49	1.1	0.8
Greece	—	—	—	—	—	—	—	—	—	—
Iceland	—	—	—	—	—	—	—	—	—	—
Ireland	1	1	0.2	0.2	30.6	35.9	1	1	0.4	0.4
Italy	10	8	0.2	0.2	43.4	15.9	21	22	0.4	0.4
Japan	—	—	—	—	14.4	—	5	6	0.1	0.1
Netherlands	6	3	0.5	0.3	34.7	13.5	20	19	1.7	1.5
New Zealand	—	—	—	—	0.8	0.5	—	—	—	—
Norway	0	—	—	—	10.9	2.0	—	—	—	—
Portugal	9	3	0.9	0.4	60.9	87.1	3	4	0.4	0.4
Spain	7	2	0.2	0.1	14.8	12.5	3	2	0.1	0.1
Sweden	0	2	0.1	0.2	9.8	23.0	3	2	0.3	0.3
Switzerland	1	—	0.3	0.1	16.5	4.6	2	1	0.4	0.2
Turkey	—	—	—	—	—	—	—	—	—	—
United Kingdom	28	32	0.5	0.6	69.2	60.2	42	40	0.8	0.7
United States	2	3	—	—	11.3	13.9	74	109	0.4	0.5
Yugoslavia	—	—	—	—	3.9	—	—	1	—	0.1
Total or average	103	120	0.1	0.2	33.1	35.6	328	302	0.5	0.4

Source and foot-note: See table A.19.

Table A.31. Developed market economies: imports of ores and non-ferrous metals from developing countries,<sup>a</sup>  
1965 and 1968

Importing country	Imports from developing countries											
	Metallic ores (SITC 28)						Non-ferrous ores (SITC 283)					
	Value (millions of dollars)			Per capita (dollars)			Value (millions of dollars)			Per capita (dollars)		
	1965	1968	As percent- age of total	1965	1968	As percent- age of total	1965	1968	As percent- age of total	1965	1968	As percent- age of total
Australia	2	1	10.2	0.2	0.1	...	2	1	0.1	0.1	0.1	18.8
Austria	11	17	27.7	1.5	2.3	...	3	4	0.5	0.5	0.5	18.1
Belgium-Luxembourg	79	86	26.1	8.1	8.7	21.7	45	45	4.6	4.5	4.5	22.1
Canada	66	64	36.2	3.3	3.1	31.4	63	60	3.2	2.9	2.9	42.6
Denmark	1	1	33.1	0.2	0.1	15.8	—	—	—	0.1	0.1	28.7
Finland	—	—	1.5	0.1	—	0.6	—	—	—	—	—	22.8
France	116	111	53.3	2.4	2.2	46.9	69	58	1.4	1.2	1.2	13.9
Germany (Federal Republic of)	288	282	39.7	5.1	4.9	32.2	79	86	1.4	1.5	1.5	54.8
Greece	7	6	98.9	0.8	0.7	95.4	1	1	0.2	0.2	0.2	44.4
Iceland	—	—	—	—	—	—	—	—	—	—	—	38.6
Ireland	—	—	—	0.1	0.1	—	—	—	0.1	0.1	0.1	73.2
Italy	85	90	25.3	1.6	1.7	22.0	7	14	0.1	0.3	0.3	—
Japan	652	899	64.0	6.7	8.9	54.5	170	281	1.7	2.8	2.8	96.9
Netherlands	93	48	68.3	7.6	3.8	38.4	67	23	5.4	1.8	1.8	31.5
New Zealand	—	—	—	—	—	1.1	—	—	—	—	—	59.1
Norway	15	16	15.9	4.0	4.1	12.8	15	16	4.0	4.1	4.1	84.6
Portugal	1	1	36.1	0.1	0.1	59.1	—	—	—	—	—	—
Spain	26	34	33.9	0.8	1.1	28.5	18	19	0.6	0.6	0.6	17.5
Sweden	14	12	20.1	1.8	1.5	15.0	11	9	1.4	1.2	1.2	12.5
Switzerland	—	1	15.7	0.1	0.1	18.9	—	—	—	0.1	0.1	38.4
Turkey	—	—	0.5	—	—	—	—	—	—	—	—	24.8
United Kingdom	235	275	41.5	4.3	5.0	42.8	95	111	1.7	2.0	2.0	23.5
United States	513	444	56.1	2.6	2.2	46.3	319	286	1.6	1.4	1.4	44.0
Yugoslavia	8	4	32.0	0.4	0.2	18.0	2	1	0.1	—	—	—
Total or average	2,213	2,392	46.7	3.2	3.3	40.3	965	1,016	1.4	1.4	1.4	58.2
												46.5
												2.7
												4.2
												32.1
												35.7

Source and foot-note: See table A.19.

Table A.32. Developed market economies: imports of crude fuels and petroleum products from developing countries,<sup>a</sup> 1965 and 1968

Importing country	Imports from developing countries											
	Crude fuels (SITC 3, except 332)						Petroleum products (SITC 332)					
	Value (millions of dollars)		Per capita (dollars)		As percent- age of total		Value (millions of dollars)		Per capita (dollars)		As percent- age of total	
	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968	1965	1968
Australia	218	238	19.1	19.8	98.2	99.6	46	27	4.1	2.2	74.9	72.3
Austria	—	2	—	29.5	—	1.7	—	—	—	—	0.1	—
Belgium—												
Luxembourg	266	409	27.2	41.1	54.1	62.9	17	10	1.7	1.0	18.0	6.8
Canada	289	343	14.7	16.5	66.4	63.1	94	128	4.8	6.2	65.1	68.7
Denmark	57	126	12.1	25.9	47.0	70.8	42	25	8.8	5.2	24.1	12.9
Finland	10	11	2.2	2.4	12.6	9.1	3	3	0.7	0.7	3.9	3.9
France	1,079	1,371	22.1	27.5	72.7	78.5	31	2	0.6	—	27.1	1.6
Germany (Federal												
Republic of)	888	1,350	15.6	23.3	84.9	88.0	52	33	0.9	0.6	16.5	6.4
Greece	36	56	4.2	6.3	67.1	77.1	13	1	1.5	0.2	29.9	5.1
Iceland	—	—	—	—	—	—	—	2	2.4	8.4	3.9	11.3
Ireland	39	42	13.6	14.5	62.0	65.1	2	3	0.9	1.0	9.9	9.2
Italy	855	1,277	16.6	24.2	78.1	80.8	14	17	0.3	0.3	22.6	18.3
Japan	1,029	1,726	10.5	17.1	77.0	76.4	168	269	1.7	2.7	58.2	64.7
Netherlands	462	628	37.6	49.3	76.8	82.9	58	44	4.7	3.4	36.8	23.4
New Zealand	44	52	16.8	19.0	100.0	99.6	14	12	5.2	4.2	50.7	38.4
Norway	48	87	12.8	22.7	67.9	78.2	10	10	2.8	2.5	11.2	9.4
Portugal	36	43	3.9	4.6	69.8	70.0	15	19	1.6	2.0	56.6	51.2
Spain	237	455	7.5	14.0	85.7	89.0	6	4	0.2	0.1	25.4	13.9
Sweden	62	155	8.0	19.6	48.9	67.9	95	69	12.3	8.8	27.0	17.3
Switzerland	15	85	2.5	13.8	26.1	79.1	1	1	0.2	0.1	0.8	0.3
Turkey	48	43	1.5	1.3	99.9	96.8	—	—	—	—	0.6	1.3
United Kingdom	1,191	1,448	21.8	26.1	96.2	93.2	207	156	3.8	2.8	42.3	25.2
United States	940	880	4.8	4.4	70.1	59.0	868	922	4.5	4.6	98.6	88.9
Yugoslavia	9	22	46.4	1.1	15.9	30.2	1	—	0.1	—	9.3	—
Total or average	7,854	10,850	11.3	15.1	75.2	76.9	1,760	1,756	2.5	2.4	47.4	37.8

Source and foot-note: See table A.19.

Table A.33. Major importing areas: liberalization of tariffs on selected commodities resulting from the Kennedy Round negotiations<sup>a</sup>

SITC number	Commodity	EEC	Japan	United Kingdom	United States
011.1	Bovine meat, fresh, chilled, frozen	N	N	N	N
013.3	Meat extracts and meat juices	XXX	x	xx	xx
031.1	Fish, fresh, chilled, frozen (selected)	x	xx	N	xxx
031.3	Shellfish, fresh, chilled, frozen, prepared, preserved	x	(N)(xx)	N	(O)(xx)
042	Rice	N	N	O	N
044	Maize	N	N	O	N
051.1	Oranges (excluding mandarins, tangerines, clementines)	N	N	XX	N
051.2	Grapefruit and other citrus fruits	X(xx)	N	N	x
051.3	Bananas, fresh	N	N	N	O
051.7(1)	Cashew nuts	xx	xx	N	XXX
053.9	Fruits and nuts prepared or preserved (selected)	(X)(N)	(N)(x)	(XXX)(XX) (X)	x
061.1 } 061.2 }	Beet and cane sugar (solid)	N	N	N	N

Table A.33 (continued)

SITC number	Commodity	EEC	Japan	United Kingdom	United States
071.1	Coffee (raw and roasted)	(X)(x)	(xxx)(N)	(XX)(xx)	O
072.1	Cocoa beans	X	XXX	XXX	O
072.2	Cocoa powder, unsweetened	x	N	XXX	xx
072.3(1)	Cocoa paste	x	xx	XXX	xxx
072.3(2)	Cocoa butter	x	x	XXX	xx
074.1	Tea	XX	(x)(N)	O	O
075.1	Pepper and pimento (unground)	(XX)(x)	XXX	(XXX)(N)	O
081.3	Oil-cake and other residue	O	O	N	N
081.4	Flour and meals of meat, offals, fish (fish meal)	xx	O	N	O
121.0	Unmanufactured tobacco	x	N	N	(x)(N)
211	Raw hides and skins	O	O	XXX	(xxx)(xx)
221.1	Ground-nuts	O	XXX	N	N
221.2	Copra	O	O	N	N
221.3	Palm nuts and kernels	O	O	N	N
221.7	Castor oil-seed	O	O	N	—
231.1	Natural rubber	O	xx	XXX	xx
242.1	Wood in the rough	(XXX)(XX)	XXX	(xxx)(XX)	O
242.2(1)					
242.3(1)					
242.4					
242.9					
243.2(1)	Sheep's and lambs' wool, not carded or combed	O	O	(O)(xx)	(xx)(N)
243.2(2)					
262.1	Sheep's and lambs' wool, carded or combed	O	N	N	(xx)(N)
262.2					
262.7	Raw cotton	O	O	(O)(xx)	N
262.8					
263.1	Raw jute	O	O	(O)(xxx)	O
265.4	Other vegetable textile fibre, raw or processed	O	O	(N)(xx)	(O)(N)
265.8					
281.3	Iron ore and concentrates and roasted iron pyrites	O	O	O	O
283.4					
283.1(1)	Copper ore and concentrates	O	O	O	xx
283.3	Bauxite and alumina concentrates	O	O	O	xxx
283.5	Zinc ore and concentrates	O	O	O	N
283.6	Tin ore and concentrates	O	O	O	O
283.9(2)	Tungsten ore and concentrates	O	O	O	xx
283.1(2)	Copper refined and unrefined	O	(x)(O)(N)	(O)(xx)	xx
284.1(2)					
682.1(1)					
682.1(2)	Unwrought lead	N	(xx)(x)	(xx)(xxx)	N
284.0(6)	Crude petroleum	O	N	N	N
331.0(1)	Petroleum, partly refined and products	xx	N(xx)	N	N
331.0(2)					
332.1					
332.4					
332.5(1)					
332.9(1)	Fixed vegetable oils	N(xxx)	N(x)	N	N(xx)(x)
421					
422	Bovine leather	x	N	(xx)(x)	x
611.3					
611.4	Sheep and lambskin leather	(xx)(O)	XX	x	xx
611.9(1)	Goat and kidskin leather	O(xx)	XX	x	xx
611.9(2)	Other leather	(xx)(XXX)	XX	xx	xx
611.9(9)	Plywood	x	x	xx	N



Table A.33 (continued)

SITC number	Commodity	EEC	Japan	United Kingdom	United States
651.3 651.4(1) }	Cotton yarn	x	x	N	x
652.1(3) 652.2(9) }	Woven fabric of cotton	x	x	x	x
653.4	Woven jute fabrics	x	x	N	(xxx)(xx)
656.1	Textile sacks and bags	x	(O)(x)	N	(N)
657.5 657.6 }	Carpets	(X)(xx)	(XX)(xx)	(N)	xx
851.0(1)	Foot-wear, rubber or plastic	N	xx	N	(xx)(N)
851.0(2)	Foot-wear, leather	(xx)(N)	xx	N	(xx)(x)(N)
894.2(3)	Toys (excluding dolls)	x	xx	(N)(xx)	(xx)(N)
899.9(3)	Artificial flowers	x	(xx)(x)	xx	x

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on *The Kennedy Round Estimated Effects on Tariff Barriers* (United Nations publication, Sales No.: E.68.II.D.12); General Agreement on Tariffs and Trade, "Advance implementation of Kennedy Round tariff reductions on products of export interest to developing countries" (L.2862/Rev.1 and addenda) and Food and Agriculture Organization of the United Nations, *Commodity Review and Outlook, 1968 and 1969* (Rome).

<sup>a</sup> The list of commodities includes products of actual and potential export importance to developing countries, representing almost 80 per cent of total imports by the European

Economic Community, Japan, United Kingdom and United States from developing countries in 1964.

Note: N : no action agreed to

O : tariff already zero

x : tariff cut of less than 50 per cent

xx : tariff cut of 50-99 per cent

xxx: elimination of duty

— : no imports

Capitalization of the symbol indicates that action was completed in 1968.

Parentheses around the symbol indicate that only part of the item was affected.

Table A.34. Developed market economies: non-tariff restrictions on selected categories of imports from developing countries,<sup>a</sup> 1969

SITC number	Commodity	Countries in which imports are subject to			
		Licensing <sup>b</sup>	State trading	Quota <sup>c</sup>	Other restrictions <sup>d</sup>
01	Meat	Austria (s) Belgium-Luxembourg (s) Denmark (s) Norway (s) Ireland (s) Sweden (pork, horsemeat and preserved meat)	Federal Republic of Germany (mutton) Portugal	Denmark (G, s) Belgium-Luxembourg (G, beef, veal, frozen) Federal Republic of Germany (B, G, s) Japan (G, s) Norway (G, s) Switzerland (B, G, s)	Austria (P, raw pork) Belgium-Luxembourg (P, mutton) Federal Republic of Germany (P, frozen mutton) France (mutton and horsemeat) Italy (P, frozen mutton) Ireland Luxembourg (s) Netherlands (P, frozen mutton, s) Portugal (s) United Kingdom (P, pigmeat, preserved, prepared from non-sterling areas) United States (s) EEC (VL)

Table A.34 (continued)

SITC number	Commodity	Countries in which imports are subject to			
		Licensing <sup>b</sup>	State trading	Quotas <sup>c</sup>	Other restrictions <sup>d</sup>
031.3	Crustaceans and molluscs (including shrimps)	Denmark (oysters) Switzerland (shrimps and mussels)		Denmark (B, G) Federal Republic of Germany (G, dried shrimps) Japan (G, s)	Portugal
041.0	Wheat, unmilled	Austria Canada Denmark Ireland Switzerland	Austria Canada Japan Norway Portugal Switzerland	United States (G)	Portugal Sweden EEC (VL)
044.0	Maize	Austria Denmark Ireland	Austria Norway		Portugal Switzerland EEC (VL)
045.9	Grains, cereals (buck-wheat, millet, sorghum, other cereals)	Austria (millet, sorghum, durra) Denmark	Austria (millet, sorghum, durra) Norway (excluding canary seeds)	Japan (G, excluding government purchases)	Ireland (s) Switzerland EEC (VL)
051.1	Citrus fruits			Japan (G, dates, grapefruit, tangerines) United Kingdom (G, B-Cuba, grapefruit)	
051.3 051.7(1) 051.9(5) 052.0(1)	Bananas, fresh and dried tropical fruits and nuts	Italy (dates, packaged)		Italy (G, bananas and dates) Japan (G, dates, dried) United Kingdom (G, bananas)	France (bananas and pineapples)
053.9	Fruit (prepared or preserved)	Norway (s)		Denmark (G, s) Federal Republic of Germany (G, B, s, in small containers) Japan (G, s) United Kingdom (G, canned grapefruit)	France (s)
061.1 061.2	Sugar (solid, cane and beet)	Denmark Ireland Sweden		Austria (G, excluding crude and candied) Japan (G, s) United States (G, B)	Australia (P) Portugal United Kingdom EEC (VL)
071.1	Coffee	Italy (unroasted non-caffeine-free)		Denmark (G, substitutes containing coffee) Japan (G, s)	Belgium-Luxembourg (unroasted non-caffeine-free) Federal Republic of Germany Netherlands (unroasted non-caffeine-free)

Table A.34 (continued)

SITC number	Commodity	Countries in which imports are subject to			
		Licensing <sup>b</sup>	State trading	Quota <sup>c</sup>	Other restrictions <sup>d</sup>
072.1	Cocoa beans (raw or roasted)				
074.1	Tea			Japan (G, black tea)	
081.3	Oil-cake and other residues	Ireland (ground-nuts, s)	Japan Norway Switzerland	Japan (G) Switzerland (G)	Portugal (soybean meal)
081.4	Fishmeal and meatmeal	Ireland Switzerland	Norway Switzerland	Japan (G, fishmeal)	
112.1	Wine	France (excluding liqueur wines) Italy	Canada Norway Sweden	Austria (G, exclud- ing sparkling bottled) Denmark (B) Italy (G, B) Japan (G) Switzerland (G, B, s)	Federal Republic of Germany
121.0	Tobacco (unmanufactured)		Austria France Italy Japan Portugal (s) Sweden		Australia France Federal Republic of Germany Ireland
212	Fur skins				
221	Oil-seeds and oleaginous fruits	Ireland (s) Switzerland	France (hemp-seeds) Switzerland	Denmark (G, rapeseed) Japan (G, ground-nuts, s) United States (G, peanuts)	Australia (peanuts) France Ireland (ground-nuts, s) Portugal
231.1	Natural rubber				
242.3(1)	Wood in the rough and lumber				
243.3(1)					
262.1	Wool				
263.1	Cotton			United States (G)	Portugal
264.0	Jute				
271.3	Natural phosphates				
281.3	Metallic ores (iron, cop- per, bauxite, zinc, tin, tungsten)				
283.1(1)					
283.3					
283.6					
283.7				Japan (G, tungsten)	
331.0	Crude petroleum	Federal Republic of Germany (fuel oil)	France		France
331.0(2)	Petroleum products				
332.1					
332.3		Federal Republic of Germany (diesel fuel oil)	France Japan	Japan (G)	France Belgium- Luxembourg Netherlands
332.4					

Table A.34 (continued)

SITC number	Commodity	Countries in which imports are subject to			
		Licensing <sup>b</sup>	State trading	Quota <sup>c</sup>	Other restrictions <sup>d</sup>
421.4 422.2	Vegetable oils	Switzerland	Portugal (ground-nut oil)	Japan (G, ground-nut oil, s)	Australia (safflower oil)
				United States (ground-nut oil)	Italy (soybean oil) Portugal (olive and soybean oil) EEC (VL)
513.6(5)	Aluminium (oxide and hydroxide)				
631.2(1)	Plywood, veneer panels				
651.3(4) 652.1(2) 653.7 654.0 655 656	Cotton textiles (yarns, grey cloth and other fabrics and items)				
				Australia (B)	
				Austria (B)	
				Canada (B)	
				Belgium-Luxembourg (B)	
				Federal Republic of Germany (B)	
				France (B)	
				Italy	
				Netherlands (B)	
				Norway (B)	
				Sweden (B, Japan, Hong Kong)	
				United Kingdom (B)	
				United States (B)	
653.4	Woven jute fabrics			Federal Republic of Germany (G, excluding EEC associates)	France
				United Kingdom (G, s)	
657.5	Carpets				
667.2	Pearls, precious stones	Italy			
681.2(1)	Platinum				
682.1(1)	Unrefined copper (blister)				
687.1	Tin and tin alloys, unwrought				
841.1 841.2 841.4	Clothing (outer and under garments)	Federal Republic of Germany (s, excluding EEC associates) Italy (s)		France (G) (B, Hong Kong, s)	Australia (s) France (s) Sweden (s)
				United Kingdom (s)	

Source: Centre for Development Planning, Projections and Policies, based on General Agreement on Tariffs and Trade, "Import restrictions" (L/3377, April 1970); *The Kennedy Round Estimated Effects on Tariff Barriers* (United Nations publication, Sales No: E 68.II D.12).

<sup>a</sup> The selected commodities represent 80 per cent of the value of total developed market economy imports from developing countries in 1967. Unless otherwise indicated, the bulk of the category is subject to the specified constraint; where the number of items affected is inconveniently large for detailing, the symbol "s" has been used. The listing may not be complete: the restrictions are chiefly those reported

by the country concerned as being inconsistent with the provisions of GATT and not authorized by the contracting parties, plus some reported by partner countries. The following countries are considered above: Australia, Austria, Canada, Denmark, Belgium-Luxembourg, Federal Republic of Germany, France, Italy, Netherlands, Ireland, Japan, Norway, Portugal, Sweden, Switzerland, United Kingdom and United States.

<sup>b</sup> Liberal or discretionary.

<sup>c</sup> Global (G) or bilateral (B).

<sup>d</sup> Unspecified non-tariff barrier, except P: prohibition; VL: variable levy.

Table A.35. Developed market economies: ratio to gross national product of the net outflow of resources, 1961-1969

Country	Average over-all ratio			Average ratio of official transfers		
	1961-1963	1964-1966	1967-1969	1961-1963	1964-1966	1967-1969
Australia	0.48	0.63	0.85	0.47	0.56	0.71
Austria	0.07	0.38	0.48	-0.03	0.27	0.25
Belgium	1.14	1.01	0.95	0.65	0.52	0.51
Canada	0.26	0.39	0.49	0.19	0.31	0.37
Denmark	0.16	0.19	0.60	0.07	0.13	0.32
France	1.81	1.29	1.13	1.30	0.80	0.68
Germany (Federal Republic of)	0.73	0.58	1.05	0.54	0.38	0.38
Italy	0.60	0.54	0.64	0.10	0.11	0.15
Japan	0.43	0.46	0.67	0.24	0.36	0.44
Netherlands	1.14	1.01	1.04	0.49	0.41	0.50
Norway	0.18	0.31	0.60	0.11	0.14	0.29
Portugal	1.56	1.01	1.28	1.56	0.80	0.85
Sweden	0.27	0.40	0.54	0.11	0.23	0.31
Switzerland	1.61	0.88	0.82	0.26	0.36	0.08
United Kingdom	0.90	0.89	0.78	0.51	0.48	0.40
United States	0.72	0.68	0.59	0.56	0.48	0.39
Average, above	0.77	0.70	0.70	0.54	0.45	0.41

See source and notes to table 57.

Table A.36. Developed market economies: distribution of net transfers to developing countries, by major type, 1961-1969

Country and period	Total transfers, annual average (millions of dollars)	Percentage of total net transfers of resources to developing countries					
		Official			Private		
		Total	Bilateral	To the multi-lateral agencies	Total	Direct and portfolio investment <sup>a</sup>	Export credit <sup>b</sup>
			Loans	Grants			
<b>Australia</b>							
1961-1963	84	100	—	82	18	—	—
1964-1966	140	89	—	77	12	11	—
1967-1969	236	82	—	63	18	18	1
<b>Austria</b>							
1961-1963	7	-53	-3	12	-62	153	34
1964-1966	36	72	34	8	31	28	4
1967-1969	56	52	15	6	32	48	3
<b>Belgium</b>							
1961-1963	154	55	-1	42	14	45	25
1964-1966	172	51	—	43	8	49	34
1967-1969	201	57	4	37	17	43	12
<b>Canada</b>							
1961-1963	104	68	15	42	12	32	30
1964-1966	193	81	20	48	13	19	20
1967-1969	312	76	19	36	20	24	20
<b>Denmark</b>							
1961-1963	11	-113	13	-21	-104	213	-27
1964-1966	19	65	7	21	37	35	-4
1967-1969	82	61	12	14	35	39	4
<b>France</b>							
1961-1963	1,302	72	9	57	6	28	23
1964-1966	1,258	62	2	50	3	38	27
1967-1969	1,491	59	7	47	4	41	26

Table A.36 (continued)

Country and period	Total transfers, annual average (millions of dollars)	Percentage of total net transfers of resources to developing countries						
		Official				Private		
		Total	Bilateral		To the multi-lateral agencies	Total	Direct and portfolio investment <sup>a</sup>	Export credits <sup>b</sup>
			Loans	Grants				
<i>Germany (Federal Republic of)</i>								
1961-1963	647	72	33	19	20	28	16	13
1964-1966	647	66	39	22	4	34	23	11
1967-1969	1,418	36	20	11	5	64	45	19
<i>Italy</i>								
1961-1963	264	15	6	6	2	85	57	28
1964-1966	324	22	5	5	12	78	24	54
1967-1969	499	29	21	5	4	71	28	43
<i>Japan</i>								
1961-1963	257	54	40	29	—15	46	31	15
1964-1966	416	76	56	21	—	24	17	7
1967-1969	958	67	52	14	1	33	11	23
<i>Netherlands</i>								
1961-1963	154	45	4	19	22	55	42	13
1964-1966	195	42	14	9	20	58	42	16
1967-1969	269	49	15	21	13	41	49	1
<i>Norway</i>								
1961-1963	12	56	—	63	—7	44	18	25
1964-1966	22	53	—	19	34	47	8	39
1967-1969	56	48	1	16	31	53	9	44
<i>Portugal</i>								
1961-1963	45	100	83	11	6	—	—	—
1964-1966	37	71	67	23	—18	29	29	—
1967-1969	65	66	66	16	—17	34	34	—
<i>Sweden</i>								
1961-1963	42	41	—	9	32	59	50	9
1964-1966	81	57	4	17	37	43	28	14
1967-1969	143	59	7	22	30	41	29	12
<i>Switzerland</i>								
1961-1963	183	5	—	1	4	95	55	40
1964-1966	122	4	2	5	—3	96	46	50
1967-1969	140	11	—	8	3	89	49	39
<i>United Kingdom</i>								
1961-1963	721	57	24	27	6	43	34	9
1964-1966	894	53	23	24	6	47	36	11
1967-1969	836	52	19	26	8	48	29	19
<i>United States</i>								
1961-1963	4,066	80	17	58	4	22	22	1
1964-1966	4,781	70	18	49	3	30	29	1
1967-1969	5,060	68	27	35	6	32	31	1
<i>Average or total</i>								
1961-1963	8,055	69	17	46	6	31	25	6
1964-1966	9,338	64	19	40	5	36	28	8
1967-1969	11,820	58	22	29	7	42	30	12

See source and notes to table 57.

<sup>a</sup> Including funds invested in loan obligations of the international development aid institutions.<sup>b</sup> Including the non-guaranteed portion of insured credit.

Table A.37. Major developed market economies: proportion of official commitments to less developed countries and international institutions in the form of grants,<sup>a</sup> 1964-1969

(Percentage)

Country <sup>b</sup>	1964	1965	1966	1967	1968	1969
Australia	100	100	100	100	100	100
Belgium	97	98	94	94	95	92
Norway	95	96	100	100	92	91
Sweden	80	89	71	84	75	85
Canada	51	54	77	49	75	51
Switzerland	68	80	63	100	73	78
France	80	80	83	74	71	75
Japan	51	37	42	38 <sup>c</sup>	57 <sup>c</sup>	20
Denmark	77	70	63	64	57	78
Netherlands	75	71	74	72	52	64
Austria <sup>d</sup>	21	18	26	29	51	54
United Kingdom	54	55	50	57	46	48
United States	58	62	61	56	45	60
Germany (Federal Republic of)	50	43	38	34	38	42
Italy	44	26	39	20	25	21
Portugale	18	27	19	19	21	17
Average, 16 countries	60	61	62	56	51	55

Source: Centre for Development Planning, Projections and Policies of the United Nations Secretariat, based on Organisation for Economic Co-operation and Development, *Development Assistance: Efforts and Policies of the Members of the Development Assistance Committee, Review for 1968, 1969, 1970*.

<sup>a</sup> Less developed countries are the developing countries plus Cyprus, Greece, Malta, Spain,

Turkey and Yugoslavia. Grants include sales of commodities for recipients' currencies.

<sup>b</sup> Listed in descending order of the proportion of commitments in the form of grants in 1968.

<sup>c</sup> Official development assistance only.

<sup>d</sup> Loans calculated partly on a gross disbursements basis.

Table A.38. Major developed market economies: weighted average rate of interest on official loan commitments to less developed countries, 1964-1969

(Percentage per annum)

Country <sup>a</sup>	1964	1965	1966	1967	1968	1969 <sup>b</sup>
Australia	c	c	c	c	c	c
Denmark	4.0	5.3	0.0	0.0	0.0	0.0
United Kingdom	4.1	3.3	1.0	1.1	1.0	1.2
Sweden	2.0	2.0	2.0	2.0	1.5	0.9
Norway	4.5	3.0	c	c	2.2	1.7
Switzerland	5.0	4.5	3.8	c	2.2	2.1
Canada	4.7	3.4	2.4	3.4	2.3(0.0)	0.3
Belgium	3.0	3.0	2.9	3.2	3.2	2.6
United States	2.5	3.3	3.0	3.6	3.6(2.6)	3.0
France	3.2	3.7	3.5	3.7	3.7	3.7
Japan	5.8	4.4	5.2	4.8	3.7	3.7
Netherlands	3.9	3.5	2.0	3.3	3.8	3.1
Italy	4.5	4.7	5.0	4.9	4.2(4.7)	5.3
Germany (Federal Republic of)	4.0	4.2	3.3	4.3	4.5(3.0)	3.2
Austria	5.2	5.5	5.4	5.2	5.1(3.2)	2.6
Portugal	4.1	3.8	3.6	4.8	5.6(2.4)	2.3
Average, 16 countries	3.1	3.6	3.1	3.8	3.6(2.7)	2.9

Source: See table A.37.

<sup>a</sup> Countries are listed in ascending order of weighted interest rate on 1968 loan commitments.

<sup>b</sup> Calculated on the basis of official development assistance commitments only, as are the figures in parentheses for 1968.

<sup>c</sup> Commitments were in grant form.

Table A.39. Major developed market economies: weighted average maturity of official loan commitments to less developed countries, 1964-1969

(Years)

Country <sup>a</sup>	1964	1965	1966	1967	1968	1969 <sup>b</sup>
Australia	c	c	c	c	c	c
Canada	25.1	32.9	34.3	30.9	36.9(50.0)	48.5
Sweden	20.0	20.0	20.0	21.0	34.0	47.2
Switzerland	7.5	18.1	16.3	c	32.9	34.9
United States	33.4	27.9	29.3	28.2	30.0(38.0)	37.1
Netherlands	24.2	23.9	23.6	24.7	29.7(27.9)	28.6
Denmark	19.1	13.7	18.7	24.0	24.9	25.0
United Kingdom	24.0	22.2	23.9	24.1	24.0	24.1
Norway	17.0	16.0	c	c	23.0	36.0
Portugal	16.3	21.5	25.4	16.2	22.6(31.7)	30.1
Belgium	20.0	16.2	13.9	18.2	21.9	27.2
Japan	16.0	12.0	14.1	16.6	18.1(17.9)	19.5
Germany (Federal Republic of)	18.1	16.9	21.1	19.0	18.0(23.4)	26.0
France	15.6	16.8	15.3	15.1	17.6	17.0
Austria	8.8	7.7	9.4	14.6	16.8(21.9)	27.2
Italy	11.6	7.1	10.3	11.9	10.6(12.3)	10.9
Average, 16 countries	28.6	22.6	25.1	24.0	26.0(30.7)	28.4

Source: See table A.37.

<sup>a</sup> Countries are listed in descending order of weighted average maturity of 1968 loan commitments.

<sup>b</sup> Calculated on the basis of official development assistance commitments only, as are the figures in parentheses for 1968.

<sup>c</sup> Commitments were in grant form.

Table A.40. Major developed market economies: weighted average grace period on official loan commitments to less developed countries, 1964-1969

(Years)

Country <sup>a</sup>	1964	1965	1966	1967	1968	1969 <sup>b</sup>
Australia	c	c	c	c	c	c
Sweden	4.5	4.0	5.0	6.4	9.6	10.0
Switzerland	2.0	6.0	5.6	c	7.7	7.4
United States	7.7	5.9	6.6	6.7	7.0(9.0)	8.7
Denmark	5.5	2.4	4.2	6.6	7.0	7.0
Canada	4.9	6.3	6.5	4.4	6.9(10.0)	9.8
Netherlands	3.2	4.1	5.9	6.3	6.8(6.4)	8.1
Belgium	4.5	4.0	4.3	5.0	6.1	8.3
United Kingdom	5.1	4.8	6.0	5.5	5.6	5.6
Norway	6.0	6.0	c	c	5.5	7.9
Japan	4.5	2.4	4.5	4.7	5.5(5.6)	6.1
Portugal	1.4	3.8	4.1	2.2	5.5(8.4)	8.0
Germany (Federal Republic of)	4.4	3.6	5.6	4.9	5.3(7.1)	7.6
Austria	1.4	0.9	2.0	3.7	1.9	4.2
France	3.1	2.8	2.4	1.8	1.7	1.9
Italy	1.4	0.7	0.9	1.0	1.7(2.3)	2.2
Average, 16 countries	6.5	4.6	5.8	5.5	6.0(7.2)	6.7

Source: See table A.37.

<sup>a</sup> Countries are listed in descending order of the weighted average grace period in 1968.

<sup>b</sup> Based on official development assistance

commitments only, as are the figures in parentheses for 1968.

<sup>c</sup> Commitments were in grant form.



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