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World Development Report 1981

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National and International Adjustment
Annex World Development Indicators

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**World
Development
Report
1981**

**The World Bank
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Foreword

World Development Report 1981 is the fourth in the World Bank's annual series assessing key development issues. This year its major focus is the international context of development. It examines both past trends and future prospects for international trade, energy and capital flows as well as their effects on developing countries. This is followed by an analysis of national adjustments to the international economy.

In the year since the last *Report* appeared, world economic conditions have worsened: the prices the developing countries must pay for their imports, particularly oil, have increased while their capacity to pay for them has declined. Their export growth has been constrained by the continuing recession in the industrial countries. Concessional finance has stagnated; and there are signs of uncertainty in the commercial capital markets. Even under the relatively optimistic assumptions of this *Report's* High-case projections, the income gap between the richest and poorest countries will continue to increase; under the Low case, even the number of individuals living in absolute poverty will rise.

The discussion of international trade finds that middle-income developing countries fared relatively well in the 1970s but that the low-income countries benefit-

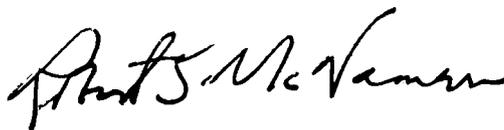
ed scarcely at all. The discussion on energy indicates that the world's consumption of energy was growing in an unsustainable pattern prior to the oil-price increases of the 1970s. Some of the necessary adjustments have now been made, but difficulties lie ahead for most countries. As for capital flows, the *Report* expects the borrowing needs of the middle-income countries to be met largely by the commercial banking system, with additional support by international financial institutions. But for the low-income countries, prospective aid levels are inadequate.

In the latter chapters of the *Report*, the analysis shifts from the international to the national level. Here adjustment problems of particular types of developing countries are examined and their current policies and the lessons of their recent experience are discussed. A dozen case studies are presented to add further detail to the analysis of national adjustment.

The conclusions of this analysis are consistent with those of the first section: countries which pur-

sued relatively outward-oriented policies tended to adjust more readily to external shocks. Once again the low-income countries emerge as having fewer options and little flexibility to adjust. They will continue to require substantial amounts of aid for decades to come. The human development issues which were the focus of the 1980 *Report* are examined in the light of the new circumstances. Human development is threatened during the adjustment period, and the potential consequences in unnecessary human suffering are grave. Failure to deal with these problems will also have serious consequences internationally in the longer term.

This volume represents the work of many of my colleagues in the World Bank. The judgments expressed do not necessarily reflect the views of our Board of Directors or the governments they represent. As in previous years, the *Report* includes the World Development Indicators, which provide tables of social and economic data for more than a hundred countries.



Robert S. McNamara
June 30, 1981

This report was prepared by a team led by Robert Cassen and comprising Michael Finger, Norman Hicks, Frederick Jaspersen, Robert Liebenthal, Pradeep Mitra, Rupert Pennant-Rea, Christine Wallich and Oktay Yenil. The Economic Analysis and Projections Department prepared the data and projections for Chapter 2, together with their underlying analysis, and supplied information and assistance for the entire report. The team has also worked closely with members of the Policy Planning and Program Review Department and the Development Research Center. The authors would like to thank these and many other contributors, reviewers and production and support staff. The work was carried out under the general direction of Hollis Chenery.

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Definitions

The principal country groups used in the text of this *Report* and in the World Development Indicators are defined as follows:

- *Developing countries* are divided into: *low-income countries*, with 1979 gross national product (GNP) per person of \$370 and below; and *middle-income countries*, with 1979 GNP per person above \$370. While China is included as a low-income developing country in the World Development Indicators, in the text of the *Report* it is not included in the terms *developing countries* or *low-income countries* unless *including China* is specifically noted. Developing countries are also divided into *oil exporters* and *oil importers*, as follows:

- *Oil exporters* comprise Algeria, Angola, Bahrain, Bolivia, Brunei, Congo, Ecuador, Egypt, Gabon, Indonesia, Iran, Malaysia, Mexico, Nigeria, Oman, Peru, Syria, Trinidad and Tobago, Tunisia and Venezuela.

- *Oil importers* comprise all other developing countries not classified as oil exporters.

- *Capital-surplus oil exporters* (not included in *developing countries*) comprise Iraq, Kuwait, Libya, Saudi Arabia, Qatar and the United Arab Emirates.

- *Industrial market economies* are

the members of the Organisation for Economic Cooperation and Development (OECD) identified below (apart from Greece, Portugal, Spain and Turkey, which are included among the middle-income developing countries). This group is commonly referred to in the text as *industrial countries*.

- *Nonmarket industrial economies* include the following developed European countries: USSR, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary and Poland. This group is sometimes referred to as *nonmarket countries*.

Organisation for Economic Cooperation and Development members are Australia, Austria, Belgium, Canada, Denmark, Finland, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

The OECD Development Assistance Committee (DAC) comprises Australia, Austria, Belgium, Canada, Denmark, Finland, France, the Federal Republic of Germany, Italy, Japan, the

Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, the United States and the Commission of the European Communities.

The Organization of Petroleum Exporting Countries (OPEC) comprises Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates and Venezuela.

Economic and demographic terms are defined in the technical notes to the World Development Indicators on pages 184 to 192.

Billion is 1,000 million.

Tonnes are metric tons (1,000 kilograms).

Growth rates are in real terms unless otherwise stated.

Dollars are United States dollars unless otherwise specified.

Symbols used in the text tables are as follows:

.. Not available.

(.) Less than half the unit shown.

n.a. Not applicable.

1 Introduction

The external pressures on developing countries have shown little sign of easing over the past 12 months. The combined current account deficit of the oil-importing countries rose from \$26 billion in 1978 to \$70 billion in 1980 and may rise even higher this year. Slow growth in the industrial countries is curbing demand for developing countries' exports while the price of petroleum (a product that now constitutes some 25 percent of developing countries' import bills) increased over 80 percent in real terms between 1978 and 1980.

While many of the better-off developing countries have been able to expand exports and borrow extensively in commercial markets, for most of the poorer countries these new pressures come at the end of a decade in which they have made little or no progress. Some countries in South Asia have weathered the 1970s reasonably well. But the majority of the poor countries of Asia and Africa suffered reduced growth in the 1970s, participated negligibly in the expansion of world trade and benefited from aid increases only for a short period after the first oil-price rise.

Now they face the 1980s, which have started badly for them, with no sign of change in either their trade or their aid prospects. There is much to be improved in their domestic performance. But without more support from the inter-

national environment, their maximum efforts can at best yield only slow progress. The world will divide even more sharply between the haves and the have nots. These countries, even excluding China, have a population of well over 1 billion people. The 1980s therefore pose the question of how developing countries in general can maintain or accelerate their growth; and how the poor countries in particular can find ways out of an increasingly desperate predicament.

This fourth *World Development Report* offers an integrated discussion of international and national economic policy issues. It deals with the main dimensions of adjustment in the global economy, their counterparts in national economies, and the interactions between the two. The *Report* will thus:

- consider the prospects of the developing countries in the 1980s;
- analyze recent experience in world trade, energy markets and international capital flows; and
- examine the diverse nature of country adjustment to the transformed international environment.

Transformation is not too strong a word to describe the contrast between the 1960s and 1970s. Slow growth and fast inflation in the industrial countries, major increases in oil prices, the breakdown of the fixed-exchange-rate

system, the changing pace and character of international trade (with its acute contrast between the rapid export growth of manufactures and the much slower growth of exports of primary commodities), the steep rise in the flow of commercial bank loans to developing countries: few of these were foreseen a dozen years ago—a fact which counsels caution in looking at prospects in the 1980s. At the same time, those who quite properly expect the 1980s to be a period of trial for many developing countries may reflect that the 1970s witnessed international economic convulsions at least as serious as any that may be thought highly probable in the next 10 years. The world economy's capacity to withstand shocks has been severely tested. The tests were not passed with entire success; growth slowed down and weaknesses in the trading and financial environment have been exposed; but parts of the developing world have come through remarkably well.

To analyze the experience of the 1970s, this *Report* makes use of the extensive work carried out in the World Bank and elsewhere on the recent progress of development. The links between domestic and international policies and performance emerge clearly. Developing countries have to adjust to new circumstances; their effectiveness in doing so depends critically on

their domestic management as well as on the industrial and oil-exporting countries' domestic and international policies.

A second conclusion of the *Report's* analysis is the need for *durable* changes in economic policy. Over the past two years, many developing countries have paid for part of their increased import bills by a combination of short-term borrowing and drawing on reserves. By definition, these are temporary expedients. Certainly, developing countries will need to borrow more in the future, from both private and official sources. But many will have to take new steps—or intensify existing efforts—to increase exports or reduce imports so as to achieve smaller, sustainable deficits. For many of them, a principal result of the changed external environment is to make long-needed improvements in domestic economic management all the more urgent.

These domestic factors must complement the national and international measures required for an orderly transition to lower deficits. Structural changes are needed to help minimize the sacrifice of near-term growth and long-term development. In the absence of satisfactory national action and a supportive international environment, there will be a deflationary transition, involving severe and avoidable losses in output, and unnecessary human suffering and harm to development prospects.

Global adjustment

In international terms, perhaps the biggest change from the 1960s and early 1970s is the new importance of trade and financial flows in balancing out payments for oil. In this context, adjustment means ensuring that this balance, along

with changes in the use of energy, occurs in such a way as to permit world growth to return to something approaching its earlier pace. It may be impossible to match the growth rates of the 1960s, but it is surely possible to surpass the record of the past seven years.

The suddenness of the oil-price increases and their consequences for the pattern of global deficits and surpluses has required an equally fast realignment of trade and international borrowing. Much of this has taken place. Expanded exports have helped industrial and middle-income countries to pay for their oil imports. The low-income oil-importing countries have been less successful, although several of them have enjoyed various offsetting benefits (like migrant workers' remittances) from the rise in oil prices. Another part of adjustment is containing energy demand; this was slow to start, but has recently begun to make headway, especially in the industrial countries. A further component of adjustment, which takes even longer, will be changes in energy supplies: the transition to more plentiful fuels—especially coal—and eventually to renewable sources.

In aggregate terms, higher oil prices can be viewed as ultimately requiring an offsetting transfer of goods from oil-importing to oil-exporting countries. An equivalent effect would follow from any major terms-of-trade change, for example, between manufactures and primary commodities; but the scale and speed of the rise in oil prices give them particular significance. To the extent that oil exporters spend their new revenues, the transfer takes the form of the extra imports they buy; to the extent that they lend them to oil importers, the transfer is postponed—the lender acquires a financial

asset and the borrower pays interest. It is possible to envisage numerous different patterns of current account surpluses and deficits resulting from higher oil prices. On their own, however, they reveal little about the success of adjustment since that also depends on what happens to world economic growth.

The surpluses of one group of countries are by definition reflected in the deficits of others. But while the trade and financial flows which underlie them are synchronized as a whole, for individual countries export earnings and borrowing may not match their desired levels of imports. Oil exporters import mainly from the industrial countries, rather than from developing countries, which would help them pay for their oil. And no mechanism ensures that capital flows are distributed among deficit countries according to their balance-of-payments financing requirements.

In both trade and capital flows there is an asymmetry between the industrial and the developing countries. Not only do the industrial countries pay for a large share of additional oil bills by exporting to the oil producers; their balance of payments is much less affected by oil prices, and their adjustment and growth are mainly determined by their own policies. The oil exporters invest there, and they have easier access to capital in general. The developing countries' adjustment is more constrained: they depend heavily on the growth and openness of industrial-country markets for their exports and on the aid and credit institutions of the industrial countries for their external financial needs. The main force of world growth still flows from the developed to the developing world, even if today the new trade and financial links make the trans-

mission of economic activity in the reverse direction ever more important.

This *Report's* examination of trade, energy and capital flows draws attention to some particularly important conditions for the satisfactory functioning of global adjustment. They include the success of the *industrial countries* in mastering inflation and other constraints on growth, their avoidance of protectionism and their support for expansion of financial flows to developing countries from the private markets. The *oil-importing developing countries* need to expand exports and make efficient use of borrowed capital to increase productive capacity, so that loans can be serviced. In all the *oil-exporting countries*, patterns of domestic development are intertwined with policies on oil production and oil prices, which affect their import demand and also weigh heavily in the global balance. And the *international financial institutions* have a key role to play in becoming more prominent in facilitating international flows of commercial capital.

Many of these adjustments need time. While payment for higher oil import bills through trade and finance takes place rapidly, borrowing has its limits, and the resumption of sustainable growth above recent levels requires more fundamental changes—control of inflation, raising productivity, new investment to reflect rising energy costs. For low-income countries especially, reshaping domestic production to raise exports, economize on imports and take account of new energy scarcities must be a lengthy process. If they are not to be forced to adjust by curbing growth rates—which for most of them are already low—and abandoning other development objectives,

Table 1.1 Growth of GNP per person, by region, 1960–90

Country group	Population 1980 (millions)	GNP per person (1980 current dollars)	Average annual percentage growth			
			1960–70	1970–80	Low case 1980–90	High case 1980–90
Low-income oil importers	1,166	220	1.8	0.8	0.7	1.8
Africa (sub-Saharan)	175	260	1.7	–0.4	–1.0	0.1
Asia	991	210	1.8	1.1	1.0	2.1
Middle-income oil importers	735	1,710	3.9	3.1	2.1	3.4
East Asia and Pacific	183	1,242	4.9	5.7	4.3	6.0
Latin America and Caribbean	249	1,820	2.7	3.4	2.3	3.2
North Africa and Middle East	34	850	2.4	2.7	0.0	0.9
Africa (sub-Saharan) ^a	87	520	1.7	0.4	0.0	0.3
Southern Europe	152	3,070	5.7	2.9	1.7	3.3
Oil importers	1,901	790	3.4	2.7	1.8	3.1
Oil exporters	482	1,060	3.8	2.7	2.9	4.0
All developing countries	2,383	850	3.5	2.7	2.2	3.3
Low-income	1,307	250	1.8	1.6	1.5	2.6
Middle-income	1,075	1,580	3.9	2.8	2.2	3.4
China ^b	977	260	..	4.1	2.9	4.1
Capital-surplus oil exporters	27	7,390	..	4.2	2.1	2.8
Industrial countries	674	10,660	4.1	2.5	2.3	3.1
Nonmarket industrial economies	356	3,720	..	3.9	2.8	3.0

a. Not including South Africa.

b. GNP for China refers to 1979; growth rate is 1970–79.

they must receive reliable support from the international community. For the world economy as a whole, a period of transition is inevitable until the pattern of current account balances and foreign indebtedness can be managed more smoothly and with less frequent need for intervention by governments and international agencies.

Projections

The next chapter of this *Report* reviews the global prospects for the 1980s, bracketing in two scenarios what is considered a plausible range of developments. Because the decade has started with very slow growth in the industrial countries, the outlook is somewhat worse than was projected in last year's *Report*. Even under the higher scenario, average per capita incomes are expected to grow by only 1.8 percent a year in the low-income oil importers, com-

pared to 3.4 percent in the middle-income oil importers and 3.1 percent a year in the industrial countries (Table 1.1).

Both the relative and the absolute gaps between the richest and poorest countries will widen in the years ahead, including the gap between middle- and low-income developing countries. If nothing better than the lower scenario can be achieved, the number of people living in absolute poverty, now some 750 million, will increase by about 100 million people.

Trade

Chapter 3 looks at developing countries' trade and its role in adjustment. The great success of the 1970s was the export performance of the middle-income, and especially the semi-industrial, countries—success that is likely to continue, provided the industrial economies do not stagnate or become more protectionist. But

most of the low-income countries have participated hardly at all in the growth of world trade or in the growing "South-South" trade among developing countries: this is part of the explanation for their current plight. Their terms of trade, even excluding oil, deteriorated badly.

The chapter discusses the need for the industrial countries to tackle their problems of trade adjustment. An open and expanding trade environment is central to the health of the world economy in the 1980s. This is true for the growth of the industrial countries as well as for developing countries, whose exports and credit-worthiness are interconnected. But the chapter concludes that the poorest countries will generally not benefit much from trade unless their development also advances on other fronts.

Energy

A range of energy issues is considered in Chapter 4. It shows that the pattern of energy use and growing demand before the 1973-74 oil-price increase was unsustainable and describes what is needed to return to a sustainable path. It underlines that the two critically scarce fuels in the 1980s are oil and fuelwood. The chapter considers the economic factors governing trends in future energy prices, the changing composition of total energy use, the implications of higher energy prices for developing countries' growth prospects, and the energy policies that developing countries could adopt to reduce their vulnerability.

International capital flows

Chapter 5 of the *Report* describes how, in the mid-1970s, capital markets efficiently recycled the oil exporters' surpluses, particularly to middle-income developing

countries; while bilateral and multilateral aid programs initially responded to the needs of many low-income countries. The 1979-80 oil-price increases mean that heavy additional borrowing is needed to avoid unacceptably low growth rates. But there are now several causes for concern that were absent in the mid-1970s: many countries have already borrowed heavily; the banking system faces a growing number of constraints; and high interest rates will increase borrowing needs if there is to be a substantial *net* transfer of funds, while shorter maturities will call for more frequent refinancing. These are among the reasons why middle-income countries' requirements may not be met without the increased involvement of the international financial institutions; the latter have in fact already begun to play a more active role.

Once again, however, it is the plight of the low-income countries that most requires new initiatives. They need to borrow more—especially, more rapidly disbursing funds. Yet bilateral and multilateral aid agencies have not—and on present expectations are not likely to—come forward on anything like the scale that is needed. And at least one of the sources of foreign exchange which helped some low-income countries through the 1970s—workers' remittances—is not expected to grow as fast as before. Unless they receive more financial support, and quickly, their prospects are bleak. The result can only be further deprivation in the poorest countries, several of which have already had declining per capita incomes during the 1970s.

National adjustment

Having covered international issues, the *Report* then moves on

to consider domestic questions. Corresponding to each of the facets of global adjustment, national adjustment requires policies that over time, say in five to eight years, will reduce current account deficits to sustainable levels. This means that countries must often reduce consumption below what it would otherwise have been, and generate enough foreign exchange to cover the imports needed for growth by expanding exports or, alternatively, reducing import requirements. To the extent that increased financing is necessary to avoid sudden contraction during the adjustment period, they must be able to attract foreign capital. Patterns of production and consumption of energy must alter both so as to economize on its use and to encourage its domestic supply. In a time of austerity, it is more than ever essential to make the most efficient use of scarce resources in promoting economic and social objectives. In the long term, the strategy of development and the relative rates of expansion of different sectors must respond to higher energy costs and foreign-exchange constraints. Successful adjustment implies achieving this with the minimum sacrifice of income growth and without abandoning the goals of human development and a less unequal distribution of personal incomes.

National adjustment, like global adjustment, takes time. The experience of different countries has varied greatly, as Chapter 6 demonstrates.

● Low-income oil importers. Several have benefited both from internal developments—good harvests, successful adjustment policies—and from external factors (not least those originating directly or indirectly from higher oil prices: more exports to the oil producers, more aid from them, and large workers' remittances).

But the majority of low-income countries were harmed both by international changes (volatile, slow-growing demand for many countries' primary commodities, aid stagnating after a brief upsurge in 1974-75) and by their long-standing domestic weaknesses. Many were, in addition, racked by war and civil strife.

● Middle-income oil importers. Most of them adjusted fairly well to changed circumstances. Those with advanced manufacturing industry and easier borrowing opportunities could be flexible enough to expand exports and maintain growth. But a few of them—particularly those that borrowed to defer rather than accelerate adjustment, or took on over-ambitious new investment programs—did so in ways that will produce problems in the 1980s. And the position of some of the less well-off middle-income primary producers is comparable to that of the low-income countries.

● The oil exporters. They comprise some 20 percent of the population of developing countries and benefited from the changes of the 1970s. For many of them, however, extra oil revenues have not been enough to finance all their planned investments and import needs. And all face the particular difficulty of avoiding rapid domestic inflation—which will occur if their expansion plans run ahead of productive capacity for goods or services that cannot be imported. The capital-surplus oil exporters have a special concern over the rate of immigration which has had to accompany their new growth. For all oil exporters, there is a premium on developing human resources and on choosing projects with benefits that will outlive their oil reserves.

Chapter 6 also discusses recent developments in China, which is going through its own period of

"adjustment and reform." And it examines a variety of internal and external factors which are inducing adjustment in the nonmarket industrial economies.

Human development

Last year's *World Development Report* was devoted largely to questions of human development. It stressed a number of themes—that mitigating poverty, improving health and nutrition, promoting family planning, raising educational levels and enhancing other living conditions were interrelated goals, important for their own sake; and that the investments required for these purposes were not just humanitarian in their concern but made major contributions to economic growth.

Chapter 7 of this *Report* restates these themes. It looks first at the likely impact of national adjustment on human development programs, which are obviously at risk at a time of budgetary stringency. It argues that these programs do not have to be cut, or at least not severely; if cuts are inevitable nonetheless, it suggests how they can be effected with the least damage to human development. Unless these programs are maintained, many more millions will live and die in appalling poverty.

Food and nutrition are examined from three main standpoints: the relation between world food supplies and measures to improve food security for countries and for individuals; the conflict in domestic agricultural policy between poor people's needs for low food prices and the higher prices needed for incentives to farmers; and international and national action necessary to overcome widespread hunger.

The chapter also discusses population issues. If food and other

human needs are not met and human development does not advance, that is bad enough in itself. But there is a further consequence. The volumes of research on population in recent years demonstrate clearly that poverty and rapid population growth are linked. Failed development translates directly into failure to slow the rate of world population growth. This reinforces the hardship of developing countries in one of their many vicious circles: the population growth which results from poverty makes the removal of poverty more difficult.

Nor will that hardship necessarily be confined to developing countries. A world of 1.5 billion people in 1900 grew to one of 4 billion by 1975 and will exceed 6 billion by the end of this century. The pressures this will bring to every country will be considerable, since all are affected by world demand for food and for finite resources, and by the dangers to clean air and oceans. Failure to slow population growth substantially by the end of this century means that rapid population growth will continue in the next, and lead to an ultimate world population of 11 billion or more instead of the 8 billion at which it could be stabilized. Any residual belief that industrial countries can somehow immunize themselves from the problems faced in the developing world will then be painfully exposed.

Interdependence

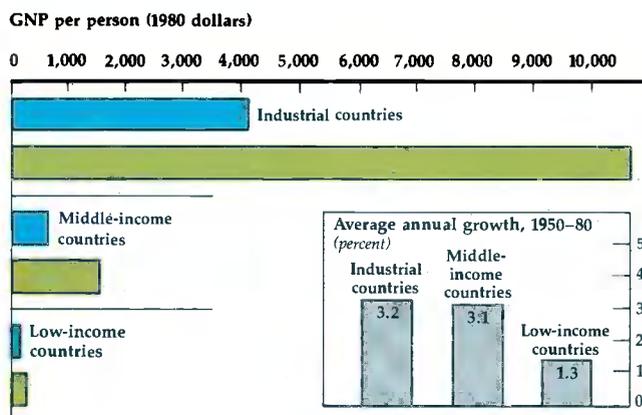
This last theme is one of many instances of interdependence among issues and among countries brought out in this *Report*. The final chapter provides an overview of interdependence; summarizes the *Report*; and draws some conclusions on world economic prospects and the policies required to improve them.

Figure 1.1 Three decades of progress: income, health, education, 1950–80

Income

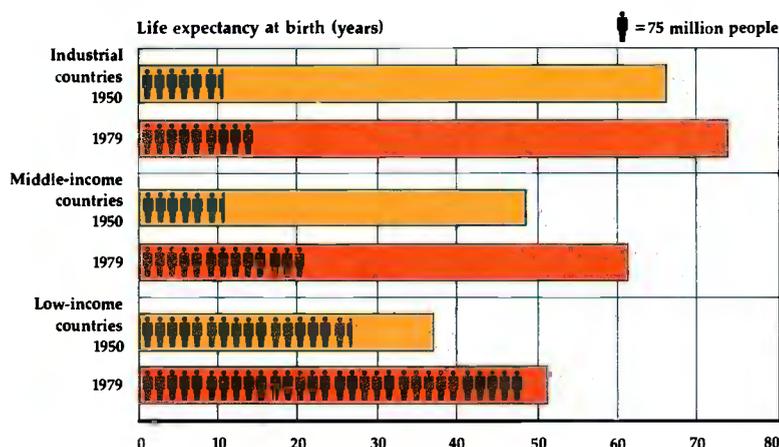
GNP per person (1980 dollars)	1950	1960	1980
Industrial countries	4,130	5,580	10,660
Middle-income countries	640	820	1,580
Low-income countries	170	180	250

Average annual growth (percent)	1950–60	1960–80
Industrial countries	3.1	3.3
Middle-income countries	2.5	3.3
Low-income countries	0.6	1.7



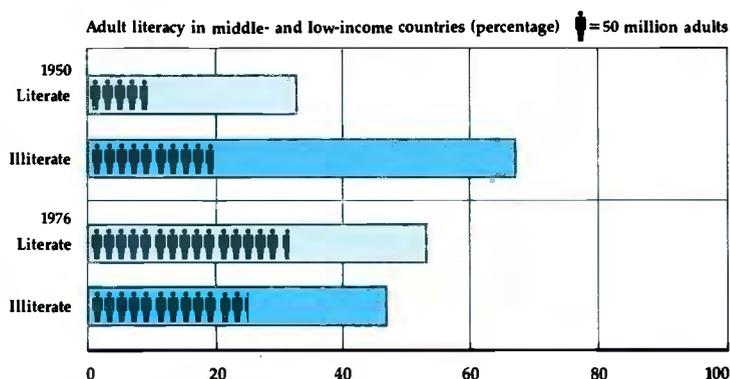
Health

Life expectancy at birth (years)	1950	1960	1979	Increase 1950–79
Industrial countries	67	70	74	7
Middle-income countries	48	53	61	13
Low-income countries	37	42	51	14
Nonmarket countries	60	68	72	12



Education

Adult literacy rate (percentage)	1950	1960	1976
Industrial countries	95	97	99
Middle-income countries	48	53	72
Low-income countries	22	28	39
Nonmarket countries	97	97	99



Note: All tables exclude China.

Challenge of development

Future goals must be judged in the light of past achievements. In many countries, independence came less than 20 years ago and

economic development has been a formal policy goal for only a relatively short time; yet considerable strides have already been made. Among the middle-income countries, GNP per person has risen

almost two-and-a-half times in real terms during the past 30 years, from some \$640 in 1950 (1980 dollars) to \$1,580 in 1980. In the low-income countries, per capita incomes rose by less than

one-half, from \$170 (1980 dollars) in 1950 to \$250 in 1980; a gain of only \$80 per person in 30 years—though in the great majority of them, significant gains have nonetheless been made in combating illiteracy, in improving education and health, in lowering mortality and fertility.

By contrast—and it is a stark contrast—in that same 1950–80 period the average income per person in the industrial countries increased by over \$6,500 (Figure 1.1). These income figures should not be taken too literally—to reflect purchasing power differences, those for developing countries should be adjusted upwards by a factor of 2 or more. Nevertheless, the contrast remains.

Not surprisingly, most developing countries regard industrialization itself as the main path to prosperity, so much so that many of them have paid insufficient attention to complementary primary production, particularly

food production. Many middle-income countries owe a considerable part of their growth to expanding output and exports of manufactures. Yet in the low-income countries manufacturing accounts for only 13 percent of GNP, and that is only two percentage points higher than it was 20 years ago. This does not imply that low-income countries cannot progress. Being a low-income country is not an immutable fact; it is a statistical category. The middle-income countries were poor once themselves; some are still only narrowly above the line which separates them from the low-income countries. Some, however, have advanced from a low starting point with striking speed even in the past two decades; and several low-income countries have reasonable prospects of raising their incomes substantially in the years to come.

Thus the questions of this *Report* are old questions: how can developing countries achieve

growth with equity and sustained human development? Will the international environment complement their efforts? But some of the answers and the facts that underlie them are new. In a certain sense, the 1970s may be remembered for giving a new shape to the world economy. This is not the product of the search through negotiation for greater equality of economic opportunity among nations which the developing countries have pursued; little progress has been made along that route. Rather, what has evolved is a different pattern of economic power, with new centers of production, finance and trade, and new forms of interdependence. The result has been both severe difficulties and favorable opportunities for the developing world; the 1980s will determine whether the opportunities can outweigh the difficulties, even for the poorest countries.

2 A ten-year perspective

The 1980s have begun on a sluggish note. Growth in the industrial market economies as a group slowed down sharply in 1980 and will remain slow in 1981 as well. These countries show few signs of overcoming the inflationary legacy of the 1970s—just one of several similarities between the two decades. Others include rising real oil prices; continuing large trade deficits and, consequently, heavy borrowing from abroad by the developing countries; and the prospect of much slower growth in low-income countries than in middle-income countries.

The 1980s will not, however, be a straight rerun of the 1970s; the contrasts between the two could be almost as significant as the parallels. For example, the price of energy in real terms is unlikely to fall in the 1980s as it did in the last half of the 1970s. The reality of higher energy prices has been accepted and the need to make adjustments recognized by most countries. Many of the lessons of the 1970s have now been learned so that countries may adjust more effectively, and with less loss of growth, than they did before.

This chapter highlights the international influences on developing countries. The various projections and assumptions it makes about the three most important of those influences—trade, energy and external finance—are drawn from the de-

tailed analysis in the next three chapters. But the developing countries' domestic policies also affect their performance. Their achievements in boosting saving and investment; in making efficient use of their capital and human skills; in expanding exports and economizing on imports—all these, as Chapter 6 demonstrates, have powerfully influenced their record in the past, and will continue to do so.

In practice, national and international factors are connected. With a favorable external environment, developing countries may find it easier to make internal adjustments. On the other hand, the degree to which the external environment deteriorates will determine the scope of internal adjustment required. For example, a slight increase in current account deficits can be covered by external borrowing in the short and medium term, but a larger deficit will require more fundamental changes over the longer term. These links are incorporated in the projections contained in this chapter.

Growth in the 1970s

The *industrial countries* grew at just over 5 percent a year in the 1960s and, until the last years of the decade, experienced relatively little inflation or unemployment. Their erratic growth in the 1970s

averaged only 3.3 percent a year. Aggregate output fell in 1974–75; although it then recovered, the steady growth of the 1960s has not been resumed. Of all the different country groups, the industrial countries have fallen farthest below their earlier trend.

The reasons for this performance are both familiar and complex and can be reviewed only briefly here. The problems of the 1970s were rooted in the late 1960s. At that time, several European economies experienced rapid wage inflation. In the United States major new social programs and the Viet Nam war raised government spending substantially, with no additional taxation to finance it. Slowing productivity growth in American agriculture and manufacturing also made its first appearance in the mid-1960s.

Corrective measures led to a mild recession in the industrial countries in 1970–71—but inflation did not slow down. Later, expansionary policies produced a sharp recovery—and another surge in inflation. As a group, these countries experienced double-digit inflation for the first time in 1972, with a further rise in 1973. Stagflation had been born, with successive peaks of activity at ever higher unemployment levels and a seeming disappearance of the "trade-off" between inflation and unemployment.

Growth in many economies

was pushing against a ceiling, both physically and in terms of the increasing difficulty of resolving competing claims for the fruits of the growth. Certainly, the relation between growth and energy use was untenable and had to be corrected. Some commentators even suggest that a longer cycle has been in progress, involving a fundamental slowdown in technological innovation and investment.

The 1973–74 rise in oil prices threw the industrial countries into further disarray, because:

- The contractionary effect of the price increase, on top of restraint imposed to curb the excessive expansion of 1972–73, halted economic growth in 1974–75.

- The unpredictability of future oil prices induced a mood of great uncertainty both for private investors and for government fiscal and monetary managers.

- The oil-price increase itself added to inflation—although by how much is controversial. At least in the countries where inflation was moderate, rising oil prices did not impart a major extra inflationary impetus (Figure 2.1).

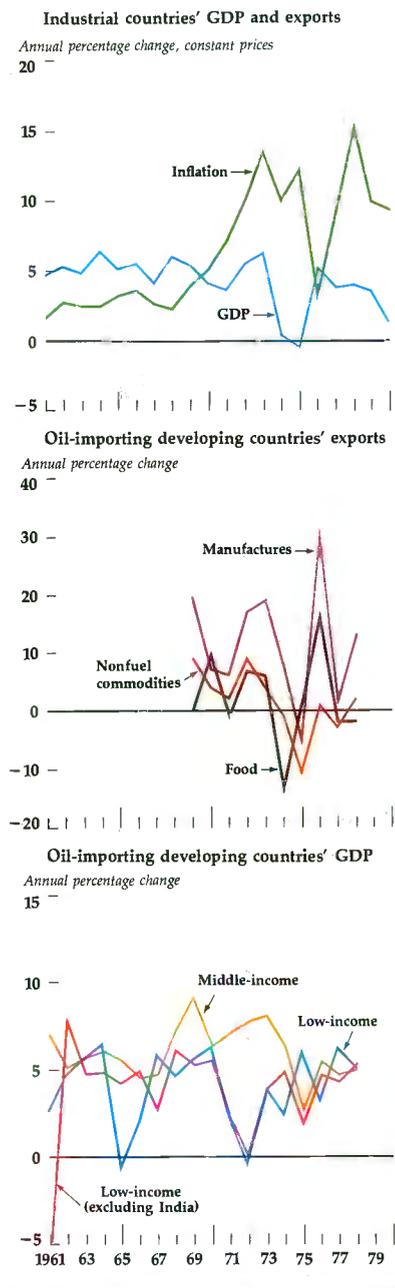
The marked slowdown in the industrial economies in the mid-1970s led to a relatively quick return to current account balance. In 1974 they had run a collective deficit of \$8 billion; by 1978 this had been converted to a surplus of \$30 billion. Yet reduced deficits are not themselves evidence of successful adjustment; if they are achieved simply by slowing down activity, they underwrite the contractionary effect of higher oil prices. That was the main result of the industrial countries' post-1973 response to more expensive energy. They were slow to start economizing on their use of oil, even though their earlier rapid growth of consumption had itself contributed to price increases.

Their most successful short-term adjustment—a sharp rise in their exports to the oil exporters—was dwarfed by the effects of slower economic activity.

The slowdown in productivity growth now affected not just the United States but Europe and Japan as well; and few countries managed to curb inflation other than by severely reducing their growth. Inflation became the central issue of economic policy. Governments started paying more attention to supply factors, fearing that boosts in demand would raise prices, not output, if productive capacity was growing slowly. At the same time, investment resources had to be used to replace capital stock made obsolete by the changes in energy prices, reducing the potential increase in productive capacities.

After falling by 9 percent between 1975 and 1978 in real terms, oil prices rose 83 percent in 1979–80. In percentage terms, this was less than half as large as the increase of 1973–74. But because oil had a larger weight in total spending by 1979, the size of the "oil transfer" was on each occasion about 2 percent of the industrial countries' GDP. It is still too early to be sure how the industrial countries will respond this time. Certainly, they have managed to avoid as severe a fall in output as they had experienced in 1974–75. Investment has not fallen as much. Their combined current account deficit has not been coming down as quickly as it did in 1974–75. Finally, it is clear that the industrial economies have been becoming more economical in their use of oil (Chapter 4). Coupled with a growing supply of energy from domestic sources, this meant that in 1980 they imported only 18 percent more oil than they did in 1970, despite the 37 percent rise in their real GNP.

Figure 2.1 GDP, inflation and exports by country group, 1961–80



The progress of *developing countries* has been influenced both by the external environment and by their domestic policies. For the oil exporters, where one-fifth of the population of developing countries lives, the 1970s were a period of rapid growth. Some developing countries also obtained indirect

benefits from higher oil prices—by increasing their exports to the oil producers or from remittances of migrant workers or from aid from the oil producers.

As a group, oil importers were affected in two main ways by the events of the 1970s:

- Their current account deficit widened, from \$7 billion in 1973 to \$33 billion in 1974 and \$39 billion in 1975 (5.2 percent of GNP). It then fell to \$26 billion by 1978 as the industrial countries recovered and the developing countries expanded their exports. But the 1979–80 oil-price increase and slower growth in the industrial economies boosted the developing countries' current account deficit to \$44 billion in 1979 and \$70 billion in 1980 (4.5 percent of GNP). Preliminary estimates indicate that it may remain at about this level in 1981.

- Their growth slowed down, but there were marked differences between the low-income and the middle-income countries. Per capita growth rates in the low-income countries were more than halved (from 1.8 percent in the 1960s to 0.8 percent in the 1970s). However, with the exception of certain African countries, the middle-income oil importers grew strongly throughout 1960–80. Their manufacturing growth averaged 7.6 percent a year in the 1960s and 6.8 percent a year in the 1970s. Allowing for population growth, their performance compares favorably with that of the industrial countries. GNP per person in the middle-income countries rose 3.6 percent a year in the 1960s and 3.1 percent a year in the 1970s, compared with 3.9 percent and 2.4 percent in the industrial countries.

Prospects for the 1980s

The future is best explored not by

attempts at precise forecasts but in terms of scenarios that span the range of reasonable expectations. This *Report* therefore follows last year's approach in presenting its projections in the form of High and Low cases. In addition, it examines the sensitivity of these projections to external factors and departures from present trends. The projections posit smoothly continuous activity, not the bumpy experience of the real world; they are therefore concerned with the average rates of change over the decade, not year-to-year movements. (While 1980 is treated as an actual year in the following discussion, in fact many of the data, particularly for developing countries, are based on estimates or projections.)

Growth in industrial market and nonmarket economies

The industrial countries are an important influence on the economic health of the developing world. The impact of the oil-price increase contributed to a fall in their growth rates to only 1.4 percent in 1980, well below the 3.5 percent annual average in 1970–78. Their recession has probably now bottomed out, and recovery will begin in late 1981 or early 1982.

This recession has not been, and the recovery is not projected to be, as sharp as in the mid-1970s. The

industrial countries need to make structural adjustments in order to boost productivity growth, economize on energy and stimulate its production. Most important of all, they need to find some way of containing inflation while growing fast enough to reduce unemployment.

The High case reflects a view that the industrial countries will be relatively successful in meeting these challenges (Table 2.1). If so, growth will recover significantly in the second half of the decade, from 3.3 percent a year in 1980–85 to 4.0 percent a year in 1985–90. This would still be considerably below their 1960s' average of 5.1 percent but about equal to their performance in the early 1970s.

If the industrial countries fail to make the necessary adjustments, their growth is likely to be closer to that of the Low case. Under this scenario, recovery is somewhat slower in the first half of the 1980s. Continuing difficulty in mastering macroeconomic problems, and possible external disturbances, then restrain the average rate of growth for the 1980s to only 2.8 percent a year (compared with 3.6 percent in the High case).

The international environment will also affect the nonmarket economies, though to a lesser extent. Given the labor-supply and energy constraints that many of them are experiencing, they will

Table 2.1 Growth of GDP in industrial countries, 1970–90
(average annual percentage change)

Country group and region	Actual	Projected					
	1970–80	High case			Low case		
		1980–85	1985–90	1980–90	1980–85	1985–90	1980–90
Industrial market economies	3.3	3.3	4.0	3.6	2.6	3.0	2.8
North America, Japan, Oceania	3.6	3.6	4.2	3.9	2.9	3.2	3.1
Western Europe	2.8	3.0	3.6	3.3	2.2	2.7	2.4
Nonmarket industrial economies	4.8	4.0	3.8	3.9	3.8	3.6	3.7

Table 2.2 Growth of export volumes, goods and nonfactor services, 1970–90
(average annual percentage change)

Origin	1970–80	High case			Low case		
		1980–85	1985–90	1980–90	1980–85	1985–90	1980–90
World exports	5.3	5.0	6.4	5.7	3.5	3.8	3.7
Developing countries ^a	4.7	5.9	8.2	7.0	3.7	4.2	3.9
Oil importers	6.3	6.8	9.5	8.2	4.0	4.7	4.3
Oil exporters	1.6	3.6	4.0	3.8	3.1	2.8	2.9
Industrial countries	5.5	4.9	6.2	5.5	3.5	4.0	3.8
<i>Memo item</i>							
Industrial countries' imports	4.3	3.9	5.8	4.8	2.6	3.4	3.0

a. Excludes China.

find it hard to grow as rapidly as the 4.8 percent a year average of the 1970s. They are projected to grow by 3.9 percent a year in the High case and 3.7 in the Low. On past evidence, their performance barely affects the developing countries.

TRADE. Two important influences on world trade in the 1980s, as in the 1970s, will be growth in the industrial countries and the nature and extent of protectionism. Both factors are linked. Slower growth will not only limit demand for developing-country exports but could also increase pressures for greater protection—particularly against manufactures—as unemployment in industrial countries rises.

Conversely, slow growth is less likely if protection is avoided since protection itself would reduce the incentives that promote technological innovation and productivity improvements. The interaction between growth and protection is discussed in more detail in Chapter 3.

The High case projects world export growth of 5.7 percent a year in the 1980s; the Low case sees only 3.7 percent a year (Table 2.2 and Figure 2.2). For the developing countries, exports are expected to average 7.0 percent in the High case and 3.9 percent in the Low case.

For primary goods and services, the sluggishness of the Low case is the result purely of slower industrial-country growth. For man-

ufactured goods, however, the Low case also presumes increased protectionism, so that the share of developing-country exports in the industrial countries' consumption of manufactured goods remains fixed.

This would have a dramatic effect, reducing the growth in developing countries' manufactured exports from 12.2 percent a year in the High case (much the same as the average for the 1970s), to only 5.1 percent in the Low case (Table 2.3). This combination of slower OECD growth and increased protectionism results in a trade growth rate significantly below the trends of the 1970s.

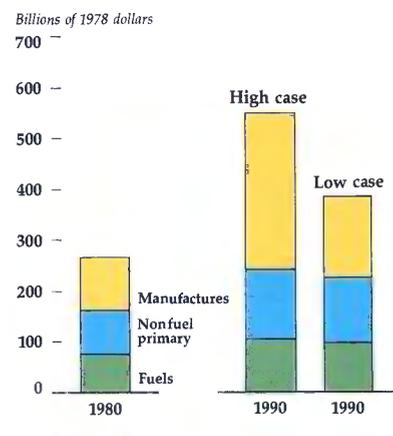
Developing-country exports are not wholly dependent on industrial-country growth and trade policies. Trade among developing countries has grown since 1973, a large part of which involved exports from the oil importers to the oil exporters. South-South trade will become even more important in the future as these countries' imports continue to grow rapidly (see box, overleaf). The demand generated by the oil producers affects not only visible

Table 2.3 Exports of all developing countries, 1970–90

Export composition	Value (billions of 1978 dollars)			Growth rate (average annual percentage change)		
	1980	1990		1970–80	1990	
		High	Low		High	Low
Merchandise, total	264.4	550.3	386.4	4.6	7.6	3.9
Nonfuel primary	88.9	131.6	123.6	3.9	4.0	3.4
Fuels	73.0	105.3	98.0	0.0	3.7	3.0
Manufactures	97.4	308.3	159.6	12.9	12.2	5.1
Services	96.5	162.3	144.9	5.0	5.3	4.2
Goods and services ^a	360.9	712.6	531.3	4.7	7.0	3.9

a. Nonfactor services only.

Figure 2.2 Developing countries' merchandise exports, 1980 and 1990, High and Low cases



Some other factors: South-North and South-South

The projections presented in this chapter mainly show the impact of the behavior of industrial and oil-exporting economies on the developing countries. The growth and performance of the latter, however, will also have an important influence on the trade and growth performance of the industrial countries. In other words, there are important flows from South to North as well as from North to South. While these "feedback effects" are weaker and more difficult to estimate, it has been estimated that policies which raise developing-country growth by 1 percent, are likely to "feedback" on the growth rate of the OECD countries so as to increase their growth by about 0.1 to 0.2 percent (which in turn would have a further small effect on the developing countries).

Another missing element in the discussion is the fact that not all developing-country exports go to the industrial countries; there is a significant and growing amount of South-South trade in today's world. The matrix gives some very approximate figures for the shares of world trade between the "North"—industrial market and nonmarket economies—and the "South," which includes both developing and capital-surplus oil exporters. These matrices show that

South-South trade is projected to increase (in the High case) from 7 to 9 percent of world trade between 1980 and 1990. More importantly, South-South trade will increase as a share of total exports of the South from 27 to 32 percent. Much of this increase is accounted for by the exports of primary products to both the oil exporters and the semi-industrial countries. South-South trade in primary products is projected to increase from 8 to 11 percent of world trade. On the other hand, South-South trade in manufactures is expected to remain at about 5 percent of world trade during the decade. The easing of trade restrictions between developing countries could result in a significant increase in trade and growth and help offset the adverse influence of more sluggish OECD growth.

Trade Flows
(percentage of world trade)

Year	From/to	North	South	Total
1980	North	50	24	74
	South	19	7	26
		69	31	100
1990	North	51	21	72
	South	19	9	28
		70	30	100

trade but also the export of certain services, such as construction. In addition, many developing countries earn considerable foreign exchange from remittances sent back from migrants to the oil-producing countries.

CAPITAL FLOWS. The importance of foreign capital for development is difficult to estimate precisely. For all oil importers during 1975–78, net transfers of foreign resources (the "resource gap"—see box, page 13) totaled 3.7 percent of GDP, compared to investment rates of about 24 percent of GDP. Foreign capital therefore financed nearly one-seventh of total investment—a significant, but not dominant, contribution. On the other hand, most gross investment in developing

countries takes the form of housing and other construction. Foreign capital often provides the essential imports of machinery and materials that make other domestic investments possible.

There is considerable uncertainty about the amount of *commercial capital* developing countries will be able or willing to borrow in the 1980s (Chapter 5). The prospects for world output and trade themselves interact with the capital forecasts. Faster growth in the industrial countries would boost developing countries' exports and terms of trade—and therefore their ability to contract and repay commercial debt. It could also encourage industrial countries to increase their aid (Table 2.4).

This *Report* assumes that private

capital flows will grow less rapidly in the 1980s than they did in the 1970s. As Chapter 5 shows, the commercial banks have already lent heavily to the developing countries, and may therefore be more reluctant than before to increase their exposure. In addition higher interest rates have discouraged some potential borrowers. Some of the largest borrowers face problems of debt management that may deter them from increasing their debt so much again. The oil exporters will again have the capacity to borrow, but possibly less need to do so than in the 1970s.

The High case projects nonconcessional capital flows increasing at about 10 percent a year during the 1980s, and about 5 percent in the Low case, net of repayments. Since inflation is assumed to average 7 percent a year, the real transfer would fall in the Low case. These projections may prove too low if developing countries can improve their debt-servicing capacity by higher exports. No allowance has been made, moreover, for a bigger lending role for the International Monetary Fund (IMF).

Net disbursements of *Official Development Assistance* (ODA) from all donors in 1980 were \$35.4 billion, of which \$26.6 billion came from DAC donors. The latter represents a level equal to 0.37 percent of the combined GNP of the DAC countries, compared with an average for the previous five years of only 0.34 percent. For the High case, it is assumed that this higher level of 0.37 percent is maintained through 1990; for the Low case a decline is projected to 0.33 percent. ODA from OPEC countries is assumed to rise from \$7 billion in 1980 to \$15 billion in 1990 in both cases. While net disbursements from all donors amounted to over \$35 billion in

1980, the actual receipts of ODA by developing countries were about \$22 billion. The difference between these two figures is accounted for by technical assistance flows which are not recorded in the balance of payments, and contributions to multilateral organizations which have not been disbursed or which form the capital base for nonconcessionary lending. On this basis, the projected total ODA inflow for developing countries would range between \$54 and \$66 billion in 1990, depending largely on GNP growth in the OECD countries. The High case also assumes a considerable reallocation of ODA, so that 50 percent of it goes to the low-income countries by 1990, compared with the present 34 percent. The High case thus incorporates a fair degree of optimism about ODA for low-income countries.

ENERGY. Energy prices remain one of the key uncertainties affecting growth prospects. On the evidence discussed in Chapter 4, real petroleum prices are likely to increase at some 3 percent a year

Capital flows: a glossary

Confusion often arises over the definition of such terms as trade balance, resource balance, resource gap and the current account balance. In this *Report* they are defined as follows:

- *Trade balance.* Exports of goods minus imports of goods, or the balance on merchandise trade.

- *Resource balance.* Exports of goods and nonfactor services minus imports of goods and nonfactor services. Essentially, the trade balance plus the balance on trade in services (such as tourism, shipping), but excluding factor payments (such as interest, workers' remittances and dividends).

- *Resource gap.* Imports of goods and nonfactor services minus exports of goods and nonfactor services, or the resource balance with the opposite sign. This gap constitutes the net transfer of resources from abroad and is equal to the

difference between gross domestic investment and saving. Countries with a negative resource gap (or positive resource balance) save more than they invest and transfer resources abroad.

- *Current account balance.* In the standard definition, as used by the IMF and others, this is equal to the resource balance plus net factor income, plus net transfers, both private and official. Because of interest payments on loans, developing countries typically make net factor payments abroad, so their current account deficit is larger, in a negative sense, than their resource balance. It is the Bank's practice, however, to exclude official transfers from the current account deficit. Since these are composed largely of official development assistance received in grant form, it is more appropriate to treat them as a means of financing current account deficits.

in the 1980s, or 10 percent a year in nominal terms. This would raise the OPEC average price from \$30.50 a barrel in 1980 to \$42 a barrel (in 1980 dollars) in 1990.

A smooth upward trend in petroleum prices is not meant to imply that they will not fluctuate, but that 3 percent will be the aver-

age annual increase. That is consistent with the range of growth rates projected for the industrial countries and the likely availability of energy supplies. It has therefore been used for both Low and High cases. In the Low case, demand for oil is reduced, but it is assumed that oil producers would

Table 2.4 Net financing flows, all developing countries, 1970-90

(billions of dollars, current prices)

Source	Actual		Projected ^a				Growth rates ^a (percentage)		
	1970	1980	High		Low		1970-80	1980-90	
			1985	1990	1985	1990		High	Low
Official Development Assistance ^b	4.1	21.7	40.9	65.7	35.3	53.6	18.1	11.7	9.5
Nonconcessional loans									
Official	1.2	8.1	13.1	22.0	12.3	18.7	21.0	10.5	8.7
Private	6.0	36.9	54.7	94.6	38.8	55.2	19.9	9.9	4.1
Direct investment									
Total ^c	2.5	8.6	15.7	24.4	13.6	19.4	13.2	11.0	8.5
Total, 1978 prices	13.8	75.3	124.4	206.7	100.0	147.0	18.5	10.6	6.7
Total, 1978 prices	29.5	62.7	70.5	87.5	56.6	62.2	7.8	3.2	-0.2
<i>Memo item</i>									
Net exports (goods and services)	-8.5	-52.0	-67.2	-128.3	-55.9	-92.1	19.9	9.5	5.9
Net exports (1978 prices)	-18.2	-43.3	-38.1	-54.3	-31.6	-39.0	6.7	4.5	1.1
Current account balance ^d	-10.9	-68.6	-95.4	-173.4	-84.4	-129.6	18.4	11.5	8.2
DAC-ODA: GNP (percentage)	.34	.37	.37	.37	.34	.33			

Note: All items net of repayments.

a. Average annual percentage change.

b. Includes ODA grants (official transfers).

c. Excludes short-term capital and reserve changes.

d. Excludes official transfers.

e. Deflated by OECD GDP deflator.

restrain their production to match world demand, so that the real price would be maintained.

Developing-country performance

In the 1970s developing countries adjusted in different ways to a world of moderate growth in output and trade and rising real energy prices. In the 1980s they face a similar need to adjust. Their performance will depend on several factors, including their ability to increase the inflow of external capital and to raise the rate of domestic saving in order to finance investment aimed at restructuring their economies. Also of critical importance will be their success in increasing export growth and reducing dependence on imported oil, capital goods and raw materials.

Table 2.5 summarizes the difference between the High and Low cases in terms of some macroeconomic indicators. For oil importers the ratio of net fuel imports to GDP (both in constant prices) declined from 3.3 percent in 1970 to 2.7 percent in 1980; it is assumed to fall to about 2 percent by 1990.¹ That will require considerable efforts of conservation, and substitution of domestic for imported energy. Historically energy consumption has increased more quickly than GNP when countries are industrializing and urbanizing.

The oil importers have so far responded to the 1979–80 oil-price increases by raising their foreign borrowing. The current account deficit rose from 2.3 percent of GDP in 1978 to 4.4 percent in 1980. In the longer term, however, their rising debt-service burden, coupled with the limited availability

1. In constant 1978 prices, this ratio reflects the relationship between the volume of production and the volume of oil imports. In current prices the ratio is 5.2 percent in 1980.

Table 2.5 Performance indicators, oil-importing developing countries, 1970–90
(percentage of GDP)

Item	1970	1975	1978	1980	High		Low		
					1985	1990	1985	1990	
<i>Constant (1978) prices</i>									
Fuel imports, net ^a	3.3	2.6	2.8	2.7	2.5	2.3	2.6	2.1	
Nonfuel imports	21.8	21.0	19.9	20.2	20.4	23.8	17.9	18.4	
Exports	19.2	19.7	21.1	21.6	23.5	28.0	21.7	22.1	
Savings	19.9	19.2	20.8	21.5	21.7	21.9	20.7	21.1	
<i>Current prices</i>									
Current account deficit	2.4	5.1	2.3	4.4	3.2	3.0	2.9	2.4	
Fuel imports, net	1.0	2.9	2.8	5.2	5.8	6.1	5.9	5.6	

a. In constant 1978 prices, this ratio reflects the relationship between the volume of production and the volume of oil imports.

of concessional capital, means that they will have to rely less on foreign borrowing. In the High case, increased domestic saving substitutes partially for foreign capital, and exports increase from some 21 percent of total value added in 1978 to about 28 percent by 1990. Combined with the savings on fuel imports, the oil importers manage to absorb the impact of higher oil prices while reducing their dependence on foreign capital inflows.

The Low case takes a less favorable view on all these counts. As a share of GDP, exports remain roughly at their 1980 level, as does domestic savings. Poorer domestic performance affects creditworthiness, and thus limits the supply of foreign capital, and imports have to be cut to reduce current account deficits. Inevitably, the cost of this squeeze is slower growth.

PROJECTED GROWTH, DEVELOPING COUNTRIES. The overall effect of all these different influences suggests that developing countries could improve on their record of the 1970s, when they grew at 5.1 percent a year. In the 1980s the High case projects about 5.7 percent a year, the Low case about

4.5 percent (Table 2.6). While countries adjust, growth is constrained. In the High case, it regains its pace of the 1960s and early 1970s. In the Low case, growth remains below historical averages throughout the decade.

Average growth rates for all developing countries conceal the likely diversity of experience between groups of countries, as well as individual countries. The oil exporters, for instance, are expected to grow reasonably fast in both High and Low cases. Their oil exports help to insulate them from the external influences that affect the oil importers. On the other hand, the sub-Saharan African countries will grow by only about 3 percent a year, even in the High case. In the Low case, their GNP is likely to grow less rapidly than their population, and below what was achieved in the 1970s. These countries face difficult problems arising from both external events and such internal factors as poor original resource endowment and weak domestic policy formulation.

On the other hand, the middle-income oil importers, with their better resource endowments and more open trade policies, are expected to do better than the low-

income countries. Their overall growth rates are likely to average between 5 and 6 percent a year, with those in the East Asia region perhaps reaching as high as 8 percent in the High case. As a result, the disparity in per capita incomes between the low-income and middle-income countries will widen in either the High or the Low case.

SENSITIVITY TO WORLD GROWTH. The relative importance of the various factors affecting the developing countries' performance can be roughly gauged by further simulations of the world economy. Table 2.7 indicates the impact of slower OECD growth and reduced capital inflows on the High case projections. These simulations indicate that, if the OECD countries achieve only the growth projected in the Low case, this could slow the oil importers' growth from 5.4 to 5.0 percent a year. The effect on the middle-income oil importers is greater than on the low-income countries because of their greater dependence on exports to the industrial countries. If in addition the capital flows of the Low case are assumed, the growth rate of the oil importing countries would fall to 4.8 percent a year because of their

Table 2.7 GDP growth rates, 1980-90
(average annual percentage)

Country group	High case	Lower OECD growth	Lower	Low case
			OECD growth plus lower capital flows	
Oil importers	5.4	5.0	4.8	4.1
Low-income	4.1	4.1	3.7	3.0
Middle-income	5.6	5.1	5.0	4.3
Oil exporters	6.5	6.5	6.5	5.4
All developing countries	5.7	5.4	5.3	4.5
<i>Assumptions</i>				
OECD growth, 1980-90	3.6	2.8	2.8	2.8
Resource gap, 1990 (billions of 1978 dollars)	54.3	54.3	39.0	39.0

inability to finance the required imports. The balance of the difference between this simulation and the Low case is a result of the assumptions of greater protectionism in the Low case plus poorer performance in the developing countries themselves.

Naturally, these simulations only indicate what might happen given certain changes in the assumptions of the underlying model. They do not consider possible offsetting effects: for example, better performance in the developing countries themselves could raise their growth, even with a deteriorating external

environment. These projections, therefore, should be taken only as illustrating the relative importance of certain factors affecting growth. The future is always uncertain, and it is possible that the projections of OECD growth and capital flows themselves could be too low. It is therefore possible to envisage circumstances in which the High case might be exceeded (see box, overleaf).

CAPITAL REQUIREMENTS FOR FASTER GROWTH. The low-income countries in particular, and the oil importers in general, could be helped by a larger inflow of ODA. While ODA is a relatively small part of the total resources available to all developing countries, it accounts for about 14 percent of the low-income countries' investment and about 20 percent of their imports.

To move the low-income countries from the 3-percent-a-year growth of the Low case to the 4.1 percent of the High case would require additional ODA of about \$30 billion in 1990 at current prices or about \$15 billion at 1980 prices. That extra \$30 billion would come on top of the \$54 billion projected in the Low case. It would require OECD donors to raise their aid to

Table 2.6 Growth of GDP, by region, 1960-90
(average annual percentage)

Region	High					Low		
	1960-70	1970-80	1980-85	1985-90	1980-90	1980-85	1985-90	1980-90
Oil importers	5.7	5.1	5.0	5.8	5.4	3.8	4.4	4.1
Low-income oil importers	4.2	3.0	4.0	4.3	4.1	2.8	3.2	3.0
Sub-Saharan Africa	4.0	2.4	3.0	3.0	3.0	1.8	2.0	1.9
Asia	4.3	3.2	4.2	4.6	4.4	3.0	3.5	3.2
Middle-income oil importers	6.2	5.6	5.2	6.1	5.6	4.0	4.7	4.3
Sub-Saharan Africa ^a	4.1	3.5	3.0	3.3	3.1	2.7	3.0	2.8
East Asia and Pacific	7.9	8.2	7.8	8.5	8.1	6.3	6.5	6.4
Latin America/Caribbean	5.3	6.0	5.1	6.0	5.6	4.4	4.8	4.6
Middle East, North Africa	4.1	4.9	4.1	4.1	4.1	3.0	3.3	3.2
Southern Europe	7.0	4.6	4.3	5.0	4.6	2.5	3.5	3.0
Oil exporters	6.5	5.2	6.2	6.8	6.5	4.9	5.9	5.4
All developing countries	5.9	5.1	5.3	6.1	5.7	4.1	4.9	4.5

a. Excludes South Africa.

Requirements for faster growth

Several factors could boost the developing countries' growth above the rates projected in the High case. For example, the level of capital flows, particularly from the private sector, may be considerably higher than expected; and the industrial countries could reduce or eliminate non-tariff barriers that restrict the volume of developing-country exports. Neither development is probable, but neither are they outside the bounds of possibility.

The table shows what their effects might be. The second column illustrates the consequences of doubling the growth

rate of real capital inflows (the resource gap). This would produce real transfers of capital of \$83 billion in 1990, as opposed to \$54 billion in the High case. Reducing protectionism is assumed to have the effect of raising export-growth rates by one percentage point a year. While this implies an easing of barriers for both manufactures and agricultural commodities, the benefits go largely to the middle-income countries. The overall effect would be to boost growth in the oil-importing developing countries by an extra half-percentage point a year.

Projected GDP growth, 1980-90

(average annual percentage change)

Country group	High case	Higher capital flows	Higher capital flows plus reduced protectionism
Oil importers	5.4	5.6	5.9
Low-income	4.1	4.5	4.5
Middle-income	5.6	5.9	6.2
Oil exporters	6.5	6.5	6.5
All developing countries	5.7	5.9	6.1
<i>Memo item</i>			
Resource gap, 1990 (1978 billion dollars)	54.3	83.1	83.1
Export growth (average annual percentage change)	7.0	7.0	8.0

0.50 percent of GNP, compared with the 0.33 assumed in the Low case. That may appear a substantial increase, considering recent trends, although in fact it would only restore the 0.49 percent of GNP achieved in 1965.

Alternatively, the needs of the low-income countries could be met by a substantial increase in their present 34 percent share of existing ODA. The High case already assumes this would reach 50 percent by 1990; an even higher proportion might by then be conceivable. As described in Chapter 6, concessional aid is needed for investments to finance structural changes in the longer run as well as to cover the short-term liquidity problems resulting from a worsening current account. Thus a

large share of any increased ODA flow would have to be in the form of rapidly disbursing assistance. The projections, however, do not distinguish these two kinds of foreign assistance needs.

ENERGY-PRICE SENSITIVITY. Despite conservation efforts in developing countries, energy imports have increased from about 9 percent of oil importers'

total exports in 1970 to 26 percent in 1980. For the future, efforts at conservation and substitution will tend to slow the rise in the volume of fuel imports, but this will be offset somewhat by the expected real increase in prices. As a result, the fuel-import ratio may come down only slightly by 1990—and in the Low case, would actually increase (Table 2.8).

Under these circumstances, the developing countries will still be affected by changes in energy prices. If petroleum prices were to rise at 5 percent a year in real terms throughout the 1980s, the oil importers' GDP might grow by some 0.5 percentage points a year less. On the other hand, if real oil prices did not rise at all, their GDP might grow by 5.8 percent a year instead of the High case's 5.5 percent a year. Of course, changes in oil prices have an important effect on such things as growth and inflation in the industrial countries and the size of the oil exporters' surpluses, which in turn affect the developing world. These secondary effects are not included in the growth estimates shown in Table 2.9.

Implications for poverty

Regardless of whether the High or Low case prevails, large disparities of income between developing and industrial countries will remain. In 1980, income per person in the industrial countries was about five times that of the developing countries as a whole, and 12

Table 2.8 Fuel-import cost ratios, 1970-90
(percentage of exports)

Country group	1970	1980	1990	
			High	Low
Oil importers	8.6	26.3	24.4	28.7
Oil exporters	3.8	6.1	10.2	10.9
All developing countries	7.5	19.3	19.9	22.2

Note: Ratio of gross fuel imports to exports of goods and all services, current prices.

Table 2.9 GDP sensitivity to oil-price increases, 1980–90
(average annual percentage increases in real GDP)

Country group	Oil price increases ^a		
	0 percent	3 percent	5 percent
Oil importers	5.8	5.5	5.0
Low-income	4.3	4.1	4.0
Middle-income	6.1	5.7	5.2
Oil exporters	6.3	6.5	6.6
All developing countries	6.0	5.7	5.5

a. Growth rate of petroleum prices, 1980–90, in real terms.

times that of the low-income oil importers. These comparisons have made allowance for the large differences in purchasing power between countries; on an exchange-rate conversion basis, the gaps would be much larger (see box).

Will that gap be reduced in the 1980s? In the High case, GNP per person is projected to grow at 3.3 percent a year for all developing

countries, slightly faster than the 3.1 percent a year in the industrial countries (Table 2.10, overleaf). Thus the gap between those groups will narrow slightly in relative terms. However, because GNP per person is projected to grow at only 1.8 percent a year in the low-income countries, the gap between this poorest group and the middle-income and industrial countries will widen further.

International comparisons of real income

Converting the GDPs of different countries to a common currency at prevailing exchange rates is a misleading way of comparing real incomes. Exchange rates do not necessarily reflect the purchasing power of currencies because they exclude that (often large) portion of GDP which does not enter into international trade. Moreover, exchange rates now fluctuate widely; changes of 20 percent or more within a single year have not been uncommon, even among major currencies.

The International Comparison Project (ICP) is intended to correct these shortcomings. It makes comparisons of price ratios for 153 expenditure categories within total GDP. The comparisons are made with respect to prices in the United States and are then weighted together to produce a purchasing-power exchange rate. On the basis of comparisons made in 1975 prices, purchasing-power exchange rates have been calculated for 34 countries. Using certain short-cut approximations, these results have been generalized to all developing countries. The net effect of using ICP adjustments is to increase the estimates of GNP per person substantially, particularly in the low-income countries (see table).

These figures should be treated only as rough estimates since any attempt to derive "true" purchasing power equivalents inevitably faces numerous difficulties. For example, quality and style differences make it hard to compare consumer goods; the value of services is hard to measure, particularly if they are supplied free by the public sector. Nevertheless, the ICP results represent the best methodology available for making international comparisons of income and are much superior to standard exchange rate conversions.

Exchange rate and purchasing power conversions of real GNP per person, 1980 (dollars)

Country group	Exchange rate conversion	Purchasing power conversion
Oil importers	790	1,700
Low-income	220	730
Middle-income	1,710	2,690
Oil exporters	1,060	2,080
All developing countries	850	1,790
Industrial countries	10,660	8,960

In the Low case, oil importers will grow more slowly than the industrial countries. GNP per person will grow by only 2.1 percent a year in middle-income countries, and only 0.7 percent a year in the low-income countries. The industrial countries will still be able to increase income per person at 2.3 percent a year. Thus, even under the most favorable circumstances, the gap between the richest and poorest will widen in this decade, and this effect will be more pronounced under less favorable circumstances (Figure 2.3).

The outlook for reducing poverty has worsened along with the prospects for the poor countries. Current estimates suggest that in

Figure 2.3 Developing countries' GNP per person 1970–90, High and Low cases

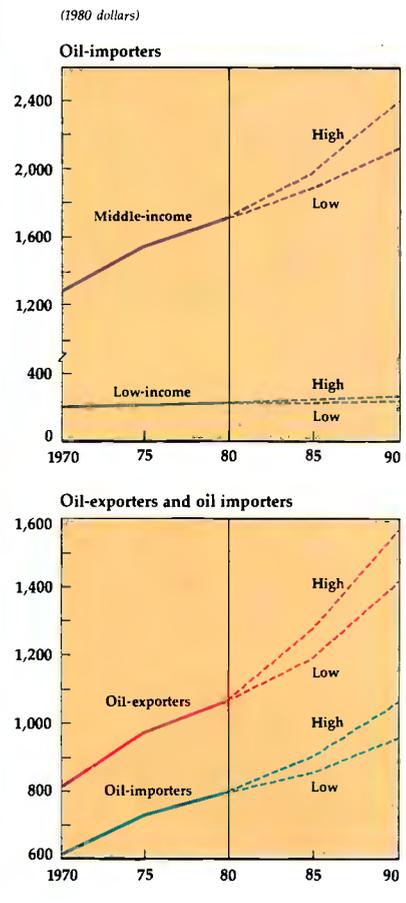


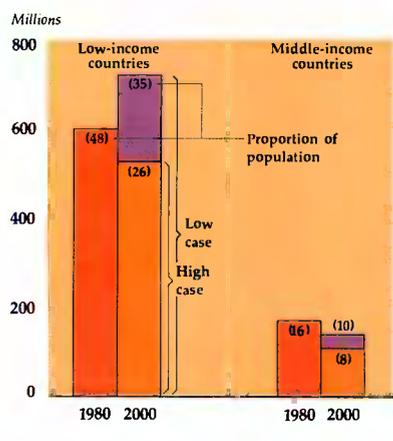
Table 2.10 GNP per person, 1980–90

Country group	1980	1990 (1980 dollars)		Growth rate 1980–90 (average annual percentage change)	
		High	Low	High	Low
Oil importers	790	1,060	950	3.1	1.8
Low-income	220	260	230	1.8	0.7
Middle-income	1,710	2,400	2,120	3.4	2.1
Oil exporters	1,060	1,560	1,410	4.0	2.9
All developing countries	850	1,180	1,050	3.3	2.2
Industrial countries	10,660	14,520	13,380	3.1	2.3

1980 about 750 million people lived in absolute poverty in the developing world, about 33 percent of its population (these estimates exclude China). If High case growth is extended to the year 2000, the proportion could by then be reduced to 18 percent. But continued rapid population growth would mean that the absolute numbers living in poverty would still total 630 million (Figure 2.4). Under the Low case, at the end of a century of unprecedented economic and social advance in some parts of the world, 850 million people may still be living in absolute poverty.

Naturally, projections that look years ahead should be treated

Figure 2.4 Numbers in absolute poverty, 1980 and 2000



only as rough estimates. Indeed, the definition of poverty and its relation to income growth is very uncertain. Domestic policies that improve the productivity of the poorest, decrease fertility and increase the provision of basic necessities can reduce poverty within a given total income. Nevertheless, the external environment and the nature of the structural

adjustment undertaken by the developing countries will have a pronounced effect on the numbers living in poverty in the years to come.

Interdependence

Despite the widening of the gap in incomes per person, production in the developing countries is growing faster than that of the developed countries (Table 2.11). (The explanation for this derives from the faster population growth rates in developing countries.) As a result, the developing world is projected to contribute about 20 percent of world GDP by 1990, compared to only 15 percent in 1970. Furthermore, it is expected to contribute about 26 percent of the increase in world production between 1980 and 1990 (High case). By 1990 its exports will constitute 25 percent of total world

Table 2.11 World production and trade, High case, 1970–90

Country group	Gross domestic product					
	Amount (billions of 1978 dollars)			Percentage		
	1970	1980	1990	1970	1980	1990
Industrial market economies	4,334	5,973	8,539	69	65	62
All developing countries	979	1,615	2,810	15	18	20
Oil importers	718	1,181	1,998	11	13	14
Low-income	148	198	297	2	2	2
Middle-income	570	983	1,701	9	11	12
Oil exporters	261	434	812	4	5	6
Others ^a	988	1,608	2,395	16	17	18
Total	6,301	9,196	13,744	100	100	100
	Exports, goods and nonfactor services (billions of dollars, current prices)					
	1970	1980	1990	1970	1980	1990
Industrial market economies	274	1,531	5,412	69	61	59
All developing countries	78	561	2,300	20	22	25
Oil importers	59	357	1,565	15	14	17
Low-income	7	27	88	2	1	1
Middle-income	52	330	1,478	13	13	16
Oil exporters	19	204	735	5	8	8
Others ^a	42	435	1,460	11	17	16
Total	394	2,527	9,172	100	100	100

a. "Others" includes China as well as nonmarket and capital-surplus economies.

trade and will account for 26 percent of the increase in world trade between 1980 and 1990.

Since world trade is growing faster than world production, the ratio of trade to output will approach 27 percent by 1990, compared to only 22 percent in 1980 and 13 percent in 1970. As trade links grow closer, the developing countries will become increasingly integrated into the world economy.

It is, of course, difficult to measure the exact degree of dependence between countries or regions on the basis of trade statistics. Total trade includes both essential minerals and food as well as less essential consumer goods. While the global projections indicate a rise in "interdependence," individual countries (and even groups of countries) continue to be characterized by "net dependence" on the international economy. The low-income African countries, for instance, had imports equal to 25 percent of their combined GDP in 1978, indicating a high degree of vulnerability to conditions in the international economy. Yet their combined exports totaled less than 1 percent of world trade, and their share is expected to decline during the 1980s.

Balance-of-payments patterns

Throughout the 1980s the developing countries are expected to have current account deficits that are relatively large in real terms although they will decline as a percentage of GNP (Table 2.12). Such deficits, of course, depend

Table 2.12 Current account balances, 1970–90
(billions of 1978 dollars)

Country group	1970	1975	1978	1980	High		Low	
					1985	1990	1985	1990
Oil importers	-18.5	-49.8	-25.5	-52.7	-49	-60	-41	-43
Low-income	-3.5	-7.0	-5.1	-8.6	-12	-15	-8	-9
Middle-income	-15.0	-42.8	-20.4	-44.1	-37	-45	-33	-34
Oil exporters	-4.7	-3.2	-17.6	4.1	-5	-14	-7	-12
All developing countries	-23.2	-53.1	-43.1	-48.6	-54	-74	-48	-55
Capital-surplus oil exporters ^a	6.0	39.7	18.8	85.1	[57]	[35]	[55]	[16]
Industrial market economies ^a	25.9	28.4	29.9	-24.5	[12]	[55]	[8]	[55]
Nonmarket industrial economies and China	3.4	-9.0	-0.2	-0.1	-3	-4	-2	-3
Statistical discrepancy	-12.3	-6.0	-5.4	-11.9	-12	-12	-13	-13

Note: Excludes official transfers.

a. These projections are subject to particular uncertainty.

on the creditworthiness of developing countries and their access to capital markets (Chapter 5). Between 1980 and 1985 the oil exporters are likely to move from small surplus to deficit, and then remain there. Conversely, the industrial countries are projected to turn a small deficit in 1980 into a sizable surplus by 1990. Their growing surplus is offset by a decline in the surplus of the capital-surplus oil exporters, from \$85 billion in 1980 to between \$16 billion and \$35 billion (in 1978 dollars) by 1990.

Such a decline depends on the expected growth of imports in these countries, which is subject to a high degree of uncertainty. Present projections imply imports of \$6,500 *per person* in these countries by 1990, compared with GNP per person of only \$8,100 (both figures in 1978 dollars). If imports grew 1 percent a year slower than projected in the High case, the

1990 surplus of these countries would rise by \$21 billion, on top of the currently projected \$35 billion. Thus the projected surpluses for the OPEC countries could easily vary over a wide range, within the assumptions of the High and Low cases. Changes in these surpluses, of course, would imply a different pattern of surpluses and deficits for the other groups as well.

Whatever the accuracy of the projections, a more interdependent world has emerged as a result of the events of the 1970s. Despite continuing uncertainty and instability, this interdependence seems likely to grow during the 1980s, producing a different kind of world from that of only a few years ago. The following chapters exhibit in greater detail the nature of interdependence in energy, trade and capital flows.

3 Growth through trade

World trade grew by an average of 5.7 percent a year in the 1970s, after almost 8 percent a year in the 1960s. Despite this slowdown of the growth of total trade, developing-country nonfuel exports grew faster—over 7 percent a year in the 1970s, as compared with 5 percent in the 1960s. This expansion of trade has provided developing countries an avenue for growth and industrialization, and, for the oil importers, a source of earnings to meet their increasing fuel costs.

This chapter analyzes trade patterns in the 1970s by country and commodity groups. It considers the reasons for the poor performance of many low-income countries, and highlights the well-conceived and courageously implemented trade policies which underlie the trade performance and growth of many middle-income countries. It analyzes the contribution that the open trading system has made to this growth and to the counterinflationary efforts of the industrial countries, and discusses some of the central policy issues in international trade negotiations.

Trade in the 1970s

The most striking changes in the pattern of world trade during the past 10 years have resulted from the increase of fuel prices. World trade in fuels increased from \$29 billion in 1970 to \$535 billion in

1980, or from 7 percent of world trade to 21 percent (Table 3.1).

That 14 percentage-point increase is considerably larger than the Federal Republic of Germany's or the United States' share of world trade. Even excluding the (relatively small) increase in volume, paying for the 1970s' fuel-price increases was therefore equivalent to finding the money to buy all the exports of another United States or Federal Republic of Germany.

Because their exports were expanding rapidly, many of the middle-income oil importers were able to reduce their current account deficits to levels financeable in the medium term, without sacrificing their growth. Between 1973 and 1978, the industrial countries increased their exports to the

oil exporters by enough to cover some two-thirds of the extra cost of their imported oil. Only the low-income oil importers did not reap significant benefits from international trade. Many of them reduced their current account deficits by curbing imports (and hence growth) rather than by expanding exports. Increased aid helped others finance their larger deficits.

Measuring trade gains

Against a background of rapid inflation, coupled with a sharp change in the price of one product relative to others, neither export values nor export volumes are an appropriate measure of export performance. Export values may simply reflect the general increase in prices. But export volumes

Table 3.1 Composition and growth of world merchandise trade, 1970–80

(values in billions of current dollars)

Item	Total merchandise	Fuels	Nonfuel primary products	Manufactures	Gold
Value, 1980	2,133	535	400	1,170	27
Percentage of total	100	25	19	55	1
Increase of value, 1970–80	1,818	507	312	973	26
Percentage of total increase	100	28	17	54	1
Higher prices as a percentage of increase of value	87	98	82	81	101
Percentage increase of volume, 1970–80	74	29	64	96	–4

understate the gains made by exporters whose prices have increased more rapidly than those of other traded goods. During the 1970s, for example, the export prices of the capital-surplus oil exporters went up 15-fold in nominal terms, almost four times as much as their import prices. The volume of developing-country oil exports was the same in 1980 as in 1970, but the revenue they earned could of course buy far more real goods and services.

To capture the impact of both export volume and relative prices, this chapter measures export performance in terms of *export purchasing power*—export earnings deflated by the general price level for internationally traded goods, excluding oil. (The industrial countries' export price index of all goods plus nonfactor services has been used as a proxy for the price level of internationally traded goods.) Where appropriate, the impact of higher oil prices on what an oil importer can buy with its export revenues will be measured by deducting the cost of oil imports and then calculating the purchasing power of export earnings *net* of oil imports. This indicates whether or not an oil importer's export revenues are expanding rapidly enough for it to pay both for dearer fuel imports and for increasing amounts of other imports.

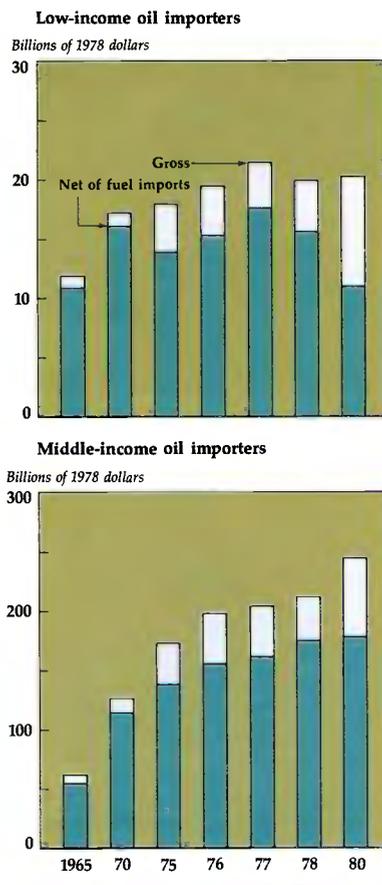
Gains by country groups

The oil-importing developing countries had mixed success in world markets. The volume of low-income oil importers' exports did not expand enough between 1970 and 1980 to offset worsening nonfuel terms of trade and the higher fuel bill; their export purchasing power net of fuel imports was almost one-third lower in 1980 than in 1970 (Figure 3.1). For the middle-income countries, on the other hand, the terms of trade

Table 3.2 Purchasing power of exports of all goods and nonfactor services, 1970–80

Item	Oil importers			Oil exporters			Industrial market economies
	Low-income	Middle-income	Total	Devel- oping	Capital- surplus	Total	
Percentage change of terms of trade vis-à-vis industrial market economies	-16	+2	0	+180	+389	+247	—
Total export purchasing power (billions of 1978 dollars)							
Level, 1970	17	127	144	46	19	65	664
Increase, 1970–80	3	118	121	105	140	245	471
Volume component	7	114	121	8	13	21	461
Relative export-price component	-4	4	0	97	127	224	—
Increases as percentage of 1970 level							
Total increase	18	93	84	229	737	377	71
Volume component	42	90	84	17	68	32	71
Relative export-price component	-24	3	0	212	655	345	—

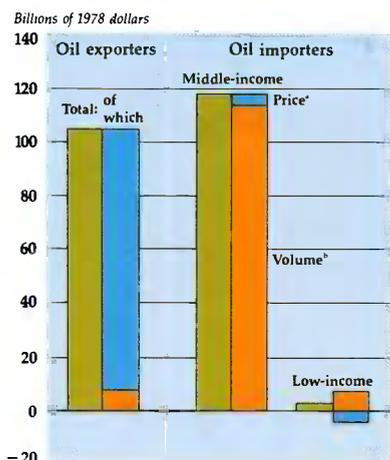
Figure 3.1 Oil-importing developing countries' purchasing power of exports, 1965–80



deteriorated less and their export volume expanded more. While half of the expansion of their exports went to pay for the increased cost of fuel imports, their export purchasing power net of fuel imports increased by almost two-thirds over the decade.

Over the 1970s, total export purchasing power (not net of fuel imports) rose by 71 percent for industrial countries; 84 percent for oil-importing developing countries; 229 percent for oil-exporting developing countries, and more than 700 percent for capital-surplus oil exporters (Table 3.2). However, developing countries began the 1970s with exports 10 times as large as those of the capital-surplus oil exporters but less than one-third as large as the industrial countries'. Thus the absolute amounts by which export purchasing power increased over the 1970s were \$471 billion for industrial countries; \$226 billion for developing countries; and \$140 billion for capital-surplus oil exporters (all figures in 1978 dollars).

Figure 3.2 Developing countries' increases in export purchasing power, 1970–80



a. Part of total change resulting from change of relative price.
b. Part of total change resulting from change of volume

The \$226 billion increase for all developing countries was divided as follows:

Oil exporters	105
Middle-income oil importers	118
Low-income oil importers	3

In short, the oil exporters did well because their export prices rose sharply, and the middle-income oil importers did well because their export volume, particularly of manufactured goods, rose (Figure 3.2). But the low-income countries experienced both slower growth of their export volumes and deterioration of their export prices relative to those of other countries: they have hardly shared at all in the growth of world trade. To the extent that imports depend on export earnings, they can import little more at the end of the decade than they could at the beginning—this in the face of a more than one-quarter growth of their population.

Gains by commodity group

The increased purchasing power of developing-country fuel ex-

ports was almost entirely the result of higher prices. Gains in the purchasing power of developing-country manufactured and nonfuel primary exports resulted from higher volume, partly offset by a fall in their relative price. For oil importers, the unit purchasing power of their nonfuel primary exports fell by 28 percent, that of their manufactured exports by 24 percent. But there was a much more marked difference between *income groups*: the relative prices of both manufactured and nonfuel primary exports fell by more for low-income oil importers than for either industrial countries or middle-income oil importers.

PRIMARY EXPORTS. Prices of nonfuel primary exports were both erratic and generally weak during the 1970s. The prices of 33 nonoil commodities fluctuated by an average of 5 percent a year in the 1950s and 1960s, which increased to 12 percent a year in the 1970s.

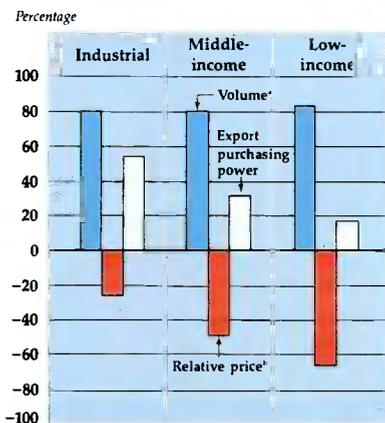
The low-income oil importers were hit hardest by low prices. The volume of their exports in-

creased about as fast as that of middle-income oil importers and industrial countries, but their relative prices fell much more (Figure 3.3; Table T1, Technical Appendix). The low-income oil importers were therefore left with an 18 percent gain in the purchasing power of their nonfuel primary exports, compared with 32 percent for middle-income oil importers and 55 percent for industrial countries. Since the low-income oil importers were starting from a smaller base, the middle-income oil importers' gain (in 1978 dollars) was 16 times larger and the industrial countries' 60 times so.

The weakness of the low-income countries' primary export prices reflects both their concentration in commodities for which demand is expanding slowly, and the inability of countries heavily dependent on one or two exports to vary their output-mix as relative prices change. The richer, more diversified economies are more able to adjust to relative price movements. The industrial countries expanded their export volume most in foods and beverages and nonfood agricultural products—those categories where prices were relatively strongest. By contrast, the sharpest volume increases for the low-income countries were in metals and minerals, where prices fell most.

There is another, related inflexibility holding back the low-income countries. They still process very little of the raw materials they produce, in contrast to what is now happening in many middle-income countries. Tariff barriers against processed products are still an obstacle to increased processing for exports, but the middle-income exporters also face these barriers (see box). A general lack of industrial skills and capacity is a more fundamental reason

Figure 3.3 Industrial and oil-importing developing countries' nonfuel primary exports, 1970–80



Note: Increase in purchasing power, 1970–80, as percentage of 1970 level.
a. Part of total change resulting from change of volume.
b. Part of total change resulting from change of relative price.

Tariff escalation and the growth of processing

While the rapid growth of world trade in manufactures bears witness to the openness of industrial country markets for many products, tariffs remain high in some sectors—particularly those of interest to developing-country exporters. Even after the Tokyo Round cuts have been made, tariff rates in the United States will still be 17 percent on textiles and clothing; in the EEC, 11 percent on consumer electronics equipment; in Norway, 15 percent on leather goods; in Canada, 10 percent on hand tools and other metal products.

Even where tariffs are generally low, they can still be a considerable barrier to the expansion of processed exports by producers of primary products. While industrial-country tariffs add only 3 percent to the cost of imported raw materials, they rise to more than 20 percent as the degree of processing increases (see table). These higher rates are, of course, intended to encourage firms in industrial countries to import raw materials and process them there. As the third column of the table shows, in 1974 developing-country commodity exports were heavily concentrated in the lower stages of processing.

As an intermediate activity between primary production and manufacturing, processing is often viewed as a way of promoting industrialization in the developing countries. However, processing should be judged by the same criteria as those applied to any other industrial project, and the same questions posed about market prospects and domestic resource and foreign exchange costs. In some cases, the technology of processing is very capital-, scale-, or energy-intensive (for example, aluminum). It may require intermediate inputs that must be imported, thereby reducing the net foreign exchange gain from exporting processed rather than primary commodities. In other cases, particularly in the early stage of processing of agricultural products,

these shortcomings are much less serious.

Generally, transport costs are less, ad valorem, at higher stages of processing (the value of the product increases more per ton than do shipping costs); but there are many exceptions to this rule. Other complications abound: refined coconut oil spoils unless carefully handled, while crude coconut oil does not; the world

They would grow faster still if industrial-country tariffs were reduced. Removing the tariffs on processed varieties of eight agricultural products in which developing countries have a significant share of world exports would increase the value added in developing-country processing by an estimated 20 percent or more. It would boost developing-country export revenues by more than the Gen-

Industrial-country tariff escalation and distribution of imports from developing countries

Level of processing ^a	Average ad valorem tariff (pre-Tokyo Round)		Distribution of imports from developing countries ^b	Imports from developing countries as a percentage of total imports ^b
	Nominal (on total values)	Effective (on value added in processing)		
Stage 1	3	3	54	41
Stage 2	8	23	29	26
Stage 3	9	20	9	12
Stage 4	9	15	8	23
Total			100	28

a. Based on processing "chains" for 21 agricultural and mineral products. For example, the chain for cotton and products is (1) raw cotton, (2) cotton yarn, (3) cotton fabrics, (4) clothing.

b. Based on 1974 imports.

Source: Yeats.

cocoa market is highly concentrated and, therefore, more difficult to enter than others.

The difficulties are not insuperable. Coconut-oil refining has expanded considerably in the Philippines, although this expansion has been largely for local consumption in the growing processed-food industry. The developing countries' share of world aluminum production rose from less than 1 percent in 1955 to almost 8 percent in 1978. Generally, the processed-material exports of developing countries have been growing faster than exports of primary materials, but not nearly as fast as manufactured exports.

eralized System of Preferences has done.

That may not have a large impact on the 90 or more poor countries that depend on nonfuel primary materials for two-thirds or more of their export earnings. During the 1970s, the growth of processing by developing countries has been concentrated in the middle-income countries. It seems to be determined by the same factors that have promoted manufactured exports—skills, entrepreneurship and an efficient infrastructure. These are often lacking in the poorest countries and are not made good purely by lower tariffs.

why few low-income countries have yet made a processing breakthrough.

MANUFACTURED EXPORTS. Manufactured exports grew faster than did primary exports in the 1970s,

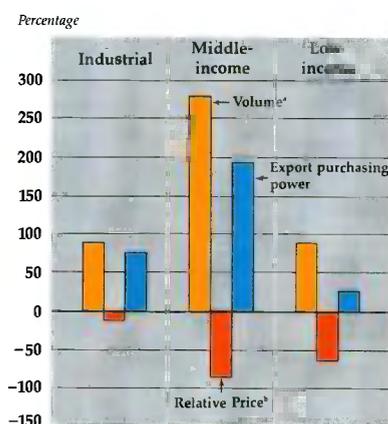
and—despite significantly slower growth in the industrial countries—the developing countries expanded their manufactured exports more rapidly in the 1970s than in the 1960s.

The low-income oil importers

again had the worst performance. Their manufactured export volume increased by 90 percent during the 1970s; but in terms of export purchasing power, more than two-thirds of this volume increase was offset by declining

relative prices. Middle-income oil importers raised the volume of their manufactured exports by almost 300 percent and lost less than one-third of this through relative price declines (Figure 3.4). Breaking down export purchasing power gains into relative price and volume components reveals a

Figure 3.4 Industrial and oil-importing developing countries' manufactured exports, 1970–80



Note: Increase in purchasing power, 1970–80, as a percentage of 1970 level.
a. Part of total change resulting from change of volume.
b. Part of total change resulting from change of relative price.

strong positive relation between volume and price performance (Table T2, Technical Appendix). This highlights the importance of flexibility and entrepreneurship—the capacity to read markets and adjust the product-mix to take advantage of favorable price shifts.

The success that developing countries have had in expanding manufactured exports is more concentrated than Figure 3.4 would suggest. In 1978 only 10 countries, with 45 percent of the developing world's population, supplied more than 75 percent of its manufactured exports; and three countries, with less than 3 percent of the population, supplied more than 40 percent of the total.

Market penetration

During the 1960s, manufacturing production rose by 7.5 percent a year in the developing countries and 6.5 percent a year in the industrial countries while each increased their manufactured exports by just over 10 percent a year. In the 1970s, however, the difference between the two groups was striking.

The developing countries recovered quickly from the 1974–75 recession so that in 1970–78 their manufactured output grew almost as rapidly, and manufactured exports to industrial countries just as rapidly, as they did in the 1960s. But the industrial countries increased their manufactured output barely half as fast as they did in the 1960s.

As a result, the developing countries have increased their

tional policies are reflected in the penetration ratios of six of the European Economic Community (EEC) countries; despite their common external tariff and increasing harmonization of other trade policies, their penetration ratios range from 7.4 percent for the Netherlands to 2.6 percent for France. The lowest ratio is in Japan—1.3 percent in 1970, up to only 1.5 percent in 1978.

Industry by industry, however, import penetration patterns vary little from one industrial country to another. Imports tend everywhere to be highest in labor-intensive products like textiles, clothing, footwear, toys and sporting equipment.

South-South trade

As the developing countries and the capital-surplus oil exporters

Table 3.3 Developing-country shares in the apparent consumption of manufactured goods in industrial countries, 1970–78

Country or trading group	Share of apparent consumption		
	1970 (percentage)	1978 (percentage)	Percentage-point increase
Australia	2.1	4.8	2.7
Canada	1.2	1.9	0.7
EEC, selected members	2.7	4.1	1.4
Belgium	5.6	4.2	-1.4
France	2.1	2.6	0.5
Germany	2.3	4.1	1.8
Italy	2.1	3.9	1.8
Netherlands	4.9	7.4	2.5
United Kingdom	3.3	4.8	1.5
Japan	1.3	1.5	0.2
Sweden	2.8	3.1	0.3
United States	1.2	2.9	1.7
11 industrial countries	1.7	2.9	1.2

share of industrial-country markets. Although this increase has been marked, their market share is still tiny—only 2.9 percent in 1978, up from 1.7 percent in 1970 (Table 3.3). History obviously influences the degree of penetration—witness the high ratios for the United Kingdom and the Netherlands. Differences in na-

increased their share of world exports, they became more important markets for world imports—the middle-income oil importers particularly for primary products, and the oil exporters for manufactures and for primary products. As a result, the shares of developing-country nonfuel exports to other developing countries and

to the capital-surplus countries both increased. As to source of imports, the oil importers traded in increasing proportion with each other, and the oil exporters in increasing proportion with the industrial countries.

The decline of the oil importers' share of the oil exporters' market reflects two factors. First, manufactured imports by the oil exporters (particularly the capital-surplus oil exporters) are concentrated on the more advanced capital and consumer goods, which are produced in the industrial countries. Second, the oil exporters' demand for nonfuel primary imports, particularly food, increased rapidly. Through the 1970s, the industrial countries' export supply of these products expanded more than did the developing countries'. The industrial countries therefore took the larger share of this new market for primary products.

The increased intra-trade of the oil importers was due entirely to the middle-income countries. Their intra-trade in manufactures expanded, and their growing demand for raw materials was met by expanding supplies from the industrial countries and from other middle-income countries. This new import market, like that of the oil exporters, has been captured only marginally by the low-income countries.

Developing-country trade policy and growth

The boom of world output and trade, which began in the 1950s and built its momentum through the 1960s was, in large measure, the result of deliberate and successful international efforts to reduce restrictions on international trade. The diverse trade record of developing countries suggests, however, that the suc-

cess that some of them have enjoyed is as much the result of their own efforts and of their own well-conceived policies as of the openness of the trading system.

The outward-looking middle-income countries

The nature of the response to the international environment of the countries that have enjoyed a measure of success was the focus of the 1979 *World Development Report*. As a group, the successful countries have been those which have resisted or overcome the temptation to adopt inward-looking trade policies and to delay transition to greater export orientation. Although some of the successful countries have exploited import substitution at earlier stages of industrialization (particularly the larger ones such as Brazil), they avoided the burdens to exports that extending import substitution to intermediate goods would have entailed and began at an early stage to move away from this orientation.

This shift away from an import-substituting policy-orientation toward what is often called an outward orientation, has been less a reduction of governmental or policy-provided incentives for the expansion of industry or primary production than an elimination of biases in these policies. Earlier policies often favored an industrial structure more or less along the lines of those already in place in the industrial countries, and not consistent with the resource patterns existing in developing countries. Policy reform meant not only identification and scrapping of disincentives to produce for export, or disincentives to use imported inputs when they were the less expensive, but also ending policies that favored capital-intensive over labor-intensive sectors and methods of production and

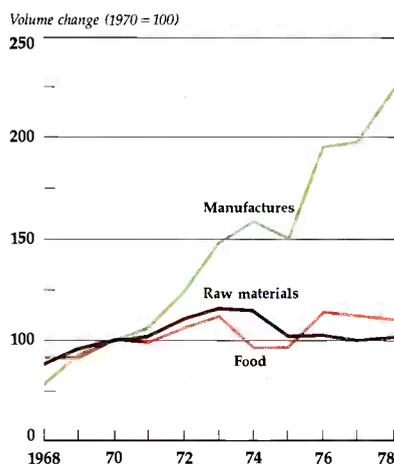
placing small-scale enterprises on an equal footing with large firms so that they could obtain credit, technical assistance and marketing support.

Thus, policies in the successful countries have been generally supportive of industrialization and commerce but have avoided directing that support at any particular sector or method. Decisions about *what* activities and *what* processes could be efficiently and profitably built up are left to individual firms, which succeed or fail as their decisions prove to be correct or incorrect.

The most noted among the successful countries have been the semi-industrial countries such as Singapore, South Korea and Spain. Although a few of them were nonindustrial, low-income countries in the 1950s, they are now characterized by relatively high shares of manufacturing in production and exports and are generally among the wealthier middle-income countries. Many of them have achieved impressive rates of economic growth and structural transformation (Figure 3.5 overleaf).

In the semi-industrial countries of East Asia, successful development has had two hallmarks: a supportive approach to increases in agricultural productivity and growth, along with readiness at an early stage to replace inward-looking import-substitution policies with trade policies favoring the growth of exports in general and of manufactured exports in particular. A shift to a similar policy-orientation by several middle-income Latin American countries has caused their trade performance to improve markedly. These countries have now reached the stage at which they can begin to shift into more demanding, skill- and technology-intensive areas of production while continuing to

Figure 3.5 Developing countries' exports to industrial countries, 1968-78



Note: Country and commodity groups correspond to UN classification. Developing countries include capital-surplus oil exporters; industrial countries include South Africa and most of Southern Europe. Manufactures include non-ferrous metals, raw materials exclude food and fuel.

improve earning opportunities for the rural population.

Another group of successful countries has seen an outward orientation lead first to a deepening and broadening of their agricultural exports, the Ivory Coast and Malaysia, for example. From this base they are now moving into processing and into industrial sectors.

As explained in Chapter 6 of this Report, countries that have continued in place or adopted outward-oriented policies have been the most successful in adjusting to external shocks without excessive recourse to foreign borrowing or severe cutbacks of rates of economic growth. The flexibility that an outward orientation provides has outweighed the vulnerability that it risks.

The low-income oil importers

The low-income oil-importing developing countries include countries with very different economic structures. In India (which, by

population or output is three-fourths of low-income oil-importing Asia) and several other low-income Asian countries, the manufacturing sector produced in the early 1970s as large a fraction of the countries' gross product as it did in South Korea and Singapore. Manufactures are as large a share of low-income Asia's exports as of the middle-income oil importers. Low-income African countries, on the other hand, have a very small manufacturing sector, and their export earnings come almost entirely from commodities (Table 3.4).

The major difference between the Asian low-income countries and the middle-income countries is not the *structure* but the *amount* of their trade. The export-GDP ratio is three times larger for the middle-income countries. India is, in terms of structure, a semi-industrial country, but one whose inward-oriented policies have hitherto isolated it from the markets that have allowed other Asian countries to move ahead.

When faced in 1973-74 with higher fuel-import prices, low-income Asia did not have the flexibility to adjust by reducing other

imports. A decade of import substitution had reduced its imports to absolute necessities. Low-income Asia (particularly India) was forced to move marginally toward export expansion (see box on India, page 80). In the following years, their export-GDP ratio rose slightly, and their export volumes expanded strongly in percentage terms. But because of the low initial levels of exports and the relative decline of their export prices, these gains came to much less, in dollar terms, than those captured by the middle-income countries.

Trade prospects

The record of the 1960s and the 1970s indicates that the international environment does not discriminate in favor of the weaker countries or "pick them up" and start them on the path to development. On the other hand, the international environment has not been hostile. The volume of developing-country exports, particularly of manufactured goods, has increased dramatically, and this increase of exports has not yet caused major resistance to arise.

Table 3.4 Structure of merchandise trade, low- and middle-income oil importers, 1970-80
(percentage)

Year, country group and region	Export-GDP ratio	Composition of merchandise exports		Composition of merchandise imports		
		Manufactures	Nonfuel primary	Manufactures	Food	Fuel
1970						
Low-income oil importers						
Africa	23	11	86	77	11	9
Asia	7	54	43	64	21	5
Middle-income oil importers	22	33	58	69	12	10
1980						
Low-income oil importers						
Africa	16	9	80	51	16	31
Asia	9	47	50	38	14	39
Middle-income oil importers	24	46	36	53	11	28

Because of the continuing importance of international trade (particularly trade with the industrial countries) as an avenue of development, the continued openness of the trading system (to be discussed below) is critical.

As long as the trading system remains open, the now successful middle-income countries should continue to progress. Their expansion of manufactured exports, particularly their continued expansion through the 1970s, has been based more on their own competitiveness and entrepreneurship than on the pull of expanding industrial-country markets. Their capacity to diversify has been documented, and, as this chapter shows, has been more than sufficient to prevent terms-of-trade declines from taking away the gains in export receipts that their increased export volume has provided. Finally, their economies are becoming large enough to support efficient scales of operation and further overall growth, particularly if their trade policies allow specialization and trade among them to evolve.

The near-term trade prospects of the low-income Asian countries are more dependent on the growth of world demand. Until their exports deepen into processed materials and more sophisticated manufactures, their export prices and earnings will continue to be closely tied to movements of international demand.

Over the longer term, their trade prospects are primarily a question of their own policies. They have the human and natural resources which have been, in countries with outward-oriented policies, the basis for sustained growth of exports. As noted above, their export volume increased sharply during the 1970s when they then moved toward this orientation.

The situation in low-income Africa is much different. Many countries, such as Chad and Upper Volta, have an extremely limited base of physical and human resources (see box on Upper Volta, page 84). In a number of countries, that base is actually diminishing, for example, from overexploitation and erosion of farmland along with emigration of the younger and better trained work force.

Some countries have attempted to provide a level of public services that their resources could not sustain. These policies became, in effect, transfers from the rural poor to the urban less poor, and strong disincentives for agricultural production (see Chapter 6). Declining production, along with shifts from cash to subsistence crops, have brought about a significant drop of low-income Africa's export-GDP ratio and of its share of world exports. And, although many commodity prices increased during the mid-1970s "boom," the late 1970s' recession in the industrial countries has

brought low prices for metals and minerals, in which the exports of low-income African countries are concentrated (see box below, and the one on Zambia, page 78).

Slow growth of export volume and declining relative prices have reduced export purchasing power by roughly equal amounts. If relative export prices had not declined over the 1970s, low-income Africa's 1980 export volume would have sold for \$2 billion more than it did. Similarly, holding its 1970 share of the *volume* of world exports would have meant \$2 billion more—45 percent more—export purchasing power in 1980 (1978 prices).

Malawi and the Ivory Coast are examples of African countries that have adopted outward-oriented policies and have done well, but it is clear that trade policy alone is not sufficient to accelerate the development of many African countries. In them, attention over the next decade must focus on overcoming their poverty of resources, particularly their lack of human capital. Internally, their

Mineral investment needs

Recent low prices for metals and other nonfuel minerals reflect the fact that world economic growth in the 1970s was slower than envisaged when present mining capacity was installed. But various projections suggest that by the mid-1980s, mineral demand may be 25 to 40 percent above its level of the mid-1970s; by the end of the century, it could be 90 to 190 percent higher than at present, depending on the mineral.

Developing the capacity to meet the extra demand will require considerable investment. The table shows one estimate of what will be needed in certain key minerals. Including infrastructure and capacity expansion in other minerals the world total may be \$12.5 billion a year (1977 dollars), and in developing countries \$5.5 billion a year, for the rest of the century. An estimated three-quarters of the invest-

ment in developing countries will have to be externally financed.

World capital requirements, 1977-2000, for needed additional capacity, selected minerals

(billions of 1977 dollars)

Mineral	World	Developing countries
Bauxite	6.9	5.2
Alumina	24.4	6.1
Aluminum	76.6	17.6
Subtotal	107.9	28.9
Copper	58.0	29.0
Nickel	12.5	5.0
Iron ore	98.2	31.4
Tin	1.7	1.4
Total	278.3	95.7

Source: Mikesell.

policies must carefully avoid disincentives for investment and entrepreneurship. And while good trade policy may not, by itself, lead to development, ill-conceived trade policy can undo the effects of other factors.

As explained in last year's *World Development Report*, investment in human resources is very productive, but many low-income African countries are too close to the subsistence level of income to finance such capital formation from their own savings. And they have almost no access to private capital markets. Finally, high energy prices are a factor which today's middle-income countries did not have to face in the early stages of their development. International assistance will be necessary to allow the poorest countries to overcome these obstacles.

Industrial-country policy

In one important sense, the 1970s continued the trend toward freer trade that had begun after the second world war. Though negotiated in the 1960s, the Kennedy Round tariff reductions—which cut industrial-country tariffs by one-third on two-thirds of their dutiable imports—were not fully implemented until 1972. When the Tokyo Round Tariff cuts—negotiated in the 1970s, to be implemented over 1980–87—are in place, industrial-country tariffs will average only 5 to 6 percent ad valorem. They will however still be much higher on labor-intensive products, which are of prime significance for developing countries.

However, the 1970s did see one new and disturbing development in trade relations—a plethora of specific restrictions, introduced in numerous different ways. The Multi-Fibre Arrangement (see box), voluntary restraint agree-

Multi-Fibre Arrangement

In the 1950s protection for western industrial countries' textile industries was aimed primarily at Japan and took the form of voluntary restraint on exports. The first steps away from this informal framework were taken in 1961 and 1962 with the introduction of the Short-Term and Long-Term Arrangements Regarding Trade in Cotton Textiles (STA and LTA).

These arrangements established a precedent for special treatment for the textile industry, outside the usual rules of the GATT. In 1974 the LTA was replaced by the Multi-Fibre Arrangement (MFA), which covers a broader range of textile products than had the LTA.

The MFA expresses three goals:

- the expansion of textile trade, and the reduction of barriers to such trade;
- the orderly and equitable development of this trade and avoidance of disruptive effects, in both importing and exporting countries; and
- the economic and social development of developing countries, including a substantial increase in their export earnings from textile products and a greater share for them in world trade in these products.

The operative clauses however relate only to the second goal—particularly to the control of disruptive imports. Article

3 of the MFA provides for unilateral action to limit textile imports; Article 4 sanctions bilateral agreements that limit trade on "mutually acceptable terms." The context in which the MFA was negotiated and the way it has operated also suggest a restrictive rather than expansionary goal.

Since the negotiation of the MFA, the EEC, the members of the European Free Trade Association, the United States and Canada have all developed elaborate protective systems for textiles. These are rooted in bilateral agreements negotiated under Article 4 and enforced, when necessary, at the national level by unilateral action justified under Article 3.

Two bodies have been established to oversee the operation of the MFA: the GATT Textiles Committee and the Textiles Surveillance Body (TSB). The former is an ad hoc committee, whose primary responsibility is to produce a yearly report on the operation of the MFA. The TSB is a more permanent body, whose official purpose is to ensure the "efficient operation" of the Arrangement. When parties to action under Article 2 or 3 fail to agree, the TSB has to make "recommendations to the parties concerned." Its annual report shows that its standard recommendation is for the parties to engage in further consultation with one another.

ments, reference or trigger price arrangements, safeguards, countervailing and antidumping duties: these administrative mechanisms covered an increasing proportion of world trade during the 1970s. In the second half of the decade, industrial countries imposed restrictions (sometimes temporary) on imports of cutlery, bicycles, televisions and other electrical components; they also revised and tightened textile quotas.

Apart from the clothing and textile restrictions, curbs were generally aimed at other industrial countries. There were serious trade disputes between the United States, the EEC and Japan over steel and automobile trade. Even in textiles, the United States and the EEC disagreed over the effects of the US domestic energy policy and whether this consti-

tuted an unfair subsidy to exports of petroleum-based synthetic fibers.

Changes in trade policies were not the only governmental measures that had a protectionist impact. Governments became more actively involved in regional and industrial policy; their industrial subsidies had the same effect as tariff protection and were often more significant. In 1976, they totaled approximately 6 percent of GDP in Norway, 4 percent in Belgium and 3 percent in France, the Netherlands and the United Kingdom. By comparison, the amount that tariff protection added to producer revenues came to less than 3 percent of GDP in each country.

Many of these subsidies were overtly protectionist. But in some cases, the economic objective was

not simply to protect but to restructure the economy. Subsidies, it has been traditionally argued, are a better way of achieving that objective than indirect measures like tariffs. They can be aimed directly at the source of a problem. When subject to budget appropriations, they can be controlled carefully.

Political realities, however, have meant that approval of a subsidy required a compromise of objectives and some disguising of amounts. As a result, the purpose of many subsidies has never been clear and some have been intentionally ambiguous. Many take the form of tax exemptions or discretionary relief and so are not subject to budgetary or other review. Adjustment assistance, which was originally intended to retrain workers and help firms enter new or more competitive

activities, has often been swallowed up in this general vagueness and turned into strongly protectionist adjustment resistance (see, for example, the box on the Trigger Price Mechanism).

Openness of the trading system

It is hard to gauge how the degree of "trade openness" has changed over the 1970s. On the one hand, the number of trade disputes receiving public attention and the proportion of trade coming under some sort of government scrutiny or guidance certainly increased. The EEC, for example, introduced a formal procedure for placing imports of particular products from particular sources under "surveillance." Surveillance involves no restrictive measures but is a clear warning that, if imports continue to grow, restrictions

might be imposed.

On the other hand, the 1970s saw the last stages of the Kennedy Round tariff cuts, the negotiation of the Tokyo Round reductions and the introduction of the GATT nontariff-barrier codes of conduct. In addition, the industrial countries extended measures whose express purpose or immediate effect was to expand developing-country exports. The most noted of these was the Generalized System of Tariff Preferences (GSP), which reduced trade barriers on many developing country exports (Table 3.5, overleaf).

There was also a considerable expansion of industrial-country imports from developing countries under value-added or off-shore-assembly tariff provisions. These allow favorable tariff treatment for products containing parts or components that were

The Trigger Price Mechanism for steel imports

Through the 1960s and 1970s, the profit rate in the US steel industry was low, and by 1977, the import share of the US market was up (from 2 percent in the late 1950s) to 18 percent. This brought on increasing pressure for protection.

In late 1977, after consultations with the industry and with the congressional delegations from steel-producing areas, the White House announced a program to help modernize the US steel industry. This program would include loan guarantees, and some relaxing of environmental regulations, but the centerpiece was to be a "Trigger Price Mechanism" (TPM) to prevent "unfair" price competition from imports.

In concept, this mechanism was to be quite simple. Costs of production in the world's lowest cost producer, Japan, would be determined and publicly announced. These figures would be the "Trigger Prices." Then, if the price charged for an import shipment were below the trigger price, the US Government would consider launching immediately an accelerated (or "fast-track") antidumping investigation against the foreign supplier.

In practice, the Trigger Price Mecha-

nism was a delicately balanced combination of legal threat and oligopoly pricing. Legal threat was the most emphasized element. Any foreign firm that priced below the trigger prices might be subject to an immediate antidumping investigation and, if found to be dumping, required to pay antidumping duties. In reality there was little likelihood that antidumping charges would increase. Establishment of TPM did not change the antidumping law, and it did not provide additional resources for its enforcement. The law itself defines dumping very precisely and allows very little latitude for political discretion.

The TPM did, however, fit well with the tendency for industries with high fixed costs and relatively few competitors to shy away from price competition, and once a price leader has been established, to follow its lead voluntarily. Price leadership is an accepted practice under US antitrust law—and was established as such by Supreme Court decision in the United States Steel Corporation case in 1920. This "price leadership" model of industry pricing suggests that as long as the US government announces prices that seem "fair" to all sellers, they will be

voluntarily observed, and ruinous (from the seller's point of view) price competition minimized. Consistent with this model, the TPM has actually triggered only three antidumping investigations.

The social justification for the TPM was that it would help generate the \$7 billion a year (at 1978 prices) needed to modernize the domestic industry, but it is not apparent that it has been an effective industrial policy. The quarterly adjustments of the trigger prices compound to a 14 percent per year increase of import prices. The estimated amount by which the TPM has allowed prices of domestic steel to increase is smaller, and this increase has been matched by increases of domestic firms' costs. The Trigger Price Mechanism has facilitated the pass-through of domestic firms' cost increases, but it has not helped them gain control of their costs, and the investment funds needed for modernization are not being generated. This means that the need for the government's present role in the industry's pricing mechanism will not disappear, and as the Trigger Price Mechanism has been functioning, that role adds to the rate of price increase in the industry.

made in the importing country. In the United States, imports from developing countries under these provisions continue to be as large as GSP imports and are no less favorably treated. These schemes are also important in the Netherlands and the Federal Republic of Germany, and Japan implemented one during the 1970s.

increase, and economies will not adjust smoothly to changed international circumstances.

There are two dimensions to this adjustment. One takes the familiar form of transferring resources from less productive to more productive uses, in response to changing patterns of demand, technology and comparative ad-

domestic demand. This left producers with little incentive to compete for foreign markets.

But the growth of world trade in industrial products, recent industrial country growth rates lower than had been expected when present capacity was installed and rising energy prices in the United States have intensified competition among industrial countries. The relevant definition of the market for many industrial goods is now international, and the market power of producers in any one country is much less than it was even a decade ago.

The changes that adjustment to greater competition within industries demands do not necessarily include a net transfer of resources

Table 3.5 Import coverage of the Generalized System of Tariff Preferences, 1976

(millions of dollars)

Country or trading group	Nonfuel merchandise imports from developing countries		
	Total value	Value	Percentage of total
Austria	647	126	19
Australia	1,268	179	14
Canada	2,031	303	15
EEC	15,155	4,446	29
Finland	415	21	5
Japan	12,314	1,789	14
Norway	556	22	4
Sweden	1,247	145	12
Switzerland	1,042	257	25
United States	24,499	3,154	13
Total	59,174	10,442	18

Developing-country exports to industrial countries expanded fastest in those labor-intensive products most subject to trade restrictions. This reflects the large cost differences between industrial and developing countries, which trade barriers were not able to offset. It is also a tribute to the ingenuity of developing-country exporters who found ways to meet these administrative requirements and to vary products and markets so as to minimize their impact.

Prospects

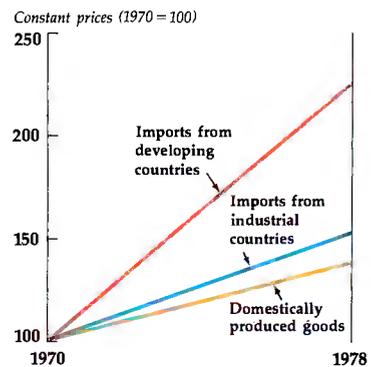
The industrial countries still supply three-fourths of all nonfuel exports and buy three-fifths of nonfuel imports; their policies will mainly determine whether the international trading system remains open. Much depends on their raising their output- and productivity-growth rates. Without that, protectionist pressures will

vantage. Industries facing direct competition from developing countries (for example, in textiles and footwear) fall mainly into this category (Figure 3.6).

Another, more recent, form of adjustment is that which has to occur *within* industries. Examples include motor vehicles and steel, which have long been highly concentrated and protected from foreign competition by tariffs and location. Differences in gasoline prices and in highway systems led to significant differentiation between American autos and autos produced for European and Japanese markets, insulating American producers from international competition over the major part of their product line. As tariffs were reduced throughout the 1950s and 1960s, the industrial countries were growing rapidly, and domestic capacity in these industries was always strained to keep up with

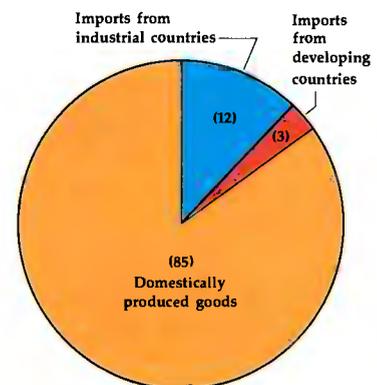
Figure 3.6 Industrial countries' demand for manufactures, 1970-78

Growth of purchases of:



Market shares, 1978

(percentages)



out of such industries. Particularly, it does not imply the replacement of industrial-country production by imports from developing countries. Developing countries' production of steel and motor vehicles is expected to increase strongly over the next decade—but so is their consumption. Of course, output will not be matched by consumption in every single country, so international trade will be affected. Both exports and imports of developing countries will increase, adding to the competitiveness of the world market.

The adjustments required by this erosion of the market power of national firms are less in the structure of production between industries, than in the structure of distribution. Profits and (particularly) wages in concentrated industries have traditionally been higher than in other industries. Governments have claimed their share of these higher returns by taxation and by imposing safety or environmental regulations that less oligopolistic industries could not have borne.

With the market power of such industries diminished by international competition, that tradition can no longer be supported. Nationalization or government-sponsored cartels have failed to restore or protect market power because it was the increase of *international* competition that created the strains. In some instances, government intervention (by financing sales below costs) has actually intensified the degree of international competition.

This suggests that the position of industrial countries whose economic performance is lagging corresponds to that of a developing country which has reached the limits of import substitution. Further growth (particularly of productivity) requires major struc-

tural adjustments. Yet there are still groups with a vested interest in the old policy regime. In the developing country, their interests were protected by trade barriers; in the industrial country, by market structure. An uncompetitive industrial country then faces a choice between import substitution, which would protect traditional patterns of output and income distribution at the cost of further growth; or outward-oriented policies, which have proved successful for many developing countries. The industrial countries' choice, often presented as "protect or adjust," is in reality "protect or grow."

Adjustment policies aimed at assisting people to transfer from one industry to another will not on their own be sufficient. Without growth, alternative employment will not be created. Adjustment policies, no matter how well-designed, will have the effect only of maintaining incomes. Even with growth, adjustment in industries whose competitive structure has changed will be resisted. The need there is not to shift resources to higher productivity,

and ultimately higher paying alternatives, but to persuade them to accept the lower rates of return required by the loss of their market power.

The key to maintaining an open trading system is for each industrial country to come to grips *domestically* with the opportunity and the challenge which adjusting to a changing international environment involves. The industrial countries will certainly benefit from expanding their trade with developing countries. From 1970 to 1978, developing-country exports of manufactured goods to industrial countries increased by almost \$12 billion (at 1970 prices); but industrial countries increased their manufactured exports to developing countries by almost three times as much (Table 3.6). Even excluding the growth of exports to the oil exporters, the industrial countries' trade surplus in manufactured goods has been growing since 1973 at more than 5 percent a year in real terms.

Neither are the benefits from trade simply a question of trade surpluses. Trade with the developing countries has helped raise

Table 3.6 Increments in the volume of nonfuel trade between developing and developed countries, 1960–80
(billions of 1970 dollars)

Time period and direction	Product category ^a				
	Foods, etc. (0 + 1)	Raw materials excl. fuels (2 + 4)	Nonfuel materials (0 + 1 + 2 + 4)	All manufactures (5–8)	All nonfuel merchandise (0–8, less 3)
1960–70					
Developed to developing ^b	1.45	1.03	2.48	15.22	17.70
Developing to developed ^b	2.56	1.90	4.46	5.78	10.24
1970–78					
Developed to developing ^b	3.86	1.88	5.74	31.83	37.57
Developing to developed ^b	0.98	0.15	1.13	11.48	12.61

a. SITC definition.

b. Country groups correspond to UN classification. Developing countries include the capital-surplus oil exporters and exclude South Africa and most of Southern Europe.

the efficiency of manufacturing in the industrial countries. It has helped them in their counter-inflationary efforts, bringing considerable benefits to consumers. And it has provided the spur to moving resources out of low-productivity industries and firms into sectors that provide higher wages and, ultimately, greater job security.

In some industries, notably textiles and clothing, telecommunications equipment, and household appliances, industrial-country imports from oil-importing developing countries have been increasing more rapidly than their exports to them. But even in these sectors, jobs lost as a result of increased imports have been small compared with the effects of demand changes, technological developments and productivity growth. And the number of jobs lost has been more than offset by employment opportunities created by boosting exports to developing countries in other, usually higher paying, industries.

International cooperation

In the nearer term, world attention must focus on the immediate need to expand the export earnings of low-income oil importers. Even in the High case, their export purchasing power—after taking out their payments for fuel imports—will still be below its 1970 level (Table 3.7).

Table 3.7 Export purchasing power net of fuel imports for low-income oil importers, 1970 and 1980

(billions of 1978 dollars)

Area and country group	1970	1980	1990 High case
Africa	7.4	3.7	4.3
Asia	8.8	7.3	8.0
All low-income oil importers	16.2	11.0	12.3

Trade measures to support low-income countries

A key element is the restoration of economic growth in the industrial countries. The export receipts of the low-income countries—concentrated on unprocessed materials and unsophisticated manufactures—are more sensitive to the state of the world economy than those of the middle-income countries.

The reluctance of many industrial countries to make the adjustments that changes in the international environment demand is slowing down their growth and simultaneously limiting the export prospects of the developing countries. From 1978 to 1980, the low-income oil importers not only saw the increase of oil prices added to their current account deficit but experienced an additional decline from the recession in the industrial countries.

On their part, the low-income countries might examine the emerging patterns of demand for food and other primary products, particularly in the oil exporters and middle-income countries. Where possible, they should diversify their export production to capitalize on these growing markets.

To help overcome the scarcity of entrepreneurship and marketing skills in the low-income countries, the capital-surplus oil exporters might actively seek to expand their imports from these countries. They could seek out suppliers and help to establish marketing facilities for products from the low-income countries.

The same effort could be made in the industrial countries. Their markets for primary products are growing less rapidly, and consumer loyalty to particular products and brandnames are therefore more difficult to overcome.

But in many cases, good marketing has turned a developing-country identity into an advantage. Colombian coffee, Jamaican rum, Brazilian furniture and Kenyan fashions are examples.

Such efforts by the industrial countries and the oil exporters will, however, have no effect if the low-income countries are isolated from world markets by their own trade policies or if their domestic policies make it financially difficult for their firms to become reliable suppliers on terms normally encountered in international commerce.

The International Monetary Fund's Compensatory Financing Facility was expanded twice during the 1970s and the European Community's Stabex scheme implemented. The United Nations Conference on Trade and Development (UNCTAD) Common Fund for commodities has been negotiated but not yet ratified by enough countries to come to life.

Even so, the exports of primary producers were at least as unstable in the 1970s as in previous periods. Their terms of trade and export receipts remain closely tied to the industrial countries' business cycle. The diversification of the middle-income countries' exports and their expansion into processing have been the more significant contributors to the expansion and to the stabilization of their export receipts.

Longer term considerations

Over the past 35 years, countries have learned the advantages of cooperative trade arrangements and have organized and overseen these in numerous different ways. Industrial country tariffs on most manufactured goods have been negotiated down to insignificant levels. Countries have committed themselves against generalized protection through the OECD

"trade pledge," renewed annually since 1974, and through agreements reached by heads of state at summit meetings of the larger industrial countries.

The recent adoption of a framework of codes negotiated at the "Tokyo Round" will help bring several nontariff barriers under international control. These codes (listed in the 1980 *World Development Report*) cover such issues as the determination and enforcement of product standards, and the procurement practices of state agencies and businesses. The objective of these codes is to ensure transparency and simplicity of procedures, so as to minimize the possibility of discrimination against foreign sellers.

There are, however, areas where little progress toward trade liberalization has been made. Agricultural trade is everywhere severely distorted by national price-support and protection policies, epitomized by the EEC's Common Agricultural Policy (see box).

Trade in services lacks an integrated system of international principles or conventions. Service trade (defined to include, for example, transport, tourism, banking and financial services and construction) in fact produced one-third more export revenue for developing countries in 1980 than did agricultural exports, although the developing countries' trade surplus was smaller for services than for agricultural products.

More significant perhaps is whether the traditional approach to trade liberalization requires broadening in order to continue to be effective. This approach, embodied in the General Agreement on Tariffs and Trade (GATT) is based on a belief by the participating countries that the political and economic benefits of open trade would exceed its costs. The concept on which the tariff negotiations were based was quite simple—an exchange of concessions from which each country would gain. But these negotiations have

Protection's price

Trade protection is an inefficient way to transfer income. That is a dull way to express a simple truth—if someone gains a dollar from protection, someone else *in the same country* loses a lot more. For every \$20,000-a-year job in the Swedish shipyards, Swedish taxpayers pay an estimated \$50,000 annual subsidy. Protection costs Canadian consumers \$500 million a year to provide an additional \$135 million of wages in the clothing industry. And when Japanese consumers pay eight times the world price for beef, Japanese farmers are not made eight times better-off. It costs them that much more to produce it.

not brought participating countries to weigh all the benefits they derive from trade against the costs. Countries have excluded certain products from tariff reductions, not necessarily because the (producers') costs of lower tariffs would exceed the (consumers') gains, but for fear that displaced producers might trigger domestic political pressure to resist liberalization. This view—that exports are the "gains" from trade and imports the "costs"—is also reflected in most countries' safeguards or escape clause procedures. In safeguards cases (as recognized by the GATT) the only economic effect taken into account is injury to domestic producers (see box).

This shortcoming takes on particular relevance as the developing countries increase their share of world trade. Earlier GATT negotiations successfully reduced tariffs on industrial products traded among industrial countries. But this success was largely due to the fact that cost differences were small, and the sectors that bore the losses were the same ones enjoying the gains. The resulting growth of trade tended to be intra-industry—a country's exports expanded in the same industries

Agricultural protection in the European Community

The European Community's Common Agriculture Policy (CAP) is a complex mechanism. The internal prices of major agricultural products are maintained by imposing variable levies on imports or, when EEC production exceeds demand, by government purchases. Because the internal prices are held constant while world market prices change with market conditions, the spread between the two fluctuates considerably. Thus over the past decade, European buyers have had to pay 1.4 to 5 times the world price for milk powder, 1.5 to 4 times the world price for butter, 2.5 times the world price of soft cheese, twice the world price for beef, and 1.5 to 2 times the world price for grains.

European consumers pay these differentials, and they also pay taxes to cover the losses incurred by disposing of surpluses at world prices or by diverting them to inferior uses, such as animal feed supplements. It has been estimated that

the CAP's total cost to EEC consumers came to \$11 billion in 1976.

Internal prices have been maintained at levels sufficiently high to maintain self-sufficiency in some products and to lead to production of exportable surpluses in others. The most obvious example is sugar, a commodity produced at least cost in the tropics. Because of its price support and surplus disposal program, the EEC has become the world's leading exporter, after Cuba. With the accession of the Mediterranean countries, a much larger share of the EEC's consumption of olive oil, wine, fruit and vegetables will be produced internally and protected from competition from North African and other developing countries.

The EEC surpluses are in part disposed of as food aid, but the intermittent selling of surpluses has the effects of depressing world prices and displacing established exporters.

in which its imports expanded. Other sectors, particularly labor-intensive ones where cost differences between countries were large, experienced minimal tariff cuts. Despite faster growth and fuller employment, reciprocity from a major supplier was not sufficient for governments to overcome resistance from the producer interests that would lose in order to achieve the larger consumer gains.

The same problem is now emerging in different guise. Developing countries that, in restructuring their trade policies, reduce their import barriers find it hard or impossible to obtain matching concessions from the industrial countries.

To restore the postwar momentum of trade liberalization, a national and international effort to base policy on a broader concept of the gains from trade may be needed. On national fronts, it is essential to redouble efforts to mobilize those domestic interests within the industrial and developing countries that bear the costs of protection. The safeguards negotiations provide an opportunity to bring out the same issues on an international scale.

NATIONAL ACTIONS. To identify individual products that are affected by trade barriers might seem at first glance a trivial task, but it is not. With more subtle forms of nontariff protection or industry support programs, simply measuring their coverage (let alone estimating their effects) is even more difficult.

Some government actions have helped make such work less difficult. They include the US Trade Action Monitoring System, which tabulates trade restrictive mea-

asures put in place by the United States; the annual record of government industrial aids and trade protection provided by the Industries Assistance Commission in Australia; and the Federal Republic of Germany's "Subsidy Report," which records by sector all federal government subsidies and also forgone tax revenues resulting from industry tax relief.

While the calculation and publication of the costs of protection will surely influence the general political climate, legislation may be needed to build this information into the decision mechanisms through which trade policy is administered.

National governments may find political (and not just economic) merits in institutional changes that allow them to judge trade disputes in the light of overall costs and benefits. Under present rules, the technical commissions and bureaus which adjudicate in trade disputes cannot take consumer interests into account. As a result, consumer groups have no alternative but to go "over the heads" of these bureaus and commissions and apply pressure on politicians. Trade disputes therefore tend to escalate into higher level disputes than they would if, at the lower levels, a technical outlet were provided for consumer as well as for producer interests.

THE SAFEGUARDS CLAUSE. The GATT embodies a general commitment by each participating country to keep its market open to foreign sellers. The safeguards (or escape) clause is, as its name suggests, a way out of this commitment. The purpose of an escape clause code is to define the circumstances under which a country might escape, and it is hoped, by

defining them, put limits on the exercise of each country's sovereign right to escape. So long as the proposals for a new safeguards code are based on the traditional mercantilist principle—that a country's interests are served by trade restrictions which reduce immediate injury to domestic producers—these negotiations, stalemated at the Tokyo Round and dormant since then, are unlikely to succeed.

Under present arrangements, the motive for a country to agree to limits on its right to impose trade restrictions is to stop its trading partners retaliating. The exercise of the right to escape is then simply a matter of the relative power of the importer and the exporter. Not surprisingly, the outcome in most instances is a "voluntary" export restraint agreement, negotiated between the national governments. The fact that the present safeguards article has hardly ever been invoked shows how hard it is to confine this clash of sovereign power within international rules.

If the safeguards negotiations were to focus on developing a more balanced concept of injury, then the major issue would not be "How much of its sovereign right to restrict imports will a country give up?" but "How can the code help a country determine when it is in its *overall* economic interests to exercise that right?" This would require the international community to face an issue that it has always avoided. It is a considerable challenge. But the record of successful negotiations suggests that trade policy may be the one area in which few tasks are beyond the powers of determined international cooperation.

4 Energy: a new era

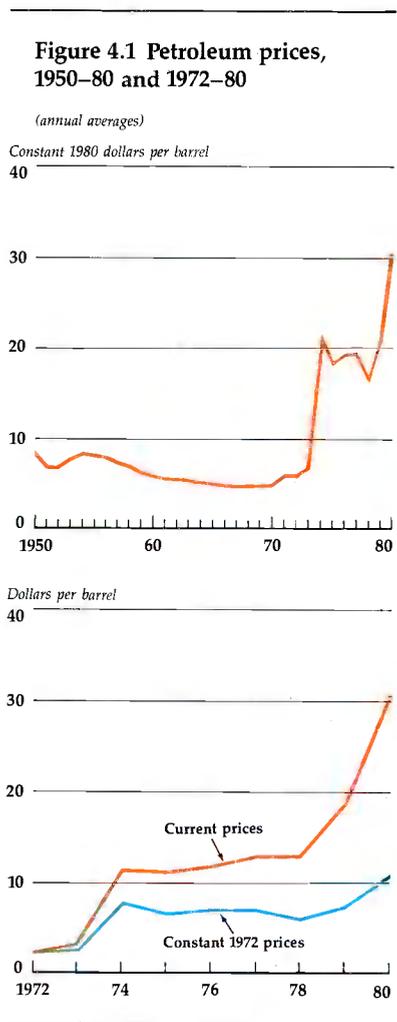
The shift from cheap and abundant energy to higher prices and scarcity has been a dominant feature of the world economy in the past decade. The previous chapter showed that over 40 percent of the substantial increase in exports from oil-importing countries was required to pay for the increased cost of their oil imports. Another substantial portion was financed by borrowing from the oil-surplus countries via the capital markets, which is examined in the next chapter.

Although some countries can adjust to more expensive energy by boosting their exports and borrowing, for the world as a whole a large part of the adjustment must be made more directly, through changes in the supply and demand for energy itself. These take place through substituting other fuels for scarce petroleum, reducing the energy required per unit of GDP, and changing rates of growth of GDP. These adjustments in energy use and the policies to bring them about will be examined at both the global and national levels.

The energy transition

Until 1970 the postwar period was characterized by rates of discovery of oil in the Middle East and elsewhere that were far in excess of demand. As a result the real price of petroleum fell steadily

(Figure 4.1). Oil and natural gas supplied over 80 percent of the increase in world use of primary energy between 1950 and 1970. Cheap energy made an important contribution to the unprecedentedly rapid growth of world output.



This pattern could not be sustained indefinitely. As the rate of growth of oil consumption began to exceed the growth of additions to reserves, prices would have risen regardless of the way the world oil market was managed. The four-fold rise in nominal oil prices that took place in 1973–74 was triggered by short-term political and economic factors and, as shown in Figure 4.1, somewhat overshot the real level sustainable by market forces. The 6 percent cut in world supply triggered by the revolution in Iran produced a further increase in real prices of over 80 percent between 1978 and 1980. However, by the end of the decade petroleum supply and demand were again closely balanced.

World demand

Before 1973 energy consumption was growing proportionately to GDP in the industrial countries, somewhat faster in the developing countries. Even so, the latter now account for only 14 percent of world commercial energy demand; a quarter of their total energy is still supplied by fuelwood and other noncommercial sources. After 1973 consumption in the industrial countries grew far less rapidly. While growth in these countries has recently recovered, it is projected to be slower than pre-1973 levels throughout the 1980s, and slowest of all country

groups. In the developing countries, demand has also slowed down, but not as much. As a result, their share in total consumption will rise to 18 percent by 1990. This is shown in Table 4.1 which represents this *Report's* best judgment of the likely levels of energy consumption and produc-

tion in the country groups (see also Figure 4.2).

Although the demand for energy is quite insensitive to price changes in the short term, the 1973–74 oil-price increases have already had a marked effect on energy consumption of oil-importing countries, especially the

industrial countries. The increase in prices of imported oil has gradually been passed through to consumers, cushioned by the slower rise in taxes and in the prices of other types of energy. In the main industrial countries, real prices to final users rose by 62 percent between 1973 and 1979 (Table 4.2). The available data show a similar rise in oil-importing developing countries but much less in oil-exporting countries.

In the industrial countries, the rise in consumer prices, combined with governmental actions to conserve energy, has already had a marked effect on the intensity of energy use. The ratio of their total energy use per thousand dollars of GDP has fallen by about 2 percent a year between 1973 and 1980. This has meant a saving of about 15 percent, or 10 million barrels a day of oil equivalent (mboe) in 1980, compared to the demand that would have been expected if there had been no increase in real energy prices.

The main factors affecting demand for energy can be divided into an income effect and a price effect (with conservation mea-

Table 4.1 Commercial primary energy production and consumption, by country group, 1970–90

(millions of barrels a day oil equivalent)

Country group	1970		1980		1990	
	Pro-duction	Con-sumption	Pro-duction	Con-sumption	Pro-duction	Con-sumption
Industrial market economies	43.2	60.6	50.6	72.4	64.3	87.0
Petroleum	12.7	29.9	14.5	35.0	16.4	37.4
Natural gas	13.0	12.8	13.8	15.0	13.2	16.2
Solid fuels	13.0	13.3	13.9	14.0	20.4	19.1
Primary electricity	4.5	4.6	8.4	8.4	14.3	14.3
Nonmarket industrial economies	28.8	27.6	45.2	43.0	63.4	62.1
Petroleum	8.0	7.2	13.7	13.1	17.9	17.3
Natural gas	3.8	3.8	7.7	7.0	12.6	12.3
Solid fuels	16.1	15.7	21.8	20.9	29.8	29.4
Primary electricity	0.9	0.9	2.0	2.0	3.1	3.1
Capital-surplus oil exporters	12.8	0.3	18.6	0.9	21.7	1.7
Petroleum	12.7	0.2	18.3	0.7	20.4	1.1
Natural gas	0.1	0.1	0.3	0.2	1.3	0.6
Solid fuels	—	—	—	—	—	—
Primary electricity	—	—	—	—	—	—
Developing countries						
Oil exporters	13.7	2.8	16.7	5.5	25.2	10.0
Petroleum	12.7	1.8	14.2	3.6	18.3	5.5
Natural gas	0.7	0.7	2.0	1.4	5.9	3.5
Solid fuels	0.1	0.1	0.1	0.1	0.3	0.3
Primary electricity	0.2	0.2	0.4	0.4	0.7	0.7
Oil importers	4.7	7.8	7.5	13.7	15.1	24.3
Petroleum	1.2	4.2	1.5	7.3	2.8	11.2
Natural gas	0.3	0.3	0.5	-0.7	1.6	1.6
Solid fuels	2.3	2.4	3.5	3.7	5.6	6.4
Primary electricity	0.9	0.9	2.0	2.0	5.1	5.1
Total world	103.2	99.1	138.6	135.5	189.7	185.1
Petroleum	47.3	43.3	62.2	59.7	75.8	72.5
Natural gas	17.9	17.7	24.3	24.3	34.6	34.2
Solid fuels	31.5	31.5	39.3	38.7	56.1	55.2
Primary electricity	6.5	6.6	12.8	12.8	23.2	23.2
Bunkers and others		2.9		3.1		4.6
Average annual growth rate of world supplies (percentages)						
	1970–80		1980–90			
Total world	3.0		3.2			
Petroleum	2.8		2.0			
Natural gas	3.1		3.6			
Solid fuels	2.2		3.6			
Primary electricity	7.0		6.1			

Note: Total world consumption refers to apparent domestic consumption only. Total world requirements of primary energy equal total world consumption plus bunkers and others. Synthetics from coal are not included in solid fuels.

Figure 4.2 Commercial primary energy consumption, 1960–90

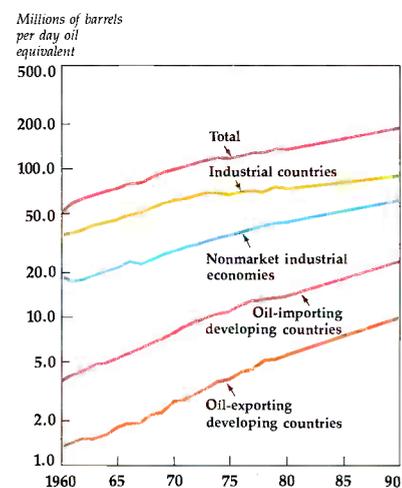


Table 4.2 Index of real energy prices to final users: major industrial market economies, 1974–80
(1973=100)

Final users	1973	1974	1976	1978	1979	1980
Residential and commercial	100	123	138	146	168	178
Industry	100	130	160	170	185	274
Transport	100	122	119	111	131	156
Total	100	125	140	144	162	195

Source: International Energy Agency.

tures being part of the latter). The annual increase in energy use can then be expressed as a function of income growth and price changes. This simple equation takes the following form: Energy growth equals *A* times percentage income growth minus *B* times percentage price increase. *A* is defined as the income elasticity, or the rate at which energy consumption increases relative to increases in GDP; while *B* is the price elasticity, the rate at which energy consumption decreases as energy becomes more costly.

Income elasticities tend to be higher in developing countries than in industrial ones, reflecting the rapid increases in industrialization and urbanization that accompany the early stages of growth. For every percentage point increase in income, energy consumption rises by about 1.3 percent in developing countries, compared to 1.0 percent in industrial countries (Table 4.3).

Price elasticities tend to be somewhat lower: over the range of prices experienced to date, each 10

percent increase in price has led to a reduction in energy demand of about 4 percent in the industrial countries but only 3 percent in the developing countries. The full effects of higher energy prices will take place over 15 to 20 years as energy-using equipment is replaced. The observed effects of price rises over the past seven years are therefore perhaps half of the estimated long-term effects.

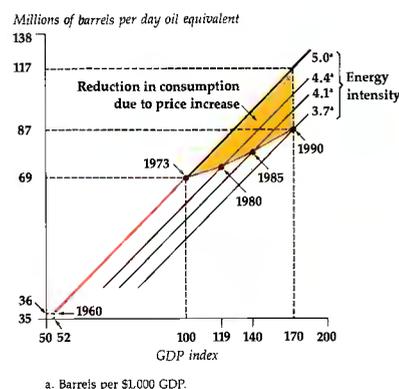
The combined effects of past and future changes in income and price on energy use are illustrated in Figures 4.3 and 4.4 and in Table 4.4. The shaded portion of each figure indicates the savings in energy demand brought about as higher prices have curbed energy consumption. The parallel 45-degree lines show energy consumption and GDP growing at the same rate ("constant energy intensity"). The points for each year show projected energy consumption and GDP and reflect the way in which higher prices offset the effects of income growth, resulting in lower energy intensities.

• The industrial countries. Both GDP and energy use were increasing at about 5 percent a year before 1973, and the average intensity of their energy use was relatively constant at 5.0 barrels of oil equivalent per \$1,000 of GDP (see Figure 4.3). In the absence of any increase in prices, energy consumption would have risen to some 117 mbdoe by 1990. Because of the dramatic price increases, however, energy intensities have fallen from 5.0 barrels per \$1,000 of GDP

in 1973 to 4.4 in 1980. This implies a medium-term price elasticity of about 0.2, consistent with the long-term elasticity of 0.4 shown in Table 4.3.

Since income growth was also very slow during this period—2.5 percent a year for the industrial countries—the increase in energy consumption arising from income growth was relatively small. It was almost cancelled out by the moderating effect of higher prices, so that total energy consumption slowed down considerably. This does not mean that energy use and income growth have been

Figure 4.3 Effects of income and price on energy consumption in industrial countries, 1960–90



“uncoupled”: the effect of rising income is again likely to predominate when the industrial economies return to their earlier, more buoyant growth, and as price increases become more moderate.

Looking ahead to 1990, a further reduction in energy intensity—to 3.7 barrels per \$1,000 of GDP—is anticipated in the industrial countries as they continue to adjust to higher prices. Should this occur, GDP growth of 3.7 percent a year would be supported by energy-consumption growth of only 2 percent a year, less than half as much as in the years before 1973.

Table 4.3 Typical income and long-term price elasticities for energy

	Income elasticity	Price elasticity ^a
Industrial market economies	1.0	0.4 (0.2–0.6)
Developing countries	1.3	0.3 (0.1–0.5)

a. At user prices. The range of estimates is indicated in parentheses.

• The oil-importing developing countries. Notwithstanding higher prices, energy intensities will rise between now and 1990—from 4.3 to 4.4 barrels per \$1,000 of GDP—because the positive effect of income growth on consumption outweighs the moderating effect of rising prices (see Figure 4.4). This is not to say that rising prices have no impact; in the absence of price changes, oil-importing developing countries' growth would have raised their consumption to 31 mbdoe by 1990 instead of the 24 mbdoe that is currently projected. Their energy intensity would have risen to 5.6 in 1990, instead of 4.4. (Because of differences in the purchasing power of GDP, the energy intensities of developing and industrial countries are not strictly comparable. Converting GDP at the appropriate purchasing power instead of at nominal exchange rates—which would mean roughly doubling developing countries' GDP—would show that their energy intensities are substantially below those of the industrial countries.)

The global effect of rising prices on total energy demand is estimated in Table 4.4 by comparing

Table 4.4 Commercial energy consumption, 1960–90

(millions of barrels a day oil equivalent)

Country group	Actual		Projected		Projected without price increase		Savings	
	1973	1980	1990	1980	1990	1980	1990	
Industrial market economies	69	72	87	82	117	10	30	
Oil importers	10	14	24	15	31	1	7	
Rest of world (including bunkers)	40	53	78	55	85	2	7	
World	119	139	189	152	233	13	44	

the consumption projected for 1990 with what would have been used to sustain the same GDP growth with no increase in prices. Savings reach 44 mbdoe in 1990, equal to just over 20 percent of world demand. If there were no change in the composition of energy supply, this would imply a saving of about 20 mbd of petroleum. Two-thirds of this reduction is projected to take place in the industrial countries, where energy use per person is the highest and the effect of rising prices on demand is most predictable.

Are rising prices and conservation sufficient to ease the energy bottleneck? On these projections, the growth of world energy demand would be lowered from 4.0 percent a year to 2.8 percent from 1973 to 1990, allowing for GDP to recover to the High case growth rates. However, a comparable adjustment on the supply side will also be needed to replace petroleum by more plentiful sources of energy so that oil demand can be limited to the amounts likely to be available over the next decade.

Energy supply

The price rises of the past decade have attracted heavy investment in additional supplies of energy. Inevitably it takes a long time to increase supplies significantly. As

a result, two-thirds of the adjustment to the slowdown in oil production has taken place through curbing demand growth and only one-third through accelerating the production of other energy supplies. In the 1980s, however, the effects of shifts in supply are expected to be as important as changes in demand.

In terms of extra supplies, petroleum will no longer make the largest contribution. Having provided more than 60 percent of the increment to energy supplies in the 1960s, its share is expected to continue to shrink (Figure 4.5). By the end of the century, it may account for only 30 percent of world primary energy, compared with its peak of 50 percent in 1973. This decline will have to be offset largely by a revival of coal and coal-based fuels and (in the 1990s) a significant increase in nuclear energy and synthetic fuels.

Although all forms of energy can be substituted for each other to some degree, the international economy is mainly affected by what happens to the most transportable forms—chiefly oil and coal. For the next 10 years at least, the speed with which coal replaces oil will largely determine whether energy supplies grow at the 3.2 percent a year needed to sustain economic growth. Other sources—mainly natural gas, hydroelectricity and nuclear

Figure 4.4 Effects of income and price on energy consumption in oil-importing developing countries, 1960–90

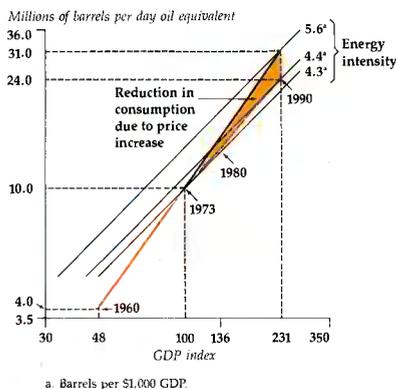
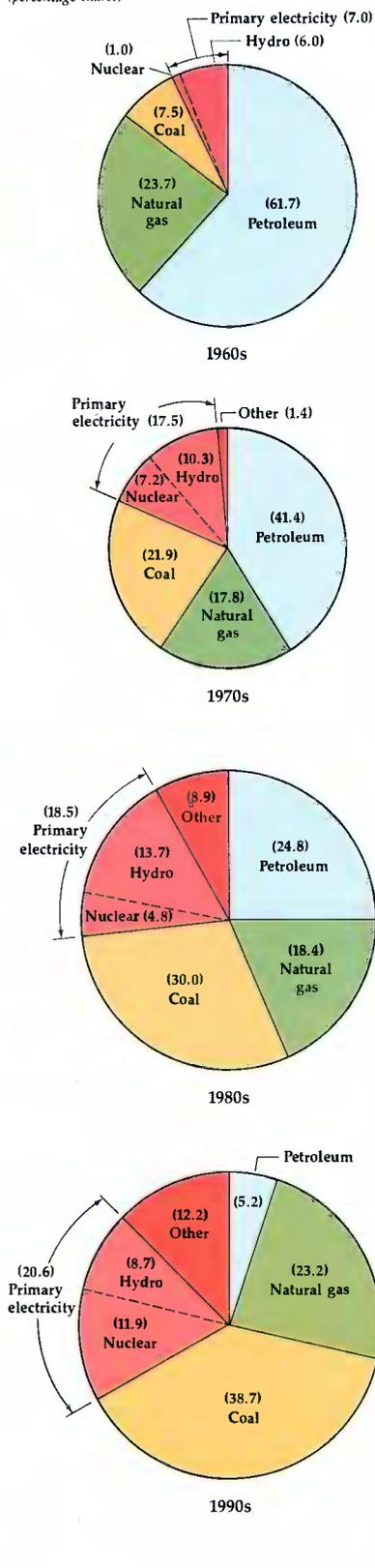


Figure 4.5 Increments to world energy supply

(percentage shares)



power—are expected to provide 45 percent of the increase in primary energy in the 1980s. But their lead times are so long that they are less responsive to current market conditions, and most decisions affecting what will come on stream in the 1980s have already been taken. The following discussion therefore concentrates on coal and petroleum.

Coal

World reserves of coal far exceed those of petroleum. At present prices, some 640 billion tons of proven reserves are economically recoverable, enough to maintain current production levels for over a hundred years. About 90 percent of the production and use of coal is in the industrial economies, market and nonmarket. The limits to coal expansion lie in the need for large investments in transport, coal-using equipment and pollution control.

Coal production is expected to grow more rapidly than oil during the 1980s—at about 3.6 percent compared to just over 2 percent in the 1970s—and coal and coal-based fuels will replace oil as the main source of energy growth. Liquids from heavy oils and oil shale as well as gas produced from coal should also become competitive with petroleum. This substitution should have a restraining effect on further increases in petroleum prices.

Replacing oil with coal is a more immediate option for the industrial than for the developing countries (with a few notable exceptions, such as China and India, which are already major producers). Most of the shift from oil to coal is therefore expected to take place in the industrial countries. Although there will be some substitution in developing countries, they will continue to rely on oil for about half of their energy

consumption during the 1980s (Table 4.1). In the longer run, however, the developing countries also have considerable scope for raising coal production.

Petroleum

Petroleum's dominant role in total energy supply derives from several factors. It is the most versatile form of energy, is relatively clean and is easily transportable (constituting some 90 percent of international energy trade). While oil readily replaced coal in the 1950s and 1960s, it is much harder to reverse this process.

In 1970 the 13 members of the Organization of Petroleum Exporting Countries (OPEC) produced half of the world's petroleum and held three-quarters of the world's reserves. The subsequent transfer of ownership of oil-producing facilities to the governments of these countries has had several long-term effects on petroleum supplies. Most fundamentally, supply decisions are now viewed as part of the overall development strategy of each country (discussed in Chapter 6). The larger, more populous, and more diversified economies such as Algeria, Indonesia, Iran, Venezuela and Nigeria, have been able to spend their increased revenues and so tend to maximize their oil production. But the countries with substantial production and reserves in relation to their development needs—Saudi Arabia, Iraq, Kuwait, the United Arab Emirates, Libya and Qatar—have been able to expand imports rapidly without spending all of their petroleum revenues. This group now produces two-thirds of OPEC supplies, playing a pivotal role in the world petroleum market.

The behavior of the capital-surplus countries is critical not only for world energy markets but also

for determining the future size of OPEC surpluses and the corresponding deficits in oil-importing countries. Over time the problem of recycling oil surpluses is likely to decrease, however, as the development needs of the surplus countries absorb more of their revenues. This question is considered further in the following chapter.

The six capital-surplus countries have now accumulated some \$300 billion of foreign assets. Although these assets represent a desirable diversification of their wealth, their rates of return have been well below the rate of appreciation in the value of their oil reserves. The surplus countries have now lowered their production targets by 2 million to 3 million barrels a day (mbd) from their past production level of about 19 mbd; they have the capacity to produce 5 mbd to 6 mbd more than their targets. This margin will tend to narrow as the imports needed for further development rise. But it can also be increased by enhanced recovery and further exploration work, currently at a low level.

The effects of the somewhat diverse objectives within OPEC have so far maintained upward pressure on prices when markets are tight while prices lag behind the rate of international inflation in slack periods. Oil prices have now reached levels at which various alternative sources of supply are competitive with oil—a fact that countries with substantial reserves can be expected to take into account when planning their output. These various factors combine to produce the central price assumption adopted in this Report—an annual increase of about 3 percent in real terms from 1980 to 1990, from \$30.50 to \$42 in constant 1980 dollars. Given this long-term perspective, the projections should remain unaffected by

factors such as the softening of prices in mid-1981.

The special problems of traditional fuels

While rising petroleum prices have captured the headlines, for almost half of the world's population energy problems take the form of a daily search for wood with which to cook food. Over 2 billion people still depend almost entirely on wood and other traditional fuels, including crop and animal wastes. In rural areas, low-income households use only traditional energy. In many developing countries, industry also relies heavily on fuelwood, and in some countries—Mali, Tanzania, Nepal, Ethiopia and Haiti are examples—traditional fuels represent over 90 percent of total energy consumption.

The quantities involved are large (Figure 4.6). Perhaps as much as 930 million cubic meters of wood, 400 tons of animal waste and the same amount of crop residues are being burned in developing countries every year. This is equivalent to almost 5 million bar-

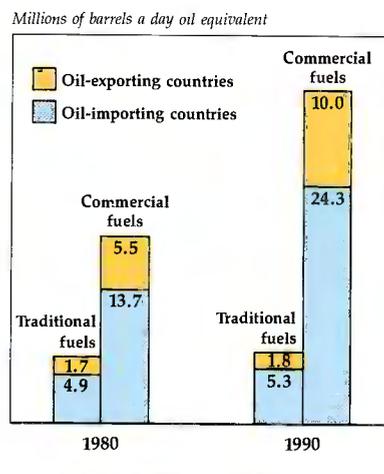
rels of oil per day and represents roughly one-quarter of the energy used in developing countries, and just under 5 percent of the world's energy consumption.

The growing scarcity of traditional fuels is the energy crisis in much of the developing world. Shortages are not a new problem in those parts of Asia, Africa and Latin America, where population growth and the need to clear land for agricultural use have long put pressure on forests. But they are now much exacerbated as the higher prices of conventional energy raise the demand for traditional fuels, especially for charcoal in urban areas. And demand for construction materials and pulp and paper, of course, continues to grow.

In many densely populated areas, forests have dangerously shrunk. The hillsides of Nepal are washing away as the demand for fodder and firewood rises, and more land is given over to agriculture. The use of wood for fuel is greater than sustainable forest yields in several African and Asian countries. In many more, localized deforestation is a serious problem because fuelwood cannot be transported economically over long distances. In Zaire, for example, only 2 percent of sustainable forest yields are cut down every year, but wood is very scarce around Kinshasa. A virtual desert has been created for at least 70 kilometers around Niamey, the capital of Niger. In their search for fuel, people may even cut fruit-bearing trees, seedlings and tree roots.

As forests disappear, people in rural areas spend more time collecting fuel, at the cost of working on the land. The poorest are the worst affected, since they can least afford to buy fuel. In parts of Africa, purchasing fuel can cost a poor family 35 to 40 percent of its

Figure 4.6 Consumption of traditional and nontraditional fuels in developing countries



income and people have been reduced to only one cooked meal a day. In poor areas of Nepal and Haiti, cropping patterns have even changed in favor of foods that require less cooking.

As wood becomes scarce, people burn more dung and crop wastes, which would be better used as fertilizers. As a result, yields fall, so creating pressure to bring more land under cultivation. But when trees and other vegetation are removed, the soil is eroded and river beds and canals silt up. Finally, deforestation reduces the earth's capacity to absorb the extra carbon dioxide caused by burning fossil fuels. This can raise global temperatures and affect the weather.

The gravity of the fuelwood crisis can therefore hardly be overstated. It can be tackled in three ways:

- Planting more trees. The use of modern agricultural methods and new species of trees is a relatively new phenomenon in many parts of the world. Experience has shown, however, that "tree farming" is feasible and profitable in a variety of circumstances. But progress in creating additional wood resources has been slow. To meet likely fuelwood demand in developing countries without further damage to forests would require an estimated 20 million to 25 million hectares of forests to be planted during the next 20 years. At present rates of planting, only one-tenth of that target will be met.

Reforestation mainly involves land, labor and time. Rural people themselves therefore have the potential to do the job, and relatively cheaply. Designing forestry projects to achieve this potential, however, presents special problems. Forests compete with land for food crops or grazing, so that wooded areas have to be carefully selected. Moreover, since planting

Trees for people: a participatory solution

In 1971 the South Korean government introduced a reforestation program under the driving force of the *Saemaeul Udong* [New Community] movement. The program involved a campaign of public education to encourage tree-growing and conservation, provision of free seedlings, a scheme for plantations in every village, greater support for the Forest Department, a new forest law, and enforcement of the ban on leaf-raking and removing undergrowth in forests.

By the time World Bank assistance was sought for the program's expansion in 1976, nearly 40,000 hectares of trees were being planted each year. That success was in large measure due to the involvement of villagers. Although the program was implemented by governmental agencies, their main role was to provide money and technical advice. By linking with village and district committees, they developed plans in accordance with village priorities.

In Gujarat, India, the Forest Department's program of reforestation included a publicity campaign that showed villagers that trees could be grown with

comparatively quick returns. Seedlings were distributed free; new and versatile species, such as *leucaena* and *eucalyptus* were introduced. With modern cultivation, they yield 5 to 15 times more than traditional trees, and can often grow on land not suitable for other crops.

The program has had considerable success in encouraging individual farmers to plant trees. In 1980, 50 million seedlings were distributed, but that failed to satisfy demand. However, efforts to accelerate planting on village common land have not fared so well. They have run into difficulties over the availability of land; relatively few *Panchayats* (village councils) in Gujarat have enough common land to use for trees without affecting villagers' other needs. Moreover, *Panchayats* sometimes decide to establish community lots without consulting other villagers, and the wood is often sold to meet other village needs rather than directly used by the villagers. Regardless of government commitment, social forestry will succeed only where local people are consulted and participate.

does little to satisfy immediate wood needs, it is often difficult to enlist the cooperation of farmers and landless laborers, especially if they are not assured of their rights to the mature trees. People cannot be forced to grow trees. They must believe that it will meet their needs, as examples of South Korea and the Indian state of Gujarat demonstrate (see box).

- Improving the efficiency of energy use. If people use traditional stoves, 90 percent of heat may be wasted while open fires use five times as much energy as kerosene stoves. Small improvements in chimney and stove design could double the useful energy obtained from fuelwood, but they have been made only slowly. Designs and operating methods have not always taken local conditions and tastes into account, and poor families often cannot afford the \$3 to \$5 it costs to

buy a "cheap" stove. Charcoal is typically produced by felling live trees and burning them on the spot in sand-covered pits. It would be much more efficient to burn the wood in kilns, but high costs and poorly adapted technologies have so far prevented that from happening.

- Substituting other energy for traditional fuels. This has been made much more difficult by the sharp price increases for commercial fuels over the past eight years. The prices that would enable poor families to use even minimal amounts of commercial energy are much lower than the prices required for economic efficiency. Nonetheless, many governments have subsidized fuels such as kerosene and diesel, typically used by poor consumers.

While this may be a useful interim solution for the poor, it creates many additional problems. It has

not been possible to confine such subsidies to those who need them. Vehicle engines can be converted to the use of the cheaper fuels, and it is common for subsidized fuels sold in rural areas to find their way back to the towns and cities. More importantly, large numbers of consumers receive the wrong price signals; they give little incentive to promote conservation or reduce imports, and budgetary costs can quickly become prohibitive.

There is no single solution to the special problem of energy for the poor. Many considerations, among them the cost of subsidies and urgency of deforestation, will have to be balanced, and policies will be different in different countries. In some places, biogas units have been introduced with some success. Other countries have experimented with additives to subsidized fuels so as to make them harm combustion engines.

In short, the links between prices, income distribution and environmental considerations represent a particularly intractable energy problem. The conflict between the needs of poor people for affordable energy, and fuel development, which requires higher prices, is somewhat similar to the food-price problem described in Chapter 7. The solution is far from obvious. What is clear, however, is that the majority of poor rural families will remain dependent on fuelwood and organic wastes for the foreseeable future. Unless that challenge is faced, the burden of the "other energy crisis" on those who are least able to bear it will continue to grow.

Energy and growth

This *Report's* discussion of individual countries (Chapter 6) highlights the somewhat surprising

conclusion that, until 1978 at least, the impact of higher oil prices on the growth rates of the oil-importing developing countries was relatively modest, largely because trading opportunities, workers' remittances, and capital flows, both commercial and Official Development Assistance (ODA), expanded sufficiently to offset this external shock to a considerable extent.

What can be inferred from this for the 1980s? The 1979–80 oil-price increase has produced unsustainable trade deficits for the oil-importing developing countries. In 1980, their net fuel import bill amounted to 5.3 percent of GDP (\$74 billion), compared with 2.8 percent of GDP in 1978. This is projected to rise further to 6.2 percent of GDP by 1990.

In some countries like Brazil, Turkey and India, oil imports now absorb over 50 percent of export earnings. While trade and capital flows will help to reduce and finance these deficits, increasing adjustments will have to take place in the energy sphere. At the domestic level, higher international prices have now largely been translated into the domestic price increases needed to stimulate adjustment. The effects of this will be felt throughout the economies of the oil-importing developing countries. Yet their current energy use is low and is bound to rise. Their "energy intensity"—the amount of commercial energy consumed per unit of output—is less than that of the industrial countries, due to, among other reasons, continued importance of traditional fuels and industry's small share in total output.

The oil-importing developing countries are therefore expected to raise their energy consumption from 13.7 mbdoe in 1980 to 24.3 mbdoe in 1990. Given this pattern, the extent to which higher oil

prices might affect their growth and development prospects is a matter of great concern.

Impact of higher energy costs

The most immediate effect of higher energy prices is to reduce the real incomes or profits of energy users. To the extent that higher prices cannot be passed on, energy users will try to modify their behavior to minimize the losses involved. They will substitute less for more expensive fuels and alter production methods to use more energy-efficient technology. Consumption patterns will also change.

How easily such adjustments can take place is not yet clear. Studies based on the experience of the industrial countries suggest that in the long run higher energy prices will not have a drastic effect on growth. However, the studies' long-term view understates the costs of disruptions and balance-of-payment difficulties of the kind that occurred in the 1970s.

Neither can their results necessarily be applied to the oil-importing developing countries. It may be much harder to substitute labor, capital and other raw materials for energy in developing countries than in the industrial countries. For example, the introduction of energy-efficient techniques may be hampered by shortages of skilled technicians and managers, or the infrastructure required to use alternative fuels.

The oil-importing developing countries seem to have one advantage over the industrial countries; they are not yet locked into a stock of energy-intensive capital and infrastructure and therefore, in principle, may be better able to expand while economizing on energy. But, with scarce capital resources and balance-of-payments constraints, they may not actually be able to implement the

options open to them. Their generally low levels of energy use suggest that much of it is "essential," so they have less scope than the industrial countries to curb consumption without affecting growth. Faster growth and rapid investment is the best way of ensuring that the developing countries adopt energy-efficient technologies.

The initial impact of more costly energy is related to the share of energy in GDP. For oil-importing developing countries, that share was about 4 to 5 percent before 1973 and is projected to reach about 10 to 12 percent of GDP by 1990 (even after adjustments to higher prices have been made). That would represent a potential GDP loss of some 5 to 8 percent over the period, perhaps half a percentage point a year. For many oil-importing developing countries, that is the difference between rising and stagnating income per person. Similar conclusions were reached in the simulations in Chapter 2.

Higher energy costs affect the various sectors in different ways. *Transport*, for example, is likely to be most affected directly, as fuel makes up some 15 to 30 percent of total costs, with virtually no scope for substitution between fuels or factors of production.

In *agriculture*, commercial energy accounts for no more than 5 percent of purchased inputs in most developing countries. Even though modern methods of farming—involving use of high-yielding varieties, fertilizers, irrigation and pesticides—use substantial amounts of energy, their profitability is such that higher energy prices are likely to have a relatively limited effect on output. And, while more energy-intensive per hectare, such modern methods typically use less energy per unit of food produced.

For *industry* as a whole, energy's share of production costs varies from 2 percent to about 8 percent. Certain industries are particularly heavy users of energy—for example, aluminum, copper refining, fertilizers and iron and steel. They seldom account for more than a small fraction of total industrial output in the developing countries. But, for some countries, they are leading export industries and often the biggest source of tax revenues. It will make increasing sense for countries that have cheap or nontradeable energy (such as natural gas and hydroelectricity) to exploit their advantages in these industries. Countries that are less well-placed to support these energy-intensive industries may suffer. But for most countries, the impact of higher energy prices on comparative advantage will be broadly neutral since competitors all face similar cost increases.

Rethinking development?

It has often been asserted that costly energy has made the industrial path to development unsuitable for developing countries. This assertion is not borne out by the facts. To achieve satisfactory growth, a proper balance must still be struck between industry and agriculture. But, on their own, higher energy prices will not prevent industrialization and overall growth, although there will be some changes in comparative advantage, and slower growth while countries make the heavy investments needed to adapt to expensive energy. Their feasible long-term growth rate may be somewhat lower than before, and they may find industrializing significantly more difficult. But the long-term outlook has not been fundamentally altered. Energy consumption is low in developing countries,

bespeaking the essential nature of its use. To grow rapidly, they will need to use much more energy.

Energy policy

The oil-importing developing countries will have only a marginal influence on the world's energy future, which will continue to be dominated by the policies and actions of the industrial countries and the capital-surplus oil exporters. The developing countries therefore need to adjust to world conditions and, in doing so, will significantly improve their individual performance. In the energy field, the key elements of their adjustment include:

- a strategy for energy use integrated into a country's overall planning framework and development objectives;
- a vigorous program to substitute indigenous energy, including hydroelectric power, coal, fuelwood and domestic oil and gas, for imported oil (domestic production of energy in the oil-importing developing countries can and should be doubled between 1980 and 1990);
- mobilization of the resources to carry out this vast program of domestic energy production, estimated to cost up to \$50 billion a year in the 1980s, compared to \$20 billion a year in the past five years; and
- a major conservation effort, employing both price and non-price policies.

Development strategy

Energy policies need not possess any unique characteristics. They share a common goal with other economic and social programs—promoting long-term development. Economizing on energy should not be regarded as an absolute virtue; it is desirable only for

the contribution it can make to this larger objective. Thus planning and policy making in all areas—industry, transport, agriculture and rural development—should be attuned to higher energy costs. But higher prices do not mean, for example, that developing countries should eschew all energy-intensive industries. “Good economics” still implies minimizing total costs, not simply energy costs.

Increasing energy supplies

Policies to encourage energy production are critical for continued economic growth. The oil-importing developing countries must take further steps to identify and assess the domestic oil, gas, coal, hydropower, uranium, oil-shale and tar sands that, at higher prices, can now be economically exploited. Smaller scale renewable energy, such as solar, wind and biomass, also merit attention.

What are the prospects for the various fuels? In *oil* and *gas* they are good relative to many oil-importing developing countries’ own needs. Their proven reserves represent about 2 percent of the world’s total. But because the cheapest supplies—from large fields and those close to the oil companies’ major markets—were developed first, the oil and gas potential in oil-importing developing countries may as yet be underestimated (see box). Their oil production is now 1.5 mbd; it is projected to increase to 2.8 mbd by 1990 but could reach 4.8 mbd with greater exploration and investment. A number of countries (Barbados, Brazil, Chile, Colombia, Ghana, Guatemala, India, Ivory Coast, Morocco, Pakistan, Philippines, Thailand, Turkey and Yugoslavia) will reduce their dependence on imports significantly during the

Reserves and resources

All of the energy within the earth is called the *resource base*. Of this, only a small part (known as *proven reserves*), consists of deposits that have been discovered and can be exploited with the existing technology. In the case of oil and gas, they are those reserves that can flow *now* from existing wells in already developed reservoirs. As more wells are drilled into a reservoir, the estimate of proven reserves may be revised up or down. The ultimate potential of a field may be up to twice that of initial estimates.

Since reservoirs in an oil field are geologically (if not physically) related, limited drilling can usually determine the extent of additional oil and gas in the

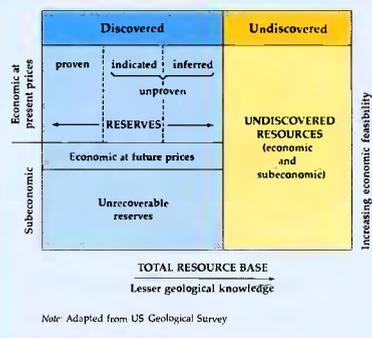
same field with some certainty. Those are called *indicated reserves*. On the basis of information gleaned from exploratory drilling, plus considerable geological extrapolation, the existence of further reserves, also producible at current prices and costs, can be *inferred* (though with errors of up to several orders of magnitude). Both indicated and inferred reserves are classified as *unproven*.

In addition to economically producible energy resources, exploratory drilling may confirm the presence of other deposits. If these are not exploitable at current prices or with existing technology, they are designated *subeconomic*. Some of them may become economic as prices rise; the rest are the *unrecoverable* reserves left behind in reservoirs.

As yet *undiscovered resources* may exist where exploratory drilling has not yet taken place but where geological and other data provide suggestive evidence. Estimates of undiscovered resources are inevitably highly uncertain.

These categories are themselves poor guides to the availability of energy for consumption. If energy is needed for immediate consumption, then proven reserves considerably overstate how much is available. To the consumer, deliverable energy, not reserves or resources, matters; this depends not on wells or geological data, but on the pipelines, railways and tankers that move it about.

The classification of reserves and resources



1980s; a few will become self-sufficient. Estimates also indicate that by 1990, production of natural gas could triple to 1.6 mbdoe.

With the exception of a few countries, little is known of *coal* prospects in the developing world. Developing countries’ reserves are an estimated 10 percent of the world total, but this share should grow as exploration accelerates. The increase in oil prices since 1973 has not significantly speeded up coal production in the developing countries because of the time required to explore, develop and bring coal mines into production and to install the associated infra-

structure and transport facilities. During the 1980s, only 29 developing countries are expected to produce coal. Their production will average 4.6 mbdoe, most of it coming from existing producers.

As for electricity, *nuclear power*—which now supplies just under 2 percent of the electricity in developing countries—is an option open only to very large countries. Its capital cost is high, and smaller countries do not have grids with the minimum capacity—some 6,000 MW—to handle the minimum reactor output efficiently. If countries also lack the skilled labor and management needed for a nuclear program, the peculiar

Figure 4.7 Comparative costs of production

(1980 dollars)

Fuel technologies	
Production cost in dollars per barrel of oil equivalent	Fuel technologies
Less than 30	<ul style="list-style-type: none"> • coal • natural gas • tar sands • oil shale • oil sands • liquefied natural gas
31-55	<ul style="list-style-type: none"> • light Arabian crude^a • wood to methanol • coal liquefaction • coal gasification, medium-BTU gas • wood to ethanol • sugar to alcohol^b
56-85	<ul style="list-style-type: none"> • coal gasification, high-BTU gas • coal to methanol • Mobil M gasoline
85 and above	<ul style="list-style-type: none"> • wood to high-BTU gas • manure to high-BTU gas • corn to ethanol

Power technologies	
Generation cost in cents per kwh	Power technologies
Less than 4.0	<ul style="list-style-type: none"> • nuclear, light water reactor • geothermal, steam • conventional coal-fired plant • conventional natural-gas-fired plant • hydroelectricity
4.1-6.5	<ul style="list-style-type: none"> • atmospheric fluidized bed combustion • pressurized fluidized bed combustion • geothermal, brine • magnetohydrodynamics • breeder reactor • conventional oil-fired plant • combined cycle, No. 2 distillate
6.6-8.0	<ul style="list-style-type: none"> • combined cycle, integrated coal gasification • biomass (wood chip fuel) • fuel cells (low BTU coal gas fuel)
8.1 and above	<ul style="list-style-type: none"> • solar photovoltaic • ocean thermal energy conversion • wind • solar thermal

Note: Costs include all investment requirements and operation and maintenance costs, including rate of return. Estimates are based on state-of-the-art scale of operation and U.S. operating conditions.

Source: Bechtel

a. Delivered to domestic refineries.

b. Brazilian operating conditions and raw materials costs.

hazards of nuclear energy production may make it an unwise choice. And all must be as concerned as the industrial countries about the security and safety of nuclear plants.

International hydro

Developing countries have substantial scope to exploit the hydroelectric potential of international rivers. This has already been done in various places including on the Danube (the Iron Gates projects) benefiting Romania and Yugoslavia, and on the Parana River (Yacyreta and Itaipu projects) for the common benefit of Paraguay, Brazil and Argentina. Other projects, such as the Nangbeto project for Togo and Bénin and the Mano River project for Liberia and Sierra Leone, are under study—and still more could be, for example, on the Ganges, Mekong and Salween. Installed capacity costs on large integrated projects may be as little as one-half the capacity cost of installing similar amounts of power in many smaller-scale projects.

These projects are not easy. Under ideal circumstances, power facilities can be installed in each country with equitable division of available flows, such as took place in the Iron Gates project. However, site conditions may require locating the power facilities in one country, as in the case of Yacyreta, and the contractual arrangements for investment sharing, plant ownership and power delivery frequently require delicate negotiations, often delaying implementation by years.

A different set of issues is raised by countries such as Nepal or Zaire which have huge hydro potentials but relatively

small power markets. Exporting power via regional transmission systems to nearby countries, such as India or Zimbabwe, makes a great deal of sense. Unfortunately, such potential buyers are understandably reluctant to become overly vulnerable to outside supply.

Because of such difficulties, the development of international hydro is likely to continue to be slow. However, the potential benefits from these projects are so considerable that every case should be explored. For example, Nepal's estimated 80,000 MW hydro potential is a thousand times greater than that country's present power needs, and will be wasted for centuries unless it can be developed for India's market which could absorb the output in several decades. Similarly, the 4,800 MW potential of the Pa Mong site, shared by Laos and Thailand, is about equal to Thailand's present installed generating capacity and would offer economies of scale over smaller hydro sites as well as conserving Thailand's gas and lignite resources now assigned to future thermal stations.

Many such options are being studied, and some progress is being made. However, though attractive in theory, international hydro remains prey to the many problems that arise whenever international cooperation is required.

There are better prospects in *hydropower*. The developing countries' hydro resources account for approximately half of the world total. Present oil prices justify a capacity cost some 1.5 to 3.5 times that of recently built hydroplants in developing countries. Some of the largest potential hydro projects in the world are sited on international waters, but remain unexploited because of political and technical problems (see box above).

So far as nontraditional forms of renewable energy are concerned—biomass and biogas, sun, wind and water—these may be options in the more distant future, but are not likely to offer a

large, cost-effective energy source for some time.

Capital requirements for energy development

The capital costs of the oil-importing developing countries' energy development programs, including a doubling of domestic energy production, will be enormous. Around \$40 billion a year (in 1980 dollars) will be needed between now and 1985 (including about \$5 billion a year for oil and gas). Increasing reliance on higher cost supplies will raise the average unit capital cost of energy production by 50 percent in the 1980s over that of the 1970s. This and the higher overall levels of investment will

raise the total to more than \$50 billion a year (in 1980 dollars) between 1986 and 1990 (including \$7 billion for oil and gas). This compares with the oil-importing developing countries' 1980 net fuel import bill of \$74 billion (in 1980 dollars). As a proportion of total developing country investment, energy's capital requirements in the 1980s may double from 5 percent in the past five years (about \$20 billion a year in 1980 dollars) to closer to 10 percent.

Few countries could achieve these increases in energy investment without affecting growth in the rest of the economy. So if the investments are to be made without major internal dislocation, substantial capital inflows and technical assistance will be required, even with major increases in domestic savings.

Prices

The impact of higher energy prices on inflation may make governments cautious about raising prices. Similarly, higher prices have strong distributional effects: in developing countries, energy takes a larger share of much lower incomes than it does in industrial countries. Finally, in those countries where traditional fuels are still important, the use of the pricing tool is further complicated by the fact that commercial fuels and the wood used by rural inhabitants are close substitutes. Raising the price of kerosene, for example, can shift demand from commercial fuels onto fuelwood, aggravating the pressure on already endangered forests.

Nonetheless, maintaining domestic energy prices at levels reflecting energy's real economic cost is an important, necessary condition for ensuring that countries adjust to new realities. Thus, appropriate pricing and taxation of energy products to encourage

Domestic petroleum prices

Governments have traditionally taxed petroleum products heavily because of the presumed low price elasticity and high income elasticity of their demand. In the 1960s, governments of oil-importing countries collected nearly four times as much revenue per barrel as did the oil-producer governments.

However, when international oil prices rose sharply in the mid-1970s, governments were reluctant to increase them further by additional indirect taxation. The table compares international and domestic prices of gasoline, kerosene and fuel oil in 53 countries, and shows how governments used the large tax element in domestic prices to cushion the impact of oil-price increases.

In real terms, international prices of those three products in 1980 were about 350 percent above their 1972 levels; but domestic prices in oil-importing developing countries were only 71 percent higher and in industrial countries only 62 percent higher. In oil-exporting developing countries, there was a real fall of some 30 percent.

Ratio of domestic petroleum product prices to international prices, 1972-80

Year	Industrial market economies	Oil importers	Oil exporters
1972	3.3	2.7	1.7
1978	2.0	1.8	0.5
1980	1.6	1.4	0.3

energy conservation and substitution of one fuel for another, and to ensure that energy users are given appropriate signals for longer term decisions, will be an integral part of energy policy.

Energy is so pervasively used in every economy that nonprice mechanisms to encourage conservation and substitution would quickly be overwhelmed. Moreover, attempts to protect domestic consumers from price increases typically lead to budgetary costs that can fuel inflation and quickly become prohibitive (see box). The importance of market prices is not diminished by the fact that many important decisions involving energy production and use may not take place through the market. The decisions made by government planners will be more effective if reinforced by correct prices.

The difficulty of raising prices in those countries that have kept them down for some time should not be underestimated. It would take a doubling of domestic prices, in real terms, for four years or more to eliminate the subsidies in some countries.

Countries that are self-sufficient

in energy are under less immediate pressure to raise domestic energy prices, and the arguments for energy conservation through price increases are not easy to communicate to populations acutely aware of their country's petroleum wealth. By delaying price increases, however, they lose opportunities to earn additional foreign exchange. More seriously, they build up energy-intensive production methods and consumption and transport patterns that will be difficult to reverse at a later stage.

Nonprice policies

Though a necessary condition, correct pricing of fuels is often not sufficient to bring about all the desired adjustments. First, pricing alone cannot reduce a country's vulnerability to sudden shortages or dramatic changes in international prices, for example. To deal with possible crises, other policies, such as stockpiling and emergency conservation and allocation plans, may be necessary. Second, the response to higher energy prices takes considerable time. In some areas, adjustment can be speeded up and mar-

ket reactions reinforced through regulation. Examples include import restrictions on large automobiles, limits on space-conditioning temperatures and traffic control. And in other areas, such as supplying the rural poor with a vigorous forestry program, non-price policies are the only means.

How does this translate into specific sectoral policies? In *agriculture*, extension services help to spread energy-efficient practices. In rice production, for example, placing fertilizer directly at the crop roots can be up to 50 percent more efficient than scattering it on the soil. In many poor countries where power shortages are common, inefficient pumps use much more energy than is actually needed.

In *industry*, improved management and personnel training has in several countries achieved significant energy savings within two to three years. In the middle-income countries, retooling of older energy-inefficient machinery can be spurred through tax and credit policy. Generally liberal investment policies, such as accelerated depreciation, can also help ensure that new equipment quickly replaces the older capital stock (see box below).

Transport is the largest consumer of petroleum in many

Traffic management: two experiments

To reduce the serious traffic congestion in central *Singapore*, the Government introduced an "Area Licence Scheme" in June 1975. All private cars entering a restricted central area and carrying fewer than four persons were required to display a licence. Since March 1980 its cost has been \$2.30 a day. Parking fees were also increased considerably, and ring roads substantially improved.

These measures had a dramatic effect:

- Before the introduction of the scheme, an average of 42,790 private cars entered the restricted zone during the busy morning period; two months after the scheme was introduced, this had fallen to 11,130. By 1980, the number of cars coming into the zone had increased to only 13,840.

- More than 50 percent of private cars now carry four or more passengers, compared with less than 23 percent before the scheme was introduced, and the proportion of travelers taking buses increased from 33 percent to 46 percent.

- Gasoline consumption has increased by only 3.8 percent a year since the scheme was introduced, compared to 6.4 percent a year in 1970-75.

Venezuela has one of the lowest retail prices of gasoline in the world (\$0.13 a gallon). Both gasoline consumption and its private car fleet have been increasing by more than 10 percent a year. In 1979 about 135,000 of the 549,000 vehicles registered in Caracas were driven during peak hours, resulting in severe congestion.

In November 1979, the Venezuelan government decided to ban each car for one day a week, the day depending on licence numbers. The number of private cars operating during peak hours has been reduced by more than 20 percent, saving some 1 million liters of gasoline a day, about 16 percent of the total daily consumption in Caracas.

In comparison with the traffic plan in Singapore, the Caracas experiment has drawbacks. Because gasoline is still so cheap, traffic restrictions are only short-term measures and will not stop the vehicle fleet from growing rapidly. Traffic congestion is thus likely to recur in four or five years' time. Nonetheless, nonprice measures on their own can help to reduce demand for oil.

developing countries. Energy efficiency can be achieved through changing the mix of transport methods, shifting traffic from less to more efficient carriers (such as public passenger transport) and increasing load factors. Some countries have had success with traffic control schemes (see box

above). In all sectors, but especially in transport, changes in energy consumption will also require substantial public investment.

International policies

The international community has an important role to play in helping the developing countries to adjust to more expensive energy. The world has a particular interest in boosting energy production in the oil-importing developing countries because this will:

- improve the balance of energy supply and demand in international markets;

- help the oil-importing developing countries to ease their balance-of-payments difficulties, so avoiding strains in international capital markets; and

- allow growth in the oil-importing developing countries to

Improving industry's energy efficiency

The cement industry is a good example of potential for energy saving in many developing countries. The kiln section accounts for about 95 percent of the industry's total fuel bill. But the actual amount it uses will depend on the process employed and thus on the nature and moisture content of raw material entering the kiln; whether the subsequent drying and preheating operations are carried out in the rotary kiln or more efficiently in suspension preheaters; whether calcination takes place in the kiln or in the precalciner; and the efficiency of the clinker

cooling. Depending on these factors, the heat needed to produce one kilogram of cement clinker ranges from 800 to 1,800 kilocalories.

Similar savings can be made in other energy-intensive industries—copper, ammonia, pulp and paper, and petroleum refining, for example. Tentative estimates suggest that about 15 percent of the total projected industrial energy consumption in developing countries in 1990 could be saved by such changes in industrial practices and processes.

recover, so providing an important stimulus to world trade.

In the energy field above all others, international interests coincide closely with those of the developing countries.

Increasing energy production in the developing countries will require assistance from the industrial countries. The institutional and informational barriers to finding and developing new resources in the oil-importing developing countries are often not fully appreciated. Foreign oil companies are sometimes reluctant to do business in oil-importing developing countries, fearing changes in the rules once significant discoveries are made. Their interest is also dampened by the fact that most future discoveries are expected to be relatively small and more suited to import substitution than to filling the multinationals' need for stable crude supplies. Moreover, increasingly, exploration must take place in difficult geological or remote offshore areas, to which it is difficult to attract risk capital. Finally, certain types of projects, which are especially important for

the poor, are not attractive to private capital at all.

Multilateral lending institutions have considerable experience with energy in developing countries and are in a unique position to help remove the many market imperfections that stand in the way of accelerating energy development; they can help developing countries to evaluate geological risks and to develop exploration strategies; assist oil companies and host governments in reaching agreement on joint exploration and exploitation and provide reassurance to both parties that political risks can be minimized.

The infrastructure financed by multilateral institutions can also encourage private companies to expand exploratory work. One study estimates that where basic infrastructure must be put in place before exploration or development can occur, the costs of a project may become four or five times what they would otherwise be. Multilateral lending institutions can also have an important leveraging effect: their contribution can be boosted by attracting additional

private capital into the exploration phase. Finally, multilateral institutions may be able to help developing-country governments to see that the gains from increased oil production will not be wasted—by inappropriate domestic prices, for example. This knowledge may encourage private investors to support a project. The role for international financial institutions to fulfill these needs, serving the triple function of promoting development, easing energy markets and recycling capital, is thus clear.

For the eventuality of future world shortages, other international initiatives will be needed. The oil-importing developing countries, which are now among the first to be pushed into the high-priced spot market, should be included in some cooperative allocation scheme of the kind administered by the International Energy Agency for the industrial countries. This would not only guarantee them oil in the event of an emergency or supply disruption but would also help stabilize markets and give all participants additional security.

5 External finance for adjustment and growth

In the 1960s and early 1970s foreign capital financed 10 to 20 percent of total investment in developing countries. Most of these flows came from official or semi-official sources in the form of grants, concessional loans and market loans. Private finance consisted largely of suppliers' credits and direct foreign investments.

Even before 1970, this pattern was gradually changing. The contribution of private bank lending increased rapidly after 1967 while workers' remittances (though conventionally classified as "current receipts") also became an important item of external finance for several countries in Southern Europe and North Africa. Dramatic changes occurred in 1973–75 when the develop-

ing countries had to borrow to cover their much enlarged current deficits (Table 5.1 and Figure 5.1).

Between 1973 and 1975 the trade deficit of the oil importers rose 3.3 times in real terms or, as measured in relation to their GNP, peaked to the 5 percent level by 1975. The deficit of the low-income countries increased 2.2 times in real terms between 1973 and 1975. The low-income countries were less affected largely because oil formed a smaller part of their total imports. In addition, some low-income African countries benefited from a rise in their exports in 1973–74, and there were good harvests in South Asia in 1975.

The wider financing gap was bridged initially by extra aid from industrial countries, more lending

Figure 5.1 Middle-income oil importers' current account deficit, 1970–80

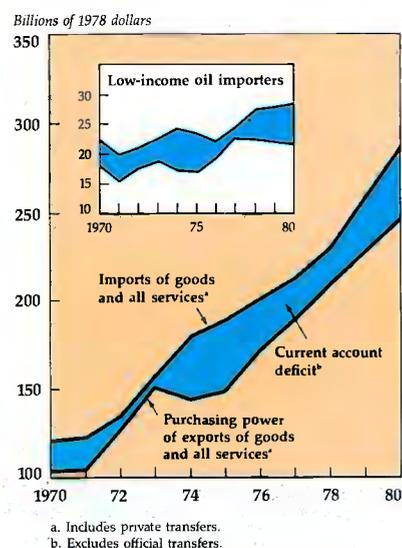


Table 5.1 Oil-importing developing countries' current account deficit and finance sources, 1970–80 (billions of 1978 dollars)

Item	Oil importers									
	Low-income					Middle-income				
	1970	1973	1975	1978	1980	1970	1973	1975	1978	1980
Current account deficit ^a	3.6	4.9	7.0	5.1	9.1	14.9	6.7	42.8	20.4	48.9
Financed by:										
Net capital flows										
ODA	3.4	4.1	6.6	5.1	5.7	3.3	5.3	5.3	6.5	7.9
Private direct investment	0.3	0.2	0.4	0.2	0.2	3.4	5.1	3.8	4.6	4.5
Commercial loans	0.5	0.6	0.8	0.9	0.7	8.9	13.7	21.0	29.4	27.1
Changes in reserves and short-term borrowing ^b	-0.5	-1.1	-0.7	-1.1	2.4	-0.8	-11.7	12.7	-20.1	9.5
Memorandum item:										
Current account deficit as percentage of GNP	1.9	2.4	3.9	2.6	4.5	2.6	1.0	5.5	2.3	5.0

a. Excludes net official transfers (grants), which are included in capital flows.

b. A minus sign (-) indicates an increase in reserves.

by international financial institutions and depletion of reserves. But the various channels through which the oil exporters' surpluses were recycled became increasingly important. Oil producers increased their aid; remittances from migrant workers in the Middle East became a significant source of foreign exchange for many countries; there was a spectacular increase in commercial bank lending to the middle-income countries (Figure 5.2).

Oil importers' trade deficits reached their peak in real terms in 1975; over the next three years, their deficits were almost halved. The 1979–80 rise in oil prices again put pressure on the oil importers' balance of payments. In 1979–80, although oil prices rose only 63 percent as much as they had in 1973–74, the corresponding increase in the trade deficits of the oil importers was higher because oil accounted for a much higher share of the total cost of imports.

The oil importers have financed a large part of the increase in their deficits between 1978 and 1980 by drawing from their reserves and by short-term borrowings. But this is only a temporary solution. In the medium and long term, the developing countries will have to adjust to the recent and anticipated changes in the international economy by paying for higher priced oil through a transfer of goods—that is, by reducing consumption below what it otherwise would be. This chapter considers the role external finance can play in easing adjustment while maintaining an environment of growth.

External finance in the 1970s

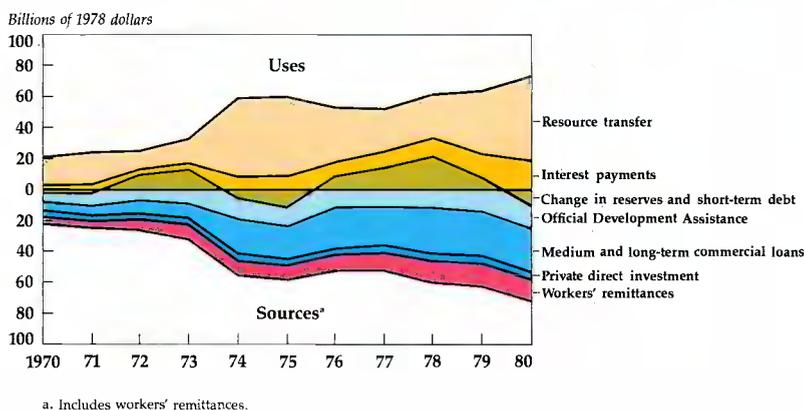
When the developing countries' trade deficits rose sharply after 1973, the international community responded with great urgency,

and with particular concern to the needs of those countries identified as "most seriously affected." OECD donors increased their aid by 52 percent in two years, from a historically low 0.29 percent of their GNP in 1973 to 0.36 percent in 1975. OPEC members increased their aid even more rapidly; it rose to \$5.5 billion in

by borrowing at commercial terms.

Although the international response to the difficulties of 1973–75 was encouraging, during the second half of the 1970s ODA receipts grew slowly; in the case of the low-income oil importers, they actually declined in real terms. By 1980 ODA from the

Figure 5.2 Oil-importing developing countries' sources and uses of financial flows



1975, 27 percent of all Official Development Assistance (ODA).

The International Monetary Fund (IMF) arranged two oil facilities to help recycle surpluses accumulated by OPEC and some OECD economies. An interest subsidy reduced the cost of finance to low-income countries. The multilateral banks increased their commitments by 46 percent in 1974 and 21 percent in 1975. In addition, both bilateral and multilateral agencies expanded the share of program lending and other fast disbursing aid. Thus, between 1973 and 1975 Official Development Assistance received by the low-income countries had increased by 60 percent in real terms. Middle-income oil importers financed their enlarged deficits

as a proportion of their GNP than it had been in 1975, and only about half of the 0.70 percent of GNP most of them had accepted as a target. Their collective performance is heavily influenced by the disappointing record of the largest donor. In 1980 their aid was 0.43 percent of their GNP, excluding the United States (0.27 percent of GNP). Sweden, Norway, Denmark and the Netherlands exceeded the 0.70 percent target.

The share of non-OECD countries in total ODA increased during the 1970s but it reached its peak (33 percent of the total) in 1975. Most of this came from the capital-surplus oil exporters. As oil surpluses declined, OPEC's share in total ODA also fell, to 18

percent, in 1979, but rose to 20 percent in 1980. Capital-surplus oil exporters are now contributing 3.1 percent of their GNP for aid. Aid from the nonmarket industrial economies is negligible, 0.12 percent of their GNP.

The direct effect of rising oil revenues on the exports of the developing countries was small, but some developing countries, most of them among the poorest, benefited from the oil exporters' increased economic prosperity through the export of labor and the corresponding inflow of remittances. Total remittances to the

developing countries, mainly from Europe and from the Gulf countries, rose from about \$3.5 billion in 1970 to \$24 billion in 1980—\$2 billion more than the developing countries' total ODA receipts, and equivalent to about 13 percent of the major recipient economies' merchandise exports, and for some, much more (see box).

Direct foreign investment, which constituted about 20 percent of the net capital flows to developing countries in 1970, has grown less rapidly than other forms of external capital. Invest-

ment increased sharply in the early 1970s, responding to the commodity boom and to more favorable policies toward foreign investment in many middle-income countries. But the spurt was short-lived; after 1975 foreign equity investment did not even keep up with inflation. However, with the expansion of commercial bank lending, the form of foreign investment in developing countries itself changed. Intracompany loans supplemented equity participation. The financing needs of transnational companies were covered increasingly from sources

Workers' remittances

Remittances from their nationals working abroad yielded about \$24 billion to the developing countries in 1980. Migrant workers have been mostly concentrated in Europe and more recently in the Persian Gulf area. Major beneficiaries among developing countries of remittances from Europe have been Yugoslavia, Turkey, Portugal and Morocco. Migrant laborers employed in the Gulf states have come

mainly from other Arab countries (Egypt, Jordan, Syria, the Yemen Arab Republic and the People's Democratic Republic of Yemen) and from South Asia (India, Pakistan and Bangladesh) although increasing numbers have come from East Asia.

The level of remittances is closely related to the number of migrant workers abroad and their wages, as has been observed in countries such as Greece, Yugoslavia and Turkey. In the case of the countries supplying labor to the Gulf states, migrant workers seem to remit more the lower their occupational level. Even though the propensity of unskilled workers to remit usually remains high because they do not often take their families to the country of employment, it tends to fall over time as the basic needs of their families are met and their own local expenses increase.

Some labor-exporting countries have had special schemes to attract remittances from their workers abroad. But recent research shows that such incentive schemes do not appear to have any significant impact on total remittances although they may lead to some reallocation of savings.

The experience of Europe has demonstrated that there is a limit to the number of foreign workers that a society will wish to allow. Many countries have put severe restrictions on foreign labor and have attempted to "stabilize" their migrant labor force. Although these measures are

frequently attributed to recession and the difficulties of 1973-75, the timing of the beginning of these restrictions shows that they preceded the oil price rise. On the other hand, there has been a process of "maturing" of the migrant population. Despite original intentions to import labor only, even the countries with the strictest immigration laws found that migration had taken on a circulatory character: some workers returned, many had acquired permanency status and the age-sex composition of the migrant population was beginning to approach normal profiles.

The Middle Eastern countries are going through a similar experience. The problem is more acute in this region; in no other country is the proportion of foreigners in the labor force as large. Nevertheless, the outlook for increasing the volume of migrant labor in the Middle East in the near future may be slightly better than in Europe because the economies of the labor importers in this region are crucially dependent on migrant labor, and because Iraq and Saudi Arabia have not yet reached the same relative levels of nonnational populations as Kuwait and the Gulf states. In the longer term, however, the prospects for increased employment of migrant labor do not appear bright in this region either. Therefore, unless new "poles" of immigration develop, labor exporters are likely to find that remittance flows will not grow at the same rates as in the past.

Remittance inflows to major labor-exporting countries, 1978

Country	Amount (millions of dollars)	Remittances as a percentage of merchandise exports
Yugoslavia	2,938.0	51.8
Turkey	1,011.6	44.5
Portugal	1,688.9	60.5
Morocco	762.5	51.3
Egypt	1,761.6	88.8
Bangladesh	115.1	21.0
India	1,238.6	17.8
Pakistan	1,303.3	92.9
Jordan	520.2	175.4
Yemen, PDR	257.7	*
Yemen, AR	1,277.0	*
Upper Volta	65.9	59.6
Mali	31.1	33.0

*In these countries, remittance inflows are almost the only source of foreign exchange earnings.

other than the parent company, such as borrowing from local banks or the Eurocurrency market.

Private commercial bank lending was the component of external finance that grew most rapidly, from about \$4.0 billion in 1970 to \$36.1 billion in 1980. By the end of 1980 the outstanding debt of the developing countries to private sources of market capital had reached \$284 billion, up from \$32 billion in 1970. Most of this increase came in the form of syndicated bank loans with floating interest rates. The system of floating rates—expressed as a margin above the London Interbank Offered Rate (LIBOR)—enabled the banks to offer longer maturities without exposing themselves to the risks of changes in short-term rates of interest (see box). In contrast, borrowing in the bond market did not expand. Only in 1977 and 1978 did the oil importers borrow a significant amount through bond issues. Since 1977 most new bond issues by developing countries have been in the form of floating-rate notes, which are financially very similar to syndicated loans from the viewpoint of both lenders and borrowers.

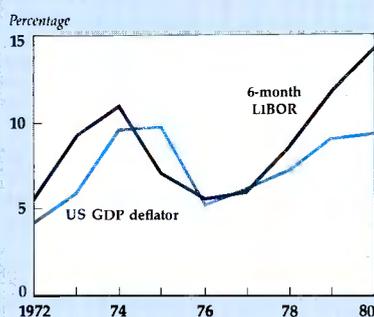
Commercial bank lending to the developing countries was concentrated almost totally in the middle-income countries; the low-income oil importers did not borrow more than \$630 million (net) from the private banks in any year. Among the middle-income countries the largest borrowers were oil exporters (Mexico, Venezuela and Algeria) and upper middle-income countries (Brazil, Spain, Argentina, Yugoslavia and South Korea). These eight countries accounted for 60 percent of total bank debt outstanding in 1979.

These changes in the pattern of finance affected the low- and middle-income oil importers in dif-

Variable interest rate debt

In recent years, the bulk of credits obtained from commercial banks have been at variable interest rates. At end-1979 the 33 largest developing-country borrowers held a total variable interest rate (VIR) debt of around \$180 billion including short-term debt. For each percentage point increase in the base rate (usually LIBOR) these 33 countries face extra interest charges of about \$1.8 billion a year.

Inflation and interest rates, 1972–80



The LIBOR has been volatile during the past eight years. For most of that period, it has been below the rate of inflation in the major industrial countries (see figure), so

borrowers have benefited from negative real interest rates. But in a period of rising inflation lenders have been better protected against unanticipated inflation with VIR debt than with fixed-rate debt; as the VIR share in total debt has increased, so has the borrowers' "windfall" been eroded. This erosion seems likely to continue, and not just because VIR debt is becoming more common. In 1979–81 in contrast to 1974–78, real interest rates have nearly always been positive; with tight monetary policies, it is unlikely that real rates could be negative for any length of time.

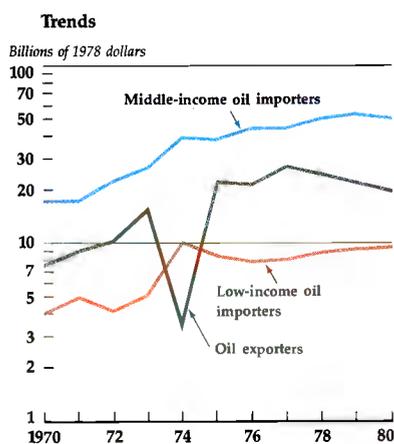
Rising interest rates have also increased earnings on official foreign-exchange reserves and other foreign assets. The 33 major borrowers held identified external VIR assets of \$115.3 billion at the end of 1979, about two-thirds of total VIR debt (see table). For a few oil importers (Spain and Colombia, for instance) VIR assets exceeded VIR liabilities, making these countries net beneficiaries of increases in money-market rates. For Argentina and some other semi-industrial countries, VIR debt and assets were about the same.

But there are major borrowers with VIR debt substantially in excess of VIR assets. At end-1979, Brazil had \$10 billion of VIR assets and \$39 billion of VIR debt; during 1980, the gap widened. Other countries in a similar position included South Korea, Turkey, Chile, Ivory Coast, Morocco and the Philippines.

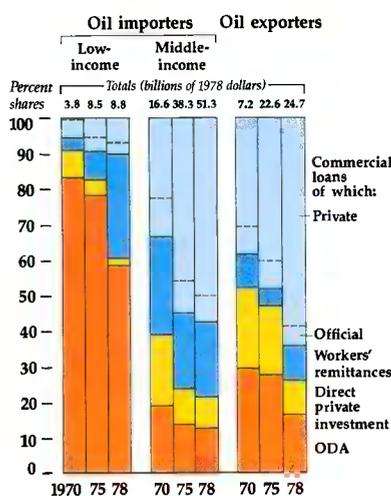
Variable interest rate debt position at end-1979 (billions of dollars)

	Total variable interest rate debt	Foreign exchange assets
Major borrowers (33) from financial markets	181.3	115.3
Oil importers	111.6	77.7
Semi-industrial countries	92.9	65.0
of which: Argentina	9.6	8.9
Brazil	39.0	10.2
Chile	4.1	2.2
Korea	9.9	5.6
Spain	11.5	23.3
Turkey	4.2	0.8
Other countries	18.7	12.7
of which: Colombia	2.8	3.8
Ivory Coast	1.5	.2
Morocco	2.4	.8
Philippines	5.4	3.7
Oil exporters	69.7	37.6
of which: Mexico	29.6	8.0

Figure 5.3 External finance to developing countries, 1970, 1975 and 1978



Composition



Note: External finance defined as net capital inflows plus workers remittances.

ferent ways. The middle-income group's receipts increased rapidly in 1970–80—not just those of net commercial credit and private investments but even of ODA. Only in the case of workers' remittances did the low-income countries' receipts grow more rapidly. This reflected the leveling-off of remittances from Europe, which accrued mostly to the middle-income countries, and the sharp increase in remittances from the Middle East, where workers were imported mainly from low-income countries. Middle-income

countries have therefore become much more dependent on commercial loans (mostly private bank loans) and relatively less on ODA and direct foreign investment (Figure 5.3).

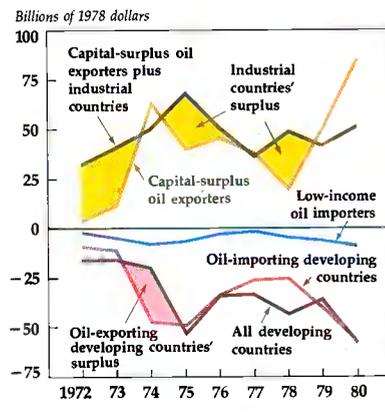
In contrast, net capital receipts of the low-income oil importers did not increase at all after 1975 in real terms. Real ODA receipts in 1978 and 1980 were, in fact, lower than the level reached in 1975. There was no increase in the flow of commercial loans either. Thus, poor countries have received no additional support from the international community to deal with their terms-of-trade losses in 1979–80, when relatively modest increases in aid would have reduced strains on these economies and on more than 1 billion people living in these countries (excluding China).

Financial adjustment

Until 1973–74 the bulk of external finance going to the developing countries came from the savings of the industrial market economies: the first group ran a current account deficit, the second a current surplus. Since the 1973–74 oil price increase, however, the oil exporters have provided savings that have been recycled to both developing and industrial countries.

After the first oil-price increase, the current account surplus of all oil exporters rose from \$4.1 billion in 1973 to \$62.6 billion in 1974. The mirror image of this was reflected in the deficits of all oil importers, both industrial and developing countries, in almost equal shares. Current accounts of the industrial countries shifted from a surplus of \$18.9 billion to a deficit of \$8.5 billion while the deficits of the oil-importing developing countries rose from \$7.3 billion to \$33.1

Figure 5.4 Global current account balances, 1972–80



billion. This was followed by a narrowing of deficits and surpluses during 1975–78. The second oil price increase (1979–80) again widened the deficits and the surpluses.

These trends, corrected for inflation in Figure 5.4, summarize the broad contours of financial adjustment that took place during the 1970s. The major parties to the financial adjustment were the capital-surplus oil exporters and the middle-income oil importers. The shares of the low-income oil importers and the nonmarket countries in the net financial transfers were small. Even though the cost of oil-price increases on the industrial countries' external payments was large, these countries adjusted their external balances, largely through rising exports to the oil exporters and contraction of imports. Indeed, by 1975—only a year after the first major oil-price rise—the current accounts of the industrial countries had shifted into surplus by an amount roughly equal to the reduction in the surplus of all oil exporters.

Although the trade and capital flows among the major groups of countries are the results of inter-

dependent developments, trends during the 1970s suggest a pattern of causality running from the actions of the major oil exporters to the balance of payments of the oil importers through the policies of the industrial countries. The price of oil set by major oil exporters, within the constraints of the market, has a direct impact on the economies of the oil importers. The oil exporters also decide the use to which they will put their revenues. Because of the nature of their imports, the positive impact of oil revenues on trade flows has been felt mostly by the exports of the industrial countries. Oil exporters used 44 percent of their earnings on imports from industrial countries and only 8 percent on imports from oil-importing developing countries. The financial investments by the oil exporters have also gone mostly to the industrial countries.

Therefore, although higher oil prices had a direct impact on the import bills of the oil importers, their effect on these countries' exports depended on the expansion of markets in the industrial countries. The first oil-price rise occurred at a time of worldwide demand pressures and booming commodity markets; and the industrial countries, faced with rising rates of inflation, responded with deflationary policies. Thus, rising import demand, induced by the oil exporters' surpluses, was not transmitted to the oil importers, and immediate trade adjustment was insignificant. In the wake of the most recent oil-price increase (1979–80), the downward synchronization of economic activity in the industrial countries has been less marked, and the indirect effect on exports of the developing countries is slightly more favorable than in 1974–75.

There is nothing inherently undesirable about external deficits

since deficit implies resource transfer. The optimum level of resource inflow to a country depends on the expected benefits from the additional resources and their costs. Normally the benefits would relate to the rates of return on the assets created with the imported resources and the costs would depend on interest rates and the difficulty of managing repayment schedules of borrowed resources. In times of sharp external shocks arising from terms-of-trade deterioration or export shortfalls (as happened in 1973–75 and 1979–80), the utility of external resources goes up because they allow the economy time to adjust to the new circumstances—by substitution in production (between energy and other inputs) and consumption (between traded and nontraded goods).

It takes time for production processes to be restructured, for labor and capital to move and for consumption habits to be changed. Consequently, the induced decline in real income and the increase in the exchange rate will be larger in the first period following an external shock than in successive periods. These differential effects provide a rationale for external borrowing to contribute to structural adjustment. Borrowing transfers income to the period when real income has experienced the strongest decline and increases the supply of foreign exchange in the period when it is most scarce. To the extent that a developing country cannot get external capital, it has to cut expenditure immediately, before production or consumption responses have had time to operate.

In the longer term, however, trade adjustment becomes a necessity, not least because the ability to supply external capital depends on export prospects.

However, as discussed in Chapters 3 and 6, the path and speed of adjustment varies among countries, depending on their economic structure and policies. Middle-income oil importers, especially the more industrialized ones that pursue outward-oriented policies, can reduce their dependence on foreign finance faster than can the less industrialized or the inward-oriented. On the other hand, low-income countries, especially the least developed and primary producers, have more limited choices even in the medium term. Although economic policies in many of those leave much to be desired, their exports will take longer to respond to improved policies. Neither do they have much scope for import substitution. These are also the countries which cannot borrow from private capital markets and will remain dependent on concessional assistance.

Prospects

In the absence of new external shocks, external capital requirements of the oil importers as a group are likely to decline as a ratio to their GNP from the high level reached in 1980 (4.9 percent). But the decline will be gradual, and current account deficits are likely to remain high compared to historical averages. These high levels will reflect the difficulties of adjustment faced by the oil importers (especially the poorer countries), higher interest payments which have reduced the proportion of net resource transfers, and the continuing—though small—deterioration in their terms of trade.

The funds to finance the deficits of the oil importers will come from persistent surpluses of the oil exporters, augmented (or

reduced) by the surpluses (or deficits) of the industrial countries. But at what levels these transfers can actually take place will depend on the policies of the donor countries as far as concessional finance is concerned, and as regards market transfers, on the borrowing capacities of the developing countries and the efficiency of financial intermediaries.

Official finance

The low-income countries can borrow very little commercially. They will continue to depend heavily on official (and mainly concessional) lending for financing their development and structural adjustment. Noncommercial official finance is important especially for the debt management of the middle-income countries.

NONCONCESSIONAL FINANCE. The variable interest rates and shorter maturities of private commercial loans have increased the developing countries' debt-service burden and have added new uncertainties about the future level of interest rates and refinancing possibilities. Moreover, in a period of inflation, variable interest rates contain an element of compensation for the erosion of capital values and have the effect of reducing maturities, thereby adding to the cash-flow difficulties of borrowers.

Under these circumstances, credit-market sensitivity to prospective debt burdens influences the possibilities of rolling over or refinancing existing debt on maturity. These concerns will be eased the more countries borrow on lower and more stable interest rates and longer maturities. Since they have been able to borrow very little of this kind of finance from private markets, middle-income countries would

be greatly assisted by more official lending.

Despite these considerable benefits, nonconcessional official finance is not increasing enough to fulfill its potential. The share of official lending in total nonconcessional finance was about one fourth in 1970 but had fallen to 18 percent by 1980. Contributions to the multilateral development banks are either being scaled down or delayed; even if all prospective capital increases and subscriptions were immediately available, more funds would be needed to provide adjustment assistance while maintaining project lending.

A new type of lending launched by the World Bank, structural adjustment lending (SAL), will help oil importers adjust to the changing international environment. SAL will assist countries in formulating and carrying out structural adjustment programs and will provide finance during the adjustment period. Structural adjustment loans are planned as a series of three to four operations over a five- or six-year period. Clearly, if essential World Bank project lending is not to be reduced, additional funding will be necessary.

Additional funding will also be needed for another major effort planned by the World Bank, the expansion of lending for energy production in the oil-importing countries. The World Bank has already increased its emphasis on lending for energy so that it accounts for about 17 percent of the Bank's program for 1982-86. The \$14-billion program envisaged is, however, no more than one-half of what is regarded as feasible and desirable. An additional program of energy investments has been identified totaling a further \$16 billion. This cannot be carried out within the present

capital constraints of the World Bank and therefore additional finance will have to be raised.

The IMF has increased its funding for balance of payments purposes and is taking major steps to expand further its facilities for adjustment lending. The potential access of developing countries to all IMF facilities has risen after the seventh general quota increase and the adoption of new guidelines on the access of the member countries to IMF facilities. To increase its resources, the IMF has initiated the eighth quota review. But as the review will take time, the IMF is supplementing its liquidity by borrowing. Additional funds will be negotiated with member countries. If larger amounts are needed, these will be funded by central banks, and private capital markets may also be tapped. The IMF is also considering new allocations of Special Drawing Rights (SDRs) as international reserves that will help to lighten the developing countries' burden of maintaining adequate levels of reserves.

AID. The level and outlook for Official Development Assistance¹ is cause for serious concern to the low-income countries. Some donor countries have taken

1. The data on Official Development Assistance in Figure 5.5 and Table 16 of the World Development Indicators Annex are not comparable with the ODA data in Tables 2.4, 5.1 and 5.4 and in Figures 5.2 and 5.3. The former are based on the OECD Development Assistance Committee (DAC) definitions which show disbursements of all types by donor countries. Tables 2.4, 5.1 and 5.4 and Figures 5.2 and 5.3 show grants and concessional loans received by the developing countries as reflected in their balance of payments. The principal differences are that the DAC definitions cover technical assistance and contributions to multilateral institutions, including paid-in capital. The data on ODA receipts generally exclude these two, and in the case of the multilateral institutions include only the disbursement of concessional loans.

the position that economic and budgetary difficulties are adding new limits to their ODA programs. In the United States, which is already one of the smallest donors in terms of the proportion of its GNP, new budget proposals indicate that future aid will be lower than had seemed probable a year ago. The United Kingdom has announced cuts in previously planned programs. Fortunately, however, the Arab OPEC countries and the Scandinavian countries have maintained high ratios of ODA to GNP, and Japan, the Federal Republic of Germany, France, Canada, Italy and Switzerland have all indicated that they hope to increase their aid efforts.

Aid has been criticized for not promoting growth or for not reaching poor people. Critics have argued that in some countries, especially in Africa, extra aid could not be translated into productive investment. But most criticism of aid lacks a basis in fact or experience. There are countries that lack skilled personnel or whose administrative organization is weak. Even here, however, there is much to be done by aid coordination, by improving the quality of aid and by using aid for removing these very limitations. Aid finances only a small proportion of investment in developing countries; but aiding well-conceived and well-monitored programs makes a difference to the overall development effort. The fact that India—once forecast to be famine's permanent home—has become to a considerable degree self-sufficient in food-grains is due to aid and technical assistance combined with major efforts on the part of India itself. Family planning in Indonesia, new cereal varieties in East Africa and railways, roads, dams and power plants throughout the

developing world—all these attest to the value of aid.

In today's circumstances, aid makes another, no less valuable, contribution. It is needed to help poor countries adjust to the losses that they have suffered or will suffer as a result of deteriorating terms of trade. Most low-income countries have had to forgo growth to restrict their balance of payments deficits. In the future, they will need more concessional assistance than they seem likely to get if they are to carry out the adjustment process at growth levels even as high as the inadequate rates of the 1960s and 1970s.

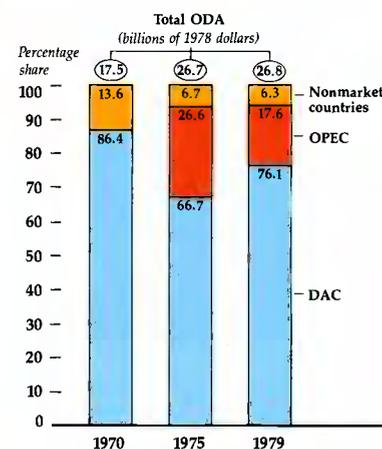
Reallocating concessional aid from middle-income to low-income countries is almost as important as increasing its overall amount. In 1979 low-income countries (excluding China)—whose share of the developing countries' population was 55 percent—received only 37 percent of ODA given by OECD and OPEC countries. Their receipts per person (\$6.80) were less than half of those of the middle-income countries. If aid through the multilateral institutions is excluded, only 32 percent of bilateral aid went to the low-income countries (\$11.80 per person to middle-income countries and \$4.70 to low-income countries).

Aid to the middle-income countries from three major sources is heavily biased toward three groups of countries. Israel and Egypt, together, received about \$2.5 billion in 1979 (mostly from the United States). This amounted to \$58 per person and equaled 7.2 percent of their GNP and about 22 percent of their imports. In a similar way, OPEC aid is heavily concentrated on the contributions to Jordan and Syria, and a large portion of French aid goes to its Overseas Territories in the form of technical assistance (Figure 5.5).

Altogether, out of total bilateral aid of \$17 billion in 1979, \$11 billion went to middle-income countries. The economic and humanitarian merits of a reallocation to the poorer countries are obvious, but political considerations have so far precluded such action.

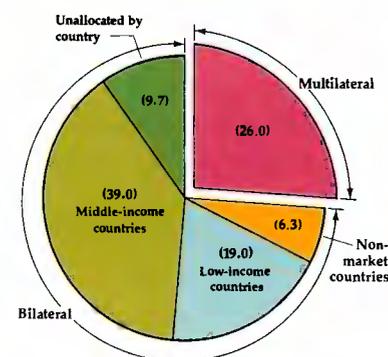
Figure 5.5 Sources and distribution of aid

ODA flows from major donor groups, 1970, 1975 and 1979



Distribution of aid, 1979

(percentage share)



Distribution of bilateral aid to middle-income countries

(percentage)

Country	From DAC	From OPEC	From DAC & OPEC
Egypt	12	1	9
Israel	14	—	10
Jordan	1	29	8
Syria	1	42	12
French dependencies	16	—	12
Sub-total	44	72	51
Others	56	28	49
Total	100	100	100

Multilateral ODA partly offsets the bias of bilateral aid against low-income countries. Principal sources of multilateral ODA are the United Nations, the European Economic Community and the International Development Association, the latter disbursing about 84 percent of its aid to low-income countries.

Private lending

The growing importance of private bank lending, particularly for the middle-income countries, has been the outstanding feature of development finance during the past decade. Whether that growth will be maintained depends essentially on two factors: the borrowers' willingness and ability to service more debt, and the banks' willingness and ability to expand their role as intermediaries. These two issues are discussed in turn.

DEBT. Between 1970 and 1980, developing countries' outstanding medium- and long-term debt increased more than sixfold in nominal terms (at an average annual rate of 20.5 percent), reaching \$438.7 billion by the end of 1980, compared with only \$67.7 billion as recently as 1970 (Figure 5.6). The low-income oil importers' debt grew less rapidly, since they depended more on grants. The single most important factor in these increases was the rapid rate of inflation. In real terms outstanding debt grew at around 10 percent a year, compared with about 12 percent a year during the 1960s (Table 5.2).

The growth of debt was not excessive in relation to GNP or exports (see box, overleaf). The debt to GNP ratio increased over the 1970s, as would be expected; but measured against exports of goods and services, the debt ratio was lower in 1980 than it had been in 1970. However, significant

Table 5.2 Medium- and long-term external debt, outstanding and disbursed, 1970-80

Country group	Billions of current dollars		Billions of 1978 dollars		Percentage real growth, 1970-80 ^a
	1970	1980	1970	1980	
Oil importers	48.0	301.3	102.6	250.9	9.4
Low-income	14.5	48.0	31.0	40.0	2.6
Middle-income	33.5	253.3	71.6	210.9	11.4
Oil exporters	19.7	137.4	42.1	114.4	10.5
All developing countries	67.7	438.7	144.7	365.3	9.7

Note: Includes private nonguaranteed debt.
a. Compound annual rate of change.

changes in the composition of debt have increased the burden of servicing it.

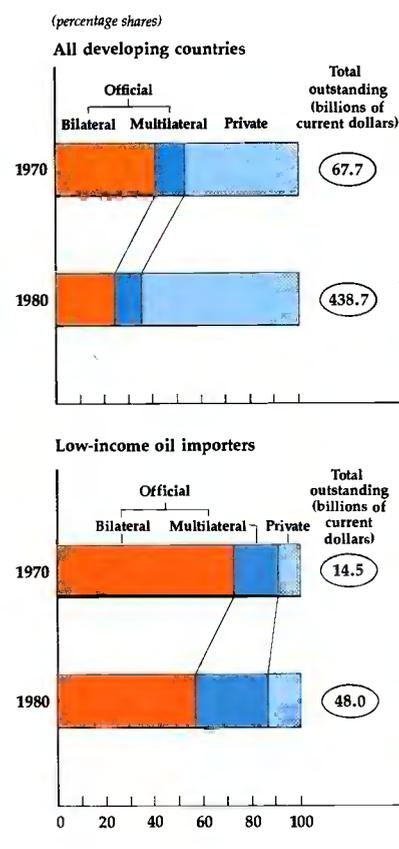
Over the past decade, there has been a sharp fall in the share of net borrowing from bilateral official

sources; a marginal increase in the share coming from multilateral institutions; and a large increase in the proportion of loans from private creditors—especially from financial institutions. As a result, debt to private creditors increased at 28 percent a year, debt to financial institutions at 41 percent a year. Private financial institutions held 12 percent of outstanding private and publicly guaranteed debt in 1970 and some 43 percent in 1980.

These changes were largely the product of what was happening to the middle-income countries. The share of official creditors in the debt of the middle-income oil importers fell from 43 percent in 1970 to 27 percent in 1980 while private creditors accounted for almost three-quarters of the total by 1980. By contrast, the composition of the low-income oil importers' debt changed very little. They continued to borrow mainly from traditional sources—bilateral lenders and multilateral institutions.

The growth of borrowing from private banks together with the rise in interest rates has increased the burden of servicing debt. Part of the rise in interest rates is an inflation premium. But even inflation-corrected interest rates have, in recent years, been higher than

Figure 5.6 Developing countries' outstanding debt, by type of creditor, 1970 and 1980



Debt indicators

There are two broad categories of debt indicators:

- Those that measure a country's capacity for making payments in foreign exchange. The most widely used of these is the *debt-service ratio*—interest and principal payments on long-term debt divided by exports of goods and services. Its meaning can seldom be easily interpreted: some countries have had little difficulty in managing their debt with a ratio of 40 percent or more, while others have had severe problems when debt-service payments were less than 10 percent of exports.

The apparent paradox is explained partly by how easily countries can borrow commercially. As long as investors have confidence in the management of an economy, they will roll over principal repayments. In such circumstances, the *interest-service ratio*—interest payments divided by exports of goods and services—may be a better indicator of the country's ability to make payments abroad, since it avoids the distorting effects caused by a bunching of repayments, prepayments, or refinancing.

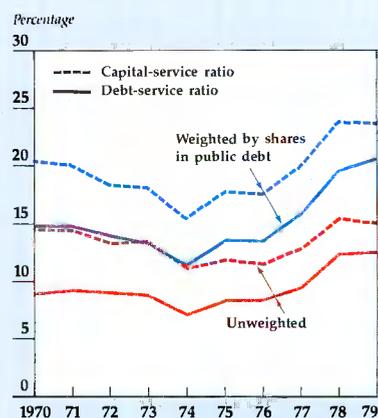
- Those that measure a country's capacity to generate real resources (which can then be used to pay for imports and service debt). The *ratio of interest payments to GNP* is often used to illustrate the debt-service burden on an economy's productive capacity.

Some indicators—the ratio of external debt to foreign exchange reserves, for example—combine features of both types of measure. But none of them are an adequate substitute for detailed country analysis. In a period (like the 1970s) when debt is substituting for equity capital, a country's *capital-service ratio*—contractual service payments on long-term debt, plus remitted profits on direct investment divided by exports of goods and services—may be the best guide to a country's creditworthiness.

As the table shows, the various measures have not always moved in line with each other, although all indicate a clear deterioration since 1974. Weighted by individual countries' shares in total public debt (so that the effect of countries with growing exports but low indebtedness on the average ratios is minimized) both the

debt-service and the capital-service ratios increase more sharply during the 1970s (see figure), reflecting the high and rising debt of those countries that are currently the major borrowers.

Developing countries' debt-service and capital-service ratios, 1970–79



Developing countries' outstanding debt, 1970–79
(percentages)

Indicators	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Debt-service ratio	8.9	9.2	9.0	8.8	7.1	8.4	8.4	9.5	12.4	12.6
Interest-service ratio	2.8	2.9	2.8	2.7	2.4	3.2	3.3	3.5	4.2	4.8
Capital-service ratio ^a	14.5	14.5	13.4	13.4	11.1	11.9	11.5	12.9	15.5	15.0
Debt/GNP (percentage) ^b	12.3	13.1	13.5	13.1	12.6	13.9	15.5	17.0	18.3	17.8
Debt/exports (percentage) ^b	80.1	85.2	81.8	70.0	59.6	72.1	75.6	79.6	86.6	78.3
Debt/reserves (percentage) ^b	263.7	239.9	183.2	153.9	143.5	193.9	204.6	214.5	217.3	176.4
Interest-service/GNP (percentage) ^b	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.7	0.9	1.1
<i>Memo item</i>										
Total public debt outstanding and disbursed, all included countries (billions of dollars)	50.4	59.3	69.3	84.8	105.5	128.4	159.1	198.9	251.7	294.4

Note: Includes all developing countries that report to the World Bank's debt-reporting system except: (1) the capital-surplus oil exporters; and (2) countries for which complete and reliable time series data are not available (Afghanistan, Bahrain, Botswana, Burundi, Comoros, Guinea, Iran, Iraq, Lebanon, Lesotho, Liberia, Maldives, Nepal, Papua New Guinea, and South Africa).

a. Contractual service payments on long-term debt, plus remitted profits on direct investment divided by exports of goods and services.
b. Debt outstanding and disbursed.

in the early 1970s and 1960s. Moreover, while the inflation premium compensates for the erosion in the real value of outstanding debt, when combined with the shortening of average maturities

it aggravates the debt-servicing problems of developing countries.

Average maturities fell from 20 years in 1970 to 12.7 years in 1980, although the maturities of loans from official (24 years) and private

(9 years) sources remained practically the same over the period. Thus, the grant element in developing countries' debt fell from 31.8 percent in 1970 to 6.3 percent in 1979, with the share of

concessional debt in the total falling from 39 percent in 1970 to 23.6 percent in 1979.

Higher interest rates and shorter maturities meant that the growth in gross borrowing between 1970 and 1980 was not translated into comparable growth in net transfers. In 1970, after amortization and interest payments, some 43 percent of borrowed funds was available for buying imports and adding to reserves. That share rose to nearly 50 per-

cent in 1975–76, but—partly as a result of refinancing of debt—it had fallen to 40 percent by 1978. A slowdown in borrowing combined with the surge in interest rates caused the ratio to fall to only 22 percent in 1980.

BORROWING CAPACITY. One indication of a borrower's capacity to service its debt comes from a comparison of debt-service payments with export receipts. By this measure, developing coun-

tries have spent an increasing proportion of their export earnings on debt amortization and interest payments, particularly toward the end of the decade (see box). Part of the recent deterioration was caused by large-scale refinancing in 1978 when the major borrowers took advantage of favorable market conditions. That reflects good debt management, not a worrisome upward trend. But the interest burden also rose significantly: measured in relation

Debt relief

While most developing countries have been able to meet principal and interest payments on their external debt, some have been forced to seek debt relief. The circumstances leading to debt renegotiations have varied, but most had some similar basic features. These included balance-of-payments deterioration and excessively expansionary fiscal and monetary policies over several years which were aggravated by short-term shocks—that is, shortfalls in exports or workers' remittances, sharp worsening of terms of trade and national calamities. Some steps countries took to cope with these difficulties added to their problems. They borrowed at hardened terms. Private credit also sometimes had a destabilizing effect. For example, banks would lend when commodity prices were rising but would cut back when export earnings declined.

Debt relief has been arranged for a few countries through *aid consortia*; large sums have been involved and different aims pursued. Pakistan's public debt of \$990 million was rescheduled in a series of agreements negotiated in aid consortia meetings from 1972 to 1974, and in 1981. India received \$1.25 billion of debt relief between 1968 and 1976 (along with aid pledges and without interruptions to service payments) from the Aid Consortium, mainly to improve the quality of aid at a time when debt-service payments were constraining India's access to free foreign exchange resources. Turkey received massive debt relief through the OEEC in 1959 along with general economic assistance.

For 13 other developing countries over the past 25 years, debt relief on official or

officially guaranteed debt (loans from governments and insured commercial credits) has been arranged through the *Paris Club*—ad hoc meetings of representatives of the governments of creditor countries. In contrast with consortium meetings, the Paris Club has discussed only debt relief and not overall flows of foreign aid.

During the 1970s, loans from commercial banks have expanded rapidly, and debt relief has increasingly involved *commercial banks*. The restructuring of commercial banking debts has taken place in parallel with Paris Club agreements for Peru (1978), Sudan (1980), Turkey (1979) and Zaire (1980). In addition, there have been substantial refinancings of debt to commercial banks without Paris Club involvement: Argentina (1976), Jamaica (1979), Nicaragua (1980) and the Philippines (1970). Debt restructuring agreements with commercial banks since 1973 amount to \$5.1 billion of which Turkey accounts for \$3.1 billion.

Debt relief has been extended generally for periods of 12 to 18 months—on the condition that the debtor adopts a stabilization program (usually one approved of by the IMF or a stand-by agreement) to eliminate balance of payments difficulties. Repayment of rescheduled debts is normally over 7 to 10 years, including 3 to 4 years' grace. Interest charges on rescheduled debts are typically set at the rate for new loans of the type being rescheduled. Debt relief on concessional terms (low interest rates plus long repayment) has been extended only to India (noted above), Indonesia (where the entire outstanding debt was

restructured in 1970), Ghana (1974) and Pakistan (1974 and 1981). Generally, debt relief has not been extended on previously rescheduled debt.

The Paris Club arrangements for debt relief provide for an orderly restructuring of external obligations when debtor countries have serious liquidity problems. But there has been continuing disagreement between debtor and creditor countries over the length of the consolidation period and the terms of repayment, reflecting different points of view regarding the purpose of debt relief. Most creditor countries' position is that the objective of debt relief is to help debtor countries recommence meeting their debt-service payments as scheduled and so restore their creditworthiness. Thus, a short consolidation period is considered appropriate so that debt relief can be adjusted to correspond to the country's changing capacity to repay. The debtor countries point out that when debt difficulties are deep-seated, short consolidation periods compel them to seek continuing debt relief and short repayment periods lead to a future bunching of debt-service obligations. They insist that debt renegotiations should take into account their future adjustment problems and financing needs and that concern about creditworthiness should take a longer-term view.

The best way for the international community to assist countries with large debt and poor export prospects remains unresolved, but increasingly emphasis falls on the need for debt relief as part of a viable package of foreign financing to support an economic program.

to developing countries' GNP, interest payments more than quadrupled between 1970 and 1980, from 0.4 percent to 1.8 percent of GNP.

Debt-service ratios weighted by the debt of individual borrowers have risen even more sharply than the unweighted ratios, indicating a more serious deterioration for the *current* borrowers with the largest debt. Looking just at the principal borrowers, three-quarters of them had higher debt-service ratios in 1979 than they had in 1970. In several cases, debt-servicing difficulties were so severe that countries had to seek debt relief (see box).

Another trend has reduced the debt-management capability of many developing countries in recent years: the share of export-tied credits has risen, resulting in a declining ratio of freely usable credits to total borrowings. Combined with a falling share of net transfers (after amortization and interest), the flexibility acquired in foreign exchange management in the early 1970s will be much reduced in the 1980s.

While these trends indicate that the developing countries will face more serious debt-management difficulties in the future, they do not signal a generalized debt problem for the developing countries. Balance of payments projections for the 1980s under probable scenarios support this view. The concern about the total debt of developing countries that occupied regulators, financial commentators and some bankers in the late 1970s is likely to be replaced by a return to greater emphasis on individual creditworthiness and differentiation of lending terms.

By country group, debt profiles can be summarized as follows:

- Low-income oil importers. Although their debt indicators

improved significantly between 1970 and 1979, that was due entirely to India's weight in the average; its exports and GNP grew enough to raise its credit standing in commercial markets. Some other low-income countries could also become borrowers of commercial credit on a small scale, but they will remain largely dependent on official aid.

- Middle-income oil importers. They saw their debt burden increase steadily during the 1970s, a trend that was generally consistent with prudent borrowing and their expanding economies. Differences exist, however, among members of the group. Some are in a much stronger position to borrow now than in the mid-1970s because of excellent export performance; in nearly every case, they are sizable exporters of manufactures. Others run the risk of encountering difficulties if they attempt to expand their borrowing as rapidly as in the past; nearly all of them are heavily dependent on commodity exports. As a group, the middle-income oil importers account for nearly 58 percent of the total disbursed and outstanding debt of all developing countries; their performance in the 1980s will be a major influence on the overall growth of lending by private creditors to developing countries.

- Oil exporters. Their borrowing prospects look as promising as they did at the time of the 1973-74 oil-price increase. Despite their heavy borrowing in the past, they are unlikely to run into debt-management difficulties provided that they invest their borrowed funds productively and develop their nonoil exports. However, these countries need to prepare their economies for the adjustment they will face when their oil reserves are exhausted (see Chapter 6).

Creditworthiness of individual countries will depend essentially on their growth and export performance and on the structure of their debt. Commercial banks are unlikely to seek expansion of their lending to countries with poor export prospects. On the other hand, countries such as Brazil, Mexico and South Korea have shown that heavy borrowing can be serviced provided that the economy grows rapidly and exports are buoyant. South Korea's debt rose from \$1.8 billion in 1970 to \$15 billion in 1979; yet its exports grew so rapidly (outstripping GNP growth) that its debt-servicing capacity improved considerably over the decade. Mexico's creditworthiness also improved as earnings from oil exports started to rise.

Commercial banks will be wary of countries that have borrowed excessively from them or that are burdened with a disproportionate volume of private debt on market terms and rather short maturities. Prudent borrowing policies, larger flows of official aid with longer maturities and mechanisms for resolving the liquidity problems of debtors through appropriate policies, refinancing and rescheduling, will be needed to minimize disruptions.

BANKS AS INTERMEDIARIES. After the rapid expansion of the 1970s, the growth in medium- and long-term private bank lending to the developing countries slowed considerably in 1980. This was accompanied by a hardening of terms—wider spreads, higher fees and shorter maturities. This lull has strengthened concerns that the commercial banks may not play the same role in recycling as they did in 1973-79.

It can, however, be explained partly by changes in short-term conditions. The major borrowers

had borrowed heavily in 1978, taking advantage of the low spreads and the high liquidity of the banks to prepay earlier loans contracted on wider spreads. Some of the subsequent decline in borrowing in 1980 can also be attributed to the high short-term interest rates in the United States and their impact on the key Eurocurrency rate (LIBOR). And there were particular reasons why some individual countries did not borrow much from the banks. It seems likely that the slowdown in lending was not as marked as it appeared on the surface. Data produced by the Bank for International Settlements (BIS) suggest large increases in short-term, unpublicized borrowing—which are not included in statistics of publicized borrowings in capital markets.

Beyond these short-term factors, are there any reasons why bank lending may not continue to grow? Examination of individual countries shows some deterioration in the borrowing capacity of certain developing countries and a slight increase in the concentration of debt over the decade. However, given the profitability of lending to developing countries, their exemplary record (with few exceptions) in meeting their obligations and their continuing need for foreign finance, it seems unlikely that financial intermediaries will discriminate against developing countries as a group. They may, however, have to consider two institutional constraints on their lending policies.

CAPITAL ADEQUACY. There is some justification for the claim that banks' capital ratios have been declining since 1973, but the extent of this decline and its effect on lending to the developing countries are less clear. However, a more relevant change has been the growth of international assets

relative to domestic assets, resulting in capital growth not keeping pace with international asset growth. Banks' gross claims on oil importers rose from 49.6 percent of total bank capital in 1975 to 61.5 percent in 1978 while claims on developing countries as a percentage of total assets rose from 2.6 percent to 2.9 percent. For US banks, the ratio of developing-country loans to capital rose from 49.4 percent (1975) to 57.7 percent (1978), and the ratio of loans to total assets rose from 3.6 percent to 4.0 percent. However, since commercial bank deposits of the developing countries have also increased, the rise in net exposure is much less.

To what extent increased exposure will cause banks to slow their lending to developing countries will depend on factors such as the return on developing-country loans, bankers' perceptions of desired portfolio limits and the effect of foreign asset growth on the cost of raising new capital. There is little evidence to suggest that foreign lending is less profitable than domestic lending; indeed, the reverse has probably been the case in the 1970s. Banks have suffered less from defaults on foreign loans than on their domestic business. However, it is possible that bankers and their shareholders have different views on the desirability of foreign lending, and this could weaken the banks' ability to raise new capital.

COUNTRY LIMITS. For prudential reasons, banks impose internal limits on lending to individual countries. These limits are not formally defined or published, so there is no way of analyzing how close banks are to these limits. However, some banks are undoubtedly at or near their ceiling for some countries; those countries will be able to borrow more only if other banks are prepared to

increase their exposure.

Summing up these various influences on commercial banks, it seems highly probable that both borrowers and lenders will adapt to changing conditions without precipitating any general crisis of confidence. While some economies may find it harder to service their debt, others will find it easier. Different countries are involved with different banks, and the degree of their involvement also varies. Loans rarely mature simultaneously. And no developing country accounts for more than 3 percent of total international banking assets. Developing-country risks are not synchronized.

Foreign private banks' relations with the developing countries have become much more diversified and complex in recent years, going beyond the lender-borrower interaction. Deposits by the developing countries, including a large proportion of their foreign exchange reserves, reached \$90 billion in 1979. Private banks also serve as correspondent banks, operate local branches, finance trade, advise governments, and act as bankers to their corporate clients that have business interests in the developing countries. These client relationships are likely to grow, in parallel with the increasing financial development of the more advanced of them; and the attractiveness of these opportunities will be an important factor in the growth of private banks' involvement in the developing countries.

For these and other reasons, banks that feel they are overexposed internationally can generally be replaced by others as happened to some extent in the late 1970s. International lending by German, Swiss and Dutch banks accelerated in 1976-77 and by Japanese banks in 1978-79

while the American banks were slowing down their foreign lending.

More recently the OPEC-Arab banks have increased their participations in syndicated Euroloans to the oil-importing developing countries. An analysis of the lead management role of these banks suggests an increase in their share of international lending as well as a shift toward oil-importing developing countries. Whereas about 80 percent of their lending went to oil exporters and Arab countries and only 10 percent to the oil-importing developing countries in 1977-78, in 1980-81

the share of oil-importing developing countries has gone up to 20-30 percent. Thus, OPEC-Arab banks now account for about 4.4 percent of total international lending and 4.3 percent of lending to the oil-importing developing countries. Profitable lending opportunities in due course attract new capital into foreign lending and may even produce new institutions.

This confidence in the basic adaptability of the capital markets should not, however, distract attention from the need for vigilance by borrowers and lenders on the evolution of the markets or

from the need for the support that the international financial institutions can provide. Because the share of developing countries in the total assets of the private banks is small, minor changes in the banks' perceptions may significantly reduce the amount that a country can borrow. Changed attitudes can then be self-fulfilling, by precipitating debt-service difficulties for the borrowers. To reduce such risks and uncertainties and to improve the access of the developing countries to stable flows of nonconcessional credit, direct placements by the oil exporters in developing countries

Table 5.3 Oil importers: financing current deficits, 1970-90

(billions of current dollars)

Item	1970	1980 ^a	Projections				Annual percentage growth (current prices)			Annual percentage growth (constant prices)		
			1985		1990		1980-90			1980-90		
			High	Low	High	Low	1970-80	High	Low	1970-80	High	Low
<i>Current accounts</i>												
Resource gap	-8.8	-65.2	-71.6	-58.0	-116.5	-83.0	22.2	6.0	2.4	11.2	-1.0	-4.3
Workers' remittances	2.3	16.7	25.7	23.8	36.8	33.5	21.9	8.2	7.2	11.0	1.2	0.2
Interest payments	-1.4	-22.5	-41.9	-39.8	-65.6	-55.5	32.0	11.3	9.4	20.0	4.0	2.3
Other current transactions	-0.7	1.5	1.7	2.3	4.0	3.7						
Current account balance	-8.6	-69.6	-86.1	-71.7	-141.3	-101.3	23.3	7.3	3.8	12.1	0.3	-3.0
<i>Financed by</i>												
Net capital flows	9.1	55.3	96.2	76.1	161.6	112.2	19.8	11.3	7.3	9.0	4.0	0.3
ODA:												
Grants	1.0	8.3	16.7	13.7	27.9	20.9	23.6	12.9	9.7	12.6	5.5	2.5
Concessional loans	2.1	8.0	16.2	13.5	26.4	20.6	14.3	12.7	9.9	4.1	5.3	2.6
Total	3.1	16.3	32.9	27.2	54.3	41.5	18.1	12.8	9.8	7.5	5.4	2.6
Medium- and long-term borrowing:												
Official export credits	0.5	2.6	3.6	3.6	6.7	5.5	17.9	9.9	7.8	7.2	2.4	0.4
Multilateral	0.5	3.2	6.3	5.5	9.0	8.1	20.4	10.9	9.7	9.4	3.5	2.3
Private	3.4	27.5	42.8	30.5	74.6	43.6	23.3	10.5	4.7	19.7	3.3	-2.1
Total	4.3	33.4	52.5	39.6	90.3	57.2	22.8	10.5	5.5	16.6	3.2	-1.4
Private direct investment	1.7	5.6	10.8	9.3	17.0	13.5	12.7	11.7	9.2	2.7	4.4	1.9
Change in reserves ^b and short-term borrowing	0.5	14.3	-10.1	-4.4	-20.3	-10.9						
<i>Memorandum items</i>												
Debt outstanding (billions of dollars)	48.0	301.3	577.3	539.0	1,047.0	872.7	20.2	13.3	11.2	9.1	5.9	3.9
Resource gap/GNP (percentage)	2.5	4.6	2.7	2.3	2.5	2.0						
Current account deficit/GNP (percentage)	2.4	4.9	3.3	2.9	3.0	2.4						
Net capital flows/GNP (percentage)	2.6	3.9	3.6	3.1	3.4	2.7						
Debt service/GNP (percentage)	1.2	3.9	3.8	3.8	3.8	3.7						
Interest payments/GNP (percentage)	0.4	1.6	1.6	1.6	1.4	1.3						

a. Estimate. b. Minus (-) equals increase.

should be encouraged, and the international financial institutions should play a larger role in intermediation—directly or in cooperation with the private banks.

TRENDS AND UNCERTAINTIES. Two scenarios of the developing countries' adjustment and growth during the next decade were discussed in Chapter 2. The High and the Low case assumptions about capital flows are consistent with the views discussed above. The growth of net capital flows to the oil importers is projected to slow down from the high rates of the 1970s, but net capital will continue to contribute resources equal to 2.7 to 3.6 percent of their GNP (Table 5.3). This is lower than the levels reached in some years of the last decade but higher than the pre-1973 level.

The High case projections of Chapter 2 are not ambitious in relation to the future supply of capital. Surpluses of the oil exporters and, later in the decade, of the industrial countries could provide higher counterpart savings; financial institutions could intermediate larger volumes of finance; and richer countries could give more

concessional aid without imposing a significant burden on their citizens. Therefore, it is quite feasible for capital flows to grow at a faster rate than is assumed in the High case.

These projections are also modest in relation to the needs of the developing economies for capital and their ability to use it productively. Moreover, they are related to expectations about trade and current account balances under the assumption of no abrupt changes in the external environment. Many countries could use more resources productively if they were available on convenient terms. On the other hand, less favorable circumstances may also call for higher levels of external support (at concessional terms) to sustain minimum development efforts.

Needless to say, there are many uncertainties about the future course of capital flows. The "real" environment in which the capital flows operate—the global surplus and deficit—will be affected by the trade, monetary and fiscal policies of the developed, developing and OPEC countries. Operations of the financial intermediaries will be more directly influenced. The

financial conditions and policies in the major industrial countries will be an important factor on the supply side. On the demand side the feasibility of continued recycling will depend on the performance of the developing countries. Future trends of official capital flows are even more difficult to project since they will basically reflect political decisions.

Most of these uncertainties cannot be eliminated. But official actions can improve the climate in which developing countries obtain private finance. Commercial bank lending needs to be supplemented by more official credits. Additional ways of recycling the oil exporters' surpluses need to be developed and existing mechanisms strengthened. The institutional framework for debt refinancing and rescheduling must be improved so that liquidity problems are dealt with promptly. (See box on Debt relief, page 59). Such changes will have the most impact on the middle-income countries but, for the low-income countries, the remedy—to improve the flow of concessional finance—is more easily described than achieved.

6 Country experience: managing adjustment

The previous three chapters have analyzed the way the world economy reacted to the difficulties of the 1970s. They showed that global adjustment was helped by a variety of factors: a slight decline in the real price of oil from 1974 until 1978; steeply rising imports in the oil-exporting countries; and larger capital flows from surplus to deficit countries. But these were not enough to prevent the final form of adjustment—slower growth, notably in the industrial countries and therefore with

major implications for the rest of the world as well.

Different countries adjusted in different ways. In general terms industrial countries increased their exports to the capital-surplus countries and slowed down their growth. Middle-income countries borrowed heavily in the capital markets; some also replaced imports and increased their export penetration of industrial country markets. Some low-income countries were helped by good crops, and more aid and workers' remit-

tances. But African countries especially were beset by domestic problems and could neither increase their exports nor borrow much; they had to cut imports and endure stagnation.

This chapter explores in detail the diverse experience of country groups and a number of countries. It looks first at the oil-importing developing countries; then at the oil exporters, both capital-deficit and capital-surplus; at China; and finally at the nonmarket industrial economies.

The oil-importing developing countries

Some problems of adjustment were common to all oil-importing countries, but the intensity of the external shocks and individual responses to them varied enormously. Governments not only had to aim at balance-of-payments adjustment; they also had to choose investment and production priorities so as to minimize the loss of growth involved in restoring their external accounts. Some were notably successful. Others were not. But in every case, their economic performance was determined by the structure of their economy; the policies they followed; and the nature and intensity of the shock.

Structure and policy

The relations between economic structure, policy responses and external shocks have been analyzed for a group of 47 oil-importing developing countries. They have been divided into four representative sub-groups that differ in their basic economic characteristics and policy options. In relation to the analysis of previous chapters, these extend the distinctions made by income level and trade structure.

Middle-income oil importers are divided into:

- *Semi-industrial* countries, and
- *Primary producers*.

Low-income oil importers are divided into:

- *Large, partially industrialized countries* ("populous South Asia") and
- *Least developed countries* (primarily in sub-Saharan Africa). Table 6.1 lists the countries belonging to each group.

The structural characteristics of an economy are, of course, the result of historical circumstances and past policies. They include such elements as the degree of reliance on a few commodities for export earnings, the share of manufacturing in GDP, the level of human development and the role of the state in economic life. A

Table 6.1 Developing-country groups

Country group	Middle-income		Low-income																														
Semi-industrial	Argentina* Brazil* Colombia* Egypt* Greece Hong Kong Israel* Mexico* Philippines*	Portugal* Romania Singapore* South Africa South Korea* Spain Turkey* Uruguay* Yugoslavia*																															
Primary producing	Albania Bolivia* Cameroon* Chile* Costa Rica* Cuba Dominican Rep. El Salvador Ghana* Guatemala Honduras* Ivory Coast* Jamaica* Jordan Kenya* Korea, Dem. Republic	Lebanon Liberia* Malaysia* Mongolia Morocco* Nicaragua Panama Papua New Guinea* Paraguay Peru* Senegal Thailand* Tunisia* Zambia* Zimbabwe	Burma* China Kampuchea, Dem. Madagascar* Mauritania* Mozambique Sierra Leone* Sri Lanka* Togo Viet Nam, Soc. Rep. of Zaire*																														
Populous South Asia			Bangladesh** India* Pakistan*																														
Least developed ^b			<table border="0"> <thead> <tr> <th colspan="2"><i>Lowest income sub-Saharan Africa</i></th> <th><i>Other</i></th> </tr> </thead> <tbody> <tr> <td>Benin</td> <td>Malawi*</td> <td>Afghanistan</td> </tr> <tr> <td>Burundi</td> <td>Mali*</td> <td>Bhutan</td> </tr> <tr> <td>Central African Republic*</td> <td>Niger</td> <td>Haiti</td> </tr> <tr> <td>Chad</td> <td>Rwanda</td> <td>Lao, P.D.R.</td> </tr> <tr> <td>Ethiopia*</td> <td>Somalia*</td> <td>Nepal</td> </tr> <tr> <td>Guinea</td> <td>Sudan*</td> <td>Yemen, Arab Rep.</td> </tr> <tr> <td>Lesotho</td> <td>Tanzania*</td> <td>Yemen, P.D.R.</td> </tr> <tr> <td></td> <td>Uganda*</td> <td></td> </tr> <tr> <td></td> <td>Upper Volta</td> <td></td> </tr> </tbody> </table>	<i>Lowest income sub-Saharan Africa</i>		<i>Other</i>	Benin	Malawi*	Afghanistan	Burundi	Mali*	Bhutan	Central African Republic*	Niger	Haiti	Chad	Rwanda	Lao, P.D.R.	Ethiopia*	Somalia*	Nepal	Guinea	Sudan*	Yemen, Arab Rep.	Lesotho	Tanzania*	Yemen, P.D.R.		Uganda*			Upper Volta	
<i>Lowest income sub-Saharan Africa</i>		<i>Other</i>																															
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Oil exporters	Algeria** Angola Congo, P.R. Ecuador** Iran	Nigeria** Syrian Arab Rep. Trinidad and Tobago** Venezuela**	Indonesia**																														

Note: Includes countries with populations of at least 1 million. *Italics* denotes inclusion of a country among the case studies in the text.

*Country included in calculation of analytical group total in Table 6.2.

**Country included in group discussion of capital-deficit oil exporters.

a. Also a least developed country.

b. Based on UN classification.

number of these characteristics may limit the range of adjustment policies available to any particular country.

At the same time, domestic economic policy has a crucial role to play; countries with broadly similar structural features have

fares quite differently in response to comparable external shocks. This chapter examines a number of country case studies to help isolate the role of policy in influencing adjustment within the broad structural constraints characterizing the group.

External shocks and modes of adjustment

Table 6.2 (overleaf) shows the extent to which the balance of payments of different country groups were affected by the external environment between 1974 and

1978. These calculations are explained in detail in the Technical Appendix, but the key factors are (1) international price effects—the extent to which adverse movements from a 1971–73 base in import and export prices relative to world prices affected countries' import expenditures and export earnings; and (2) export volume effects—the shortfall in export demand arising from worldwide recession. Both are expressed as a percentage of GNP; together they

group's export prices rose more than world prices).

- Export volume shortfalls arising from the 1974–75 OECD recession were roughly as important as international price effects for the semi-industrial countries. They were somewhat more important for the primary producing countries.

But they were significantly unequal for the low-income countries.

- Export volume effects were

tries export mainly primary products whose markets grew slowly as a result of the OECD recession.

Countries had three basic ways of responding to these external shocks:

- structural adjustment, which involves switching resources to the production of exports and import substitutes (including substitutes for imported energy). When accompanied by a rise in domestic saving, such a reallocation reduces the trade deficit and is therefore a permanent form of adjustment.

This process may be helped by:

- external financing, which can add to imports and investment and give countries time to invest borrowed capital in ways that will eventually promote structural adjustment. But sooner or later trade deficits have to be reduced to levels that are financeable in the long term. Some countries were left with no choice but:

- slower growth, which narrows current account deficits by restricting imports.

For many reasons, country adjustment with high domestic saving and investment and only a temporary interruption in growth is preferable to adjustment effected mainly through an extended period of slower growth. First, programs to expand the production of energy and tradeable goods require substantial new investment; the enormous capital costs of energy development programs alone have been noted in Chapter 4. Second, a high-investment economy is able to "turn over" its old capital stock quickly so as to reflect new scarcities, especially more expensive energy. Third, an economy with rising domestic saving is able to support necessary new investment, restrain domestic demand for exportables and import substitutes and narrow the trade deficit. Fourth, the sacrifices involved in

Table 6.2 Balance-of-payments effects of external shocks and modes of adjustment in groups of oil-importing developing countries, 1974–78 averages
(percentage of GNP)

Item	Semi-industrial	Primary producing ¹	Populous South Asia	Least developed
<i>External shocks</i>				
International price effects	0.90	1.65	1.26	0.14
of which,				
Export price effects	-0.83	-3.21	-0.19	-2.07
Import price effects	1.73	4.86	1.45	2.21
Export volume effect	0.91	1.99	0.69	1.39
Total	1.81	3.64	1.95	1.53
<i>Modes of adjustment</i>				
Structural adjustment	0.78	0.61	-0.31	-2.03
of which,				
Export market penetration	0.09	0.30	-0.51	-3.49
Import substitution	0.69	0.31	0.20	1.46
Additional real external financing ^{2, 3}	0.45	2.54	2.35	3.03
Slower growth	0.58	0.49	-0.09	0.53
Total	1.81	3.64	1.95	1.53

1. Figures for this group are 1974–77 averages.

2. Nominal external financing deflated by an international price index.

3. Comprises changes in capital flows, reserves, services and transfers.

provide a measure of the impact of external shocks on the balance of payments.

Table 6.2 illustrates four points about external shocks.

- International price effects were adverse for every country group. This occurred because unfavorable import-price effects (the extent to which the rise in a group's import prices exceeded the general rise in world prices) more than offset favorable export-price effects (the extent to which a

roughly 55 percent of international price effects for populous South Asia. This was because India's and Pakistan's manufacturing exports, which form a large part of their merchandise exports, were directed mainly to other developing countries rather than to the industrial countries which were in the grip of recession.

- Export volume effects were 10 times as important as international price effects for least developed countries. These coun-

saving and investment are easier to make in a growing economy, where consumption need not actually decline to permit an increase in domestic saving. Finally, there is evidence—for a more careful statement, see the 1980 *World Development Report*—that economic growth generally contributes to the alleviation of poverty. The burden of adjustment can be more equitably distributed in a growing economy, a theme partially explored in the next chapter of this *Report*.

The desirability of adjusting to external shocks through growth must be tempered by a recognition that developing countries were faced with the need to contain strong inflationary pressures in the 1970s. A study of some 25 developing countries (excluding Argentina and Chile which were afflicted by hyperinflation) reveals that in most cases the mid-1970s were characterized by inflation that equalled or exceeded historical peaks (Table 6.3). While domestic policy was important in this process, a significant contribution to the synchronization of world inflation was made by rising import prices. To this must be added the fact that dearer petroleum and manufactured intermediate imports, by raising the cost of production, exerted a contractionary influence on the supply of goods and services. The combination of rising prices and sluggishly growing output resulted in a stagflationary environment. The pursuit of adjustment with growth in such circumstances was a particularly difficult task.

Middle-income oil importers

Semi-industrial countries

Semi-industrial countries form the richest group among the oil-importing developing countries,

Table 6.3 Percentage rate of change in the consumer price index, selected developing countries, peak of 1956–70 and mid-1970s

Country	Peak 1956–70	Annual average ^a 1973–74	Annual average ^a 1975–76
Bolivia	11.2	47.8	6.3
Brazil	87.0	20.2	35.3
Egypt	14.9	7.6	10.0
El Salvador	5.7	11.6	15.1
Ghana	25.4	17.2	46.9
India	13.8	22.4	-1.0
South Korea	27.9	13.4	28.4
Morocco	6.1	10.9	8.2
Nigeria	13.9	9.2	27.6
Pakistan	11.3	24.9	14.0
Philippines	14.4	22.7	7.1
Sri Lanka	7.4	10.9	4.0
Sudan	12.6	22.0	12.8
Thailand	6.2	17.5	4.1
Venezuela	5.0	6.2	8.9

a. Average of price rises over the years shown.

Source: Bhalla.

with GNP per person ranging from under \$500 a year for Egypt to over \$4,000 for Israel and Spain. The high share of manufacturing in production and exports made for considerable flexibility and creditworthiness and allowed them to borrow from private capital markets in the 1970s.

As a group, they relied on external financing at the beginning of the 1974–78 period. The share of commercial lenders in their public and publicly guaranteed debt rose by 27 percent between 1972 and 1978. Disbursed debt to GNP ratio rose from 10 percent to 16 percent during the same period while the debt-service ratio rose from 9 percent to 15 percent. However, the group as a whole increasingly turned to enlarging their penetration of export markets (mainly in manufacturing) and substituting strongly for imports, so that structural adjustment ultimately accounted for over 40 percent of their overall adjustment to external shocks. Additional external financing was responsible for 25 percent of adjustment during 1974–78. Almost one-third of the balance-of-payments accommodation to the changing environment occurred through slower growth.

The average pattern of adjustment conceals substantial differences between countries. Their responses can be analyzed in terms of the development strategy they pursued before 1974 and the reforms they introduced in the wake of external shocks.

- An outward-oriented approach. *South Korea* provides an example of a country which has achieved spectacular results through export-led growth and which did not alter its strategy during the period 1974–78. Its experience in foreign markets, together with a devaluation in 1974, led to further gains in export market shares and significant import substitution. Domestic saving and investment shares went up considerably, the efficiency of investment rose and adjustment was effected with growth (see box on South Korea, overleaf).

Among countries which had earlier followed an inward-looking development path, Uruguay and, to a lesser extent, the Philippines responded to the external shocks of the 1970s by liberalizing their trade regimes and undertaking structural reforms. Substantial external financing was available to buy imports needed for export

South Korea

In the mid-1950s South Korea's "modern" sector was small. Manufacturing constituted 6 percent of GDP, most industrial and much infrastructural capacity having been located in North Korea. Manufactured exports were almost unheard of. Until 1962 economic policy emphasized import-substituting industrialization. This was followed, comparatively early in the industrialization process, by a switch to promoting exports. For the next 10 years GDP rose at over 9 percent a year. Investment's share in GDP almost doubled and was substantially financed out of domestic savings. Capital was used highly efficiently: the incremental capital-output ratio—the extra investment

skilled and literate workforce, reconciled substantial wage increases with moderate inflation. In 1973 GDP grew by a remarkable 15 percent and inflation was only 3 percent.

Rapid industrialization had, however, left South Korea heavily dependent on imported oil. When oil prices rose in 1973–74, the deterioration in the terms of trade resulted in a resource loss equivalent to 4.5 percent of GNP and a fivefold jump in the current account deficit to 11 percent of GNP. The government initially accommodated this by increasing foreign borrowing (which totaled 11.3 percent of GNP in 1974 and 9.5 percent in 1975). But it then opted to cut back the deficit through trade—both export expansion and import substitution—rather than by slowing down growth.

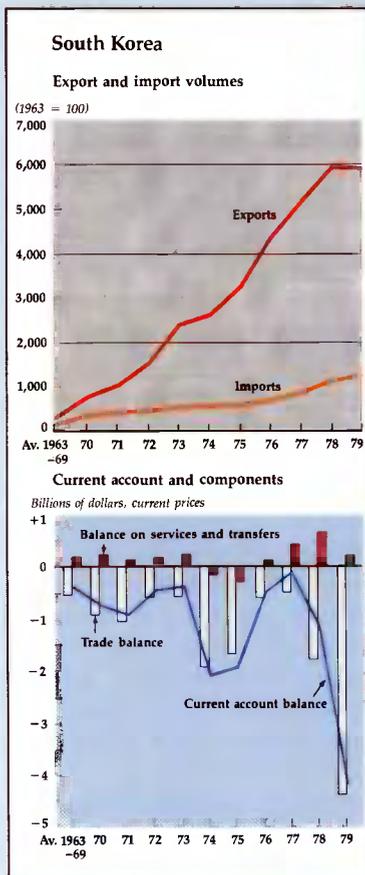
Between 1974 and 1978 (see figure), South Korea's export volume recorded a spectacular increase in a wide range of manufactured goods. This was accomplished by a number of measures. The currency was devalued by 22 percent in 1974. Exporting firms continued to enjoy automatic access to imported raw materials at world prices and subsidized credit for working capital at a time when credit for import substitution and nontraded goods was restricted. South Korean firms were also successful in winning contracts in the booming Middle East construction market: by 1978 the value of construction contracts stood at \$15 billion, and workers' remittances helped to swell foreign exchange receipts.

However, short-term measures were less significant than established policies aimed at promoting exports. Two institutions set up in the 1960s—the export target system and the Export Promotion Conference (at which the President of South Korea personally presided)—were used to intensify the pressure to export. They helped to coordinate government and private sector efforts in response to short-term problems and opportunities. The marketing and intelligence facilities of the government export marketing organization (KOTRA) and of the export trade associations of individual industries were also influential.

In dollar terms, exports almost doubled between 1974 and 1976, and by 1977 had nearly closed the gap with imports. The

trade balance improved very significantly between 1974 and 1977 (see figure). This was due roughly equally to import substitution, mainly in machinery and consumer durables, and to increases in world market shares of South Korean exports.

During the five-year period 1974–79, GNP accelerated, growing by an average 10.1 percent a year. Consumption declined as a share of GDP from 82 percent in 1971–73 to 78 percent in 1974–76.

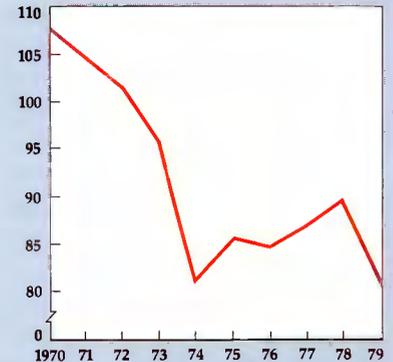


needed to produce an extra unit of output—averaged 2.5 in 1964–73, one of the lowest in the developing world. Rapid productivity growth, facilitated by a

South Korea

Terms of trade, 1970–79

(1971–73 = 100)



Savings and investment rates correspondingly rose (see figure). Inflation, fueled by the oil price increase, accelerated to 24 percent in 1974, falling to 15 percent by 1976. Real wages, which had fallen by 6 percent during 1974, were held in check relative to foreign wages for two years after a 22 percent devaluation of the won in December 1974. This helped maintain the country's competitiveness, though the real exchange rate (the nominal rate adjusted for South Korean relative to US prices) then started to appreciate. Between 1972 and 1978 domestic costs rose by 20 percent relative to those abroad.

The second oil price rise of 1979–80 occurred just as policies were shifting to a contractionary stance in response to an overheated economy. It implied a resource transfer equivalent to 6.6 percent of GDP and resulted, over 1979 and

1980, in current account deficits equivalent to about 7 percent of GDP. In October 1979 the assassination of the President heightened political tensions and led to unrest and a change of government. It proved difficult to check the momentum built up in expansion over the last few years. High investment demand tightened labor markets and caused an acceleration in wages, undermining the competitiveness of South Korean exports, which actually declined in real terms over 1979. Contraction was accentuated by the increase in production costs due to the rapid passing through of rising petroleum prices to the domestic economy. Domestic currency prices of imports were further increased by a 20 percent devaluation in January 1980. These factors, plus a disastrous harvest, combined to raise the rate of inflation from 18 percent in 1979 to 28 percent in

South Korea: savings and investment rates, 1963-73 and 1973-79



1980 and effected a 5.7 percent decline in real GNP over 1980.

In 1980 the government initiated a series of measures aimed at improving the external resource balance through structural adjustments. These include facilitating the extension of credit for exports, maintaining incentives through exchange rate policy and initiating efforts to moderate increases in wages.

industries and cushion the period between rising import prices and growing export volumes. They too boosted saving and investment and growth gradually picked up.

● An inward-looking approach. *Turkey* and pre-1976 *Argentina* continued with their inward-looking policies in response to external shocks. These amounted to 1 percent of GNP in Argentina and the country was preoccupied with internal problems and runaway rates of inflation. Adjustment occurred mainly through import substitution throughout the period and through gains in export market shares in primary products in 1977 and 1978. The application of restrictive demand-management policies after 1976 led to a marked decline in economic growth. External financing was over one-and-a-quarter times as large as external shocks in Turkey and was used to boost the growth rate between 1974 and 1978. Export market shares fell and import dependence increased, heightening the country's vulnerability to the external shocks of 1979. A comprehensive and far-reaching reorientation of economic policies was initiated in 1980 and 1981, aimed at restoring economic growth and controlling inflation through greater emphasis on exports and increased reliance on market forces. A flexible exchange rate policy was adopted; interest rates and prices charged by State Economic Enterprises were deregulated and a major tax reform was enacted.

Countries such as *Brazil*, *Israel* and *Yugoslavia*, which had earlier lessened their bias against exports after many years of inward-looking industrialization, allowed incentives to export to weaken again. Brazil borrowed heavily in 1974 and 1975 and did not abandon

its commitment to growth. But its domestic policies did not encourage saving or efficiency in the use of investible funds, and the growing burden of nominal debt, together with poor harvests, eventually led to a cut in growth (see box on Brazil, overleaf). Both Israel and Yugoslavia economized on imports. Domestic savings performance did not improve substantially and structural adjustment was limited. They relied on slower growth to reduce balance of payments deficits, although both recovered slightly toward the end of the period.

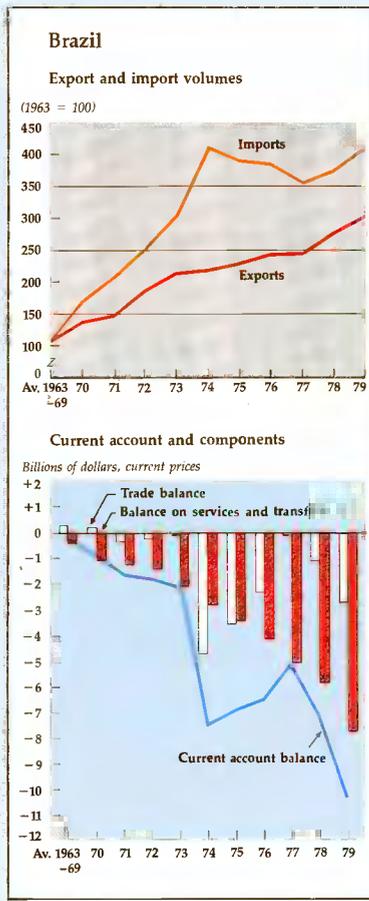
Table 6.2 indicates that, of all the country groups, the semi-industrial countries relied the most on structural adjustment. This was possible because of a flexible production-cum-trade structure, as represented by a high share of manufacturing in GDP and exports and substantial physical and human resources. Structural adjustment principally consisted of import substitution; export market penetration—though positive—was the least important mode of adjustment for the group as a whole. Notwithstanding their relatively easy access to private capital markets, semi-industrial countries did not rely very much on additional external financing compared to other oil-importing developing-country groups during the 1974-78 period as a whole. The importance of slower growth in overall adjustment was 32 percent and was exceeded only in the least developed countries where the corresponding ratio was 35 percent. This result is attributable to a marked slowdown in growth during 1974-79 in Israel, Portugal, Singapore and, to a lesser extent, Yugoslavia relative to that achieved between 1963 and 1973.

The adjustment experience of countries within the group suggests that those which were

Brazil

During an unprecedented spurt in 1967-73, Brazil's industrial growth averaged 13 percent a year and GNP per person rose at over 7 percent a year. Although the benefits of growth were unequally distributed, in the process of "trickle down" gains in absolute income levels appear to have been widespread. Investment was largely financed domestically. The share of manufactured exports in manufactured output rose, aided by outward-oriented policies.

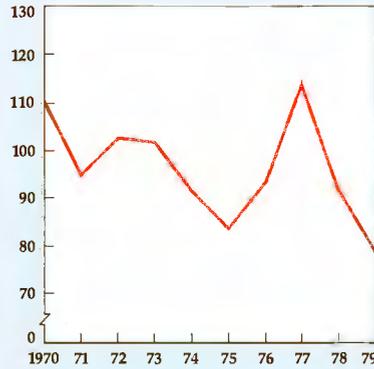
The annual current account deficit averaged only 2 percent of GDP in 1967-73, but then jumped to 7 percent in 1974 and 5.6 percent in 1975. The higher oil prices of 1973-74 hit Brazil at the peak of its boom. High capacity utilization, combined with stockbuilding in the face of rising inflation, boosted the volume of imports by about 30 percent in 1974 (see figure). The economy was heavily dependent on imported oil (which still satisfies over 80 percent of petroleum requirements, despite major oil exploration efforts).



In addition, the terms of trade deteriorated by 20 percent over 1974-75. About half of the increase in the total import bill over its 1972-73 level was due to increases in prices (and about half of that due to

Brazil

Terms of trade, 1970-79
(1971-73 = 100)



higher prices for manufactured imports); the rest was caused by higher volumes. Slower growth in export markets was less important than terms-of-trade effects in 1974-75, but the terms of trade then recovered ground as coffee prices rose.

Brazil did not readily abandon the growth ethic in response to the hardened external environment. An ebullient sense of "manifest destiny" had been created, and the new government, which came to power in 1974, was committed to continuing, if not bettering, the successes of its predecessor. Growth was also seen as necessary to ease the process of political liberalization. This led to the adoption of expansionary domestic policies and substantial external borrowing, to a deferral of adjustment and eventually to slower growth.

• Domestic demand was maintained through public sector deficits and subsidies effected through the credit system. Interest rates charged on credit programs administered through the Central Bank and Bank of Brazil remained almost constant while inflation accelerated from 13 percent in 1973 to 44 percent in 1977. They rose later, but not enough to match the spiral in inflation toward 100 percent annually after 1979. Negative real interest rates diverted savings from productive investment. Savings, which had grown rapidly from the mid-1960s, began to

decelerate during the second half of the 1970s.

• Disbursed debt rose nearly fourfold between 1973 and 1978 to the equivalent of 25 percent of GDP; and the debt-service ratio (including medium- and long-term private debt) reached 56.4 percent. Increased borrowing from abroad was reflected in the growing gap between domestic savings and investment. Investment priorities emphasized heavy infrastructure and capital-intensive import substitution.

• GNP rose by an average 7 percent a year in 1974-78, compared with 8 percent a year in 1966-73 and 11.5 percent a year in 1967-73.

Compared with its 1973 level, the Brazilian real exchange rate (the nominal rate adjusted for changes in Brazilian relative to US prices) changed little during 1974-78, real appreciation in 1975 being reversed in subsequent years. As a proportion of demand, imports were squeezed to below their 1973 levels (see figure) through tariff increases, advance deposit requirements and import restrictions. The resulting bias against exports was partially offset by tax and credit subsidies. Coupled with the 1977 improvement in the terms of trade, this allowed virtual trade balance by 1977. It was followed by a relatively small deficit in 1978, due partly to a disastrous harvest.

Brazilian adjustment to higher energy prices has proceeded apace. Massive investments aimed at reducing dependence on imported oil have been made, notably through the conversion of sugarcane to alcohol. In the longer run, hydroelectric potential is estimated at over 200 million kilowatts (around 10 times present capacity). Shale and coal deposits are also promising options for energy diversification.

The impact of the 1979-80 rise in oil prices has been considerable. By 1980 the fuel import bill had risen to 44 percent of total merchandise imports. The interest rates charged on its foreign debt also rose sharply, and the current account deficit widened to the equivalent of 5 percent of GDP. A wide range of fiscal, monetary and price policies was introduced to curb demand; exports were encouraged by a large devaluation during 1979, when the exchange rate moved from 21 to 43 cruzeiros to the dollar. But, despite attempts at adjustment, an increased debt burden heightens Brazil's vulnerability to international monetary shocks and to slower growth in the demand for its exports.

largely successful in achieving adjustment with growth

- either maintained or switched to a policy of not discriminating against production for exports relative to that for the home market;

- stepped up private and public savings; and

- increased the share of investment without detriment to its efficiency.

Primary producing countries

Primary producers include a large number of (mainly) middle-income countries that are either agricultural- or mineral-based. Their economic well-being and export earnings have historically been dominated by a few primary products—for example, tea, coffee, cocoa, phosphate, tin or rubber. For predominantly agricultural countries, the share of the three most important commodities in export earnings ranges from roughly 70 percent for Ghana, Ivory Coast and Sri Lanka to around 50 percent for Malaysia and Senegal and under 40 percent for Thailand. The mineral-based economies tend to be even more undiversified; the corresponding ratios are in excess of 80 percent for Mauritania, Zaire and Zambia, nearly 70 percent for Bolivia and Chile and around 60 percent for Peru. Specialization in tree crops or minerals, together with the necessary infrastructure, leads to a highly inflexible production structure and extreme vulnerability to international price movements and export volume shortfalls.

Primary producing countries were hardest hit by external shocks. Export volume shortfalls were 20 percent larger than international price effects for the group as a whole in 1974–77. The agriculture-based countries were not much affected by international

price effects, since unfavorable import price movements were nearly offset by higher prices for cocoa, coffee and tea in 1976–77. But they were significantly damaged by slow growth in the markets for agricultural commodities, so that the overall external shock was adverse for agriculture-based primary producers. By contrast, losses arising from international price effects were particularly severe for the mineral-based economies and roughly twice as large as export volume effects.

Table 6.2 shows that primary producing countries resorted to substantial external financing which averaged nearly 70 percent of external shocks during 1974–77. Their structural adjustment, which was divided almost equally between export market penetration and import substitution, was limited. It accounted for less than 20 percent of total adjustment, partly because of inflexibility in production and partly because of development policy. The process of industrialization in a number of these countries led to increasing reliance on imports of capital goods and manufactures. The average adjustment pattern is consistent with considerable variations, of which five types may be distinguished.

- Outward-orientation and diversification in agriculture-based economies. *Ivory Coast, Thailand and Tunisia* are examples of primary producers that maintained their outward-looking policies and diversified their exports. This provided raw materials for processing industries, generated a home market for industrial output and earned foreign exchange for imported inputs for their manufacturing industries. For the Ivory Coast and Tunisia, the external environment actually improved slightly over 1974–78.

External borrowing was moderate in all countries except Tunisia, and the bulk of adjustment occurred through trade policy. Export expansion and import substitution proceeded at an impressive rate within the framework of a very open economy in Thailand. But they were not to be accompanied by reform of domestic energy pricing and interest rate policy until late in the decade (see box, overleaf), and the economy was left uncomfortably exposed to the external shocks of 1979–80. Gains in export market shares were also registered in a whole range of primary commodities in the Ivory Coast and Tunisia. The share of investment was maintained and adjustment was effected with growth.

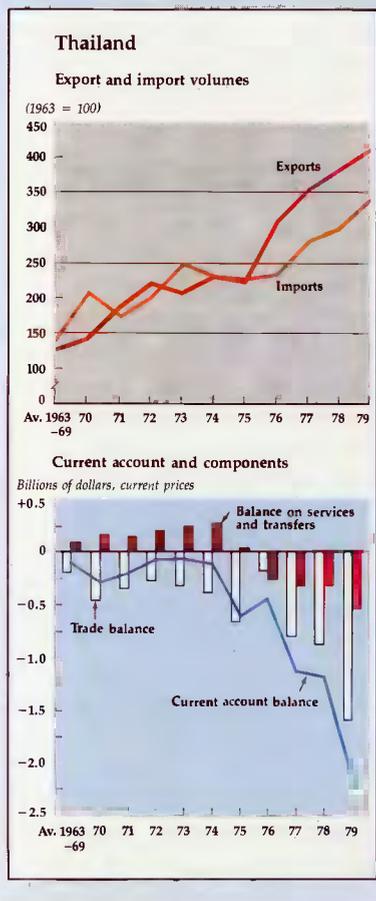
- Inward-orientation in agriculture-based economies. *Kenya* moved from being an open economy in the 1960s to one where the incentive system had begun to be tilted against cash crop exports and in favor of production of manufactured goods for the domestic market. This process was further intensified in the wake of the external shocks of 1974–78 and accompanied by losses in nontraditional primary and manufactured exports, in part due to the breakup of the East African Community. Recourse to external financing was moderate and domestic savings performance was satisfactory. The bulk of adjustment occurred through import substitution which, together with slower growth, was twice as important as external shocks. This mode of adjustment reduced structural flexibility and led to moves toward greater outward orientation at the end of the decade.

- Slower growth without reform in mineral economies. *Jamaica, Peru, Zaire and Zambia* were all forced to cut growth rates,

Thailand

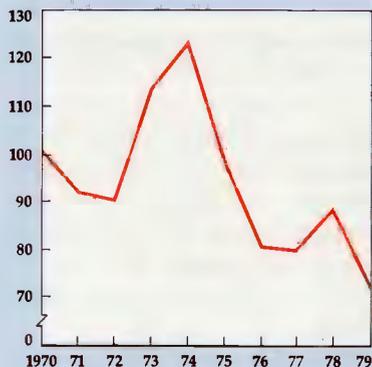
During the 1960s Thai GDP grew at 7.6 percent a year. The momentum slowed between 1970 and 1975 to 6.2 percent, but oil price increases were not the major factor. The initial balance of payments effect of the oil price increase was cushioned by higher export prices, increased service earnings and private transfers (see figure). Adjustment was thus not immediately seen to be necessary, despite a doubling of the share of oil in total imports to 21 percent.

To sustain growth, policy after 1975 included controls on energy and cement prices, a ceiling on interest rates, increasing protection, expanded public sector expenditures and deficits, and rapid credit creation to support higher demand. Export growth was exceptional during this period (see figure). GDP grew at 8 percent a year from 1975 to 1979 but high investment tended to involve current deficits, which increased with the deterioration in terms of trade after 1976 and declines in services and private transfers.



Thailand

Terms of trade, 1970-79
(1971-73 = 100)



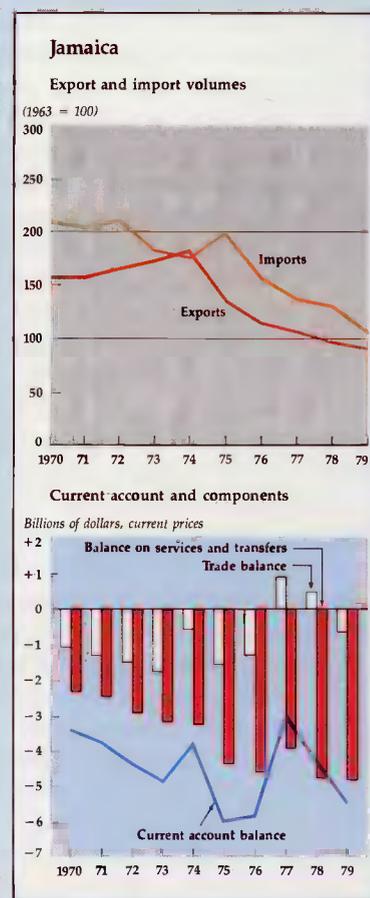
The government had until recently failed to take the necessary steps to encourage energy conservation and promote domestic supplies. After retail prices of virtually all petroleum products were increased between July 1973 and February 1974, they were held constant until March 1977. This was partly because energy prices constituted a very sensitive political issue and partly because increases were thought to be injurious to growth. Petroleum product prices were, however, raised in January 1979, July 1979, February 1980 and January 1981 for a cumulative increase of around 120 percent, and power tariffs have been increased to eliminate subsidies to the electricity generating authority.

The doubling of oil prices in late 1979 led to a widening of the current account deficit (see figure) to \$2.4 billion or 7 percent of GDP in 1980, with oil making up over 25 percent of total imports. This has encouraged measures to promote structural adjustment with equity. The draft 1982-86 plan represents a significant shift in policy from growth toward distributional considerations, particularly rural poverty alleviation; and toward external balance. Fiscal and monetary policies are intended to be less permissive. The major concerns include the intensification of agriculture, increased industrial efficiency, and promotion of employment and manufactured exports. The plan also stresses the need to reduce consumption of energy, particularly oil, through pricing and energy conservation programs, and to develop domestic energy resources, especially lignite, natural gas and renewable energy sources.

Jamaica

During the 1960s Jamaica's GNP rose at 4.6 percent a year. Agriculture grew slowly, there was increased rural to urban migration, and industrial expansion was promoted behind high levels of protection. Private foreign investment played a major role in expanding tourism and bauxite production—the twin pillars of growth in the Jamaican economy. Private domestic investment was the major driving force behind the development of industry and services.

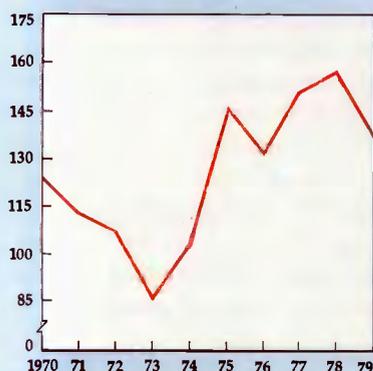
The government which came to power in 1972 was committed to (1) expanding



and eventually suffered a fall in GNP. A combination of internal policies and external shocks brought Jamaica to the verge of economic bankruptcy and GNP steadily fell after 1973 (see box). Peru, which engaged in massive foreign borrowing, failed to

Jamaica

Terms of trade, 1970-79
(1971-73 = 100)



the role of the public sector in creating a more diversified economy; (2) creating increased employment opportunities for the large numbers of urban unemployed; and (3) redistributing income. A sharp increase in the bauxite levy on foreign firms and heightened political rhetoric reduced private investment. The subsequent decline in economic growth was aggravated by adverse external shocks equivalent to 9 percent of GNP. These included the quadrupling of petroleum prices and reduced demand for tourism related to the 1974-75 recession in North America, and more important, to growing social and political unrest in Jamaica, itself partly due to worsening economic conditions.

Expansionary policies caused the central government deficit to increase from 4 percent of GDP in 1972 to almost 20 percent in 1976. Large wage increases were granted and consumption increased from 78 percent of GDP in 1972 to 90 percent in 1976. A large current account deficit (10 percent of GDP in 1976), emigration of skilled manpower (initially one of the main results of falling output,

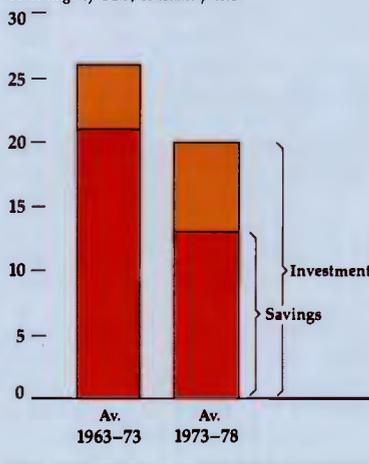
but eventually one of its causes), and three years of declining output led to the virtual exhaustion of Jamaica's foreign exchange reserves and creditworthiness.

The government attempted to negotiate a medium-term support program with the IMF although it ultimately rejected the prescriptions in the program. Policies to balance expenditures with resource availability varied from year to year. They included tighter price controls; restrictive fiscal measures (principally higher taxes rather than spending cuts); and exchange rate devaluation, to correct for the differential between internal and external inflation. Despite efforts to stimulate the private sector, however, there was an increasing reluctance on the part of investors to commit resources to new projects.

Jamaica compensated for the deterioration in its external position during this period mainly through a reduction in imports. This in turn caused a decline in domestic output, and a shift in the composition of spending away from import-

Jamaica: savings and investment rates, 1963-73 and 1973-78

Percentage of GDP, constant prices



undertake significant structural adjustment until 1978. Extreme dependence on copper and cobalt in Zaire and Zambia made for great vulnerability to movements in copper prices; their terms-of-trade losses were catastrophic. Substantial external financing was

forthcoming until the mid-1970s after which they had to reduce their growth. Roughly half of the 1974-78 balance-of-payments accommodation was achieved through slower growth. Savings performance was weak—due to lack of incentives, large budget

intensive investment toward consumption of domestically produced goods. By 1980, GDP was nearly 18 percent below its 1973 level, with the sharpest falls being in manufacturing (31 percent), construction (58 percent) and mining (10 percent), the last of which had been an important source of foreign exchange and growth in the 1960s and early 1970s. High levels of unemployment (15 percent of the labor force), growing scarcity of consumer goods in domestic markets, and inadequate resources for maintaining and upgrading social services had eroded the relatively high living standards enjoyed by most Jamaicans at the beginning of the 1970s.

In late 1980 a new government came to power. It has negotiated a three-year program with the IMF, agreed on structural reforms with the World Bank, and received pledges of substantial foreign aid in support of its medium-term development strategy. This includes:

- Reforms in the country's tax structure, deregulation and reduction of state ownership of companies (those which were once private but are now in the hands of the government).

- Measures to increase agricultural production, including special assistance to the sugar cooperatives, reconstruction in the banana industry, and strengthening of extension services and marketing facilities.

- Greater incentives in favor of exports and gradual reduction of protection to some industries. Jamaica's nontraditional exports are predominantly sold within the Caribbean Common Market. The small size of this market is likely to limit export growth, so efforts to expand sales to other markets are expected to assume increasing importance.

- An aggressive tourism drive aimed at raising the current low hotel occupancy rate, coupled with measures to stimulate private investment in new hotels.

- Active promotion of private investment in bauxite mining and aluminum refining.

deficits and high inflation in all four countries.

- Structural reform in a mineral economy. *Chile*, like the previously discussed cases of Uruguay and, to a lesser extent, the Philippines, is an example of a protectionist economy that was trans-

formed—in its case when a steep decline in copper prices, on top of domestic upheavals, resulted in radical structural reforms. These included a massive real devaluation and deflationary monetary and fiscal policies. Saving and investment both increased as a share of GNP, and the efficiency with which capital was used also improved. Chile gained export market shares in manufacturing and also achieved considerable import substitution. The growth rate, after an initial fall, has improved since 1976 but has been

accompanied by relatively high unemployment.

● “Overshooting” adjustment. Countries such as *Morocco* and *Senegal* exemplified the difficulties of volatile commodity prices (see box on windfall gains). Both countries derive a large proportion of their export earnings from phosphates. The 1974–75 boom in world phosphate prices, which was expected to last longer than it did, encouraged substantial foreign borrowing and led to their formulating investment plans that proved too ambitious when

phosphate revenues fell after 1975. Eventually they had to adopt restrictive policies and curb their growth.

The experience of the primary producers suggests that those which encouraged and diversified their exports and improved savings performance managed adjustment with growth. But many of them, especially some mineral producers, have a production-cum-trade structure that limits the range of options in the medium term, necessitating either external financing or slower growth.

Managing windfall gains

At various times in 1974–77, there were sharp price increases in phosphates, coffee, cocoa, uranium and several other commodities important to developing countries. Paradoxically, many exporters of these commodities now face difficulties partly as a result of the way they managed their windfall gains. Typically, government revenues have been boosted by higher export earnings (either through taxation or participation in profits) and used to raise domestic expenditure to a level that cannot be sustained when prices fall. Countries take advantage of their credit standing to borrow on commercial terms to maintain expenditure.

If the initial rise in public spending leads to higher growth (and especially higher exports) in the relatively near term, it can be sustained. But if growth does not increase sufficiently, the result is an increased debt burden. Eventually this forces sharp and damaging spending cuts, often at a time when export prices are falling.

This pattern—and exceptions to it—can be illustrated by several examples. Phosphate prices rose sharply in 1974, and the prospects for further rises appeared good at the time. In *Morocco*, investment as a share of GDP consequently doubled by 1977. But government current spending also rose, much of it on badly needed social programs. The expansion, however, outstripped available resources once phosphate prices started to decline. Initially, *Morocco* was able to maintain the momentum by bor-

rowing abroad. But its external debt-service ratio increased significantly between 1975 and 1978 (when it reached 21.8 percent) and it became clear that retrenchment was needed. *Togo* also applied its phosphate “windfall” to investment. But it too encountered financial difficulty after prices fell in 1975, despite the coffee and cocoa boom that started in 1976. *Senegal* increased public sector investment, but total investment did not increase. Much of the public investment went into unproductive areas, and the private sector was discouraged from investing, mainly because of the government’s state participation policy. The end of the phosphate boom coincided with increased groundnut prices (the principal export), postponing the need to reduce spending. In 1977 a period of budgetary stringency followed.

In response to the coffee and cocoa boom, *Ivory Coast* increased aggregate investment by 120 percent in real terms from 1973–75 to 1977–79, and sustained it later by external commercial borrowing. Domestic inflation accelerated and, by 1978, it was clear that investment had to be cut. *Kenya*, by contrast, channeled less of the coffee boom proceeds into the public sector. Despite increases in public spending, much of it on defense and to replace the former East African Community institutions, the overall budget remained under control although development-oriented recurrent outlays fell far below needed levels. Similarly, *Niger* had utilized only three-quarters of

the proceeds of its post-1975 uranium boom by 1979.

The experience of these price fluctuations highlights the need for:

● Careful analysis of export price prospects. Treating a boom as temporary makes it easier to plan the right mix of expenditure and saving.

● Effective controls on spending. An important factor in *Ivory Coast*’s investment surge was the management of the Agricultural Price Stabilization Fund (the “Caisstab”). This received the export revenue surpluses, but operated largely outside formal budgetary control. In *Togo*, budgetary procedures were bypassed or abandoned.

● Productive investment based on careful project selection. Some 17 percent of *Ivory Coast*’s investment program was for 12 sugar complexes (later cut back to 6) that would have produced an exportable surplus at production costs well above world prices. *Togo*, small and poor, undertook ambitious projects—an oil refinery, a steel mill, a thermal power plant, hotels.

These principles cannot be implemented unless there are effective arrangements for analyzing price prospects, scrutinizing and deciding upon investment prospects, and evolving development strategy. Many countries, especially in Africa, lack the means of doing this work. High priority should be given to developing the finance and planning ministries and to making greater use of their capabilities in decision making.

Adjustment problems and prospects

One result of the above analysis of the semi-industrial and primary producing groups is its suggestion that there was only a weak association between the magnitude of external shocks in 1974–78 and response in terms of economic growth rates after 1973, relative to 1963–73. This does not mean the shocks were unimportant; rather, their effect for these countries depended significantly on the trading environment and international capital flows, on internal developments and domestic management, as well as on underlying structure. A number of middle-income countries were able to borrow commercial capital extensively and expand exports in the 1970s. The main policy issue they face in the 1980s is how far they need to modify their development strategy to deal with the changing international environment.

A more turbulent world economy leads an oil-importing developing country to consider two kinds of strategic changes. The first is to adopt a more outward-oriented stance, to make products in which the country has a comparative advantage and to allow imports to compete with all but a limited range of domestically produced goods. The second is to aim for greater self-sufficiency in a wider range of goods and to reduce trading links with the rest of the world over and above what is dictated by comparative advantage, in the hope of lessening vulnerability to external shocks.

The record shows that as a whole the group of countries opting for the first course (for example, Chile, Ivory Coast, Philippines, Singapore, South Korea, Thailand, Tunisia, Uruguay) managed to effect adjustment with only a temporary interruption in growth. Compared with the group of economies that main-

tained or turned to inward-looking policies (for example, Argentina, Brazil, Colombia, Israel, Jamaica, Kenya, Mexico, Morocco, Peru, Portugal, Turkey, Yugoslavia, Zambia), they were able to:

- expand both export market penetration and import substitution and
- eventually reduce reliance on additional external financing. Furthermore, the outward-oriented economies were characterized by an improved savings performance as well as increasingly efficient use of investment. (This was true of a number of the inward-oriented economies as well.)

EXPORT MARKET PENETRATION. The superior export performance of outward-oriented economies is not unexpected. It is not only a matter of competitive exchange rates, a unified system of incentives and access to duty-free imported inputs for exporting firms. Just as important, producers are acutely aware of the virtues of quality control and prompt delivery and have experience in changing product composition in response to shifts in foreign demand. The box on South Korea illustrates the impetus provided by a national commitment to export-led growth.

IMPORT SUBSTITUTION. The reason outward-oriented economies as a group are also more successful than the inward-oriented group in substituting for imports is that they ensure *equal* incentives to production for export and home markets. Domestic production must therefore compete with imports which, under an outward-oriented strategy, usually extend all the way from raw materials to final consumer goods. This can allow considerable scope for import substitution when

import prices rise. By contrast, complicated systems of licensing and control can make import substitutes virtually nontradeable in inward-oriented countries. Imports are generally limited to essential material inputs and machinery for which domestically produced substitutes are difficult to find.

EXTERNAL FINANCING AND DOMESTIC SAVING. Outward-oriented economies used external financing to cover increases in the prices of imports until they were able to pay for them with increased exports. Finance borrowed at the beginning of 1974–78 was invested productively. In all these countries, most of the extra investment needed to effect adjustment was financed by increased domestic saving, and their strong export performance meant that debt-service ratios rose only slightly. By contrast, reliance on external borrowing was significantly greater in the inward-looking group that did not undertake structural adjustment.

POLICY LESSONS. Outward-oriented economies have a higher proportion of trade in GNP than countries following an inward-looking strategy. External shocks inflicted upon them a larger loss in relation to GNP. But their economic performance is less damaged by external shocks and ultimately is less dependent on foreign finance. They may have to accept some temporary loss of growth momentum during adjustment while they boost exports, restrain imports and attempt to control imported inflation. But growth can be expected to pick up, because their form of adjustment need not usually involve deflationary cuts for any length of time. This is perhaps the most valuable lesson of the ad-

justment experience of semi-industrial and primary producing countries.

It follows that countries trying to cope with external disturbances in the 1980s should move toward policies that provide equal encouragement to export and domestic production, and adequate incentives for saving—a conclusion that would, however, need qualification if there were to be a marked deterioration in the international trading and financial environment. It is important that funds borrowed abroad be applied toward productive investments which enhance the country's capacity to produce exports and curb imports. For this reason, the uses to which external finance are put require careful monitoring. (The box on managing windfall gains is again relevant.) This will be helped by more careful project selection, especially where investments involve intensive energy and foreign exchange use.

Such domestic policy reform is not easy. It takes time before moves toward a more symmetric system of incentives to exports and domestic production begin to elicit a larger supply of exports. Increased savings will not materialize unless there is general confidence in the authorities' ability to manage the economy. This illustrates two things. First, it is important to persist with the above policies even in the face of possible short-term setbacks. Second, policy reform will usually need to be supported during a transitional period, as in the Philippines and Uruguay (see boxes), by substantial external financing.

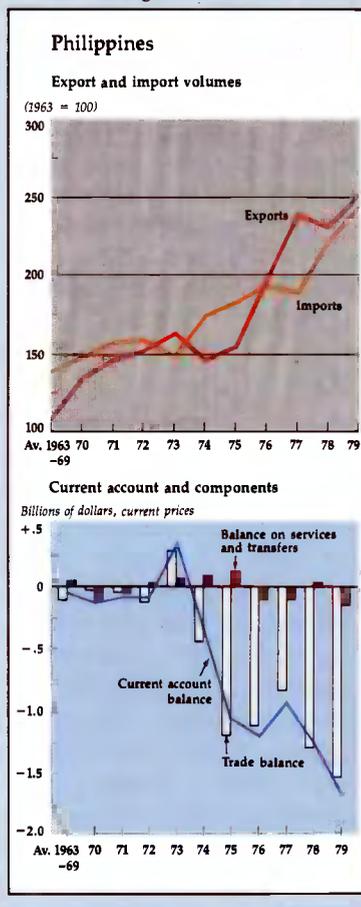
Borrowed foreign exchange in support of a liberalization program can provide essential inputs for export industries. It can also finance a flow of imports to moderate inflationary pressures. Infla-

The Philippines

A change in political conditions in the early 1970s was accompanied by a switch in economic policy toward greater outward orientation. Public infrastructural investment was stepped up, while family planning programs and partial land reform started to tackle the country's population growth and heavy dependence on imported food.

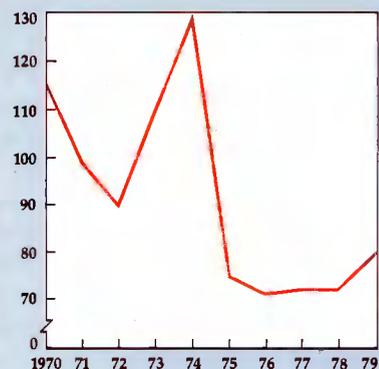
The economy ran into external difficulties after 1973, when its export markets became less buoyant and the price of imported oil rose sharply. The terms of trade declined by 36 percent between 1973 and 1976 (see figure). Export volume fell by 11 percent in 1974 but recovered quickly in 1975 and 1976, with substantial gains in market shares being recorded in nontraditional primary as well as in manufactured exports. The government's commitment to growth led to continued expansion of domestic demand, a high investment-to-GDP ratio, larger imports and an increasing current account deficit (see figure).

The Philippines then negotiated an extended arrangement with the Interna-



Philippines

Terms of trade, 1970-79
(1971-73 = 100)



tional Monetary Fund (IMF) amounting to about \$266 million for the period 1976-78. The principal quantitative targets of the extended arrangement program were an average annual GNP growth of 7 percent; an annual inflation rate of not more than 7 percent; and a reduction of the current account deficit from 6 percent of GNP in 1975 to 4 percent by 1978. Toward these ends, the program envisaged various structural changes and policy adjustments including (1) an increase in the ratio of domestic fixed investment to GNP with a shift in the investment pattern in favor of infrastructure, the energy sector, and export-oriented and labor-intensive industries; (2) an increase in the ratio of domestic savings to GNP, partly through a strong tax effort; and (3) effective demand management policies. Most of the principal targets were broadly attained. Prices of electricity, transportation and gasoline were increased; tariffs were lowered and domestic credit and external borrowing were effectively controlled. Domestic savings rose from 20 percent of GDP in 1963-73 to 25 percent in 1978 (see figure); and exports of labor-intensive industries increased at 40 percent per annum. During 1976-78 the Philippines purchased an additional amount of about \$206 million under the compensatory, oil, and buffer stock financing facilities of the IMF.

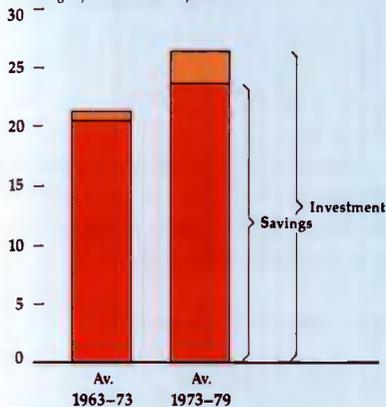
The external position deteriorated again with the second large increase in oil prices in 1979. Although a recovery in the prices of some primary commodities contributed to a large increase in nominal export earnings, the current account deficit widened to \$1.6 billion (5.4 percent of GNP) in 1979 and an estimated \$2.2

billion (or 5.8 percent of GNP) in 1980. The recessionary effects of deteriorating terms of trade led to a slowdown in GNP growth from 6.3 percent in 1978 to 5.8 percent in 1979, and an estimated 4.7 percent in 1980. Inflation, which rose to 19 percent in 1979, has decelerated significantly since then despite the government's policy of passing through energy price increases.

Notwithstanding policy improvements of the 1970s, the balance of payments still reflects a number of underlying structural rigidities. The country continues to rely on traditional commodity exports for more than two-thirds of its foreign exchange earnings, and industry is too great a net burden on the balance of payments. More than 80 percent of the economy's energy is supplied by imported oil, which has raised oil's share in total merchandise imports from less than 12 percent in the early 1970s to over 25 percent in 1980. While there are no immediate constraints on foreign borrowing, deficits of 6 percent of GNP cannot be financed indefinitely. During the past year, the government has therefore undertaken measures to promote structural adjustment, in close consultation with the World Bank. These include providing further encouragement to the rapid growth of manufactured exports, improving the efficiency of industrial investment, and deregulating the financial sector to promote greater resource mobilization. The structural adjustment program is expected to reduce the current account deficit toward sustainable levels by 1985.

Philippines: savings and investment rates, 1963-73 and 1973-79

Percentage of GDP, constant prices



Uruguay

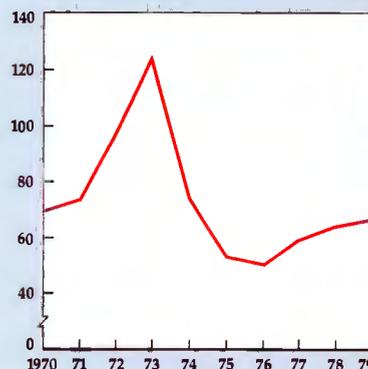
In a number of respects—health and life expectancy, political representation, education levels and an equitable income distribution—attempts initiated in Uruguay since the turn of the century to establish a European-style welfare state had met with considerable success. But economic performance was marked by inflation, periodic balance of payments crises and declining per capita income. The burden of supporting social overheads, and weak import-substituting industry hampered by minute market size, fell entirely on livestock and agriculture—sectors of natural Uruguayan comparative advantage. Protectionist, inward-looking policies discriminated against traditional exporting sectors and hindered any potential expansion of manufactured exports. Consumption left little room for modernizing and augmenting capital. For about 30 years until 1974, the economy grew very slowly; in 1964-73, GDP growth averaged only 1.2 percent a year (and GDP actually fell by 1.5 percent a year in 1971-73).

The peaceful political consensus could not survive economic stagnation. As

Uruguay

Terms of trade, 1970-79

(1971-73 = 100)



unemployment rose, particularly among the young, and redistributive mechanisms involved successively smaller benefits being divided among an expanding number of people, Uruguay began to experience political upheaval, which threatened to destroy the social fabric of the country established over several decades.

The changes in the world economy after 1973 had a dramatic effect on Uruguay's external position. Import prices doubled, while the prices of beef and wool (the main exports) declined by 35 percent and 24 percent respectively in 1975. Uruguay was also harmed by the agricultural policy of the EEC, which during the 1970s shifted from being a net beef importer to a substantial exporter. The current account, which had run a surplus before 1973, swung into a deficit averaging 4.4 percent of GDP in 1974-75 (see figure). To cover that deficit, Uruguay initially relied on foreign borrowing (outstanding debt increased by 35 percent between 1974 and 1976) and by running down its international reserves.

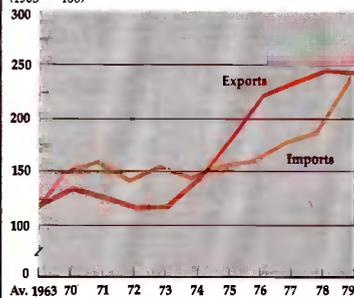
Rather than attempting to reduce imports, however, the new government which came to power in 1973 decided to alter development strategy. The economy was gradually opened to international trade. Most domestic prices were decontrolled, import quotas were eliminated and tariffs and other restrictions were progressively reduced. Foreign capital movements were liberalized, and the real exchange rate (the nominal rate

(continued overleaf)

Uruguay

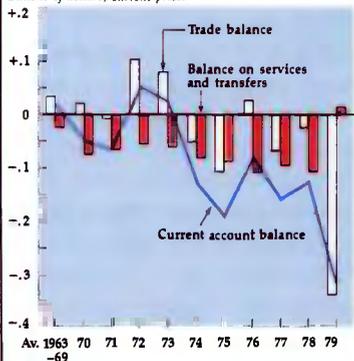
Export and import volumes

(1963 = 100)



Current account and components

Billions of dollars, current prices



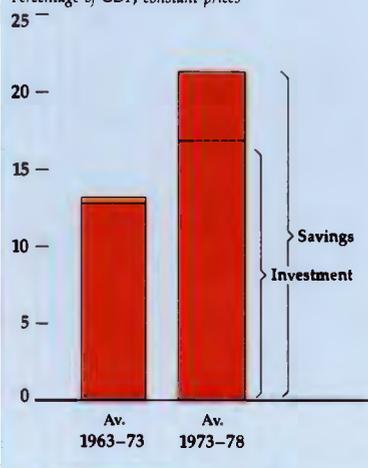
adjusted for changes in Uruguayan relative to US prices) was devalued by over 20 percent in 1974-77. This stimulus to exports was reinforced by rebates, preferential credits and tax relief for exporters. Attempts were made to stimulate savings and improve the allocation of investible resources through removal of restrictions on interest rates.

The new strategy did not affect all sectors of the economy evenly. However, it led to a number of desired results.

- GDP growth rose sharply, averaging 3.9 percent a year in 1974-79. Employment expanded, though real wages may have fallen somewhat between 1973 and 1979.

Uruguay: savings and investment rates, 1963-73 and 1973-78

Percentage of GDP, constant prices



tion can arise not only from the initial increase in imported oil prices but also from devaluation (frequently the centerpiece of a liberalization program), which further raises the domestic currency price of imports. Without external borrowing, governments may avoid domestic policy reform for fear of precipitating internal unrest and a foreign exchange crisis. In turn, external financing unsupported by policy reform may simply postpone rather than avert a crisis.

- Manufactured exports increased their share of the international market by more than three times between 1973 and 1978; import substitution played only a minor role in reducing the trade deficit. By 1978 the current deficit had declined to \$127 million, from \$189 million in 1975.

- Both investment and saving increased their shares in GDP (see figure). This was accompanied by a rise in the rates of capital utilization.

- Although disbursed debt rose from the equivalent of 12.5 percent of GNP in 1973 to 19.9 percent in 1976, it fell to 17.7 percent by 1978.

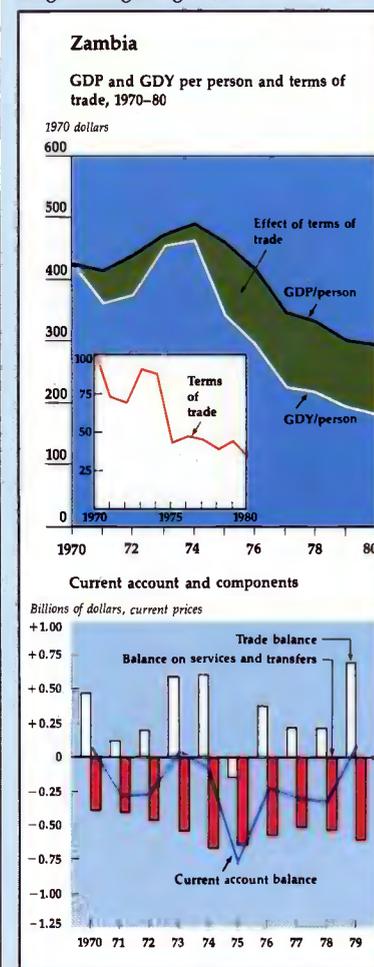
Rising world oil prices increased oil import costs by 40 percent in 1979. Responses have differed considerably from those adopted in 1974. The exchange rate was allowed to appreciate, in real terms, as a means of reducing domestic inflation. But unless inflation can be brought down rapidly enough, this may reduce incentives to exports and import substitution.

In certain respects the Uruguayan economy is better placed to cope with an increased deficit than it was in 1973. Dependence on imported petroleum is slowly being reduced as hydroelectric capacity expands, and the economy's ability to adjust flexibly to external shocks is not in doubt. Substantial foreign borrowing will probably be required in the early 1980s; so debt-service ratios are likely to rise. But if fiscal, credit and tariff policies continue to be coordinated to reduce inflation, and incentives to domestic savings can be increased, Uruguay should be able to consolidate its external position and maintain the improved growth rates of the 1970s.

Although the association between external shocks and economic growth was weak for the sample of middle-income countries analyzed above, it was important for some of the poorer and more inflexible primary producers. The experience of Zambia (see box) suggests that a policy of diversifying the economy away from mining could probably have prevented no more than a third of the precipitous fall in national income from 1974 to 1978. The other two-thirds could be attrib-

Zambia

Zambia's terms of trade deteriorated by 52 percent between 1974 and 1978. From a peak in 1974, copper prices fell by 40 percent in 1975, while import prices rose by an average 16 percent a year. Wars in neighboring Angola, Zaire and Zim-



uted to structural factors. This highlights the importance of:

- policies to promote agricultural and other nonmining exports; and

- financing to ease adjustment to external shocks in a mineral economy until some diversification has been achieved.

Low-income oil importers

Populous South Asia

In common with other low-income countries, the large,

babwe (then Rhodesia) disrupted Zambia's rail links to the coast and increased transport costs. In 1979 a serious drought contributed to a 9 percent fall in agricultural production.

Mining dominates Zambia's exports, accounting for 95 percent of the total; in turn, exports make up 40 percent of GDP. The terms of trade deterioration therefore caused a huge reduction in national income. Adjusting GDP by the changes in the terms of trade produces a figure for gross domestic income, GDY. Per person, GDY has been falling continuously since 1965; the fall accelerated in 1974-78, so GDY per person was less than half of its 1965 level (figure).

Part of this fall was borne by lower investment, but consumption per person has also declined sharply. Rural households, especially those in peripheral areas, have suffered declines in already low incomes; there are serious shortages of basic consumer goods, as well as medicines, drugs, school equipment, and transport; and child health and nutrition have probably deteriorated. One indication of this is the spread of scabies, a disease associated with unhygienic conditions, reported cases of which increased eighteenfold in 1973-78. In urban areas, wage employment and real wages have fallen and expenditure on community services has been cut.

Since independence in 1964, the government has had only limited success in diversifying the economy away from mining.

- Agriculture, in which Zambia has abundant potential, has been neglected. The rural-urban terms of trade have shifted against agriculture. Despite

increases in official producer prices, agricultural prices generally have been below border equivalents. Government support services have been inadequate and have deteriorated under budgetary pressure; state farms, rather than small farmers, have absorbed large resources; marketing arrangements have been cumbersome and wasteful.

- Industrial policy has emphasized import substitution, although industry is largely dependent on imported inputs. By 1978 industrial inputs accounted for 56 percent of total imports. As foreign exchange became scarcer, they had to be cut—resulting in excess capacity and unemployment.

- The pattern of investment has tended to favor projects with long payoff periods, thus restricting employment and output benefits in the short and medium term. New investment has been given priority over maintenance and completion of ongoing projects, resulting in high costs, bottlenecks and low returns. The level of urban real wages has discouraged labor-intensive activities.

- Despite two devaluations since 1975, the real exchange rate (the nominal rate adjusted for changes in Zambia relative to world prices) appreciated by about 25 percent from 1974 to 1979. In conjunction with the protection conferred by tariffs and import controls, this has discouraged nonmining exports.

- Administered prices have compressed parastatal revenues and led to heavy subsidization. Between 1965 and 1973, government spending, including subsidies, rose almost twice as fast as revenues.

With different policies, Zambia would

have been able to slow the decline in incomes after 1974; but it would still have been seriously affected. It might, for example, have succeeded in raising its nonmining exports to 20 percent of the total by 1974 (implying that their volume would have increased by more than 20 percent a year in 1965-74). If these non-traditional exports had continued to grow at 5 percent a year after 1974 and had experienced moderately favorable price movements, and if food imports had been substituted by domestic production, about one-third of the fall in GDY from 1974 to 1978 could have been avoided. But even with those optimistic assumptions, two-thirds of the fall was unavoidable given Zambia's structural dependence on copper.

Higher copper prices in 1979 and an IMF-supported adjustment program helped reduce inflation, but GDP fell 9 percent. In 1980 preliminary indications suggest that it grew only 1 percent.

Future growth requires the allocation of more foreign exchange to mining in the near term and greater emphasis on diversification as well as some basic reforms of institutions and economic policies for the longer term. Zambia's structural inflexibility will take many years to overcome, and meanwhile the country will remain vulnerable to terms of trade fluctuations. Adjustment will therefore be hard to accomplish without balance of payments support (in part provided by an IMF Extended Fund Facility of \$1,040 million, approved in May 1981), with special attention given to safeguarding the position of the poor.

densely populated countries of South Asia—Bangladesh, India and Pakistan—are heavily dependent on agriculture in terms of both GDP and employment. But India and Pakistan, in contrast to many sub-Saharan African countries, have large, diversified manufacturing industries and enormous numbers of skilled people. Manufacturing output has grown at just under 5 percent a year over the past two decades in India; in Pakistan it grew at nearly 10 percent in the 1960s but only 4

percent a year in the 1970s. Manufacturing's high share in GDP (over 15 percent) and in merchandise exports (over 50 percent) makes these countries almost semi-industrial in structure and gives them a range of adjustment options wider than those available to other comparably poor countries.

It will be recalled that populous South Asia is the only country group for which the export shortfall was significantly less important than price effects.

Adjustment was helped by three factors (see box on India, overleaf):

- a strong agricultural performance based on the introduction of high-yielding seed varieties combined with fertilizer and irrigation (this reduced the need for food imports);

- workers' remittances from the capital-surplus oil-exporting countries; and

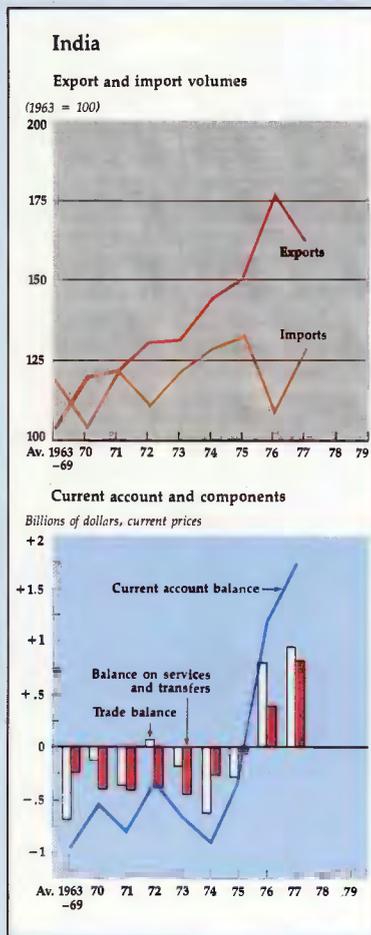
- an increasing level of aid.

Growth, which had averaged around 3.5 percent in the decade 1963-73 for this group of coun-

India

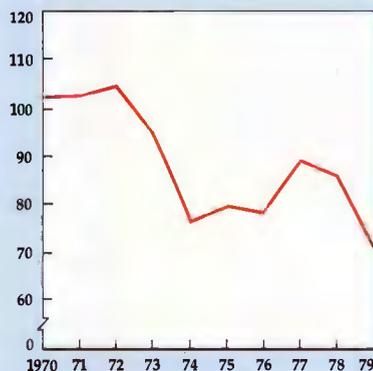
GNP grew by an average 3.4 percent a year in 1964–73; it then accelerated to 4.3 percent a year in 1974–79, despite the sharp rise in oil prices. This considerable achievement can be attributed to both short- and long-term factors. The most significant change was in:

- **Agriculture.** In the past four years, India has imported hardly any foodgrains, and built its stocks up to unprecedented levels (see figure). As a result



India

Terms of trade, 1970–79
(1971–73 = 100)



India was able to manage the consequences of a severe drought in 1979 without resorting to significant foodgrain imports. Over the 1970s as a whole, foodgrain production rose at an average of almost 3 percent a year, compared with population growth of 2.2 percent a year.

While the weather is still a major factor in Indian agriculture, the spread of irrigation and modern farming techniques has provided greater security. So far the biggest difference has occurred in wheat farming in the north-western states of Punjab, Haryana, Uttar Pradesh and spreading eastward into West Bengal. But fertilizer use and high-yielding varieties of seeds are starting to affect rice as well, and this has particular relevance for some of the poorest states in the east and south of the country.

By virtually ending foodgrain imports, India has saved substantial amounts of foreign exchange, helping it to pay for more expensive oil without curbing other

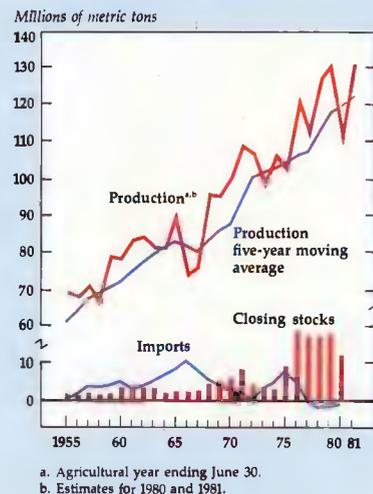
imports. It also received the benefits of:

- **Migrants' remittances.** In the mid-1970s, the number of Indian workers in the Gulf states increased considerably. Their annual remittances rose from less than \$250 million in 1974 to an estimated \$2.4 billion in 1980.

The combination of increased remittances and savings on grain imports allowed India to run a current account surplus in the three years 1976–77 to 1978–79 (see figure). As a result, India's foreign exchange reserves rose to a peak of over \$7 billion in 1979. By 1977 the government was able to take advantage of this situation by relaxing some import restrictions on:

- **Industry.** India's policy of import substitution has produced a diversified industrial base. Investment has risen substantially and has been financed by

India: foodgrain production, imports and stocks, 1955–81



tries, was boosted by a buoyant agricultural sector to roughly 4.2 percent during 1973–79.

Bangladesh has fewer adjustment options than India and Pakistan. It is classified by the United Nations as one of the least developed countries. Since independence in 1971, agricultural out-

put has failed to keep pace with the needs of a population growing at 3 percent a year. The consequent cost of importing foodgrains at rising international prices was part of the external shock, and accounted for 40 percent of merchandise imports in the mid-1970s. During that time,

economic difficulties were aggravated by political instability. Few measures to promote structural adjustment were taken; the country relied mostly on external aid and on workers' remittances, which were second only to jute as a source of foreign exchange. The government has recently taken

domestic savings for most of the past 20 years. Yet in industry at least, extra investment has not produced more rapid growth. Since the mid-1960s, industrial growth has slowed (see figure). This can be attributed partly to a sluggish rise in domestic demand and the fact that Indian industry has benefited little from the scale economies of exporting to world markets. In addition, industrial licensing has restricted the entry of new firms into some industries and, in others, limited the expansion of existing firms. But a more significant cause has been supply constraints at home, in particular:

- **Infrastructure.** During the 1970s power shortages have become chronic. They are less the result of inadequate capacity than of the poor performance of existing capacity, itself due to input shortages compounded by maintenance and management failures. On government estimates, electricity shortfalls averaged 12 percent a year between 1975 and 1980. As a direct result, GDP may have been cut by 2 percent a year.

The power industry has also been hit by shortages of coal. In the three years 1977-78 to 1979-80, coal production stagnated although it picked up again in 1980-81. Constraints on railway operation through such factors as labor disputes and power shortages have also restricted the movement of coal that was produced. Failings in these three infrastructural cornerstones—coal, power and transport—have all been interconnected.

Official policy aims to correct all these domestic constraints. Licensing requirements have been eased, allowing companies in core sectors to expand their capacity by 5 percent a year for five years. Export production has been exempted from licensing restrictions for all units, while units exporting all their output will be exempt from all import controls and duties, will receive favorable tax treat-

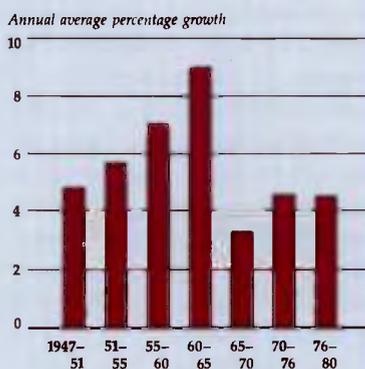
steps to switch resources into agriculture, especially in low-cost, quick-gestating irrigation projects and has introduced some incentives to encourage exports.

The 1979-80 oil-price rise, coming on top of the 1979 monsoon failure, has worsened the external position of South Asia's largest

ment and will not be subject to prevailing laws on foreign participation. As for infrastructure, the Sixth Plan (running up to 1985) provides for much increased investment in coal, power and railways.

In the short term, these changes can do little to ease the scarcity of foreign exchange that has developed in 1980 and 1981. Almost 45 percent of India's import bill in 1980-81 was accounted for by oil. Migrant remittances are unlikely to grow as rapidly as they did in the 1970s. Nor is aid, which played an important role in

India: industrial production, 1947-80



cushioning the balance of payments after the 1973-74 oil-price increases. India is therefore facing a more demanding adjustment than before. Nevertheless, if it continues its agricultural progress, adopts more outward-looking trade policies, improves the infrastructural support for its industry, and continues to receive external support for its development effort, India should be able to restore its external position without seriously slowing down its growth.

countries. Oil imports (net of re-exports of petroleum products) were 11 and 13 percent respectively of the total imports of Bangladesh and Pakistan in 1978; their share has increased over one-and-a-half times in India's case, rising from 24 percent to over 40 percent.

While this is a difficult situation, there is some room for optimism. The response of India's export volumes in attaining a growth rate of nearly 7 percent between 1975-76 and 1978-79, following a measure of trade liberalization, indicates that its manufacturing industry has the potential of complementing an increasingly buoyant agricultural sector in raising exports, restraining imports and effecting flexible adjustment to external shocks.

Least developed countries

Foremost among the issues affecting least developed countries (mainly in sub-Saharan Africa, Table 6.1) is the difficulty of separating questions of adjustment from those of overall development. Their productive sectors are weak and inflexible. They lack the skills, the infrastructure and the commercial and financial institutions to adjust rapidly to external shocks. Most of them rely heavily on a few crops for their export earnings: the three most important commodities account for more than 80 percent of total exports in Burundi, the Gambia and Uganda. They are poor countries because they respond less readily to economic opportunities; they do not respond because they are poor. There are vicious circles of poverty throughout the developing world, but they are drawn tightest of all around the least developed countries.

It will be recalled from Table 6.2 that export volume shortfalls arising from slow growth in the markets for primary products were 10 times as important as price effects for the least developed countries. But well over twice as important as the external shock was the decline in their export market shares, which was caused by domestic failures, particularly

in agriculture. This has been due partly to the lack of research adapting farming methods to Africa's varied soil and climate, and partly to the shortage of trained personnel to implement what is already known. But there were also other reasons. By keeping agricultural prices low, governments have tapped agricultural surpluses to finance the provision of cheap food and other benefits for urban populations. The situation has been exacerbated by inefficient arrangements for the delivery of inputs to and the marketing of produce from the agricultural sector. In a number of countries, drought, wars and civil strife have also taken their toll.

The neglect of agriculture has led to increasing reliance on food imports and on foreign aid to finance those imports. Combined with weak export performance, it has also forced countries such as Sudan and Tanzania to compress imports to the point where any further reduction would depress current incomes as well as seriously jeopardize the prospects for export expansion and economic growth.

The growth record of the least developed countries of sub-Saharan Africa has been discouraging. After averaging about 3.5 percent a year in 1963–73, GNP growth slowed to nearly 3 percent a year in 1970–73 and did not improve in 1973–79. Throughout, population grew at well over 2 percent a year, leading to a decline in average incomes for several countries.

External shocks, while not a major problem in the mid-1970s, hit the economies of sub-Saharan Africa particularly hard toward the end of the decade. The primary commodity boom of 1976–77 led to substantially increased foreign borrowing on hard terms and rising public spending in a

number of countries. The subsequent fall in commodity prices in 1978 and the 1979–80 round of oil-price increases leave sub-Saharan Africa in the throes of a severe economic and financial crisis. A number of debt reschedulings are currently underway. Others may well follow, as extensive arrears in payments have accumulated in several countries.

Adjustment problems and prospects

Agricultural performance has been the key feature distinguishing the growth record in populous South Asia from that in the poorest countries of sub-Saharan Africa. India's considerable progress in raising agricultural productivity has made it virtually self-sufficient in foodgrains. Throughout South Asia, there is much still to be done to improve agricultural yields; but the potential has already been demonstrated, the means of fulfilling it are already known.

In manufacturing too, South Asia has considerable scope for expanding output and exports. The case study on India (see box) has identified bottlenecks in basic infrastructure as being among the constraints inhibiting manufacturing production and exports. Such obstacles to extra production of *tradeables* have to be surmounted—not least through a combination of external financing and domestic savings to augment capacity in *nontradeables*, for example, power and transportation. This cannot be accomplished by short- to medium-term loans designed to provide balance-of-payments support. The situation exemplifies a general principle: *low-income countries require long-term external finance for adjustment.*

For sub-Saharan Africa, the policy priority is to promote agriculture and agricultural

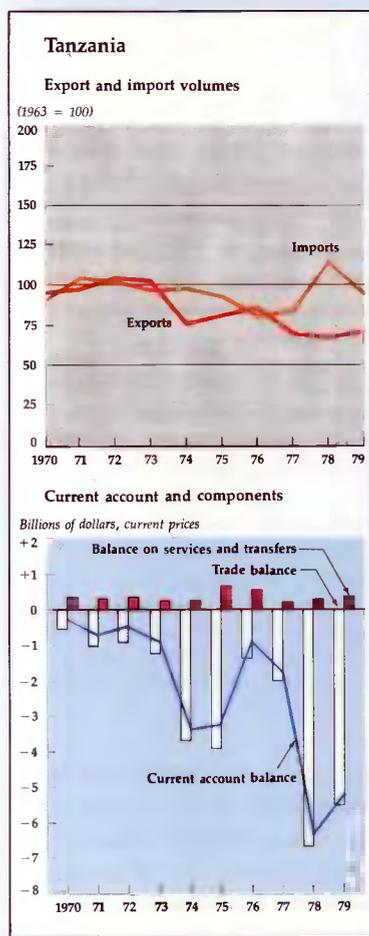
exports. One significant source of discrimination against agricultural production and exports has been the attempt to industrialize behind overvalued exchange rates. The appeal of this strategy derives partly from the fact that the alternative—development through primary production and the gradual diversification of exports—was associated with colonialism; and partly because it appeared to offer an avenue to rapid industrialization as an insurance against low and unpredictable commodity prices.

Past experience points to different conclusions. Table 6.2 has shown that, for lowest-income sub-Saharan Africa, supply side constraints to expanding export market shares were far more important than adverse external shocks. Furthermore, countries such as Ivory Coast, Malawi and, in the 1960s, Kenya, which limited discrimination against primary production and exports, were able to expand export volumes and increase their purchasing power significantly. Agriculture in all these countries responded well to prices and other incentives; with the right encouragement, and given time, it can turn to advantage such opportunities as are provided by the international environment.

The potentially important role of the agricultural sector in effecting adjustment and the drain on current surpluses caused by present policies should prompt governments in sub-Saharan Africa to consider reforms that cover exchange rates, internal pricing and public sector subsidies as a matter of priority. They will encounter opposition from powerful vested interests. But the inefficiencies associated with current policies can hardly be tolerated in a decade when external shocks will probably be no less

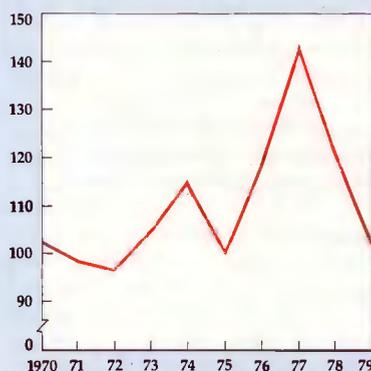
Tanzania

Tanzania's current economic position is precarious. Already one of the world's poorest countries, its GDP per person fell by nearly 5 percent in 1980, and it now faces an external financial crisis. The real value of imports in 1980 was below its 1973 level despite a 150 percent rise in gross disbursements of external aid. In 1980 oil imports absorbed 40 percent of total export earnings, drought-related foodgrain imports a further 20 percent and debt service another 9 percent. By the



Tanzania

Terms of trade, 1970-79
(1971-73 = 100)



end of 1980 net reserves were negative, and external payment arrears had reached \$286 million, half the value of merchandise exports.

Nevertheless, there is much that can be done to maintain Tanzania's economic and social gains, provided that appropriate policies are adopted and additional aid is forthcoming. In deciding on "appropriate" policies, one of the critical issues is the extent to which adjustment conflicts with Tanzania's economic and social priorities. They emphasize a self-reliant socialist society and rural development based on *ujamaa*, a form of informal cooperative production. Those objectives have guided Tanzania's past efforts to achieve adjustment although in practice Tanzania has become more dependent on outside assistance, and rural development has been neglected.

In 1974-75, Tanzania faced a marked deterioration in its external position, caused in part by higher oil prices, but more seriously by drought-induced food imports (at peak international prices) and a drastic fall in export volumes. The government responded by increasing

agricultural prices (particularly for food crops), restricting credit, increasing taxes, and controlling imports more strictly while continuing to expand social programs (especially in education and health) and increasing the minimum wage. The shilling was devalued in 1975. Public investment was curtailed in 1975-76.

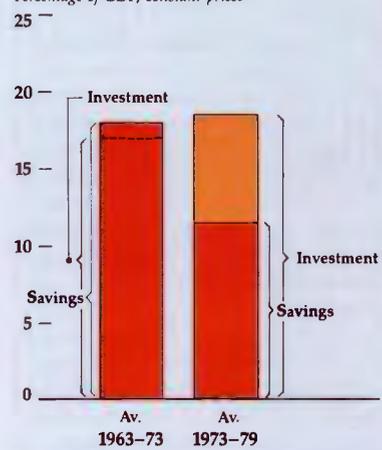
The program was carried out in a spirit of sacrifice and austerity. Increased aid (on concessional terms), some use of reserves, and borrowing from the IMF helped cover the external shortfall in 1974 and 1975. In 1976 and 1977 the current account deficit was reduced (see figure), largely as a result of improved export prices, particularly for coffee. But by 1978, difficulties resumed. Export prices and volumes fell, war broke out with Uganda, the effects of the break-up of the East African Community made themselves felt, and adverse weather affected food output.

While there was temporary success in reducing food imports, the adjustment effort in the 1970s failed to revive the pro-

(continued overleaf)

Tanzania: savings and investment rates, 1963-73 and 1973-79

Percentage of GDP, constant prices



significant than they were in 1979-80.

External assistance and domestic policy reform can and should be mutually reinforcing. The urgent need for policy reform must be tempered by a recognition of what domestic policy alone

can achieve in the poorest countries, particularly in the short run. And the role of external assistance in fostering adjustment without excessive cuts in growth cannot be underestimated. For oil-importing African countries as a whole, policy reform (exemplified by

Zambia and Tanzania, see boxes) could improve growth rates by as much as 2 percent throughout the 1980s—from 2.4 to 4.2 percent in the Low case, and from 3.0 to 5.0 percent in the High case (Chapter 2). But such policy reform is unlikely in the conditions of fall-

ductive and monetized sectors or to reverse the secular decline in export volumes that began in the early 1970s. In part, structural weaknesses—low productivity, lack of maintenance, undeveloped infrastructure, manpower constraints—limited the effectiveness of efforts to increase production in the short term. But several other factors, more susceptible to government control, also prevented adjustment measures taking full effect:

- Institutional transformation—most notably, the nationwide “villagization” campaign, the replacement of cooperatives by parastatals and the overlapping responsibilities of party and government agencies—changed course several times and disrupted agriculture for much longer than expected.

- Producer prices for export crops fell by almost one-third in real terms, completely wiping out any potential benefit from the 1975 devaluation.

- Setting investment plans at levels that eventually proved unsustainable meant that many projects were implemented slowly and remained uncompleted for extended periods. Maintenance budgets were underfinanced.

- Pervasive government controls during periods of shortages led to expanding unofficial markets and smuggling and eliminated producer incentives.

Of the factors inhibiting adjustment, none need require revisions which conflict with Tanzania’s development objectives. However, some changes in strategy are urgently needed. Greater willingness to permit markets to function is not incompatible with *ujamaa*; neither is the recognition that some state controls may be self-defeating while skilled manpower is limited. Continuing external support for Tanzania, especially for food aid and to finance the operating costs of social programs, would facilitate adjustment. It would also lessen the conflict—to the extent that one exists—between growth and equity.

ing per capita income implied by the Low case. The combination of policy reform and High case levels of assistance could *together* improve Africa’s growth prospects dramatically. But these are countries where, even under satisfactory policies, growth prospects

Upper Volta

Upper Volta, a landlocked country in the center of West Africa, is one of the poorest countries in the world. Its GNP per person was \$180 in 1979. It lacks most of the human and physical resources needed to promote development. Its literacy rate was only 5 percent in 1972, compared with an average of 39 percent for low-income countries in 1976; many of its better-educated, younger people emigrate. Agriculture constitutes a livelihood for over 80 percent of the population, and accounts for 40 percent of GDP and 90 percent of total exports. Yet the soil is poor and heavily eroded. Rainfall is unreliable. The country’s few mineral deposits (primarily manganese and rock phosphates) are expensive to exploit.

Given these overwhelming constraints, the scope for adjustment to changed external circumstances is very limited. Government policies have been generally conducive to development; investment has increased, as has the share of imports in GDP (from 21 percent in 1970 to 40 percent in 1977). The expansion of investment and imports has been made possible largely by substantial concessional aid, by workers’ remittances and, to a lesser extent, by rising export earnings. Yet GNP growth has only marginally exceeded population growth over the past two decades.

The external position has tightened somewhat in 1979–81, reflecting higher petroleum prices and a deterioration in the terms of trade. Imports were reduced by 13 percent in 1979 under a stabilization program supported by the IMF. There is

little scope for further trade adjustment, given the concentration of Upper Volta’s exports on primary products and the fact that imports cannot be reduced without cutting growth. The prospects therefore continue to depend on aid and remittances. But the aid outlook is deteriorating (partly because of frustration with the limited results achieved so far); and remittances may not rise so fast, as more Voltaiacs settle permanently in other countries. On almost any set of assumptions, Upper Volta faces abject poverty for decades to come.

Two priorities stand out:

- A substantial increase in agricultural productivity. Any program must include increased agricultural research, to adapt and apply the findings of crop research to local conditions. At present, modern agricultural techniques can be applied economically to only a few crops in the more favored ecological areas. The development of improved cultivation practices should aim at increasing the efficiency of food production and conserving scarce soil and water, particularly on the central plateau where population pressure is most intense.

- Human development. Investment in basic education and primary health care would have major economic as well as social returns over the long term. But the government’s ability to meet operating costs is overstretched even by the low level of services already provided. There is relatively little potential for increasing coverage by reallocating spending or redesigning existing services. So a program on the scale needed would involve a massive infusion of foreign aid.

are so limited by physical and economic disadvantages that they will continue to depend heavily on aid for the foreseeable future (see box, Upper Volta).

Implications

Adjustment to the 80 percent real increase in petroleum prices in 1979–80 and the concomitant recession in industrial countries is beginning to get under way. The adjustment options of the oil-importing developing countries are currently more constrained than they were in the mid-1970s,

because of the higher cost of private capital, the dimmer prospects for concessional assistance and a more modest rate of increase in workers’ remittances. There are nonetheless many similarities between the two episodes, especially in the nature of external shocks confronting the developing world. This should make the lessons learned from the present study of 1974–78 experience particularly valuable in shaping adjustment policies which can promote growth with equity in the 1980s.

China: adjustment and reform

Development efforts in China have consistently been directed toward two main objectives: first, industrialization, and in particular development of a heavy industrial base; second, elimination of the worst aspects of poverty. Chinese development strategy has also been shaped by two major constraints: an extreme shortage of cultivable land in relation to population and a high degree of international isolation.

The Chinese response to these constraints has been to approach the two objectives in two different ways. Following an initial phase of property redistribution, poverty reduction—mainly through rural development and the provision of basic social services—has been based largely on local resources and initiative, with a strong emphasis on economy and technical improvisation. Communes, which form the basic units of the rural economy, have also established some industries in rural areas. But industrialization has been based mainly on a massive infusion of centrally mobilized resources, with less concern for cost effectiveness, and using technology largely descended from Soviet designs of the 1950s.

Tension between these two approaches has contributed to sharp policy oscillations. Nevertheless, there has been substantial progress toward the two main objectives. The share of industry in GDP (around 40 percent) is currently similar to the average for middle-income developing countries. But because the share of services is much smaller than in other countries, agriculture still

accounts for 34 percent of GDP and over 70 percent of employment—similar to the average for low-income countries. Around 85 percent of the population, moreover, lives in rural areas.

Per capita GNP (when adjusted to allow for the unusual structure of prices in China) appears to have grown at an annual rate of 2.5 to 3.0 percent in 1957–79. This rate is significantly above the average for other low-income developing countries (1.6 percent in 1960–79)—though well below the average for middle-income developing countries (3.8 percent), and has not been high enough to pull China out of the low-income group. A high rate of domestic savings (at 1970 prices, the marginal savings rate in 1957–79 was over 40 percent) has facilitated the rapid pace of industrialization, but has at the same time caused consumption to grow significantly slower than income.

Nonetheless, China's most remarkable achievement during the past three decades has been to make low-income groups far better off in terms of basic needs than their counterparts in most other poor countries. They all have work; their food supply is guaranteed through a mixture of state rationing and collective self-insurance; most of their children are not only at school but are also being comparatively well taught; and the great majority have access to basic health care and family planning services. Life expectancy—whose dependence on many other economic and social variables makes it probably the best single indicator of the extent of real poverty in a country—is (at

64 years) outstandingly high for a country at China's per capita income level (see box on poverty and human development in China, page 101).

The need for adjustment

China's economic policies have been altered considerably in the past few years, with the formulation of a program of "reform, adjustment, consolidation and improvement." Its two main features are reform of the system of economic management, including greater reliance on market forces, and a shift in emphasis from investment to consumption.

Though partly the result of political change, the new policies have been motivated also by some important underlying economic considerations. In the past, the expansion of output has been based on massive mobilization of resources and fundamental institutional change. Further progress, however, will have to be more dependent on increased efficiency of resource use. In addition, the benefits of technological isolation as a stimulus to improvisation have been overtaken by its costs in terms of backwardness and bottlenecks. And the remarkable progress made in industrialization and in meeting basic needs has not been matched by—and has created a demand for—a commensurately rapid rise in general living standards.

Prospects and options in the 1980s

Although slow population growth, better access to foreign markets and technology, and

system reform have all improved China's economic prospects, especially in the longer term, the government's drive to improve living standards will in the coming decade be subject to a set of interlocking constraints. Some of these are of long standing—agricultural land, foreign exchange, trained manpower. Others are more recent—domestic energy production and financial resources for new investments (which are being squeezed between the government's desire to reduce the savings rate and the claims of an enormous existing investment program).

The scope for improving economic performance is particularly great in industry and energy. In terms of international trade, outward-looking policies should promote a significant expansion of exports. In the short- and medium-term, China could borrow substantial amounts of foreign exchange to ease the transition to a restructured economy.

Agriculture

The problems facing agriculture in the 1980s are similar to those in the past. On the demand side, food-grain production and food security will continue to require high priority. But competition for land will be sharpened by the new emphasis on raising living standards, which will require relatively greater supplies of both higher quality foods and agricultural raw materials for light industry.

As regards supply, the amount of land per worker has shrunk, and some of the factors that have raised yields so remarkably in the past—irrigation, fertilizer and changes in cropping patterns—are unlikely to help so much in the future. On the positive side, however, substantial gains will probably be realized through

improved policies and management. Especially important is the government's present emphasis on stronger incentives and more producer autonomy, on greater specialization of output mix in line with local comparative advantage and on agricultural research.

Measures to increase agricultural efficiency, growth of commune industry, and even increased agricultural prices will do least for the rural poor (since many communes are net purchasers of food). To counteract a possible increase in rural inequality, increased state support for poor areas is needed to promote the development of agriculture and nonagricultural activities, and to provide more food and better social services. This, like general increases in agricultural prices, could be financed in part by progressive taxation of agricultural income or land. And in cases where it would be cheaper than raising their incomes on the spot, the rural poor should gradually be allowed to move to other areas. In addition, they might benefit from long-term regional development plans: these could address the special problems of particular localities, focus money and manpower on them and promote coordination among different government agencies.

Energy production

The outlook for domestic energy production has recently deteriorated. Oil output peaked in 1979 at 2.12 million barrels a day and is likely to fall to about 2 million barrels a day in 1985, with little prospect of an increase in the latter half of the decade. To prevent an even larger decline, immediate steps have to be taken to improve reservoir engineering in existing fields and the effectiveness of exploration. The prospects for coal (which contributes about 70 per-

cent of total commercial energy) are brighter; but output growth in the 1980s will be slower than in the past, even if high priority is given to the sector.

Total primary energy production in the 1980s will thus not grow much faster than 2.8 percent per year, with the growth rate in 1980–85 unlikely to exceed 2.2 percent—less than one-quarter of the 1952–80 growth rate.

The energy sector is already absorbing over 40 percent of industrial investment. The additional capital outlays that would be required in the first half of the decade to further accelerate the growth of energy output in the second half, even if feasible in terms of specialized manpower and equipment, would be so large as to crowd out vital investment in other sectors. Prospects for economic growth in the 1980s thus depend critically on reducing energy use per unit of output. This is doubly important in the case of oil, whose availability for use as an industrial raw material will also fundamentally influence growth prospects.

Industrial energy conservation

Because agriculture, commerce, households and transport are lesser users of energy, with relatively limited scope for conservation and interfuel substitution, the outcome will turn mainly on what is achieved by industry (including the energy sector itself). Altering the balance between heavy and light industry in favor of the latter has already contributed to a significant reduction in energy use and will continue to do so until the middle of the decade. Thereafter, heavy industry cannot grow much more slowly than light industry, since it produces much of the equipment and materials for light industry, agriculture and the service sectors.

Of greater and more enduring importance, therefore, will be cuts in energy use and substitution of coal for oil within industrial subsectors. In this regard, the bulk of the large potential for energy savings is in heavy industry.

Substantial savings could be obtained at negligible cost by minor operational improvements. Further savings, and substitution of coal for oil, could be achieved at moderate cost by limited equipment and technology improvements. Beyond that, major changes in some processes are called for. In certain industries (most notably metallurgy), it will be both desirable and feasible to eliminate most small plants.

These measures could very substantially reduce energy use per unit of industrial output, at a capital cost far less than that of achieving an equivalent increase in energy supply. But to accomplish this will require thorough advance planning in each of the major subsectors, and the integration of energy conservation with other aspects of industrial restructuring and modernization. It will also require reform of energy allocation procedures. And it would be greatly facilitated by changes in energy prices (especially a large rise in the price of fuel oil), in conjunction with further reforms to increase the incentive effect of prices on users.

Other industrial issues

Industrial expansion in the next few years may be constrained not only by energy, but also by raw materials, foreign exchange and finance for new investments.

Expansion of light industry is already being held back by shortages of raw materials—both industrial (petrochemicals and appropriate metals) and agricultural. Because the domestic supply of agricultural raw

materials and oil will remain tightly constrained, increased imports are desirable.

Economy in the use of industrial capital will be essential if sustained rapid growth is to be reconciled with a reduced aggregate investment rate and higher investment in nonproductive sectors. As with energy, a significant reduction in the use of capital per unit of output can be expected from the shift in emphasis from heavy to light industry, as well as from the reforms in economic management.

Given the shortage of foreign exchange, and the knowledge to be gained from exposure to world markets, expansion of manufactured exports must have high priority. The outlook is promising, given the abundance of skilled low-wage labor and the enormous potential for economies of scale.

At present, three-fifths of China's manufactured exports consist of products other than machinery or equipment sold to developing countries or the non-market industrial countries. To achieve rapid growth, China must increase its currently very small share of the richer markets, especially in the OECD.

On this basis, the volume of China's manufactured exports could grow in the 1980s at a rate of about 10 percent a year, and quite possibly 15 percent. In the latter case, the value of manufactured exports in 1990 (in the prices of that year) could be over \$60 billion.

More generally, the updating of industrial technology can produce major gains in productivity and product quality, both in industry and in the other sectors that use its products. It is being actively pursued in most industrial subsectors. But it could be accelerated and made more cost-effective by stronger incentives for innovation, and by better decisions on

whether, when and how to purchase technology from abroad.

Foreign borrowing

China's oil exports will decline in volume, and could disappear by the end of the decade. Slow agricultural growth will restrict primary export expansion to at best 4 to 5 percent a year. Thus manufactured exports will have a critical influence on the growth rate of foreign exchange earnings.

The need for imports will be great. Substantial imports of raw materials will be required to maintain a rapid rate of industrial growth. Pressure to increase consumption and constraints on agricultural production are unlikely to permit any reduction of food imports. And a well-chosen program of capital goods imports could make a major contribution to modernization and the easing of constraints on growth in many sectors.

Provided the debt-service ratio (which is low at present) can be kept within manageable bounds, the main consideration in borrowing decisions is the value of the additional resources obtained in relation to the real cost of borrowing.

Within the past year, the government has addressed the relationship between the cost of foreign borrowing and the returns to investment, and has cancelled import contracts for several underprepared projects. Looking further ahead, some key determinants of the optimal level of China's foreign borrowing, including the rate of growth of manufactured exports and the efficiency with which capital and energy are used, are both ultimately dependent on reform of the economic system and improvement of economic management. But foreign borrowing could itself contribute significantly to the greater efficiency that

is needed to accelerate future growth.

Overview

China faces a difficult transition period in the 1980s when its options will be constrained from several directions. But the government has room for maneuver in two general areas. The first concerns the choice (via investment decisions) between present and future consumption, and the allocation of consumption between the poor and other groups. The second concerns the improvement of efficiency, especially in

the use of energy, materials and capital, through better policies and planning, system reform, and exploitation of opportunities for foreign trade, borrowing and technology transfer.

Policies in the second area have so far had mixed results, but their success in the future will substantially affect the government's freedom of action in the first. Using capital more efficiently, for example, would ease the tradeoff between present and future consumption. Energy and material conservation would likewise reduce the amount of foreign bor-

rowing needed to attain any given growth rate. And faster growth would enable more help to be given to the poor without a slower increase in the living standards of other groups.

The actual outcome will of course depend not only on the government's choices and policies but also on unpredictable factors such as weather, success in oil prospecting, growth of overseas markets and the availability of foreign capital on concessional terms.

The oil-exporting countries

This section considers the problems and prospects of two groups of oil exporters, capital-deficit and capital-surplus.¹ Both groups raised their GNP growth rates significantly in the 1970s. Both also have enormous opportunities for further rapid progress; but they face difficult policy choices in deciding how best to exploit them.

The capital-deficit oil exporters

The capital-deficit oil-exporting developing countries hold a place between the capital-surplus oil exporters and the oil-importing developing countries. They share common interests with the former in trying to improve the returns to their oil exports; and with the lat-

ter in having been net importers of capital in recent years and being likely to need foreign capital in the future.

Nature has allocated petroleum to a mixed group of countries. They range in population from tiny Trinidad and Tobago to Indonesia, the world's fifth most populous nation, which is also one of the oil-exporting group's poorest members (see Table 6.4). But they share common features as well. The principal one is a problem of development policy—the need to utilize petroleum export revenues to effect a transition to sustainable and equitable growth. They typically have the revenue to assist them significantly over the next 10 to 20 years. Such a period is not all that long for achieving fundamental structural change (Japan and South Korea notwithstanding), particularly in agriculture. A second common characteristic is the nature of the short- to medium-run difficulties of economic

management occasioned by the windfalls they received after the price increases of the 1970s.

The quadrupling of crude oil prices in 1973–74 led to a 120 percent improvement in the net barter terms of trade for the capital-deficit group, which allowed real import growth rates averaging 16 percent a year in 1972–76. Their average resource balance was 1.5 percent of GDP in 1972. It rose briefly to 15 percent in 1974 and then plunged to minus 3 percent in 1977, by which time only Indonesia and Trinidad and Tobago still maintained surpluses. On average, resource balances did not improve significantly until the second oil-price increase of 1979–80. The deficits were financed largely with credits from international capital markets, eagerly offered on the strength of oil reserves.

Most of the oil-exporting countries have close fiscal ties between the oil sector and government. Typically, over half of government

1. The capital-deficit oil exporters are shown in Table 6.1 under the category "oil exporters." The capital-surplus oil exporters are Iraq, Kuwait, Libya, Qatar, Saudi Arabia and the United Arab Emirates.

revenue originates from oil-rent taxation. Increased oil revenues precipitated particularly sharp increases in public investment. On average, the growth rate of investment rose from 9.2 percent a year in 1970–73 to 14.3 percent a year in 1973–77. Savings as a proportion of GDP initially jumped from around 22 percent in the early 1970s to 41 percent in 1974, but fell to 34 percent by 1977. Public sector savings followed a similar pattern, in part because nonpetroleum tax revenues expanded slowly. At the same time, public sector capital spending tended to be maintained at high levels in accordance with plans formulated immediately after the oil-price rise. In 1976–79, public sector deficits rose to historically high levels—for example to 16 percent of GDP in Nigeria in 1978–79 (see box overleaf).

Substantial increases in spending were largely directed at the provision of infrastructure and other basic services. The heightened demand for construction and other goods and services not readily importable was reflected in a rise in their relative prices as well as in general inflation. The real exchange rate relative to the dollar (the nominal rate adjusted for the country's rate of inflation relative to that in the US) appreciated between 1972 and 1977—for example, in Nigeria (50 percent), Indonesia (70 percent), Gabon (40 percent) and Ecuador (25 percent). These rises boosted public sector deficits by raising the costs of domestic purchases relative to oil revenues denominated in dollars. They also adversely affected non-fuel exports, which fell between 1970 and 1980.

The difficulty of scaling down expansionary public expenditure programs and the consequent public sector and trade deficits led to an “overshooting” pattern of

adjustment. Contractionary policies were adopted in Algeria, Ecuador, Indonesia and Nigeria in the late 1970s. In the case of Indonesia these included a 34 percent devaluation of the rupiah in late 1978. By mid-1980 over half of the resulting gain in competitiveness in manufactured exports and import substitutes had been eroded by domestic inflation as the real exchange rate reverted to its previous position. In the process of adjustment, private investment stagnated relative to the dynamic growth of the public sector. This phenomenon characterized several members of the group after 1974, as private savings were diverted to fund public investment programs.

Public industrial investment undertaken by oil-producer governments has tended to favor large, capital-intensive projects, frequently in hydrocarbons, but also in steel, fertilizer and cement. They involve long lead times; as a result, incremental capital-output ratios (the amount of extra investment needed to produce an extra unit of output) tended to rise over the 1970s, despite the shift of the nonoil economy toward construction and services, typically rather labor-intensive activities. In particular, agriculture is often neglected, although some producers (such as Indonesia) have

been relatively successful in channeling resources to their rural sectors.

As an anti-inflation measure a number of oil exporters subsidized domestic prices of petroleum products. As well as being a heavy drain on budgets, subsidies did nothing to encourage energy conservation. Growing domestic oil consumption promises to be a major factor limiting the growth and, indeed, the existence of net petroleum exports.

Outlook

The second round of oil price increases in 1979 and 1980 caused the current account balance of the capital-deficit group to shift from a deficit of \$20 billion in 1978 to a surplus of \$5 billion in 1979. Although the second oil-price rise was smaller in percentage terms than the first, its potential effect on oil producers may be rather similar. While the nonoil GDP of typical oil producers rose by about 40 percent between 1973 and 1978, the value of exports increased relative to GDP, and shares of oil in total exports and public revenues were higher. For some producers, the prospective windfall relative to GDP is therefore comparable.

The medium-term outlook is bright for the oil-exporting developing countries, at least as

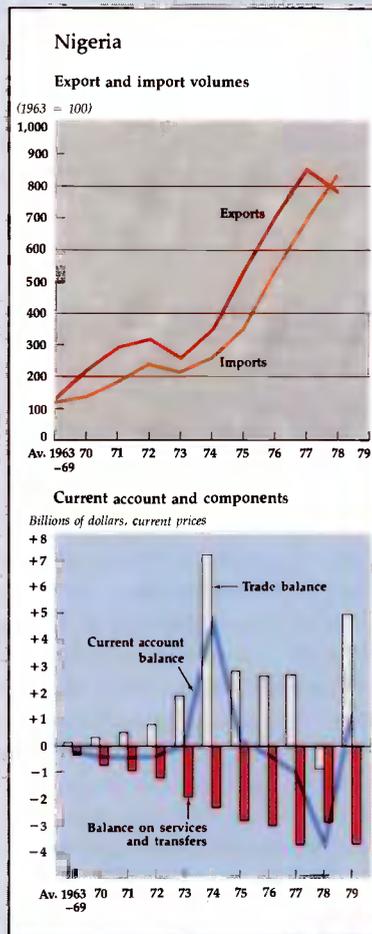
Table 6.4 Selected capital-importing oil exporters: country characteristics

Country	Real GDP growth rates (annual percentage)			Share of mineral sector in GDP (percentage)	Share of agriculture in nonmineral GDP (percentage)		Share of manufacturing in total exports (percentage)
	1960–73	1973–77	1976–79	1977	1970	1977	1977
Algeria	3.3	5.3	8.4	30	15	13	1
Ecuador	5.7	7.8	5.3	12	28	23	2
Indonesia	5.3 ^a	6.6	6.6	19	50	39	2
Nigeria	5.3	6.5	4.7	28	54	47	1
Trinidad	3.7	4.4	5.5	40	5	5	5
Venezuela	5.4	6.3	5.1	22	9	8	2

a. 1965–73.

Nigeria

In the early 1970s agriculture provided about 50 percent of GDP. The debt-service burden was light, and a rapidly developing oil industry was starting to relieve

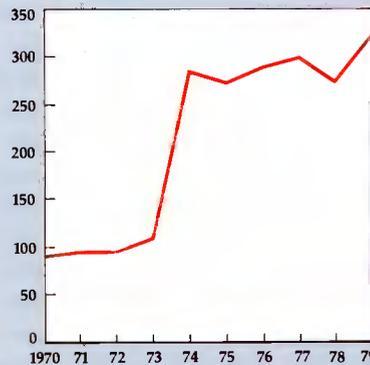


balance of payments pressures and boost government revenues. GDP increased at 7 percent a year between 1970 and 1973, considerably more rapidly than in the 1960s.

Higher oil prices transformed the pattern of the economy. By 1972 oil already constituted 83 percent of Nigerian exports. The first oil price rise led to a threefold improvement in Nigeria's terms of trade—a windfall gain equal to about 15 percent of 1974 GDP. Oil's share in federal government revenues rose from 67 percent in 1973-74 to 78 percent in 1976-77. Total public spending rose from less than 20 percent of GDP in 1970-73 to about 35 percent in 1974-77. By 1976-77 the federal budget was in deficit.

Nigeria

Terms of trade, 1970-79
(1971-73 = 100)



Government capital spending increased from 2 percent of GDP in 1973-74 to almost 20 percent in 1975-79 (see figure). Federal, state and local governments together with public enterprises accounted for at least 70 percent of total domestic investment in 1974-77. Current spending emphasized social services, notably education. In 1960 the primary school enrollment rate was 36 percent; by 1976 it had risen to 60 percent and by 1985 primary education is expected to be almost universal.

Extra demand boosted inflation, and the exchange rate adjusted for Nigerian relative to US prices, was allowed to appreciate (by about 50 percent between 1973 and 1978). This contributed to the decline in the world market share of nonoil exports. The world market share of traditional exports declined by one-third, while the shares of nontraditional primary exports and manufactured exports declined by 44 percent and 71 percent. By 1976 the pressure of increased domestic absorption of resources led the current account back into deficit, and the country started borrowing heavily abroad.

Agricultural output did not rise appreciably during the 1970s and the urban-rural income differential rose from 2.6 in 1960 to 4.6 in 1977. People left the land for the urban areas or to go into nonfarm rural activities, notably construction.

Despite substantial slow-gestating investment in infrastructure, Nigerian GDP grew at an annual rate of 8 percent during 1974-77. However, the very large public sector investment program strained the country's administrative

far as the international environment is concerned. Oil revenues will provide rising foreign exchange earnings to meet investment targets. The oil exporters will also be able to borrow commercially to supplement their export earnings and to smooth out the short-term fluctuations in them. These countries are expected to remain moderate net capital importers, borrowing about 1 to 2 percent of their GNP in the 1980s.

The "new exporters"—Egypt

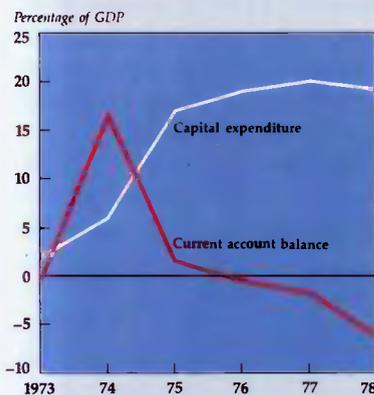
and Mexico—have been greatly affected by production increases and the 1979-80 rise in oil prices. Gains from terms-of-trade improvements during 1978-80 were equivalent to over 6 percent of Mexican GDP. By 1980 petroleum represented 45 percent of merchandise exports and 30 percent of federal revenue. Notwithstanding this, Mexico's current account deficit increased by \$2 billion (75 percent) between 1978 and 1979. Petroleum accounted for 18 percent of Egypt's GDP in 1980 and

65 percent of its merchandise exports.

However, for both new and old exporters, extraction and development policies still require formulation and coordination. Already Mexico, after two booming years marked by import expansion at 31 percent a year, has seen its real exchange rate appreciate as inflation rose to 30 percent in 1980. Capital inflows, responding to increased creditworthiness, undermined attempts at contractionary credit policy. As it has in a number

capacity. This, together with physical bottlenecks in the economy, produced some projects which were hastily conceived and resulted in some loss of resources.

Nigeria: government capital expenditure and current account balance, 1973–78



After the 1979–80 increases in oil prices, the government again raised its capital spending sharply (current expenditure less so). Attempts have been made to encourage investment in agriculture, and domestic petroleum prices have been raised. Nigeria's proven oil reserves are sufficient for only 15 years' production at current rates. But if domestic consumption goes on rising as rapidly as it did in the 1970s, it promises to reduce oil exports in less than 10 years.

of countries, exchange rate appreciation promises to reduce incentives for private investment in manufacturing and to substitute cheap imported capital goods for domestic labor, so contributing toward a dualistic pattern of development. Despite attempts to control costs through subsidies and price controls, similar problems have begun to beset Egypt.

The experience of a number of oil exporters suggests that overly rapid expansion of government

spending on domestic goods and services is likely to induce real currency appreciation and lead to the "crowding out" of the private commodity-producing sectors by the requests of the public sector. Devaluation cannot long restore domestic competitiveness without some moderation in domestic spending. The switching of demand onto domestic output is otherwise likely to result mainly in inflation. Priority should be given to removing administrative and other obstacles to the expansion and modernization of productive sectors; to rural development; and to the provision of basic services to the most needy. Particularly in the early stages of the "oil boom" care must be taken to avoid allocating oil revenues to "prestige" projects, which barely increase domestic capacity but drain domestic resources away from the private sector over a critical period.

To strike such a balance is not easy. It requires considerable prudence and foresight in determining the pace at which oil reserves should be exploited. And it needs to be complemented by trade, foreign borrowing and incentive policies that will turn each oil exporter's good fortune into a basis for sustained and diversified development.

The capital-surplus oil exporters

The six capital-surplus oil exporters—Iraq, Kuwait, Libya, Qatar, Saudi Arabia and the United Arab Emirates (UAE)—face adjustment challenges of a different kind. As a group, they vary considerably. Kuwait (population 1.3 million) has a GNP per person over seven times that of Iraq (population 12.6 million). The lifespan of their oil reserves ranges from over 100 years (Kuwait) to about 25 years (Qatar). But they have one key fea-

ture in common. To satisfy their import requirements, they need not produce as much oil as they actually do. They therefore have to make policy decisions on two sets of issues:

- how large a surplus to produce, and how to invest revenues;
- how to develop their domestic economies so that the benefits of oil survive its eventual exhaustion.

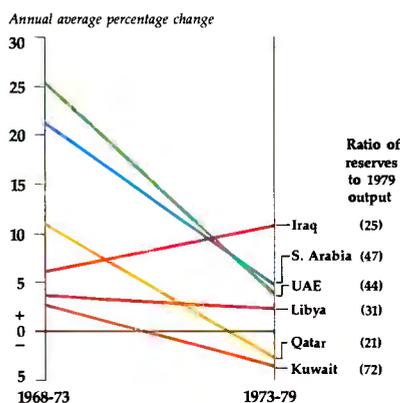
Production

In 1978, a year when the oil-exporting countries as a group ran only a small current account surplus, the six capital-surplus countries produced 17.5 millions of barrels a day (mbd) of oil, and exported about 96 percent of it. Their revenues totaled \$79 billion, of which all but a quarter was spent on imports. In 1980, following the 1979–80 oil-price increases, the capital-surplus countries appear to have spent only about half of their total oil revenues. This surplus margin, varying between a quarter and a half, represents what might be termed their discretionary production.

Since the first major oil-price increases in 1973–74, most of the capital-surplus exporters have restrained the growth rate of production significantly (Figure 6.1, overleaf). They have done so for three reasons: (1) to stretch the lifespan of their reserves; (2) to prevent oil prices from weakening; and (3) because the invested receipts from their discretionary production have not appreciated as much as the price of oil. These three points are connected, and together present the group with difficult policy dilemmas.

By the end of 1980 the external assets of the capital-surplus countries totaled about \$300 billion. Roughly half was deposited with banks in the industrial countries or in the Eurocurrency markets.

Figure 6.1 Capital-surplus oil exporters' oil production, 1968–79



Nearly all the rest has also been invested in the industrial countries, in equities, government securities, real estate, and so on. As major investors, the capital-surplus countries are affected by developments in the industrial world. Currency fluctuations, inflation and slow growth are all potentially harmful to their interests. For most of the 1974–79 period, their real rates of return on investments were low, perhaps negative. This experience underlined their stake in the health of the industrial economies; simultaneously it demonstrated that preserving oil can be more valuable than producing it. Striking the balance between these two considerations is the central production issue of the 1980s.

Diversification and development

During the past eight years, the capital-surplus countries have made considerable progress in expanding their economic base. Their task has not been so easy as it may at first sight appear. Certainly they have been spared some of the constraints on growth that other countries experience. But they have faced several difficulties of their own. With the exceptions of Iraq and Saudi Arabia, they are

sparingly populated (and many of their people did not have the skills and experience needed for rapid industrialization). All but those two countries have very unpromising soil and climate for agriculture. And all initially lacked the adequate infrastructural support that a major industrialization drive requires.

The single biggest advantage enjoyed by the capital-surplus countries was abundant capital for investment. Their investment ratio was already high in 1973; at 40 percent of their nonoil GDP, it compared with average rates of 26 percent in the middle-income countries. However, the capital-surplus group then raised their investment ratio to an average of 44 percent in 1975–78.

The results of this heavy investment have been impressive. Nonoil GDP rose by an estimated 15 percent a year in real terms between 1973 and 1978. Infrastructure was developed quickly, turning shortages of port facilities, for example, into capacity that should be ample for years to come.

This rapid development has spawned new types of problems, however. The six countries faced (and still face) a particular dilemma about the internal distribution of income. Their governments naturally want all the people to share in their patrimony and have been under popular pressure to ensure that this happens. At the same time, a simple division of the oil revenues in the form of transfer payments would make it hard to engender the motivation to work in construction and in newly established industries. Even where the motivation existed, the wages people would expect (coupled with initially low productivity) would make industries grossly uncompetitive in international terms.

Governments have sought to

minimize this tension in two ways. First, they have sharply increased those types of public spending that offer citizens benefits in kind rather than in cash. These have included more and better recreation facilities and subsidized housing. In addition, the provision of education and health services has been greatly expanded—with obvious long-term benefits for economic advance. Second, governments have encouraged foreign immigration so as to provide needed skills and to moderate the upward pressure on local wages.

Immigration has certainly helped to provide most projects with the necessary manpower, but it has also created some social tensions. Incomplete statistics suggest there were 1.5 million expatriate workers in the six countries in 1975; with dependents, they totaled 3.2 million, compared with a native population of 20 million. They were least important in Iraq; in the UAE, by contrast, there were 1.8 times as many immigrants as nationals in 1975 and they made up 85 percent of the UAE workforce. If the six economies continue to grow as fast as they did in 1974–78, even rapidly rising productivity and increasing participation rates of nationals in the workforce would not stop the number of migrants from reaching twice the 1975 numbers in 1985.

The consequences of this increase are mixed. From a purely economic point of view, the most obvious drain on the host countries is the money remitted by foreign workers. These remittances from the six countries increased from \$1 billion (1973) to about \$5 billion (1979)—a major sum for their home countries, but a relatively small outflow for the host countries (less than their official aid, for example).

The budgetary implications of a large immigrant presence have more important consequences. Since the six countries' governments all subsidize food, fuel, water and electricity, the real cost of foreign workers is much greater than their wages.

Largely for these social reasons, governments may become increasingly reluctant to accept further rapid increases in immigration. They are more concerned about boosting domestic productivity so as to maintain the pace of economic growth.

Inflation and investment priorities

Despite the easing of manpower bottlenecks through immigration, the rapid development of the 1970s increased inflationary pressures in the capital-surplus countries. Consumer prices rose by less than 5 percent a year from 1968 to 1973 and by 12 percent a year since then. Within the group, Saudi Arabia had the most rapid inflation—an average of 16 percent a year (1974–79) with peaks exceeding 30 percent in both 1975 and 1976. Since then, there has been a marked deceleration.

These figures for consumer prices do not reflect the nature of inflation in the six countries. Growing subsidies have held down the prices of basic consumer goods; most important of all, the inflationary impact of rapid growth has been concentrated not on consumer goods but on land values and construction. Urban land prices rose dramatically and buildings were erected with little regard to cost and ultimate demand. In the case of the UAE, this eventually resulted in a collapse of the property market. Inflation is thus another factor inducing caution on the part of the six countries' governments.

The final reason why growth is now slowing down is that many of

the development goals of the early 1970s have been met. Ports, roads and telecommunications have been expanded; administrative buildings, schools, universities and hospitals have been built or are nearing completion. The emphasis has shifted toward developing manufacturing industry and the human skills it needs. Saudi Arabia's current five-year plan is the most prominent example of this new priority. The other capital-surplus countries are moving in the same direction.

The choice of industrial projects is being influenced by the countries' particular mix of oil, abundant investment capital and scarce indigenous labor. Their comparative advantage obviously lies in the various branches of the petrochemical industry, liquefied gas plants and aluminum smelting. These are based on petroleum and gas, but are also capital intensive and embody advanced technology. They take time to establish, as do the complementary marketing arrangements. However, one methanol plant had already gone on stream in Libya in 1978, and a number of other large petrochemical and gas plants are being constructed in the region, especially in Saudi Arabia. An aluminum smelter has been built in the UAE; there are steel mills in Qatar and Iraq, with one planned for Saudi Arabia.

A shortage of domestic skills has meant that many of these big projects rely on expatriate technical and managerial staff. A second group of new industries is smaller in scale and more labor intensive and uses less complicated technology. Examples include metal engineering, building materials and electrical industries. They are providing opportunities for domestic entrepreneurs, and are geared more heavily to local markets. The growth and spread

of these industries during the 1980s will be a significant indicator of the six countries' success in preparing themselves for an oil-less future.

Oil-exporting countries' prospects

The patterns of development in the oil-exporting countries suggest that the 1980s will differ from the 1970s in several important respects.

- As Chapter 4 demonstrated, oil prices are likely to continue rising in real terms during the next 10 years. For a period of about three years in the mid-1970s, the oil exporters accepted both falling real oil prices and negative real returns on their financial assets. That combination is unlikely to happen again. The capital-surplus producers are gearing their oil output to suit their domestic priorities more than they once did, and these priorities suggest that production will be kept closer to desired levels.

- Oil-exporting countries are going to shift an increasing proportion of their production to domestic consumption. The oil-exporting developing countries in particular are increasing the intensiveness of their energy use as they industrialize and urbanize. They will therefore moderate the growth in their oil exports (and in some cases may actually start reducing exports before the end of the decade).

- The surge in migrant workers' remittances that characterized the mid-1970s is unlikely to be repeated on that scale. The capital-surplus countries are taking a less favorable view of immigration; the labor-intensive phase of their development (notably construction projects) is becoming less significant. Chapter 5 projects some increase in remittances during the 1980s, but at less than half the rate of the past seven years.

Nonmarket industrial economies: the "intensive strategy"

The nonmarket industrial economies,¹ having long appeared relatively insulated from changes in the world economy, were also profoundly affected by the events of the 1970s. The rise in oil prices drew these countries into tighter interdependence, with the Soviet Union supplying the other five with oil well below international prices. At the same time, all their external convertible currency accounts were deteriorating rapidly. Their combined trade deficit with the industrial market economies grew from about \$1 billion in 1971 to \$12 billion in 1975 but increased more slowly thereafter as the pace of their economic growth fell off. However, due to rapidly rising interest payments, current deficits continued to grow throughout the decade, particularly for the smaller countries.

With the exception of the Soviet Union, the nonmarket countries have been experiencing many of the same problems as the semi-industrial countries. Economic growth declined slightly in the 1970s but continued to be higher than in the industrial countries despite mounting external deficits and growing imbalance between energy consumption and domestic energy supply. Heavy borrowing more than doubled the amount of outstanding convertible currency debt between 1975 and 1979, to around \$65 billion. By 1980 the debt-service ratio based on convertible currency transac-

tions varied from 18 percent for the USSR to 95 percent for Poland.

While there are considerable differences between countries in this group, the pace of future economic growth in most depends heavily on their adjusting to higher energy costs, improving their agricultural performance and expanding their export capacity, particularly of manufactured products.

A changing strategy

For nearly 30 years after the second world war, most of the nonmarket countries pursued a development strategy they designated "extensive development." Based on high levels of investment, principally in heavy industry, this strategy was successful in producing rapid output growth and satisfying the essential needs of large parts of the population. It was less successful in promoting economic adjustment to a changing world economic environment. As a result, "extensive development" gradually exhausted its capacity for rapid growth and welfare improvements.

Until the mid-1970s, economic growth was due to increases in both capital and labor inputs, and rising productivity. During the 1970s, however, labor force growth declined. Productivity gains slowed down because of the low technical efficiency of much of the capital stock. Squeezed consumption, and a continuing emphasis on producing intermediate and capital goods at the expense of consumer goods, depressed individual incentives. Without some reduction of the

investment rate and determined efforts to expand and improve incentives by increasing the supply of consumer goods, it became impossible to reverse declining productivity growth.

Furthermore, agricultural output grew slowly while demand for high-value food products accelerated. The combination produced a sharp decline in food exports or rapidly rising food imports, at a time when manufactured exports were falling. In the case of the USSR, food imports rose from virtually nil during the 1960s to about one-quarter of all convertible currency imports during the late 1970s.

Today, most of the nonmarket countries describe themselves as shifting to a strategy of "intensive development," emphasizing increased efficiency and improvements in product quality. They aim to modernize the capital stock and boost labor productivity. The former implies heavy imports of technology, the latter requires increased consumption and a growing allocation of resources to the production of consumer goods.

If this strategy is to be successful, the nonmarket countries will have to develop closer ties with the industrial countries, resulting initially in increased trade deficits and more borrowing. Eventually, they expect exports to rise and dependence on food imports to decline. This will require them to produce a broad mix of competitive exports and to achieve a division of labor complementary to that of the industrial economies. Some of the nonmarket countries (Hungary, for example) have

1. For the purposes of this *Report*, the USSR, Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary and Poland.

already gone a considerable way down this road; others are finding the journey more difficult.

There are two areas in particular where major adjustments have to be made: energy and manufactured exports.

Energy

In contrast to the industrial countries, the nonmarket countries increased the energy intensity of their output during the 1970s; they now have an overall energy intensity more than twice that of OECD countries. This is the result both of a different composition of GNP and of widespread inefficiency in energy use. The Soviet Union has provided the smaller countries with subsidized petroleum, which has been allocated according to centrally determined physical output targets, without regard to scarcity value. And central control over aggregate demand resulted in the nonmarket countries' maintaining relatively rapid growth in the face of higher world energy costs and mounting balance-of-payments problems.

Most of the nonmarket countries suffered declining energy self-sufficiency during the 1970s. Only in the Soviet Union did the growth rate of primary energy production consistently exceed that of consumption. Energy (mostly crude oil and derivatives but recently natural gas and electricity as well) increasingly became the USSR's major export to the industrial countries, producing more than two-thirds of convertible currency earnings by the late 1970s. The USSR exported a similar quantity of energy to the smaller nonmarket countries, supplying about three-quarters of their imported energy needs.

The Soviet Union's petroleum output is unlikely to grow so fast in the 1980s—indeed targets have already been reduced below those

achieved in the recent past, and further cutbacks are likely. The future exportable surplus of natural gas is even more uncertain. Its size will depend on the USSR's being able to acquire the advanced technology needed to develop its gas resources, and on potential customers in western Europe being willing to finance its production and pipelines. The USSR would of course benefit from the convertible currency and higher prices it could obtain by selling to the industrial countries. But given the already critical energy shortages in several of its nonmarket neighbors, it may be obliged to sell a large proportion of its exportable gas to them.

Manufactured exports

The prospects for manufactured exports will be determined by three factors:

- how quickly the "intensive" development strategy succeeds in producing high-quality, price-competitive manufactured exports;
- the willingness of the USSR to continue the present pattern of subsidized energy supplies and other raw materials to the smaller nonmarket countries, thereby saving them the need to pay for such imports by increased manufactured exports;
- the maintenance of credit-worthiness of the nonmarket countries, so that they can borrow to pay for imported capital goods from the industrial countries.

Large existing debt (and its unfavorable term structure) means that some face poor debt prospects, even under the best of circumstances. The private market's risk assessment presupposes a *de facto* cross-guarantee among the nonmarket countries. If that supposition were to be altered, the outlook for individual countries would rapidly deteriorate.

The success of nonmarket countries in exporting to the industrial countries is further complicated by the fact that competition from the semi-industrial developing countries will be intense (especially if industrial countries' economies are sluggish). Even if the nonmarket countries establish technological and marketing advantages, they may have difficulty competing; at present wage levels, the semi-industrial countries enjoy significant cost advantages.

The nonmarket countries therefore face two difficult challenges in the 1980s. They have to adjust their development strategy to new internal and external constraints; and more specifically, they have to adjust to rapidly rising energy costs. Both adjustments are already overdue. If they are delayed any longer, growth is likely to be increasingly constrained. Some experts believe that the nonmarket countries will grow less rapidly than the 3.7 to 3.9 percent a year projected in Chapter 2.

Relations with developing countries

The nonmarket countries' trade and aid links are highly concentrated on a few socialist countries in the developing world (notably Cuba and Viet Nam). In the past, however, they have had close ties with certain other countries—for example, Egypt and Somalia. And the USSR continues to have significant trade and aid programs with India.

Given the difficult external position of most nonmarket countries, they are unlikely to become sizable markets for the manufactured exports of developing countries. Another barrier to trade is the absence of institutions providing capital to finance it. Neither

national banking institutions in the nonmarket countries nor the common banks of the Council of Mutual Economic Assistance (formerly "Comecon") provide medium- or long-term credits to developing countries on a significant scale. Those provided typically take the form of financing specific equipment or turnkey facilities and often incorporate "buy-back" agreements. These restrictive conditions have limited

the scale of commercial and semi-commercial financing in the past and will continue to do so.

Two countries, Cuba and Viet Nam, receive 96 percent of all financial assistance from the nonmarket countries. Excluding aid to Cuba and Viet Nam, aid as a share of the nonmarket countries' GNP is estimated at 0.02 percent for recent years. These countries do not consider that the United Nations 0.70 percent aid target

applies to them.

Other aid donors—and increasingly the developing countries also—are calling for more assistance from the nonmarket countries in worldwide development efforts. But on present prospects, they are unlikely to change the basic conditions prevailing in their commercial and aid transactions.

7 Human development: a continuing imperative

Some 630 million people will still live in poverty in the year 2000—even on the favorable assumption that High-case growth is achieved. But, as Chapter 2 described, under the Low case, the poor could number 850 million by then, 100 million more than now. Economic growth thus contributes to the alleviation of poverty in all developing countries, most particularly the low-income ones. But growth by itself is not sufficient, as the 1980 *World Development Report* made clear. Human development—measures to increase the productivity and incomes of the poor directly—must accompany and support the growth of production. In a harsher external environment, human development and the finance to support it may be at risk. This chapter discusses ways of protecting and enhancing human development programs; it also considers two related issues: the availability of food and the growth of population.

Human development and adjustment

Human development links the creation of productive work opportunities for the poor with the provision of goods and services to meet their essential needs. The elements of human development—health, education, nutri-

tion and fertility reduction—are closely interrelated. Improvements in one area can facilitate improvements in others and reinforce all aspects of development.

Human development depends on economic growth to provide the resources for expanding productive employment and basic services. In turn, these services—primary and vocational education, primary health care, nutritional and family planning programs and safe water supply—can make striking contributions to growth.

Since many human development programs are publicly funded, they are especially vulnerable when growth is threatened and budgets are under pressure. Brazil, India and Turkey, among others, have either cut back or slowed the growth of their social programs in part because of external constraints. For developing countries everywhere, the exigencies of adjustment over the next 5 to 10 years could undermine the commitment to social programs, whose full benefits are generally felt only in the long term—perhaps, in the case of reducing fertility or extending literacy, the lifetime of a generation or more. Yet looking to the future, sustained growth depends considerably on a continuous improvement in people's skills and energy. (This is particularly true of poor people,

since it is above all their potential that is being wasted.) Interrupting human development programs may be costly, though in ways that may not be immediately obvious.

The effects of some programs can, however, be felt much more rapidly and can complement adjustment efforts in the directly productive sectors. Training programs can be accelerated and made more responsive to the needs of business and trade. Higher food production can both substitute for imports and contribute to better nutrition. Specific health and nutrition programs can have strikingly rapid effects: a project to reduce anemia among Indonesian workers improved their productivity within eight weeks. The effects of malaria control can also bring quick benefits.

Human development programs that are sustained through the present difficulties will contribute to future growth—just as the ability to manage the present adjustment is built in large measure on past human development efforts. Cross-country comparisons show that countries with high literacy and life expectancy in 1960 tended to grow faster in the 1960s and 1970s. So, too, a country's capacity to respond to the changing and uncertain environment of the 1980s—to pursue successfully the "outward orientation" described in Chapter 6—will depend critically on the

skill and flexibility of its labor force and managers.

Adjustment constraints and social programs

When a country must use more of its resources to meet external demands, and particularly when adjustment requires at least a period of retrenchment, pressure on public-sector finances is likely to arise.

The recurrent costs of social programs, especially salary costs, tend to make them a prominent and therefore vulnerable part of government budgets (Table 7.1). Even though their impact on productivity may far exceed some projects financed through capital budgets, they may fall foul of the erroneous notion that only spending on physical capital raises future incomes. Their impact is often less tangible than that of

other programs, especially when their benefits are felt in remote rural areas and by "constituencies" (women and children, for example) with little political clout. Social programs, moreover, compete with other sectors for skilled (and often scarce) administrators and technicians. In countries like those of sub-Saharan Africa with few trained managers, personnel may be as serious a constraint as finance.

There are no simple rules by which to allocate resources between human development programs and other productive activities. Much depends on how intensively the various programs use the resources which have become scarcer—energy and foreign exchange. Their use in social programs depends on several factors, including the design of the program and how elaborate it is. For example,

- The costs of *primary education* (see box) are mainly teachers' salaries. Transport and other energy-related costs are generally insignificant. Even in developed countries, direct, nonsalary expenditure rarely exceeds 10 percent of primary education budgets.

- *Primary health* programs (see box, page 100) use more foreign exchange: their effectiveness can be sharply reduced when foreign exchange is short.

- *Rural water supply* systems vary considerably in their use of foreign exchange. Village hand pumps use little or none; diesel pumps depend on it heavily. However, water supply systems can be designed to minimize energy consumption and even produce some energy by recovering methane.

There is no reason to single out social programs for cuts during an adjustment period. In many cases, however, budgetary constraints will force cuts in spending, and a share of this burden will fall on human development programs. Then the issue becomes how best to maintain the services they provide.

Protecting human development programs

If financial stringency prevents the expansion of human development programs, they can often be made more cost-effective. The pattern of social spending in practice is frequently biased in various ways. Urban programs take priority over rural; curative, high-technology medicine has priority over preventive, low-cost health care; and university education develops more rapidly in relation to needs than primary education. Even if a government favors maintaining human development programs, they may still be unintentionally denied resources for administrative reasons. If budge-

Table 7.1 Central government expenditure on health and education, selected countries, 1977 or 1978

Country and country group	As share of total central government expenditure (percentage)		Per capita (1975 dollars)	
	Education	Health	Education	Health
Low-income				
Africa				
Burundi	20.6	4.7	6	1
Ethiopia	11.5	4.9	2	1
Malawi	11.1	4.1	4	2
Mali	21.6	6.2	5	1
Niger	23.3	6.0	6	2
Rwanda	15.2	4.8	3	1
Sierra Leone	16.0	7.6	7	3
Somalia	14.0	6.1	5	2
Tanzania	13.6	7.1	7	4
Togo	13.7	5.8	12	5
Upper Volta	15.6	5.5	3	1
Asia				
Burma	11.2	5.9	2	1
Nepal	11.1	5.5	2	1
Sri Lanka	11.6	5.9	8	5
Middle-income				
Bolivia	25.6	8.0	18	5
Ghana	19.5	7.4	11	5
Kenya	21.8	8.2	12	5
Philippines	13.2	5.1	7	3
Zambia	16.6	7.3	23	11

Source: IMF.

Paying for primary education

Teachers' salaries account for an average 95 percent of the operating costs of primary education and supplies are adequate (see table), nonsalary direct costs averaged

Allocation of public current expenditure on primary education, selected developing countries

(percentage)

Country group and region	Year	Teachers' salaries	Other direct expenditures
Low-income			
Madagascar	1975	98	2
Mali	1977	97	3
Malawi	1975	98	2
Middle-Income			
Africa			
Congo	1976	98	2
Ivory Coast	1976	90	9
Zambia	1978	90	7
Asia			
Thailand	1976	90	1
Latin America			
Argentina	1977	96	4
Dominican Rep.	1977	97	1
Ecuador	1977	98	2
Peru	1977	90	1
Europe, N. Africa			
Algeria	1974	97	1
Portugal	1977	92	2
Average		95	3

Source: UNESCO

primary education in developing countries: other direct recurrent costs are around 3 percent. For example, Bangladesh in 1979-80 devoted only 1.2 percent of recurrent primary education spending to nonsalary recurrent items, about .06 percent of central government current spending. In the Dominican Republic in 1977, nonsalary recurrent spending on primary education was 0.1 percent of central government recurrent expenditures (see table).

These data could understate requirements: many developing-country school systems are short of essential equipment and supplies, while in other cases, students must provide some items (like textbooks) themselves. However, for a number of industrial countries where equip-

only 6 percent of current spending at the primary level.

Allocation of public current expenditure on primary education, selected industrial countries, 1977

(percentage)

Country	Teachers' salaries	Other direct expenditures
Belgium	88	12
Denmark	66	5
Finland	62	5
Japan	79	5
Netherlands	81	2
Average	75	6

Source: UNESCO

tary pressure can help to correct such biases and make programs more cost-effective, the momentum of human development may not be lost.

The most vulnerable types of spending vary from country to country; but in many, nonsalary recurrent expenditure—on drugs, chemicals and chlorine for water

treatment and disinfection, textbooks, chalk and paper—has proved the easiest to cut. Yet when this happens, the effectiveness of the entire program is compromised—and the budgetary savings may be disproportionately small. It is in this area that external assistance can be particularly helpful during adjustment; the returns to funding these items may be large and the costs minor. More assistance of this kind would represent a new departure for many donors concerned about the direct recovery of costs and the "open-endedness" of commitments. It therefore bears repetition that recurrent expenditures are or can be highly productive; that costs can often be recovered in the long term (though indirectly) and that long-term international support for human development programs can (and should) be planned for.

The scope for low-cost programs has not been fully exploited. Experience suggests ways of doing so, even of turning financial pressure to advantage:

- In evaluating new investment, planners should consider the recurrent and foreign exchange costs. Donors should be more prepared to finance recurrent costs: in Malawi, where almost the entire development budget for health is aid-financed, the foreign exchange cost of maintaining medical equipment has often been neglected.

- Budgetary savings can be made by charging for certain services (where this is consistent with national policy). Some of the burden on public services can be relieved by allowing the private sector to provide for middle-class needs (for university education or certain kinds of health care, for example). In the Philippines, much secondary education is private (though generally inferior to

Paying for primary health care

Primary health care systems can use commercial energy and foreign exchange quite intensively. Referring patients to secondary and tertiary levels requires transport. So does the supervision of peripheral health workers and the delivery of drugs. Refrigerators for vaccines and small generators for rural hospitals require power. The secondary and tertiary levels of health care—essential to support the primary level service—require sophisticated medical equipment, energy for operating theaters, food preparation and refrigeration of blood banks and other supplies.

Country examples illustrate this dependence. Some 22 percent of Malawi's recurrent spending on health in 1979–80 was devoted to medical equipment and drugs. Plant and vehicle charges accounted for another 20 percent. Since spending on drugs, medical equipment, vehicle maintenance and fuel involves foreign exchange almost exclusively, perhaps 40 percent of Malawi's recurrent health budget requires foreign exchange. The

commercial energy costs of primary health care would be less; in a recent rural development project in Indonesia, vehicle operation and maintenance costs were estimated at 8 percent of total operating costs of the health program.

Drugs are typically a large share of health budgets—24 percent in Thailand (1979), 22 percent in Tanzania (1976), 30 percent in Ghana (1976–77). In most developing countries, these must be imported. Without reducing quality, savings in the drug bill may be possible through changes in procurement methods and local drug formulation. A recent study of drug procurement in Ghana found that in 1976–77 savings on drugs of as much as 20 percent could be made if over-prescription was controlled. A second study in Tanzania estimated potential savings of 30 percent by controlling over-prescription, central purchasing and use of generic rather than brand-name drugs. Indonesia has saved some 50 percent of costs through bulk procurement of essential drugs.

the public system); and in Egypt, a reduction in the supply of publicly provided contraceptives was offset, for the middle class at least, by private supplies. However, not all services can or should be paid for by recipients; regional and social inequities may be perpetuated if excessive emphasis is placed on cost-sharing.

- Costs can also be shared with local communities. In Ethiopia, people have, through peasant associations, given their time to build and maintain primary schools, and it is intended that they contribute to teachers' salaries. Some evidence suggests that shared and participatory services are also more responsive to local needs.

- The recurrent costs of providing a given level of service can often be reduced. Improved communications—via posts or telephones—may reduce travel costs.

So may a more rational use of existing transport services. In some countries the costs of public procurement of drugs can be reduced (see box).

- Personnel policies can also play a part. For many human development programs, their greatest asset is a skilled and committed staff. It is usually difficult to cut staffing levels, but greater delegation to paraprofessionals is frequently possible, as is more effective organization.

With the right priorities and administration, cheapness and coverage need not be in conflict. In China, for example (see box) it is estimated that annual spending on primary education is only \$20 per pupil and on health care only \$7 per person (of which \$4 is public expenditure) even though the health service covers virtually the whole population of 1 billion people.

Food and nutrition

Better nutrition is vital to human development. Higher agricultural production is, moreover, usually essential to raise the incomes of the poor. These two dimensions put food at the center of issues, as well as highlighting the perennial question of whether the world can produce and distribute enough food to feed its expanding population.

Agriculture has been given greater emphasis in recent thinking on development. While industrialization is critical to higher productivity and growth, in most countries it has been supported by broadly based agricultural progress. The 1979 *World Development Report* showed that agricultural success generates domestic demand for industrial products; supplies cheap food to industrial workers and raw materials for agro-processing; earns foreign exchange to finance imports of capital and intermediate goods for industry; and encourages labor-intensive industries in small towns and villages.

Chapter 6 of this year's *Report* stresses how difficult adjustment has been in countries that have neglected agriculture. Virtually all the sub-Saharan African countries whose recent growth has been slow have had a particularly poor record in agriculture. On the other hand, countries such as India or Ivory Coast, which have developed a solid agricultural base, can more easily adjust to external pressures.

However, success in agriculture does not automatically mean that food supplies are secure in the sense that food-deficit regions or households have enough to eat every year. In some countries with expanding agricultural production, the poor do not eat enough, whether the food is produced

Poverty and human development in China

China's economic structure and national income per person are similar to other low-income countries, but the physical quality of life of the bulk of the Chinese people is strikingly better than in most other low-income countries. From 1950 to 1979 life expectancy at birth increased from 36 years to 64. Starting at about the same level in 1950, the average low-income country improved life expectancy to 51 by 1979, while the average middle-income country started higher (48), but ended lower (61).

China's success in this area can be attributed in part to a concerted effort in several related and interdependent areas: basic education, health and nutrition, and population control. Mother and child health care and nutrition programs were, for example, widely available. These reduced infant mortality and hence the number of children needed to attain a desired family size. And by reducing the birth rate the pressures on health and education facilities were reduced.

Such programs also exist in other developing countries, but China has gone further than most in organizing its human development efforts. They have been closely integrated with the social mobilization begun with the Revolution in 1949: even family size norms are backed by party organizations and discussed as communal responsibilities. Every level of society, from the production team through the communes to the national level, plays a role in providing social ser-

VICES. Production brigades may finance the training of one or more "barefoot doctors" who both provide primary health care and often participate in the brigade's work as well.

State subventions pay for some of the programs, but participating groups also provide support and participate in decisions concerning them. Local finance has certain drawbacks—poor regions can afford only the most rudimentary facilities. Nonetheless, China's impressive record in human development has survived several major upheavals, particularly the Great Leap Forward (1958–60) and the Cultural Revolution

(1966–76), probably because the programs were financed largely from local resources.

Paradoxically, the income share of the poorest 40 percent of China's population—estimated at around 18 percent—is not very different from that of other low-income Asian countries. However, much of China's inequality results from regional economic differences. Within communes and cities, income inequalities are small, largely because property is collectively owned. Moreover, the poor in China are, as the quality of life indicators show, far better off than those at similar income levels in most other developing countries.

Basic indicators

Country and country group	GNP per person (dollars) 1979	Annual population growth rate (percentage) 1970–79	Adult literacy (percentage) 1976	Net primary school enrollment (percentage) 1975 or 1977	Life expectancy at birth (years)	
					1950 ^a	1979
China	260	1.9	66 ^b	93 ^b	[36]	64
Sri Lanka	230	1.7	85	62	[55]	66
India	190	2.1	36	64	[38]	52
Indonesia	370	2.3	62	66	[35]	53
Low-income countries	210	2.3	39	56	[37]	51
Middle-income countries	1,420	2.4	72	71	[48]	61
Industrial countries	9,440	0.7	99	94	67	74

a. Most 1950 data are estimated.

b. 1979.

domestically or imported. Since an adequate food supply at both the national and international level is clearly a precondition for food security, this section considers world trade in food. It looks at the impact on poor countries of price stability and reliability of supplies. And it considers questions of still greater importance—efforts to increase self-sufficiency and improve food distribution.

World food in the 1970s

Since the 1960s, and especially since the 1973–74 world food crisis, many observers have predicted that world food shortages

would gradually worsen. Some countries would be unable either to feed themselves or to afford necessary imports; hunger and starvation could become widespread in many low-income countries by the 1980s. Fortunately, this pessimism has not been borne out by events, although some serious problems have emerged.

Globally, food production has grown marginally faster than population. Consumption per person has been increasing in most parts of the developing world, with sub-Saharan Africa and parts of Asia the major exceptions (Table 7.2, overleaf).

Food prices have fluctuated considerably in real terms, but do not show a pronounced upward trend (Figure 7.1, overleaf). Some middle-income developing countries have increased their food imports (Figure 7.2, overleaf), but this has not generally reduced the security of their supplies. While there is no evidence that outright starvation has become more pervasive, nonetheless the number of malnourished people has probably increased and the position of particular groups and certain areas may have deteriorated seriously. Most of the undernourished live in the countryside.

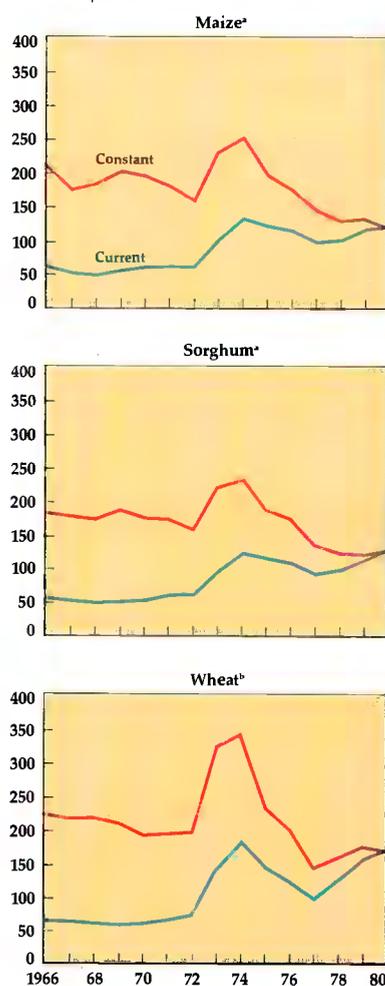
Table 7.2 Foodgrain consumption per capita, 1961–79

Country group and region	Kilograms per capita			Average annual growth rates (percentage)	
	1961-64	1970-73	1976-79	1961-64; 1970-73	1970-73; 1976-79
	World total	312.1	342.8	362.1	1.0	0.9
Developing countries	223.0	229.7	239.9	0.3	0.7
Low-income countries	207.1	202.7	202.4	-0.2	0.0
Sub-Saharan Africa	159.5	151.9	141.3	-0.5	-1.2
South Asia	215.6	211.8	213.5	-0.2	0.2
Middle-income countries	238.1	255.6	275.7	0.8	1.3
Sub-Saharan Africa	140.7	150.0	148.5	0.7	-0.2
East Asia	257.2	271.2	282.7	0.6	0.7
Latin America	235.7	244.0	249.1	0.4	0.3
S. Europe, N. Africa, Middle East	390.6	441.0	495.8	1.4	2.0

Source: FAO.

Figure 7.1 World grain prices, 1966–80

(dollars per metric ton)

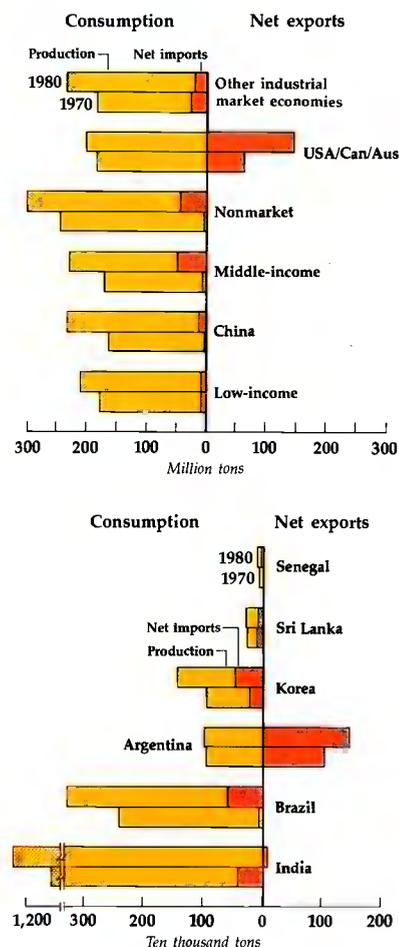


a. US No. 2 yellow, f.o.b. Gulf Ports.
b. US No. 1 Soft Red Winter, Export Price, Gulf.

These failings result not only from a shortage of production and effective demand, but also from a series of structural changes, both global and national. They include an increase in the complexity of international grain markets, growing price instability for grains, and logistical difficulties affecting both national and international grain-handling and distribution. External pressures on foreign exchange resources have played a role, as have internal political conflicts and natural disasters.

CHANGING MARKET STRUCTURE. Middle-income countries have substantially stepped up their imports and have become the world's largest market for cereal exports (Figure 7.3). Their growing need for imports has resulted primarily from the increasing affluence of urban dwellers, although in some of them food production has not matched the growth of population. In addition, livestock production has become more important, so that over a third of total cereal consumption (and well over half of total imports) have been used to feed animals rather than going directly to people. In several middle-income countries, the proportion of export earnings devoted to buy-

Figure 7.2 Foodgrain production, consumption and net trade by country group and for selected countries, 1970 and 1980



ing foodgrains has actually declined even as their overall dependence on food imports has grown—since other exports, frequently agricultural products, have grown faster. By the late 1970s only about one-fifth of their food import bill was for foodgrains, the rest being devoted to less basic commodities like meat, oilseeds, sugar, fresh fruit and vegetables.

The low-income countries have remained more dependent on food aid than the middle-income countries (Figure 7.4). That dependence has both advantages and

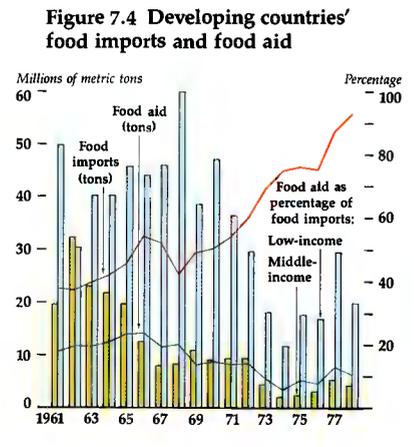
disadvantages. Food aid reduces the cost of imports, but it is not always dependable (it has been cut off for political reasons in the past); it tends to be squeezed at times of world shortage, when low-income countries need it most (during the 1973–74 food crisis, food aid fell); and it can, if not carefully handled, have effects on prices that discourage local production.

Many countries (several low-income ones included) are producing a larger share of their cereal requirements, but without necessarily improving nutrition for low-income groups or for those in predominantly subsistence-farming areas. In both low- and middle-income countries, the

poorest urban and rural groups are chronically undernourished. The worst affected are those living in rural areas where agricultural production fluctuates widely. Children and pregnant or nursing mothers bear the brunt when food is short. Seasonal variations (less food in the months immediately preceding harvests) and crop failures (because of weather or pests) are the main supply-related causes of actual starvation. In many low-income countries, these conditions are an ever-present threat to life. Yet the most common cause of undernutrition is a demand, not a supply, factor—a straightforward lack of purchasing power.

The structure of developing countries' agricultural trade has changed since 1973. Both agricultural exports and food imports have risen rapidly in many cases, implying greater specialization in production. While this increased reliance on trade brings obvious gains, it also increases countries' vulnerability to price fluctuation—especially when world food prices follow different cycles from those of other agricultural products.

There are other costs as well. The growth in international food trade has increased the complexity of the world food market and thus the cost of using relatively unsophisticated marketing methods. World Bank studies indicate that food imports cost developing countries almost \$1 billion a year more than necessary in the late 1970s, due to poor forward planning and market infrastructure, and a neglect of mechanisms like forward contracts to reduce the uncertainties of agricultural trade. Added to these costs are those associated with inadequate port and other transport and storage facilities; and poor or nonexistent early warning systems, resulting



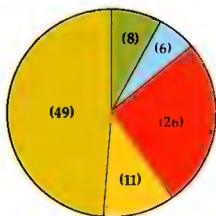
in expensive spot purchases, shipping charges and storage costs.

PRICE INSTABILITY. Grain prices have become less stable, primarily as a result of the pricing and trade policies of the industrial market and nonmarket industrial economies. These policies are mainly designed to protect domestic producers (see box on EEC agricultural policy, page 33), but they also insulate domestic consumers, especially of livestock products, from fluctuations in world food prices. Consumption in these countries is thus maintained, while the impact of any shortfall in world supplies falls on the consumers of livestock products in other countries and on residual buyers, mainly poorer developing countries. When harvests fail in importing countries—as they did in 1973–74, with a poor South Asian monsoon and an exceptional drought in the Sahel and the Horn of Africa—any deterioration in global supplies greatly complicates efforts to prevent starvation. Bangladesh suffered severe shortages and malnutrition in 1973–75, when its own food production was poor, the international market was tight, and it had to find extra foreign exchange to pay for more expensive oil.

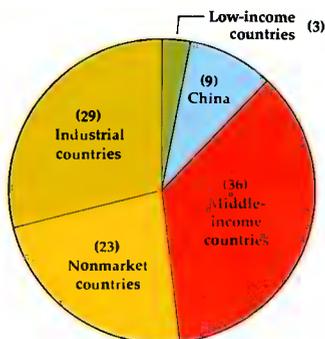
Figure 7.3 World grain imports, by country group, 1970 and 1980

(percentage shares)

1970 = 109 million tons



1980 = 228 million tons



The indirect effects of such a global shortfall may be equally serious. Food is generally so vital that available foreign exchange will be allocated to importing it, even if it means other imports must be reduced. If these imports are needed for a country's transport system—fuel or spare parts, for example—the indirect harm to agriculture may be considerable. An importing country's own food *production* may be as vulnerable as its food *imports*, especially if a global food shortfall coincides with the foreign exchange pressures of an adjustment period. In Sudan and Zambia, for example, successive budgetary cuts occasioned by foreign exchange crises have left the agricultural extension service, marketing agencies and farmers themselves without transport. Inevitably, their food production has then suffered.

FOOD EMERGENCIES. Food-related disasters, like those of 1973–74, strike suddenly and with little warning. This sets a premium on flexibility, responsiveness and good information if the world is to maintain its food security. Local crop shortages need not result in starvation if crop reporting is adequate and if the administrative and logistical capacity exists to respond quickly to a crisis. Where that has been the case—as with Pakistan's recent response to the Afghan refugees or Ethiopia's much-improved early warning system in the 1979 drought—relatively few people have died for want of food. Without reliable crop-reporting systems, the extent of any possible shortfall becomes a matter of judgment, with the danger that the shortage is either exaggerated or the response to it delayed, or both.

Some of the world's worst food

catastrophes have, of course, been man-made. Perhaps the most alarming recent examples have been in Kampuchea and Somalia. Whenever armed conflict uproots many subsistence farmers, widespread starvation is virtually inevitable. The world's ability to respond, even to cases such as these, has arguably improved, especially by dint of resourceful action by international agencies and voluntary organizations.

Lessons from the 1970s

It would be wrong to suggest that there is no danger to food supplies at the global level. Particularly worrisome are the propensity for market instability and the potential problems for developing countries when world food prices rise. Nevertheless, the world food crisis of 1973–74 now appears as a coincidence of misfortunes rather than a harbinger of many more crises. There is less danger of global shortages than of national and local problems requiring both national and international action; a failure by many countries to take advantage of their potential for agricultural production and growth; and disruptive policies by some developed countries. Sub-Saharan Africa in particular is in a critical situation; 26 countries, with a population exceeding 150 million, are currently reporting food shortages. What are the causes of such failings and what factors have prevented their resolution?

FOOD PRODUCTION. The outstanding success of the 1970s has probably been the improved productivity of small farmers. Their extra output has been the key to impressive growth in such countries as India, Indonesia and Malaysia. Audits of 80 World Bank-supported projects started

in the late 1960s and early 1970s in more than 20 countries show that those directed at small farmers are just as cost-effective a way of increasing food supplies as projects designed to benefit larger commercial farmers. Frequently, they are even more efficient.

A further success has been the expansion of irrigation. In the low-income countries, the irrigated area has expanded from 41 million hectares in the early 1960s to nearly 60 million hectares in the late 1970s. The benefits of increased irrigation and storage capacity are most obvious at times of potential crisis. The 1979 drought in India, which reduced foodgrain production 17 percent below the previous year's record level, was as severe as in 1966, when famine was widespread, and food prices rose 30 percent despite over 10 million tons of foodgrain imports. In dramatic contrast, 1980 saw no widespread famine. Foodgrain prices rose by only some 17 percent, causing less hardship in the rural areas than had occurred in 1966. This improvement was primarily a reflection of a higher average level of foodgrain production and, consequently, much higher levels of food stocks (see box on India, page 80).

One clear lesson of experience is that the strategy for increasing agricultural productivity and alleviating rural poverty must be specific to local conditions. Nevertheless, some problems are encountered quite generally:

- There are areas where few techniques are available for raising food production economically. This is particularly true in semi-arid zones like the Sahel. With only a limited area under irrigation, management and rehabilitation problems have been encountered and many areas abandoned. In higher rainfall areas, the

technology (improved seed varieties, fertilizer) is frequently available. But farmers are reluctant to adopt innovations whose reliability or effectiveness they (often rightly) doubt. Adaptive research is clearly a priority for many countries.

- Infrastructural improvements are urgently needed. Better roads, in particular, would encourage internal trade and assist the diffusion of market information and technical knowledge.

- Many countries pursue policies that discriminate against farmers. In every country, farmers—and particularly smallholders—require a credible framework of incentives if they are to increase their output. Incentives depend primarily on prices, but other factors are also important. In many countries, official prices exceed world prices at official exchange rates; yet delays in payment for crops, and costly inefficiencies in transport, storage and marketing significantly reduce the prices farmers actually receive. Food prices in the free market commonly exceed official prices, but are unstable and unpredictable and depend on private trade and distribution which is often officially discouraged. Government domestic procurement and distribution, on the other hand, is frequently inadequate to support prices at harvest time, and a major drain on the budget and scarce administrative resources. Erratic import procurement can also destabilize prices. And even when farmers do increase their incomes, there are often few consumer goods and services available in rural areas.

- Overvalued exchange rates, export taxes and industrial protection have tended to reduce real agricultural incomes, a syndrome typical of (but not exclusive to) oil- and mineral-exporting economies

such as Mexico, Nigeria and Venezuela.

- Inequitable land tenure arrangements can both reduce incentives (when, for example, tenants do not receive the benefits of innovation and increased production) and exclude the landless poor from productive employment and higher incomes.

- The discrimination against farming goes beyond the incentive system. Agricultural extension services are frequently underfinanced and inadequately staffed, often as the result of neglect rather than any deliberate intention to downgrade agriculture.

- Many countries wanting to give priority to agriculture have not adopted appropriate strategies. Frequently this results from a failure to appreciate the potential of the small farmer. Also, many projects directed at small farmers have been overdesigned, excessively complex and have not taken adequate account of the existing farming system: the fact that food crops are often grown by women, for example, is frequently overlooked.

SELF-SUFFICIENCY. How much food to import and how much to produce domestically is a key strategic question. There is no simple answer. But because of the perceived uncertainties about global supplies, many countries (South Korea, for example) have bought increased self-sufficiency at considerable economic cost. Others that could and should increase food production (see box on Zambia, page 78) have failed to do so.

National food self-sufficiency does not necessarily mean that more food is available to the poor. India, for example, became substantially self-sufficient in cereals in the late 1970s. This achievement, desirable though it was,

came largely from increased output in the northwest; in the poorer southern and eastern parts of the country, there has been less progress. At a minimum, an effective distribution system is needed to ensure that available food reaches groups in need.

In some cases, the aims of national self-sufficiency and food security for poor households can conflict. Countries that have encouraged import substitution of foodgrains (especially wheat) have sometimes discriminated against the production of foods (cassava, millet, sorghum), which have traditionally been produced and consumed by poorer groups. In many West African countries, for example, the urban middle class has increased its consumption of imported rice, partly because world prices have fallen and partly because it is quicker to prepare than traditional foods. Almost all the West African countries importing rice have therefore sought to increase domestic production, but at costs well in excess of import prices.

Stressing import substitution in foodgrains has sometimes caused neglect of other production opportunities, most obviously in export crops. In some cases, encouraging export crops (like cotton and jute) may discourage food production, but there are also instances where producing for the two markets can be complementary. Also, perhaps more fundamentally, increases in incomes from export-crop production have enabled smallholders to improve their nutrition. In yet other cases (Colombia and Tunisia, for example) low food prices based on food aid have smothered the incentive to increase domestic food production.

FOOD DISTRIBUTION. Almost all countries have some form of sub-

sidized, publicly managed food distribution. Such schemes are frequently the most effective way of reducing calorie and protein deficiencies among the poor who buy food, especially those in urban areas, and involve fewer administrative burdens than other fiscal outlays (see box). Buffer stocks, financial support for private stockholding and official price supports designed to moderate the volatility of prices have encouraged farmers and reduced consumers' vulnerability.

While these schemes are generally aimed at keeping food supplies reliable and cheap in urban areas, some governments (notably in South Asia) have attempted to extend them into

rural areas as well. Food-for-work programs and rural public works have had some success in reaching the rural poor; despite leakages to middlemen and other unintended beneficiaries, the distributed food still reaches hungry people.

One danger of public food distribution is that it undermines producer incentives; indeed there is a clear conflict between short-term consumer interests (low prices) and producer interests (high prices). Since grain, for example, cannot be stored indefinitely, stocks must be turned over regularly; where commercial markets are thin, this rotation has often disrupted the markets of domestic producers. Incentives for farmers have been reduced

while the people at greatest nutritional risk in isolated rural areas have hardly benefited at all.

In many cases, there are better and cheaper ways to get food to the poor. Some governments are experimenting with ration schemes and food stamp programs, with eligibility depending on income. Some experts would prefer to subsidize "self-targeting" commodities—those basic foodstuffs that are consumed mainly by the poor. But limiting subsidies to the poorest people alone carries a risk of losing political support for subsidies of any kind. And much depends on the efficiency of marketing and distribution systems. When, as in some African countries, the supply of subsidized food is limited, it tends to go to an increasingly small urban group—and rarely to those who need it most. The political costs of modifying these schemes may be substantial. External assistance can play a role in smoothing the adjustment path when this entails a change in subsidy policy.

Perspectives on the 1980s

There is no cause for complacency about the future. Foreign exchange and fiscal constraints in the developing countries are increasingly severe—just at a time when slow economic growth is highlighting the need to maintain affordable food supplies to the poor. If they fear that the United States might use its dominance in the world grain market for political advantage, developing countries could feel forced to adopt costly import-substitution policies. Political instability could continue to disrupt food production and consumption in some of the world's most vulnerable regions.

There are some positive features, however. The profitability of agriculture is probably relatively insensitive to energy costs,

Food subsidies: three cases

The benefits and costs of food subsidy schemes depend on several factors, including the income level of beneficiaries, the stage of development of the country (particularly its agriculture) and the vulnerability of the scheme to budget constraints.

- Food subsidies can contribute to a vicious circle of declining producer incentives and budgetary pressure. In Zambia, for example, officially controlled consumer prices for food have risen more slowly than other prices. From 1976 to 1980, a period of severe economic crisis (see box on Zambia, page 78), maize and fertilizer subsidies increased from 10 to 20 percent of the recurrent budget. Even so, producer prices have been below import prices. The subsidy has primarily benefited urban consumers, who are better off than most farmers, especially those in remote areas. Weak producer-incentives in turn have reduced the amounts marketed through official channels. A black market has developed where consumers pay prices far higher than import prices. (In 1981, however, the government increased maize meal prices by over 30 percent and reduced subsidies.)

- Food management in several South Asian countries features a complex of procurement, storage, rationed distribution, commercial imports, food aid, export

bans and numerous pricing and movement interventions. Although these systems are generally costly, the balance between their costs and benefits varies greatly with the country, the coverage of the system, the choice of subsidized foodstuffs, eligibility criteria, purchasing conditions and selection of ration shop locations.

In India, for example, where wheat, rice and coarse grains are sold in ration or fair-price shops, public intervention seems an effective way of reaching the poor, despite the administrative difficulties. Increases in procurement prices, to reflect rising import costs, have been passed on to consumers. As a result, the subsidy has been kept within manageable limits and budgetary pressures have posed little threat to its survival.

- Several middle-income countries have succeeded in directly attacking malnutrition through targeted food distribution systems. Colombia's food coupon scheme, introduced in the mid-1970s, is modest in scale, reaching about 140,000 households and costing less than 0.1 percent of the central government's current spending. The coupons are disbursed to farmers in poorer regions and can be redeemed for a limited variety of protein-fortified foods.

since agriculture is generally less energy-intensive than many other industries (although fertilizer and some irrigation systems will reflect higher energy costs). The industrial countries are increasingly recognizing the fiscal burden of agricultural protection. They may be persuaded to improve developing countries' markets for certain products (beef, sugar) and reduce market instability in grains.

THE ROLE OF DEVELOPING COUNTRIES. The next 10 years thus present an opportunity for long overdue reforms in agricultural policy. The many governments that are not now exploiting their countries' resources—and especially the latent productivity of small farmers—should reconsider their strategy. Improved incentives, adaptive research, higher investment, the elimination of inefficient marketing systems, the development of infrastructure and irrigation—these are among the principal elements of a strategy giving higher priority to agriculture.

Special attention should be paid to food security. In rural areas, this implies not only raising food production but also reducing its cost over the long term and improving ways of reaching the most vulnerable groups. In urban areas, it implies the allocation of foreign exchange for food imports if domestic supplies are insufficient; and the use of various kinds of government intervention to ensure that available food is evenly shared.

INTERNATIONAL POLICY. There are several areas where international policy could better support national efforts at agricultural adjustments.

- More open markets. Developed countries should refrain from protectionist policies that

tend to increase the instability of world food prices. The EEC's Common Agricultural Policy is one candidate for reform; but the USSR and Japan also pursue policies with similar effects on the developing countries. A new international wheat agreement with internationally coordinated information on grain reserves would also help stabilize markets.

- Enhanced food security. The recently concluded Food Aid Convention helps to assure developing countries of imports when domestic production is poor, but does not fully address the problem of price- and foreign-exchange instability faced by low-income countries. Such benefits could come from the International Monetary Fund's recent decision to extend financial assistance to countries facing cereal import costs temporarily above average, always assuming the money is used to import extra food.

- International assistance. While capital will still be needed for investment (especially in agricultural research and the costly areas of infrastructure and water development), support will increasingly be required for the reform of policies and programs. Where producer prices must be raised, to the potential detriment of consumers, international assistance (including food aid) can play an important role in ensuring that domestic pricing and subsidy policy contributes to greater food production and consumption by the poorest people.

- Disaster relief. An impressive network of international and voluntary agencies has done much to alleviate food calamities in many parts of the world. Their efforts deserve recognition and support. Disaster relief (and food aid) can remain effective if their politicization is avoided.

Population

It took 35 years for the world's population to rise from 2 billion to 4 billion; the next 2 billion is likely to be added in only 25 years. Most of that prospective growth is alterable only between narrow limits. But the extent of progress in development during the rest of this century will make a major difference to population growth in the next. What happens between now and 2000 will determine whether world population can stabilize at about 8 billion in the twenty-first century, or carry on growing more quickly to 11 billion or more. This will depend in part on government actions during the adjustment period—in particular, whether they can maintain and expand the programs that influence fertility decline.

The reasons why world population is, as a minimum, going to double can be briefly stated. Mortality is declining; current fertility is high; the marriage age in developing countries is still low; populations are young; and the number of women in, or about to enter, the childbearing age group is growing rapidly. The lower limit to a "stationary population" is set by making an assumption about the earliest date at which fertility might decline to "replacement" level. That level is defined as the number of births (about two children per couple) at which a population will just reproduce itself, given the level of mortality. Experience suggests that, in developing countries where fertility is high and where couples are currently having five or six children, a level of two children per couple is most unlikely to be reached in less than 20 years.

How quickly replacement-level fertility is reached obviously affects the size of the ultimate stationary population. For example,

if fertility in India were to decline to two children per couple in the next 25 years, the population would eventually stabilize at about 1.37 billion (double its present level) some 40 to 50 years from now. But if it takes 20 years longer to reach that fertility rate, the stable population would be 300 million larger.

Similar calculations for Pakistan (1979 population: 80 million) and Kenya (15 million) show that their populations would reach 200 million and 44 million, respectively, with "replacement fertility" achieved in 25 years, but 283 million and 87 million, respectively, if replacement fertility occurs only after 45 years. For developing countries as a group, the same calculation puts the eventual stationary population at between 6.7 billion and 10.3 billion. This is a measure of the urgency with which action to achieve replacement fertility should be pursued.

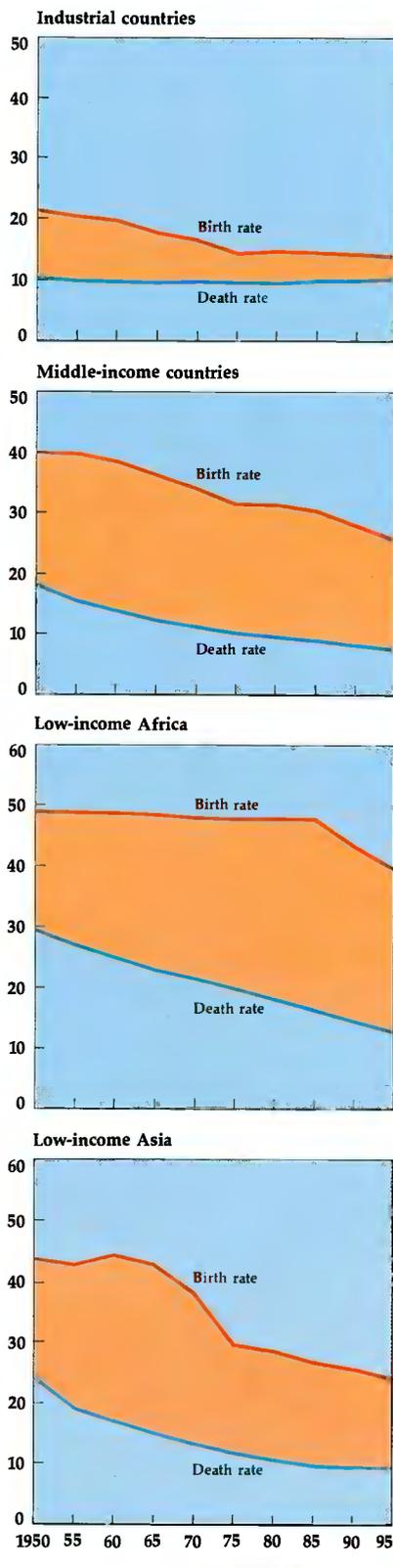
Recent history

In the low-income countries crude birth rates fell from 45 to 37 per thousand between 1960 and 1979, and death rates from 24 to 15 per thousand; over the same period in the middle-income countries, birth rates fell from 41 to 34 per thousand, and death rates from 15 to 10 per thousand. These are all signs of remarkable progress (Figure 7.5). However, in recent years the decline in death rates has been slowing down. In many countries campaigns against specific diseases such as cholera and malaria have been the main cause of falling death rates; further progress awaits improvements in nutrition, education, health services, water supply and sanitation. In some developing countries, death rates are now approaching their lower limit.

As a result, the rate of popula-

Figure 7.5 Birth and death rates for selected country groups, 1950–95

(numbers per thousand)



tion growth for developing countries as a whole has passed its peak—from about 2.4 percent in 1965 to 2.2 percent today. Only in Africa has population growth accelerated in the 1970s. In these countries, fertility has declined very little (indeed, in some countries, it has increased slightly) and mortality decline has not slowed down, at least until very recently. In some, population is growing at close to the theoretical maximum—nearly 4 percent a year in Kenya, for example, a rate at which it will double in 18 years.

A reduction of the birth rate would take time to affect the size of total population significantly. But its effects on human development spending would be felt more quickly. Calculations for Kenya show that if the total fertility rate were gradually reduced from 8, its present level, to 4 by the year 2000, the population in that year would be 19 percent smaller than if fertility were constant, but there would be 28 percent fewer primary school children.

The pattern of fertility decline differs from country to country: culture, forms of social organization, family structure and many other features peculiar to individual societies all play a part. Yet recent research has also confirmed some generalizations about the causes of slower population growth. Education; improved health conditions—not least improved nutrition—that increase children's chances of survival; urbanization; more employment opportunities, especially in the modern sector and especially for women: these are among the factors most commonly related to fertility decline in developing countries.

The poverty-population link

These findings add up to one central conclusion: poverty and

rapid population growth are inter-related. Attacking poverty (and its concomitants of poor health, lack of education and lack of status and job opportunities for women) is essential both for its own sake and because it slows down population growth. Conversely, rapid population growth contributes to poverty. A poor family often sees additional children as economically beneficial—and indeed to the family they may be. But they contribute to a growing pool of labor which, in a poor country, is hard to educate, house, keep healthy and provide with capital to raise productivity and employment. While growing labor forces contribute to higher total output, in conditions where other resources are scarce and underemployment widespread, they do not raise, and often diminish, the *average* output of labor and consequently average incomes.

While rapid economic growth helps slow down population growth, the availability of family planning services is also important (see box). Effective family planning programs both convey the message that family size is a matter of choice, and provide the means to make the choice effective. There is now widespread agreement that appropriate forms of social and economic change and the diffusion of the means of birth control are both necessary to reduce fertility.

In the countries where the great majority of the developing world's population lives, some progress is being made. In other developing countries, fertility is declining faster today than it did in the industrial countries when they were going through their demographic transition in the nineteenth and early twentieth centuries. In countries where fertility began to decline at the end of

Family planning programs make a difference

Experience in three countries illustrates the way development—higher incomes, better education and literacy, life expectancy, improved nutrition—complements family planning programs (see figure).

the women who might become pregnant practice contraception, a rate comparable to that of the United States—68 percent in 1976—and significantly higher than that in other developing countries—23 percent in India, 41 percent in Sri Lanka and 46 percent in Colombia.

Until recently, 28 was the recommended marriage age for men and 25 for women in cities, 25 and 23 in the countryside. In Guangdong, Jiangsu, Hebei and Shanghai, more than three-quarters of all marriages in the 1970s were at the recommended ages.

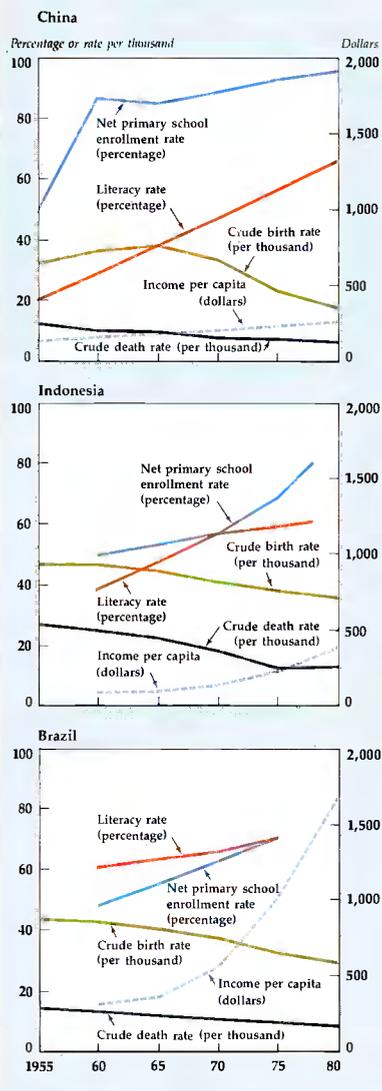
Women receive paid vacations after undergoing sterilization and abortion. In some provinces, couples pledging to have only one child receive financial allowances and priority in education, employment and housing. Couples having more than two children are penalized. Disincentives are mostly social—the community disapproves of those who do not conform to the birth planning policies.

Other factors increased the program's effectiveness. The high life expectancy in China and the low infant-mortality rate (about 56 per thousand) reduced the need for more children. Nearly universal primary education of women changed attitudes about family size and increased contraceptive use.

● In *Indonesia*, the crude birth rate fell from 41 in 1970 to 36 in 1979. A family planning program reached the lower socioeconomic groups and women with fewer children. The Indonesian program is directed centrally, but implemented locally. Traditional community councils (*banjars*) and community pressures promote family planning. The results are impressive—in Bali, nearly 49 percent of eligible couples used contraceptives in 1979–80, compared with a national rate of 27 percent.

● By contrast, in *Brazil* official support for family planning is not strong. Despite rapid economic growth, Brazil's population growth rate remained at 2.2 percent a year in 1970–79. Brazil is substantially richer than China, but the benefits of its economic growth, including health, nutrition and education, have been spread less widely. Brazil consistently falls below the world norm relating income levels to indicators of health and education. Although fertility has recently declined it is still higher than in China, as well as in Sri Lanka, another low-income country which has encouraged family planning.

Human development indicators:
China, Indonesia, Brazil



● *China's* crude birth rate declined from 34 in 1957 to 18 in 1979, and the population growth rate was only about 1.2 percent a year in 1980. The official family planning program was started in 1956, but only acquired impetus in the early 1970s, with the introduction of free contraceptives, delayed marriages, quotas, peer pressures and economic incentives and disincentives. The result: about 70 percent of

the nineteenth century (such as Britain, Austria, Italy, the Netherlands and the United States) it took about 50 years for crude birth rates to fall from 35 to 20 per thousand, an average decline of about 0.3 per thousand a year. Countries such as Chile, Sri Lanka and Malaysia, which in the early 1960s had crude birth rates of about 35 per thousand, have since then reduced them at a rate of 0.5 to 1.0 per thousand a year.

The role of external assistance

The pressures of adjustment, especially budgetary stringency, could lead governments to cut back on human development programs. This could compromise

precisely those aspects of development in low-income countries most conducive to poverty alleviation. Cutting nonsalary recurrent expenditures, in particular, can damage these programs seriously while saving little. Cuts, when unavoidable, can and should be made in ways that minimize the damage.

Many valuable human development-related initiatives such as biomedical research on reproduction, contraceptive development and health and family planning projects now languish for lack of support. The United Nations Fund for Population Activities (UNFPA), for example, is cutting its family planning assistance to India, the world's second most

populous country, because of China's needs—an invidious choice thrust on it by inadequate funding.

International assistance could protect and expand these programs in the difficult environment of the 1980s—by financing nonsalary recurrent expenditures and by assuring food supplies to poor countries, particularly to support the reform of agricultural policies.

Aid will continue to be critical for broad programs of human development. To future generations who inherit an overcrowded and undernourished earth, any dereliction on the part of the present generation will appear shortsighted, indeed irresponsible.

8 Overview

The main theme of this *Report* has been adjustment, both global and national, to promote sustainable growth in the world economy. It has described the interplay between national and international policies and their effects on development. This last chapter summarizes the principal findings and policy implications, bringing out some features of interdependence both among different groups of countries and among issues.

The international environment is most powerfully shaped by the behavior of the industrial countries and the main oil exporters. These countries today have a mutual recognition of each other's interests—and, increasingly, of the way their interests overlap with those of developing countries, especially the better-off among them.

It is the poor countries that emerge so vividly in this *Report* as being left behind by world growth, and facing a further deterioration in their prospects. They remain on the periphery of the expanding trade and financial links among industrial, oil-exporting and middle-income countries. Nevertheless, in some sectors, and especially if longer-term trends are considered, the richer countries have strong reasons for intensifying their cooperation with the poorer ones as well.

The nature of interdependence

Interdependence is not a new fact or a new idea. It has been given prominence in a number of recent reports and studies, notably those of the Brandt Commission, and OECD's Interfutures project. In the 1930s, countries learned how trade restrictions and competitive devaluations aimed at securing national advantage could quickly cause universal harm. The institutions and procedures established after the second world war—the World Bank and International Monetary Fund, the GATT, the United Nations agencies—were designed to create an environment for liberal trade and to promote international economic cooperation. Under their influence, the world economy expanded rapidly, especially in the 1950s and 1960s. International trade has grown still faster. Even under the strains of the 1970s the industrial countries refrained from trade measures which might have incurred retaliation.

Interdependence has been given new meanings in the years since 1945.

- The number of sovereign states has increased threefold, making the task of international cooperation both more necessary and more difficult.

- The growth of the semi-industrial countries has created

new centers of manufacturing and technological innovation. The developing countries are projected to contribute over a quarter of the increase in world production between 1980 and 1990, bringing their share of the total to 20 percent, compared with only 15 percent in 1970.

- The developing countries play an increasingly important role in world trade. They will account for nearly 30 percent of the increase in world trade between 1980 and 1990. They purchase 38 percent of EEC exports outside the Community; of this total, half are purchased by oil-exporting countries and half by oil-importing countries. The United States sells 36 percent of its exports to developing countries; a third of these go to the oil-exporting and two-thirds to the oil-importing countries. For Japan the relevant figures are 46 percent to developing countries, with 14 percent going to oil exporters and 32 percent going to oil importers. In manufactures trade as a whole, the industrial market economies had a surplus of \$34.5 billion with the developing countries in 1978.

- The developing countries increasingly act as an "engine of growth" for the rest of the world. While the main transmission of economic activity is still from the industrial to the developing countries, the reverse effects are not

negligible. Some estimates suggest that an extra percentage point on the growth rate of developing countries would raise industrial countries' growth by about 0.1 to 0.2 percent. Another study calculated that, by sustaining their imports in the mid-1970s while the rest of the world's slowed down, the middle-income countries had an impact on the industrial countries equivalent to a significant reflation of the economy of the Federal Republic of Germany. They prevented the recession in the industrial world from becoming even worse than it was.

• Banking links have become closer. The *Report* has dwelt on the role of trade and finance in making international payments for energy. The health of international banking, with its growing exposure in the middle-income countries, depends on those countries' export prospects to a far greater degree than it did a decade ago. In addition, Far Eastern, Latin American and Arab banks now have significant roles in the world banking system.

Though interdependence has strengthened the ties between industrial and developing countries, a particular responsibility for global prosperity rests on the industrial countries. Their growth depends on their ability to master domestic macroeconomic problems, to curb inflation, raise investment and productivity, and become more economical in their use of energy.

None of these tasks is made more difficult by the dynamic effects of international trade on their own economies; on the contrary. Imports from developing countries help them to contain inflation. If the industrial countries were to become more protectionist, they would reduce the exports and thus the creditworthiness of many developing coun-

tries. This in turn would reduce the ability of developing countries to borrow, to grow, and to import from the industrialized world. No group of countries would gain; all would lose from slower growth. Similarly, the pricing and production decisions of the capital-surplus oil exporters, together with their internal development and its effects on their imports and their lending, will strongly influence the world economy.

Growth in the 1980s will probably be somewhat slower than was feasible in the era of cheap energy; but concerted efforts to ease bottlenecks—of energy, finance, skills, food and raw materials—will help to ensure that even the slowest-growing countries of the 1960s and 1970s can make greater progress.

In energy and food in particular, all countries share an interest in raising production in developing countries: here there *is* coincidence between the concerns of industrial and low-income developing countries, as well as those of the middle-income countries. Population growth also, which is intimately linked to development, will affect all countries. Wherever it occurs, it puts pressure not only on world demand for food and energy, but on the environment—air, soil and oceans—and all exhaustible resources. Ultimately, the future of humanity is at stake in the progress of development in the coming decades.

Developing countries in the 1970s and 1980s

The importance of the developing countries' own policies emerges clearly in this *Report*. Experience—not least that of the more populous oil-exporting countries—shows that even when external conditions are favorable,

development is still difficult. In many countries, domestic policies and performance had left much to be desired long before the external climate deteriorated. In several countries trade and foreign exchange policies, for example, have harmed the chances of manufacturing growth; sub-Saharan Africa has had a particularly poor agricultural record.

Nevertheless the international environment has had a major influence on their progress. Fluctuating commodity prices have affected domestic policies, enticing several countries into short-lived investment booms that have had to be followed by drastic economies in current and capital spending. And oil-importing countries had to cope with depressed markets for their exports, and deteriorating terms of trade in the mid-1970s which were only partly due to the higher cost of imported oil.

A number of the middle-income oil importers managed to sustain growth in the 1970s—they were able to increase their exports, reduce imports and borrow large amounts of commercial capital. For that growth to continue, the markets they sell to must remain open and continue to expand. In addition, the countries themselves will have to continue to seek out new products and new markets. Commercial borrowing is expected to go on rising; however, not all countries borrowed equally wisely, and some now face short-term liquidity constraints.

Among the low-income countries the record has varied. For most slower growth was the rule. Without finance to cover current account deficits, and with little capacity to increase exports in the short-run, they found the tighter external environment difficult. Immediately after the first round

of oil-price increases, aid—including that from OPEC countries—expanded considerably. But this expansion did not continue. The African countries had the slowest growth, most frequently from domestic rather than external causes; their GNP per person rose by only 0.5 percent a year in the 1970s. In several countries per capita incomes and food production actually fell. South Asia fared somewhat better, assisted by workers' remittances, several years of good harvests, and compared with the African countries, a relatively satisfactory record of domestic economic management and greater freedom from war and civil strife.

The 1980s began with a worsening of external conditions for the oil importers. Recession in the industrial countries has reduced their export prospects; current account deficits have increased in the past two years, this time by amounts closely matched by the increases in their oil import bills. There can be some confidence in growth expectations for most middle-income countries once recovery begins in the industrial world, but the outlook for low-income countries is unpromising.

There is no sign of current or future aid increases comparable to those which helped them through the mid-1970s. Workers' remittances will grow more slowly. Few will have easier access to commercial borrowing, nor will there be any rapid improvement in their export earnings. Adjustment by slower growth is likely to become more common. Only their own domestic efforts combined with increased aid can change the prospect of balance-of-payments crises and acute financial stringency early in the decade.

National adjustment: the oil importers
Most developing countries face a

difficult decade adjusting to such conditions. They must reduce their present balance-of-payments deficits to sustainable levels. Ultimately adjustment requires shifts in trade, domestic production and consumption; borrowing is a necessary instrument for investment to accelerate growth, and for gaining time for adjustment to take place. But countries that have borrowed to support unsustainable patterns of production, consumption and trade soon face the reckoning of excessive debt and forced macroeconomic contraction.

In the *Report's* comparative analysis of countries, little statistical relationship was found between the magnitudes of external shocks in the mid-1970s and subsequent rates of economic growth compared with the past; but this does not at all mean that external conditions are unimportant. As noted, in the mid-1970s additional capital was forthcoming for low- and middle-income countries; expanded trade was also important for the middle-income countries.

The analysis showed that the effect of external changes also depends a great deal on domestic policy responses and basic economic structure. It indicated above all the value of an outward orientation, which makes countries more rather than less able to cope with the external environment. Export expansion is not equally easy for all countries—low-income countries with one or two exportable commodities and modest manufacturing capacity obviously have less room for maneuver. Efficient import-substitution, reflecting international scarcities and comparative advantage, is also an important part of outward orientation.

Policies that favor development and growth—raising domestic

savings, improving the efficiency of the use of capital—also assist adjustment. The same is true of all policies that help to switch resources efficiently into tradeable goods and import substitutes. In fact in the poorest countries it is hard to distinguish between adjustment and development because so many of their problems stem from internal circumstances. When, on top of all their handicaps, the external environment deteriorates, the poorest countries suffer acute hardship. The task of remedying their long-standing deficiencies becomes more important than ever.

Human development

Human development programs are threatened by the austerity inevitable during a period of adjustment. However they provide the essential skills for long-term development, so governments need to be especially careful to avoid indiscriminate cuts. This places a premium on pursuing the programs efficiently, on finding ways to cut costs, and on spreading the benefits as widely as possible. External assistance has a valuable role to play in providing financial and technical support in times of difficulty.

Food and nutritional problems seldom derive from global food shortfalls; more often from local and seasonal supply variations, poor distribution systems, and a lack of effective demand. The underlying cause of hunger and malnutrition is that those who need food do not have the money to buy it. In food as in energy, the most intractable policy problems arise from the conflict between the desirability of high prices as producer incentives (and as curbs on consumption, in the case of energy), and their undesirability to poor people buying food and fuel. Countries have tried various

solutions, some successfully—but there are no easy ways out.

Today's population pressures are the legacy of inadequate development in the middle of this century. So, too, the heightened pressures of the twenty-first century will reflect today's failures. Except in an initial phase when mortality falls before fertility decline follows, rapid population growth results from failed development—failed human development in particular. The response required is active promotion of those features of development associated with fertility decline—education, improved health, advancement of women, modern-sector employment—and family planning programs. All these are at risk from the budget cuts made likely during adjustment in the 1980s.

Oil exporters

For the oil-exporting developing countries the rise in oil prices has obviously been a boon, but it has not by any means solved their development problems. Greater ease in the balance of payments and capacity to borrow has resulted. But many of these are large countries with large, rapidly growing populations—Indonesia, Nigeria, Mexico—and all the other problems faced by most developing countries, not least, a considerable presence of poverty.

The key policy need is to use oil revenues efficiently for making the transition to durable long-term growth. A factor in this will be domestic energy pricing itself; domestic consumption—often subsidized—is currently growing so fast as to cut into future oil exports. Policies must be found to improve incentives for investment in manufacturing and agriculture. The signals to the domestic economy given by exchange rate appreciation (caused by oil

exports) are often the opposite of what is needed in the longer run; and the close fiscal ties between the oil sector and governments make it easy to expand public expenditure and investment, which in many cases ought rather to be curbed. Excessive investment, not always in projects with high returns, recalls the problems of other countries experiencing commodity booms. The oil boom is longer-lived, but for most producers, not more than one or two decades at current rates of production and consumption.

Few of these countries have yet found a development strategy that promises not only industrial growth, but improved rural development, expanded employment and redistribution of incomes, the provision of basic services to the poor and limitation of population growth—the only path to lasting prosperity. Unlike the low-income countries, the oil exporters are much less hampered by shortage of financial resources to achieve these goals.

Global adjustment

The experience of the 1970s points to numerous lessons for development in the 1980s. The international environment can complement or thwart domestic efforts; in this *Report* that environment is described under three main subjects: trade, energy and international capital flows.

Trade

For developing and developed countries alike trade has a crucial role in growth and adjustment. The failure of the low-income countries to participate in the expansion of world trade is a principal reason for their disappointing performance in the 1970s. Their exports have not grown fast enough to match the rising cost of

oil and other imports. It is a story partly of their difficulty in expanding their supply of competitive exports, and partly of the obstacles to trade and low rate of growth in their export markets. Most of these countries still depend heavily on commodities, with little potential for exploiting the rapid growth in demand for manufactures. But even within commodities, the low-income countries' export prices have been eroded more than those of the middle-income countries. Lack of flexibility and adverse supply conditions—ranging all the way from inadequate infrastructure causing high costs to ill-advised export-taxation policies reducing producers' incentives—play a significant part.

It seems natural for the original producers to go in for processing and gain a larger share of the final value of goods made from their raw materials. Yet they are prevented from doing so by a combination of international and domestic factors. Internationally, escalating tariffs confront successively "higher" stages of production. However, the low-income countries have had the smallest share of such increases in exports as have been achieved. The reasons include marketing conditions; technical and other considerations which make processing at source more rather than less expensive for some commodities; and more general conditions of industrial efficiency. Processing is an industrial activity. It appears to be more efficient where manufacturing in general is more broadly established.

An industrial base is obviously even more important for establishing exports of manufactures. However, even where there are modern and potentially competitive manufacturing enterprises in low-income countries, their

export performance is frequently hampered by inappropriate fiscal policies and foreign-exchange regimes. At the same time, the would-be exporter often faces protection or the threat of protection, which inhibits investment and leaves the field to those who can better afford to take risks.

This appears to be saying that success breeds success. It does. But that is also inherent in the process of development; though it can happen, modernization and efficiency do not usually tend to break out in a single sector while the rest of the economy is backward. Rather, the gradual improvement of physical and human capital leads eventually to a point where growth can accelerate. With well-designed policies, this broad development can be accompanied, not just followed, by exports of manufactures. Such was the case in a number of middle-income countries which were poor themselves only two decades ago. The condition of the low-income countries is not immutable.

But the findings do imply that international measures to improve the trading prospects of developing countries will tend to benefit most the more advanced among them. The implication is not that such measures are without merit in their own right; on the contrary, reduction of trade barriers and other trade-enhancing measures are important—both to developing and developed countries. But the main lesson for most low-income countries is that the expansion and openness of markets are important as permissive factors, but ones that will not soon yield a major source of growth, except for those few with established manufacturing sectors, unless their development simultaneously advances in other directions.

Despite a number of problems,

on balance over the 1970s the international trading system did not become less open. An increased share of developing countries' trade with the industrial countries came under one sort or another of governmental "scrutiny" that was harmful to some countries or products, but a similar share came under various trade-creating arrangements, such as the GSP and offshore assembly provisions, which brought benefits to others. The danger in recent trends in handling trade policy issues stems from the increasing politicization of trade, which increases the risk that protection will take hold.

The most stringent remaining industrial-country import barriers are on agricultural products, processed materials and textiles. Developing countries tend to protect the same sectors as do the industrial countries, so their trade with each other is similarly limited. Nonetheless, trade among developing countries has expanded—mainly between and to the benefit of countries that have adopted more outward-oriented, nondiscriminatory trade policies.

During the 1970s, the world groped for ways to tackle the remaining trade barriers. The nontariff codes negotiated in the Tokyo Round are a beginning, but they are only a framework: one that can guide the development of suitable approaches but cannot provide the resolve or the political dynamic needed. That dynamic will have to come from the individual countries themselves, through their decisions to make the adjustments needed to restore their own growth. This would be facilitated by building the *gains* from trade into domestic and international decision processes. At present the "costs" are given far more weight. (Particularly, "in-

jury" in the safeguards code might be expanded into a *net* concept, including consumer gains; currently, it includes only producer losses.) The heavy costs of protection are rarely brought to public notice, and the political sensitivity to possible loss of employment through competitive imports is acute while employment gains from exports play a smaller part in government decisions.

The prospects for the 1980s are mixed. The economies of the middle-income countries will continue to expand rapidly if the trade environment remains as open as it is now. Their export expansion has resulted more from their own "push" than from the "pull" of world markets, and they have demonstrated considerable capacity to diversify. Their economies are becoming large enough to support economies of scale—particularly if they "open up" to each other.

The low-income countries face a more difficult future. A few negotiated agreements have brought them some modest benefits; but more rapid advance will depend considerably on their further development and policies toward exporting sectors. Experience shows that agriculture-based countries can, with proper incentive policies, diversify production and make valuable export gains. One possible area for exploration is "affirmative action" by the capital-surplus oil exporters to purchase more of their imports from developing countries generally, and the low-income countries in particular.

A major determinant of trade prospects for developing countries is whether or not the industrial countries maintain a reasonable rate of economic growth and of employment. But the effects run in both directions: there are gains from trade which

contribute to efficiency and growth. Indeed, the choice for the industrial countries is not to adjust or protect; the choice is grow or protect.

Energy

The pattern of energy use before the oil-price rise in 1973 was unsustainable. When the consumption of oil began to grow faster than additions to reserves, the stage was set for higher prices—even without deliberate action by the oil-exporting countries. Although the adjustment to higher prices has not been smooth, their effects have already been marked. In the industrial countries, growth of consumption has slowed. The amount of energy used for a unit of production has fallen significantly and is expected to fall further as further adjustments are made. In developing countries energy intensities cannot be expected to decline at all soon—given their growing need for commercial energy as development, urbanization, and the transformation of industry and agriculture all take place—even if energy efficiency improves, as it can.

Comparable adjustments on the supply side will also take place to ease energy bottlenecks in the coming decade. Investments in energy development—which because of the long lead times made little contribution to adjustment in the past decade—are now coming to fruition. In the 1980s changes in the composition of supplies are expected to be as important as changes in demand. While oil provided more than 60 percent of the additional energy supply in the 1960s, in the 1980s its incremental contribution will be about one quarter. Production of coal is expected to grow twice as fast as that of oil in the 1980s. Coal

will gradually replace oil as the world's main source of energy growth. Later, a significant increase in nuclear and synthetic fuels may also be expected. The speed of these demand and supply adjustments implies a continued increase in real energy prices, averaging some 3 percent a year between 1980 and 1990, though year-to-year changes will inevitably be erratic.

To date the energy transition has been managed relatively smoothly in the oil-importing developing countries, whose growth path was not substantially disrupted in the mid-1970s. A variety of factors combine to make the outlook for their continued progress more difficult in the 1980s. Reflecting the impact of higher oil import prices and lower exports, balance-of-payments deficits have risen to levels which cannot be sustained for long. The effects of higher domestic energy prices are also now being felt. In some energy-intensive sectors, such as manufacturing and transport, they could be pronounced.

However, there is little indication that, on their own, higher energy prices will prevent industrialization and a resumption of faster growth. There will be some changes in comparative advantage, and slower growth in the transition period. Policies to increase domestic energy supplies and to plan for efficient energy use will ease this transition.

For many poor countries the energy problem is the fuelwood crisis and spreading deforestation. It is a problem with wide ramifications: it affects not only their own physical environment and ecology, but that of the world as a whole and its climate. Fuelwood today represents one quarter of developing country energy consumption, and few tasks are

more urgent than the steps necessary to put its use on a sustainable basis.

The energy market is a global one; the development of additional energy supplies *anywhere* brings benefits to all countries. There is thus a strong incentive for all parties to help boost energy production in developing countries. Higher oil production in these countries could take pressure off international markets, in addition to diversifying sources of world supply; expansion of other energy sources reduces the demand for oil. No investments show a greater coincidence of the economic and strategic interests of the developed and developing countries.

International cooperation is needed to promote this energy development. Considerable resources are called for, and must come from the industrial countries and the capital-surplus oil exporters. The *Report* has argued that there are good reasons why international financial institutions should play a significant part in this process, borrowing in private capital markets for the purpose. Such measures would serve the triple function of promoting development, easing energy markets and recycling capital.

The other main components of adjustment in energy require actions from all oil exporters and from the industrial countries. It is widely agreed that there is a need for oil exporters to pursue more stable price policies. Price, however, depends on both supply and demand, and year-to-year fluctuations cannot be avoided. Since the largest share of demand comes from the industrial countries, it is important that they continue their own efforts to save energy and develop alternatives to oil.

Capital flows

Borrowing by developing countries has always been an important source of balance-of-payments support, permitting higher levels of imports and domestic investment to accelerate growth. In the 1970s, borrowing also served the crucial purpose of giving time for countries to adjust to changed conditions. It helped considerably to limit the immediate impact of terms-of-trade losses. The international capital market recycled the OPEC surpluses efficiently, particularly to middle-income developing countries. Bilateral and multilateral aid agencies responded well, at least at first, to the immediate needs of many low-income countries. Remittances from migrant workers in the Gulf States also helped. The second round of oil-price rises in 1979–80, however, has been accommodated with the help of short-term borrowing and use of reserves to a degree which is not viable for very long.

The projections in this *Report* indicate the continuing need for substantial external finance—commercial loans for the better-off countries, and (mainly) concessional loans and grants for the poorer countries. For the better-off, high interest rates will increase capital requirements if there is to be a substantial net transfer, and shorter maturities will call for more frequent refinancing.

The international capital market is capable of providing much of the required external finance. Commercial banks have had a smaller proportion of bad debts in their lending to developing countries than to industrial countries. As a group, developing countries are no less creditworthy today than they were a decade ago. The number of middle-income countries with short-term liquidity

problems has, however, increased, at a time when the banks may be beginning to be somewhat constrained for one reason or another: the balance of domestic and foreign loans in their portfolios, country-exposure limits, national regulation, risk perception or capital-asset ratios. The composition of borrowers and lenders may well change, but the private capital market is expected to continue to play a major role in recycling funds from the surplus to the deficit countries.

Nonetheless, there will be a need for national governments and international financial institutions to bear a larger share of the overall flow of recycled funds. The latter in particular can assist in lengthening maturities, in coordinating capital flows with adjustment needs and in cooperating with commercial capital markets.

Recycling would require less international support if the capital-surplus countries were to buy more from developing countries, and to lend and invest more in them directly. Banks and development agencies of the capital-surplus countries show signs of expanding their direct financing. In the same way that they have moved to take a larger share of the profits of selling oil, it may well appeal to them in the course of time to take a larger share of the profits currently accruing to banks in the industrial countries which borrow and on-lend oil revenues, if they are willing also to assume the management costs and bear the risks.

It is harder to see how the needs of the low-income countries will be met. The prospects for bilateral official aid are mixed, with some donor countries improving their performance, others cutting back. The nonmarket countries are still insignificant aid donors. The cur-

rent attitude of some industrial countries toward development assistance may limit the capacity of the multilateral institutions to play a larger role in concessional lending. And, mainly for political reasons, a large share of official aid goes to middle-income, not low-income countries.

For the low-income countries, the adjustment problem described in this *Report* has no short-term solution. Apart from immediate balance-of-payments needs, the longer-term tasks of investment and restructuring will require a decade or more of increased support with concessional funds. The time-scale is even longer for the very poorest countries, where the essential foundations of economic development—infrastructure, human capital, commercial networks, and effective administrative capacity at all levels—are not yet in place.

Agenda for growth

The *Report* has described how adjustment may take place internationally and nationally with the least damage to continuing development objectives. A summary of the results may be found in the *Report's* two projected scenarios for 1980–90. Under the High case, the middle-income countries grow at 5.6 percent annually in the 1980s, the low-income countries at 4.1 percent; under the Low case, they manage only 4.3 percent and 3.0 percent respectively.

The difference between the scenarios is not just one of growth rates, but a fundamental difference of outlook. In the High case, poverty is steadily pushed back in developing countries; world trade expands considerably; overall adjustment in the world economy is made easier. In the Low case, economic development slows down and poverty

affects ever-larger numbers of people. By the end of this century, the difference between the two cases amounts to some 220 million more absolutely poor people.

The main requirements to reach the higher scenario are not excessively demanding.

- Industrial economies have to grow 0.3 percentage points a year faster in 1980–90 than they did in 1970–80. That means their approaching 4 percent average annual growth in the second half of the 1980s.

- Combined with this higher growth, industrial countries should refrain from imposing any additional trade barriers; oil-importing developing countries' exports could then grow at rates comparable to those of the 1970s.

- The measures described to achieve a global balance between demand and supply for energy should result in an annual real increase in oil prices of no more than 3 percent over the decade as a whole.

- Aid to low-income countries should increase. Either industrial countries must increase their aid steadily and couple this with a considerable reallocation to low-income countries; or they must raise their aid more substantially (keeping the same distribution between low- and middle-income countries). Either way, the low-income countries need to receive some \$4 billion a year more (in 1980 dollars) than they do in the Low case.

- Developing countries should maintain their domestic savings rates at least at 1980 levels and improve the efficiency of their use of capital.

The various policies needed to ensure that adjustment is accompanied by rapid growth are stylized in the tableau (see box).

Each group of countries has to invest efficiently and raise or

Adjustment mechanisms

Countries	Trade	Energy	Capital flows
Oil-importing developing countries	Expand exports, including diversification of agricultural exports, and adequate incentives for exporters	Raise internal prices to encourage production and conservation Expand energy supplies	Borrow to cover balance-of-payments deficits and invest for structural adjustment
	Import substitution in line with international prices		
Capital-surplus oil exporters	Expand imports, especially from developing countries	Stabilize price policy Support assistance for developing countries' energy production	Increase aid to poor countries Increase direct lending and investment in developing countries
	Industrial countries	Expand imports from developing countries Avoid protection and make positive adjustments to expand trade	Conserve energy Switch to alternative energy sources Support assistance for developing countries' energy production
International policies	Measures to improve poor countries' gains from trade	International financial institutions assist developing countries' energy production	International financial institutions allocate aid to poorest countries and support recycling

maintain growth rates—this will be assisted by the adjustment mechanisms. The task of adjustment is made easier for each group of countries by complementary actions in energy markets, capital flows and trade, rather than by exclusive reliance on any one of them. Similarly, in each area of policy the actions of the main groups of countries need a degree of consistency.

Policy making in the 1980s may seem more difficult than in the 1970s. There may, however, be some compensating advantage in the knowledge derived from

analysis of adjustment in the 1970s and a better understanding of the workings of the world economy. In particular there will be more realistic expectations about the role and price of energy: the general dimensions of the energy transition are now accepted on all sides. With reasonable management, adjustment need not be harder in the next decade than in the last.

The experience of the past seven years shows that to a large extent the direction and coordination of adjustment policies can be guided by price signals resulting from

national action. Nevertheless, there are several areas in which governmental action and international negotiation is needed to reinforce existing institutional arrangements and to supplement markets. A number of these have been discussed in the *Report*. The most important for the poor countries is an increase in capital flows on concessional terms; they have no alternative form of adjustment except to slow down growth.

Major responsibilities lie with developing countries for improving domestic performance. Simultaneously, the richer countries of the world *must* tackle the necessity of higher aid levels for low-income countries by one

means or another, if poverty is to be attacked. Most of the other global policy requirements are in the joint interests of all countries; insofar as aid is used for investing in energy and food production in low-income countries, even that rebounds to the donors' benefit. The expansion of world trade will also benefit all countries; and the assurance of recycling will forestall unnecessary contraction in global demand.

The difficult world environment of the 1980s may make it all too easy to lose sight of the purposes of economic development. The most urgent of them is to further the struggle against poverty. The faster economic

growth that this *Report* judges to be attainable will provide the resources to tackle poverty directly. People and governments in developing countries must play their part in ensuring that this happens. Poor people must be reached by the education and health programs that have equipped others to raise their incomes, live longer lives and fulfill their potential. The slower economies grow, the greater the risk that those programs will be sacrificed for lack of finance. The vicious circle of poverty and slow growth will then be drawn round another generation. That is the price of failure. It is a price that need not be paid.

Technical appendix

Chapter 3

In this chapter, Tables 3.1, 3.2, 3.3, 3.4 and 3.7 are based on World Bank data. Most of the variables used in the tables are familiar concepts—like prices, volumes and shares. There are however a few less familiar variables whose operational definitions should be presented.

Variable definitions

The numerator of *higher prices as a percentage of increase of value* in Table 3.1 is the amount by which the 1970–80 inflation of the price level (in US dollars) increases the dollar value of the 1980 export volume. The denominator is, of course, the actual increase of dollar export value, which reflects price and volume increases. To be more precise, let C represent constant dollar indices of export volume, and V represent current dollar export values. The number following the letter designates the year—7 for 1970 and 8 for 1980. *Higher prices as a percentage of the increase of value* is then measured by the formula:

$$\frac{V8 - (C8/C7) \cdot (V7)}{V8 - V7}$$

The intuitive meaning of this formula can be seen if conceptually (a) Values are separated into Price times Quantity and (b) the Quantities are substituted for the Volumes. This gives:

$$(1) \quad \frac{Q8 (P8 - P7)}{V8 - V7}$$

which shows that the numerator is the price *change* multiplied by the 1980 export volume.

Export purchasing power in Tables 3.2, 3.3 and T1 and T2 is, as explained in the text, the dollar value of a country group's export receipts deflated by the export price index of industrial countries. The 1970 to 1980 increase of export purchasing power is then divided into a *volume component* and a *relative export price component*. The volume component measures the effect on export purchasing power of the 1970–80 change of export volume, with relative export price fixed at the initial (1970) level. The price component is the difference between the total increase and the volume component. Conceptually, it measures the change in the purchasing power of the 1980 export volume which results from the 1970–80 change of relative export price.

Operationally, export purchasing power is $V8/D8$ for 1980, and $V7/D7$ for 1970, where V is current dollar export value (as above) and D is the price deflator for the industrial countries' exports of all merchandise plus nonfactor services. The total change of export purchasing power (for example, the third row in Table T2) is, of course, $V8/D8$ minus $V7/D7$. The

"Volume component" is measured by

$$(2) \quad \left(\frac{C8}{C7} \cdot \frac{V7}{D7} \right) - \frac{V7}{D7}$$

The *relative export price component* is the difference between the total change and the volume component, which comes to

$$(3) \quad \frac{V8}{D8} - \left(\frac{C8}{C7} \cdot \frac{V7}{D7} \right)$$

Making again the conceptual substitutions of P times Q for values and of Qs for volumes, (2) and (3) can be transformed so as to bring out their intuitive meaning, into

$$(2') \quad \frac{(Q8 - Q7) P7}{D7}$$

for the volume component, or the effect of the volume increase, and

$$(3') \quad (Q8) \cdot \left(\frac{P8}{D8} - \frac{P7}{D7} \right)$$

as the effect of the relative export price change.

External data sources

In Table 3.5, the *Total value of imports* is from OECD, *Series B, Trade by Commodities*. Import value under GSP is from United Nations Conference on Trade and Development, *Comprehensive Review of the Generalized System of Preferences* (TD/B/C.5/63, dated 4/9/79).

The data in Table 3.6 were calculated from quantum indices

and current dollar value series from United Nations, *Monthly Bulletin of Statistics*, July 1980. Indices for one-digit categories were combined using 1970 trade values as weights.

Chapter 6

The analysis presented in Chapter 6 examines the adjustment experience of oil-importing developing countries during 1974–78. It decomposes changes in the trade account into price and quantity changes, comparing prices with their levels in 1971–73 and quantities with what would have happened had various trends of 1963–73 continued. This decomposition, though only one of several which might be chosen, can be used to compare country experience within a common framework and to make general concepts more precise.

In Table 6.2, the balance-of-payments effects of external shocks and modes of adjustment are

distinguished in the following way:

External shocks *equals* International price effects *plus* Export volume effects.

Modes of adjustment *equals* Structural adjustment (i.e., Export market penetration *plus* Import substitution) *plus* Additional real external financing *plus* Slower growth.

The details are explained using calculations shown in Table T3 for Kenya, one of the poorest middle-income primary producing countries, with a per capita GNP of \$380 in 1979.

External shocks

● *International price effects* are the sum of export and import price effects.

(1) *Export price effects*: the extent to which the purchasing power of exports was eroded by a rise in world prices more rapid than in the country's export prices, both measured from a 1971–73 base.

Movements in world prices are measured by changes in the unit value index of manufactured exports f.o.b. from developed countries, a procedure consistent with the deflation of world trade elsewhere in this *Report*. Kenya's export-price increases exceeded world-price increases for every year between 1974 and 1978. They reached a peak in 1977 and declined in 1978, reflecting movements in coffee and tea prices.

(2) *Import price effects*: the extent to which the country's outlays on imports were augmented by a rise in import prices more rapid than in world prices, both measured from a 1971–73 base. Kenya's import-price increases exceeded world-price increases for every year between 1974 and 1978 and averaged \$170 million or 5.7 percent of GNP over this period. In sum, Kenya suffered from adverse international price effects during the 1974–78 period, equal to an average 1.1 percent of GNP.

● *Export volume effects*: the difference between trend and hypothetical exports.

(1) Trend exports are derived on the assumptions (a) that world exports of Kenya's traditional primary export products and developing countries' exports of non-traditional products grew from 1971–73 at the same rate as in the years 1963–73 and (b) that the country maintained its 1971–73 shares in those exports. The underlying assumption is that a developing country's traditional primary exports compete against all suppliers in the world market whereas its nontraditional exports compete only against those of other developing countries.

(2) Hypothetical exports are derived on the assumption that the country maintained its 1971–73 shares in world exports of its traditional primary exports and in developing countries' exports of

Table T1 Nonfuel primary exports: changes of export purchasing power and export volume, by product category and by country, 1970–80

(change as a percentage of 1970 level)

Country group and variable	All nonfuel primary	Food and beverages	Nonfood agriculture	Metals and minerals
<i>Developing countries</i>				
<i>Low-income oil importers</i>				
Change of relative export price	-36	-28	-33	-61
Change of export volume	+84	+77	+92	+111
Composition of 1970 exports (percentage)	100	61	15	24
<i>Middle-income oil importers</i>				
Change of relative export price	-27	-17	-19	-52
Change of export volume	+81	+88	+35	+101
Composition of 1970 exports (percentage)	100	57	17	26
<i>Industrial market economies</i>				
Change of relative export price	-14	-8	-6	-33
Change of export volume	+80	+92	+80	+50
Composition of 1970 exports (percentage)	100	55	23	22

Table T2 Purchasing power of exports of manufactured goods, increase by major country group, 1970–80

Item	Developing countries			
	Oil importers			Industrial market economies
	Low-income	Middle-income	Oil exporters	
Percentage change of relative export prices	-33	-22	-8	-7
Total increase of export purchasing power (billions of 1978 dollars)	1.1	53.9	2.1	297.8
Effect of volume change	3.9	77.4	2.6	346.4
Effect of relative price change	-2.7	-23.5	-0.5	-48.6
Increase of export purchasing power as percentage of 1970 level				
Total (net) increase	26	194	61	76
Effect of volume change	90	279	75	88
Effect of relative price change	-64	-85	-14	-12

nontraditional products, with both the latter categories growing at their actual rates starting from 1971–73. The difference between (1) and (2) arises from a fall in the growth of international trade from 1971–73 onwards relative to its growth during 1963–73. Over the period as a whole, it averaged \$508 million less \$453 million, or \$55 million, equivalent to 1.8 percent of GNP.

● *External shocks* are the sum of international price effects and export volume effects. They averaged 2.9 percent of Kenya's GNP over the 1974–78 period.

Table T3 Balance-of-payments effects of external shocks and modes of adjustment: Kenya
(millions of dollars, 1971–73 prices)

Item	1974	1975	1976	1977	1978	Au. 1974–78	Au. 1974–78 (as percentage of GNP)
<i>I. External shocks</i>							
1. International price effects							
a. Export price effects	-88	-35	-132	-313	-116	-137	(-4.6)
b. Import price effects	206	65	85	215	278	170	(5.7)
Sum (1a + 1b)	118	30	-47	-98	162	33	(1.1)
2. Export volume effects							
a. Trend exports	436	468	504	544	588	508	
b. Hypothetical exports	423	418	471	464	492	453	
Difference (2a - 2b)	13	50	33	80	96	55	(1.8)
3. Total (= 1 + 2)	<u>131</u>	<u>80</u>	<u>-14</u>	<u>-18</u>	<u>258</u>	<u>88</u>	(2.9)
<i>II. Modes of adjustment</i>							
1. Structural adjustment							
a. Export market penetration							
(i) Actual exports	375	370	391	373	364	375	
(ii) Hypothetical exports	423	418	471	464	492	453	
Difference [(i) - (ii)]	-48	-48	-80	-91	-128	-78	(-2.6)
b. Import substitution							
(i) Hypothetical imports	635	681	717	790	858	736	
(ii) Actual imports	571	573	550	642	580	583	
Difference [(i) - (ii)]	64	108	167	148	278	153	(5.1)
Sum (= 1a + 1b)	16	60	87	57	150	75	(2.5)
2. Additional real external financing							
a. Real resource gap	314	233	112	171	378	241	
b. Trend resource gap	220	236	251	266	280	250	
Difference (2a - 2b)	94	-3	-139	-95	98	-9	(-.3)
3. Slower growth							
a. Trend imports	656	704	755	810	868	758	
b. Hypothetical imports	635	681	717	790	858	736	
Difference (3a - 3b)	21	23	38	20	10	22	(.7)
4. Total (= 1 + 2 + 3)	<u>131</u>	<u>80</u>	<u>-14</u>	<u>-18</u>	<u>258</u>	<u>88</u>	(2.9)

Modes of adjustment

- *Slower growth*: the difference between trend and hypothetical imports.

(1) Trend imports are derived on the assumptions (a) that income elasticities of import demand, estimated separately for fuel and non-fuel imports, remained at their 1963–73 levels and (b) that the growth of GNP starting from 1971–73 remained the same as in the years 1963–73.

(2) Hypothetical imports are derived on the assumption that the income elasticities of import demand for fuel and nonfuel imports remained unchanged at their 1963–73 levels, with GNP growing at its actual rate starting from 1971–73.

The difference between (1) and (2) arises from a fall in the growth of GNP from 1971–73 onwards relative to its growth during 1963–73. This averaged 0.7 percent of GNP, or nearly a quarter of the total adjustment, with a peak in 1976, reflecting the application of restrictive fiscal and monetary policy and import restrictions.

- *Structural adjustment* is the sum of export market penetration and import substitution.

(1) *Export market penetration*: increases in exports associated with an increase in Kenya's share of export markets from its 1971–73

level. It will be recalled that hypothetical exports show the consequences of maintaining 1971–73 market shares. The difference between actual exports (\$375 million in 1974–78) and hypothetical exports (\$453 million in 1974–78) is then attributed to market penetration. This was –\$78 million or –2.6 percent of GNP, the adverse impact of which almost equaled external shocks (2.9 percent of GNP). The losses were concentrated in nontraditional primary and manufactured exports—reflecting an increasing bias against exports in trade policy as well as the breakup of the East African Community.

(2) *Import substitution*: savings in imports associated with a fall in the income elasticities of import demand from the 1963–73 period. It will be recalled that hypothetical imports show the consequences of unchanged income elasticities. The difference between hypothetical imports (\$736 million in 1974–78) and actual imports (\$583 million in 1974–78) is taken to reflect import substitution. At \$153 million or 5.1 percent of GNP, import substitution was by far the dominant mode of adjustment in Kenya. This could be attributed to greater reliance on import restrictions and the increase in the use of Letter of No Objection privileges

which gave firms effective veto power over imports.

Structural adjustment (i.e., export market penetration plus import substitution) on average accounted for 85 percent of the balance-of-payments accommodation to external shocks during 1974–78.

- *Additional real external financing*: the difference between real and trend resource gaps.

(1) The real resource gap, i.e., the difference between the nominal values of actual imports and actual exports, corrected for the general rise in world prices; and

(2) the trend resource gap, i.e., that obtained by subtracting trend exports from trend imports, measured at 1971–73 prices.

Both resource gaps refer to merchandise trade alone and exclude nonfactor services. The difference between the real resource gap (\$241 million in 1974–78) and the trend resource gap (\$250 million in 1974–78) is additional real external financing, i.e., extra financing corrected for the general rise in world prices. It averaged minus \$9 million. Additional nominal financing did not therefore rise as rapidly as world inflation and Kenya essentially relied on domestic modes of adjustment to respond to external shocks during the 1974–78 period.

Bibliographical note

This *Report* has drawn on a wide range of World Bank work as well as on external research. Selected sources used in each chapter are briefly noted below, and then listed alphabetically. The World Bank sources include sector policy papers, ongoing economic analysis and research, and project, sector and economic work on individual countries. In addition, a set of background papers is commissioned for each *Report*; their primary purpose is to synthesize the relevant literature and Bank work. (Thus the sources cited in these papers are not listed separately.) Many of the background papers are issued as World Bank Staff Working Papers, which are available at no charge from the Bank's Publications Unit. The views they express are not, however, necessarily those of the World Bank or of this *Report*.

Selected sources, by chapter

Chapter 2

The basic projections shown in the chapter are the products of the World Bank's Global Framework. The data for this exercise are similar to those in the *World Bank Atlas, 1980* and the *World Tables*, second edition. For a discussion of the underlying assumptions for the projections, see Cheetham, Gupta and Schwartz, and World Bank (forthcoming).

The sensitivity analysis is the result of simulations undertaken with the Brussels Global Development Model, which is calibrated to the Bank's Global Framework. The Brussels model is also the source of the projected trade shares divided between North and South. This model is described in Waelbroeck and associates. The numbers living in poverty are based on the methodology developed by Ahluwalia, Carter and Chenery, applied to the current projections of income and population. For the methodology and results of the International Comparison project, see Kravis, Heston and Summers.

Chapter 3

Frank surveys a number of trade issues of particular interest to developing countries. Hughes and Waelbroeck synthesize a number of studies of the penetration of industrial-country markets by developing-country exports, and Havrylyshyn and Wolf analyze the evolution of South-South trade. Trade policy in developing countries is discussed in the 1979 *World Development Report*, in references cited there, and in Balassa (1980b). Wolf, Finger (1981) and Nelson analyze industrial-country policy. For analyses of the mechanisms through which industrial countries administer their trade policy, see Finger, Hall and Nelson; Verreydt and Waelbroeck; and Hughes and

Waelbroeck. Murray is a useful source on the Generalized System of Preferences, Yeats on tariff escalation, Bale and Lutz on agricultural protection and Finger (1975) on the offshore assembly provisions. Issues related to commodity processing will be reviewed in a forthcoming World Bank-Commonwealth Secretariat volume on the processing of primary commodities in developing countries. The potential value to developing countries of the new GATT codes are analyzed in the 1980 *World Development Report* and in references cited there. Useful sources on international trade dispute settlement mechanisms are Hufbauer and Shelton on export incentives and countermeasures and Merciai on safeguards. The table in the box on tariff escalation is from Yeats; in that on mineral investment, from Mikesell.

Chapter 4

The broad energy outlook—demand trends and supply prospects—for both the industrial and developing countries is reviewed in Choe, Lambertini and Pollak. Trends in domestic user-prices and energy-tax levels are discussed in International Energy Agency. The way in which energy prices affect consumption and, in turn, the relationship between income growth and energy demand has been thoroughly

investigated for the developing countries in Choe. Elasticities for the industrial countries are surveyed in Energy Modelling Forum.

World Bank (1980) discusses prospects for developing various energy sources in developing countries in the coming decade. Hughart reviews developing-country nonconventional resources. Hablützel discusses the production strategies and special concerns of the capital-surplus oil-exporting countries.

The "other energy crisis," the crisis in fuelwood, and its human and ecological consequences is the subject of Spears. Projects to help provide energy for the poor are reviewed in Noronha.

The impacts of higher energy prices on growth are investigated in Manne. Berndt and Wood's survey reviews empirical estimates from a range of studies of the ease with which other factors can be substituted for energy use in production. Ridker provides background on the sectoral impacts of higher energy prices.

The basis for estimating capital requirements for the developing countries' programs of energy development are discussed in World Bank (1980). Figure 4.7 is derived from Bechtel.

Chapter 5

Data on external finance are compiled by various international institutions. Those processed by the World Bank draw on its Debtor

Reporting System and its *Borrowing in International Capital Markets* as well as on the International Monetary Fund's *International Financial Statistics*, annual and quarterly reports by the Bank for International Settlements, and *Development Cooperation*, the annual review of the OECD Development Assistance Committee.

Both Bryant and Joshi analyze the macroeconomics of international adjustment. Bryant emphasizes the interdependencies of trade and capital flows and Joshi highlights potential market failures and areas for intervention. Fleming discusses the general issues of private capital flows to developing countries, O'Brien describes the evolution of relationships between private banks and developing countries and Hope analyzes the debt situation and its implications for future borrowing. Swamy reviews past trends and future prospects for labor migration and remittances.

Chapter 6

The shock-adjustment calculations are based on a framework of analysis pioneered by Balassa (1980a, 1981 and forthcoming). Portions of his work have also appeared in Balassa and Barsony, a report issued by the OECD Development Centre. The estimates in Table 6.2 have been adapted from those papers. The approach is extended in Mitra,

which also explores the role of savings and investment in the adjustment process. Table 6.3 is taken from the work of Bhalla. Descriptions of country adjustment have drawn extensively on World Bank country economic work and on Jaspersen, Liebenenthal and Wallich for oil-importing developing countries; on Gelb for capital-deficit oil-exporting countries and on Hablützel for capital-surplus oil-exporting countries. The material on nonmarket industrial economies is based on Schrenk.

Chapter 7

The main source for material on poverty, growth and human development is the 1980 *World Development Report* and the background material cited therein, especially Hicks, and Haq and Burki. The impact of the budgetary process on human development programs is discussed in Knight, especially the chapter by Meerman. The analysis of food production problems is based on a review of World Bank agricultural sector studies for several countries. Food distribution, especially its relationship to external economic pressures and potential conflicts with production concerns, is discussed in Clay (1981a and b), Chambers and Singer, and Lipton. Recent evidence on the determinants of fertility decline and its relationship to human development programs is in Birdsall.

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An asterisk (*) after a citation indicates papers prepared as part of the background work for this Report.

Annex

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Key

In each table, countries are listed in their group in ascending order of income per capita. The reference numbers indicating that order are shown in the alphabetical list of countries below.		Figures in the colored bands are summary measures for groups of countries. The letter <i>w</i> after a summary measure indicates that it is a weighted average; the letter <i>m</i> , that it is a median value; the letter <i>t</i> , that it is a total.		. . . Not available. (.) Less than half the unit shown. All growth rates are in real terms. Figures in italics are for years or periods other than those specified.	
Afghanistan	11	Hong Kong	92	Peru	57
Albania	60	Hungary	121	Philippines	51
Algeria	78	India	15	Poland	120
Angola	41	Indonesia	35	Portugal	87
Argentina	88	Iran	86	Romania	84
Australia	104	Iraq	115	Rwanda	17
Austria	102	Ireland	97	Saudi Arabia	116
Bangladesh	4	Israel	95	Senegal	40
Belgium	110	Italy	98	Sierra Leone	21
Benin	19	Ivory Coast	65	Singapore	93
Bhutan	3	Jamaica	72	Somalia	8
Bolivia	48	Japan	103	South Africa	81
Brazil	82	Jordan	70	Spain	96
Bulgaria	119	Kampuchea, Democratic	1	Sri Lanka	18
Burma	10	Kenya	37	Sudan	36
Burundi	13	Korea, Democratic Republic of	69	Sweden	113
Cameroon	49	Korea, Republic of	77	Switzerland	114
Canada	105	Kuwait	118	Syrian Arab Republic	64
Central African Republic	29	Lao People's Democratic Republic	2	Tanzania	25
Chad	5	Lebanon	71	Thailand	50
Chile	80	Lesotho	33	Togo	34
China	22	Liberia	45	Trinidad and Tobago	91
Colombia	62	Libya	117	Tunisia	68
Congo, People's Republic of	52	Madagascar	30	Turkey	73
Costa Rica	83	Malawi	16	Uganda	31
Cuba	76	Malaysia	74	Union of Soviet Socialist Republics	122
Czechoslovakia	123	Mali	9	United Kingdom	100
Denmark	112	Mauritania	32	United States	108
Dominican Republic	61	Mexico	79	Upper Volta	14
Ecuador	66	Mongolia	59	Uruguay	85
Egypt, Arab Republic of	43	Morocco	58	Venezuela	90
El Salvador	55	Mozambique	20	Viet Nam, Socialist Republic of	12
Ethiopia	6	Nepal	7	Yemen Arab Republic	39
Finland	101	Netherlands	107	Yemen, People's Democratic Republic of	44
France	106	New Zealand	99	Yugoslavia	89
German Democratic Republic	124	Nicaragua	53	Zaire	26
Germany, Federal Republic of	111	Niger	27	Zambia	46
Ghana	38	Nigeria	56	Zimbabwe	42
Greece	94	Norway	109		
Guatemala	63	Pakistan	24		
Guinea	28	Panama	75		
Haiti	23	Papua New Guinea	54		
Honduras	47	Paraguay	67		

Introduction

The World Development Indicators provide information on the main features of social and economic development. This edition generally follows the format used in previous years. But the country classifications have been revised to make them more useful for analysis, additional summary measures have been incorporated, and there is a new table showing expenditure on defense and the main social services.

The indicators in Table 1 give a summary profile of countries. The data in other tables fall into the following broad areas: national accounts, industrialization, energy, external trade, aid flows, demography, labor force, urbanization, social indicators, defense and social expenditure, and income distribution. Most of the information used in computing these indicators was drawn from the data files and publications of the World Bank, the International Monetary Fund and the United Nations and specialized agencies.

For ease of reference, ratios and rates of growth are shown; absolute values are reported only in a few instances. Most growth rates were calculated for two periods: 1960–70 and 1970–79, or 1970–78 if data for 1979 were not available. All growth rates are in real terms and were computed, unless noted otherwise, by using the least-squares method. Because this method takes all observations in a period into account, the resulting growth rates reflect general trends that are not unduly influenced by exceptional values. Table entries in italics indicate that they are for years or periods other than those specified. All dollar figures are US dollars.

Some of the differences

between figures shown this year and last year reflect revisions to historical series by the reporting countries. They also reflect revisions to the estimates of population on the basis of new information from surveys and censuses.

The country groups used in the tables are: 36 low-income developing countries with a per capita income of \$370 or less in 1979; 60 middle-income developing countries with a per capita income of more than \$370; 18 industrial market economies; 4 capital-surplus oil exporters; and 6 nonmarket industrial economies. A number of countries have been reclassified this year to improve the presentation.

Within each group, countries are listed in ascending order of income per capita, and that order is used in all tables. The alphabetical list on the opposite page shows the reference number of each country. Countries with populations of less than a million are not reported in the tables, largely for lack of comprehensive data. The technical notes for Table 1 show some basic indicators for 31 small countries that are members of the United Nations, the World Bank or both.

Summary measures—weighted averages, median values or totals—were calculated for the country groups only if data were adequate and meaningful statistics could be obtained. Because China and India heavily bias the summary measures for all low-income countries, summary measures are also shown for China and India and for other low-income countries. And because trade in oil affects the economic characteristics and performance of middle-income countries, summary measures are also shown

for oil importers and for oil exporters. The weights used in computing the summary measures are described in the technical notes relating to an indicator. The letter *w* after a summary measure indicates that it is a weighted average; the letter *m*, that it is a median value; the letter *t*, that it is a total. The median is the middle value of a set arranged in order of magnitude. Because the coverage of countries is not uniform for all indicators and because the variation around central tendencies can be large, readers should exercise caution in comparing the summary measures for different indicators, country groups and years or periods.

Readers should also exercise caution in comparing indicators across countries. Although the statistics presented are drawn from sources generally considered the most authoritative and reliable, some of them, particularly those describing social features and income distribution, are subject to considerable margins of error. In addition, variations in national practices mean that the data in certain instances are not strictly comparable. The data should thus be construed only as indicating trends and characterizing major differences between countries.

The technical notes should be referred to in any use of the data. These notes outline the concepts, definitions, methods and data sources. The bibliography gives details of the data sources, which contain comprehensive definitions and descriptions of concepts used.

The World Development Indicators are prepared under the direction of Ramesh Chander.

Table 1. Basic Indicators

	Popula- tion (millions) Mid-1979	Area (thousands of square kilo- meters)	GNP per capita				Average annual rate of inflation (percent)	Adult literacy rate (percent) 1976 ^b	Life ex- pectancy at birth (years) 1979	Average index of food production per capita (1969-71 = 100) 1977-79	
			Dollars		Average annual growth (per- cent)	1960-70 ^a					
			1979	1960-79		1960-70 ^a					1970-79
Low-income countries	2,260.2 <i>t</i>	33,778 <i>t</i>	230 <i>w</i>	1.6 <i>w</i>	3.0 <i>m</i>	10.8 <i>m</i>	51 <i>w</i>	57 <i>w</i>	105 <i>w</i>		
China and India	1,623.7 <i>t</i>	12,885 <i>t</i>	230 <i>w</i>	..	..	..	54 <i>w</i>	59 <i>w</i>	108 <i>w</i>
Other low-income	636.5 <i>t</i>	20,893 <i>t</i>	240 <i>w</i>	1.8 <i>w</i>	3.0 <i>m</i>	10.9 <i>m</i>	43 <i>w</i>	50 <i>w</i>	97 <i>w</i>		
1 Kampuchea, Dem.	..	181	..	..	3.8	..	..	..	..
2 Lao PDR	3.3	237	..	..	..	..	..	42	87
3 Bhutan	1.3	47	80	-0.1	..	..	..	44	100
4 Bangladesh	88.9	144	90	-0.1	3.7	15.8	26	49	92		
5 Chad	4.4	1,284	110	-1.4	4.6	7.9	15	41	91		
6 Ethiopia	30.9	1,222	130	1.3	2.1	4.3	15	40	84		
7 Nepal	14.0	141	130	0.2	7.7	8.7	19	44	88		
8 Somalia	3.8	638	..	-0.5	4.5	11.3	60	44	85		
9 Mali	6.8	1,240	140	1.1	5.0	9.7	10	43	88		
10 Burma	32.9	677	160	1.1	2.7	12.1	67	54	97		
11 Afghanistan	15.5	648	170	0.5	11.9	4.4	12	41	94		
12 Viet Nam	52.9	330	..	..	..	..	87	63	106
13 Burundi	4.0	28	180	2.1	2.8	11.2	25	42	105		
14 Upper Volta	5.6	274	180	0.3	1.3	9.8	..	43	93		
15 India	659.2	3,288	190	1.4	7.1	7.8	36	52	99		
16 Malawi	5.8	118	200	2.9	2.4	9.1	25	47	100		
17 Rwanda	4.9	26	200	1.5	13.1	14.6	..	47	107		
18 Sri Lanka	14.5	66	230	2.2	1.8	12.3	85	66	124		
19 Benin	3.4	113	250	0.6	1.9	9.2	..	47	97		
20 Mozambique	10.2	783	250	0.1	2.8	11.0	..	47	75		
21 Sierra Leone	3.4	72	250	0.4	2.9	11.3	..	47	87		
22 China	964.5	9,597	260	..	..	..	66	64	114
23 Haiti	4.9	28	260	0.3	4.1	10.9	..	53	90		
24 Pakistan	79.7	804	260	2.9	3.3	13.9	24	52	101		
25 Tanzania	18.0	945	260	2.3	1.8	13.0	66	52	94		
26 Zaire	27.5	2,345	260	0.7	29.9	31.4	15	47	90		
27 Niger	5.2	1,267	270	-1.3	2.1	10.8	8	43	89		
28 Guinea	5.3	246	280	0.3	1.5	4.4	20	44	86		
29 Central African Rep.	2.0	623	290	0.7	4.1	9.1	..	44	102		
30 Madagascar	8.5	587	290	-0.4	3.2	10.1	50	47	94		
31 Uganda	12.8	236	290	-0.2	3.0	28.3	..	54	90		
32 Mauritania	1.6	1,031	320	1.9	1.6	10.1	17	43	75		
33 Lesotho	1.3	30	340	6.0	2.5	11.6	52	51	100		
34 Togo	2.4	57	350	3.6	1.1	10.3	18	47	81		
35 Indonesia	142.9	1,919	370	4.1	..	20.1	62	53	103		
36 Sudan	17.9	2,506	370	0.6	3.7	6.8	20	47	105		
Middle-income countries	985.0 <i>t</i>	38,705 <i>t</i>	1,420 <i>w</i>	3.8 <i>w</i>	3.0 <i>m</i>	13.3 <i>m</i>	72 <i>w</i>	61 <i>w</i>	107 <i>w</i>		
Oil exporters	324.8 <i>t</i>	13,781 <i>t</i>	1,120 <i>w</i>	3.1 <i>w</i>	3.0 <i>m</i>	14.0 <i>m</i>	64 <i>w</i>	57 <i>w</i>	97 <i>w</i>		
Oil importers	660.2 <i>t</i>	24,924 <i>t</i>	1,550 <i>w</i>	4.1 <i>w</i>	3.0 <i>m</i>	12.2 <i>m</i>	76 <i>w</i>	63 <i>w</i>	113 <i>w</i>		
37 Kenya	15.3	583	380	2.7	1.5	11.1	45	55	92		
38 Ghana	11.3	239	400	-0.8	7.6	32.4	..	49	82		
39 Yemen Arab Rep.	5.7	195	420	10.9	..	17.8	13	42	95		
40 Senegal	5.5	197	430	-0.2	1.7	7.6	10	43	88		
41 Angola	6.9	1,247	440	-2.1	3.3	21.6	..	42	85		
42 Zimbabwe	7.1	391	470	0.8	1.3	8.4	..	55	100		
43 Egypt	38.9	1,001	480	3.4	2.7	8.0	44	57	93		
44 Yemen, PDR	1.9	333	480	11.8	..	..	27	45	106
45 Liberia	1.8	111	500	1.6	1.9	9.4	30	54	101		
46 Zambia	5.6	753	500	0.8	7.6	6.8	39	49	99		
47 Honduras	3.6	112	530	1.1	2.9	8.4	60	58	82		
48 Bolivia	5.4	1,099	550	2.2	3.5	32.4	63	50	108		
49 Cameroon	8.2	475	560	2.5	4.2	10.3	..	47	110		
50 Thailand	45.5	514	590	4.6	1.8	9.5	84	62	126		
51 Philippines	46.7	300	600	2.6	5.8	13.3	88	62	115		
52 Congo, People's Rep.	1.5	342	630	0.9	5.4	10.9	..	47	81		
53 Nicaragua	2.6	130	660	1.6	1.9	12.2	90	56	104		
54 Papua New Guinea	2.9	462	660	2.8	3.6	9.5	..	51	106		
55 El Salvador	4.4	21	670	2.0	0.5	10.8	62	63	113		
56 Nigeria	82.6	924	670	3.7	2.6	19.0	..	49	87		
57 Peru	17.1	1,285	730	1.7	10.4	26.8	80	58	88		
58 Morocco	19.5	447	740	2.6	2.0	7.3	28	56	83		
59 Mongolia	1.6	1,565	780	3.0	..	..	..	63	97
60 Albania	2.7	29	840	4.2	..	..	..	70	105
61 Dominican Rep.	5.3	49	990	3.4	2.1	8.4	67	61	94		
62 Colombia	26.1	1,139	1,010	3.0	11.9	21.5	..	63	119		
63 Guatemala	6.8	109	1,020	2.9	0.1	10.6	..	59	107		
64 Syrian Arab Rep.	8.6	185	1,030	4.0	1.9	12.7	58	65	145		

	Popula- tion (millions) Mid-1979	Area (thousands of square kilo- meters)	GNP per capita		Average annual rate of inflation (percent)		Adult literacy rate (percent) 1976 ^b	Life ex- pectancy at birth (years) 1979	Average index of food production per capita (1969-71 = 100) 1977-79
			Dollars 1979	Average annual growth (per- cent) 1960-79	Average annual rate of inflation (percent)				
					1960-70 ^a	1970-79			
65 Ivory Coast	8.2	322	1,040	2.4	2.8	13.5	20	47	102
66 Ecuador	8.1	284	1,050	4.3	..	14.7	77	61	102
67 Paraguay	3.0	407	1,070	2.8	3.1	9.3	84	64	109
68 Tunisia	6.2	164	1,120	4.8	3.7	7.5	62	58	118
69 Korea, Dem. Rep.	17.5	121	1,130	3.5	..	..	..	63	133
70 Jordan	3.1	98	1,180	5.6	..	..	70	61	89
71 Lebanon	2.7	10	..	..	1.4	..	..	66	86
72 Jamaica	2.2	11	1,260	1.7	3.9	17.4	..	71	98
73 Turkey	44.2	781	1,330	3.8	5.6	24.6	60	62	110
74 Malaysia	13.1	330	1,370	4.0	-0.3	7.3	60	68	112
75 Panama	1.8	77	1,400	3.1	1.6	7.4	..	70	102
76 Cuba	9.8	115	1,410	4.4	..	..	96	72	100
77 Korea, Rep. of	37.8	98	1,480	7.1	17.5	19.5	93	63	138
78 Algeria	18.2	2,382	1,590	2.4	2.3	13.3	35	56	75
79 Mexico	65.5	1,973	1,640	2.7	3.6	18.3	82	66	104
80 Chile	10.9	757	1,690	1.2	32.9	242.6	..	67	95
81 South Africa	28.5	1,221	1,720	2.3	3.0	11.8	..	61	102
82 Brazil	116.5	8,512	1,780	4.8	46.1	32.4	76	63	115
83 Costa Rica	2.2	51	1,820	3.4	1.9	15.4	90	70	110
84 Romania	22.1	238	1,900	9.2	-0.2	0.8	98	71	146
85 Uruguay	2.9	176	2,100	0.9	51.1	64.0	94	71	96
86 Iran	37.0	1,648	..	..	-0.5	..	50	54	109
87 Portugal	9.8	92	2,180	5.5	3.0	16.1	70	71	77
88 Argentina	27.3	2,767	2,230	2.4	21.7	128.2	94	70	119
89 Yugoslavia	22.1	256	2,430	5.4	12.6	17.8	85	70	116
90 Venezuela	14.5	912	3,120	2.7	1.3	10.4	82	67	100
91 Trinidad and Tobago	1.2	5	3,390	2.4	3.2	19.5	95	70	90
92 Hong Kong	5.0	1	3,760	7.0	2.4	7.9	90	76	55
93 Singapore	2.4	1	3,830	7.4	1.1	5.5	..	71	159
94 Greece	9.3	132	3,960	5.9	3.2	14.1	..	74	118
95 Israel	3.8	21	4,150	4.0	6.2	34.3	..	72	110
96 Spain	37.0	505	4,380	4.7	8.2	15.9	..	73	125
Industrial market economies	671.2 t	30,430 t	9,440 w	4.0 w	4.3 m	9.4 m	99 w	74 w	110 w
97 Ireland	3.3	70	4,210	3.2	5.2	14.6	98	73	121
98 Italy	56.8	301	5,250	3.6	4.4	15.6	98	73	105
99 New Zealand	3.2	269	5,930	1.9	3.3	12.3	99	73	106
100 United Kingdom	55.9	245	6,320	2.2	4.1	13.9	99	73	115
101 Finland	4.8	337	8,160	4.1	5.6	12.9	100	73	105
102 Austria	7.5	84	8,630	4.1	3.7	6.5	99	72	107
103 Japan	115.7	372	8,810	9.4	4.9	8.2	99	76	98
104 Australia	14.3	7,687	9,120	2.8	3.1	11.7	100	74	124
105 Canada	23.7	9,976	9,640	3.5	3.1	9.1	99	74	109
106 France	53.4	547	9,950	4.0	4.2	9.6	99	74	109
107 Netherlands	14.0	41	10,230	3.4	5.4	8.3	99	75	122
108 United States	223.6	9,363	10,630	2.4	2.8	6.9	99	74	116
109 Norway	4.1	324	10,700	3.5	4.3	8.2	99	75	115
110 Belgium	9.8	31	10,920	3.9	3.6	8.1	99	72	104
111 Germany, Fed. Rep.	61.2	249	11,730	3.3	3.2	5.3	99	73	109
112 Denmark	5.1	43	11,900	3.4	5.5	9.8	99	75	107
113 Sweden	8.3	450	11,930	2.4	4.4	9.8	99	76	113
114 Switzerland	6.5	41	13,920	2.1	4.4	5.4	99	75	115
Capital-surplus oil exporters	25.4 t	4,363 t	5,470 w	5.0 w	1.7 m	18.2 m	..	56 w	93 w
115 Iraq	12.6	435	2,410	4.6	1.7	14.1	..	56	86
116 Saudi Arabia	8.6	2,150	7,280	6.3	..	25.2	..	54	96
117 Libya	2.9	1,760	8,170	5.8	5.2	18.7	50	56	113
118 Kuwait	1.3	18	17,100	-1.6	0.6	17.7	60	70	..
Nonmarket industrial economies	351.2 t	23,266 t	4,230 w	4.3 w	..	..	..	72 w	111 w
119 Bulgaria	9.0	111	3,690	5.6	..	..	..	73	112
120 Poland	35.4	313	3,830	5.2	..	..	98	72	106
121 Hungary	10.7	93	3,850	4.8	..	..	98	71	127
122 USSR	264.1	22,402	4,110	4.1	..	..	100	73	110
123 Czechoslovakia	15.2	128	5,290	4.1	..	..	..	71	117
124 German Dem. Rep.	16.8	108	6,430	4.7	..	..	..	72	128

a. Figures in italics are for 1961-70, not 1960-70. b. Figures in italics are for years other than 1976. See the technical notes.

Table 2. Growth of Production

	Average annual growth rate (percent)									
	GDP		Agriculture		Industry		Manufacturing		Services	
	1960-70 ^a	1970-79 ^b	1960-70 ^a	1970-79 ^b	1960-70 ^a	1970-79 ^b	1960-70 ^a	1970-79 ^b	1960-70 ^a	1970-79 ^b
Low-income countries	4.5 <i>w</i>	4.7 <i>w</i>	2.5 <i>m</i>	2.0 <i>m</i>	6.6 <i>m</i>	4.2 <i>m</i>	6.5 <i>m</i>	3.7 <i>m</i>	3.8 <i>m</i>	4.5 <i>m</i>
China and India	4.5 <i>w</i>	4.9 <i>w</i>	1.8 <i>m</i>	2.7 <i>m</i>	8.8 <i>m</i>	6.6 <i>m</i>	..	..	3.9 <i>m</i>	4.1 <i>m</i>
Other low-income	4.3 <i>w</i>	3.8 <i>w</i>	2.7 <i>m</i>	1.9 <i>m</i>	6.6 <i>m</i>	3.6 <i>m</i>	6.6 <i>m</i>	3.6 <i>m</i>	3.8 <i>m</i>	4.6 <i>m</i>
1 Kampuchea, Dem.	3.1	..	..	..	..	..	..	..	..	..
2 Lao PDR	..	..	..	..	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..	..	..
4 Bangladesh	3.6	3.3	2.7	1.9	7.9	7.0	6.6	5.9	3.8	4.9
5 Chad	0.5	-0.2	..	0.7	..	0.2	..	-1.2	..	-2.6
6 Ethiopia	4.4	1.9	2.2	0.4	7.4	0.4	8.0	1.3	7.8	4.6
7 Nepal	2.5	2.7	..	0.8	..	..	..	..	..	..
8 Somalia	1.0	3.1	-1.5	2.7	3.3	-2.6	14.3	..	2.5	6.8
9 Mali	3.3	5.0	..	4.2	..	4.2	..	..	..	6.1
10 Burma	2.6	4.3	4.1	3.9	2.8	5.4	3.3	5.0	1.5	4.3
11 Afghanistan	2.0	4.5	..	..	..	..	..	..	..	..
12 Viet Nam	..	..	..	..	..	..	..	..	..	..
13 Burundi	4.4	3.0	..	1.8	..	7.7	..	5.1	..	4.0
14 Upper Volta	3.0	-0.1	..	-3.3	..	1.0	..	2.3	..	2.9
15 India	3.4	3.4	1.9	2.1	5.5	4.4	4.8	4.5	4.6	4.5
16 Malawi	4.9	6.3	..	4.1	..	7.0	..	6.7	..	9.1
17 Rwanda	2.7	4.1	..	..	..	..	..	..	..	..
18 Sri Lanka	4.6	3.8	3.0	2.6	6.6	3.6	6.3	1.7	4.6	4.5
19 Benin	2.6	3.3	..	..	..	..	..	..	..	..
20 Mozambique	4.6	-2.9	2.1	-1.8	9.5	-5.6	6.6	-5.8	6.4	-3.0
21 Sierra Leone	4.3	1.6	..	2.3	..	-3.8	..	4.4	..	4.4
22 China	5.2	5.8	1.6	3.2	11.2	8.7	..	..	3.7	3.7
23 Haiti	-0.2	4.0	-0.6	2.2	0.1	8.3	-0.1	7.1	0.9	3.7
24 Pakistan	6.7	4.5	4.9	2.1	10.0	4.9	9.4	3.7	7.0	6.3
25 Tanzania	6.0	4.9	..	4.9	..	1.9	..	3.6	..	5.9
26 Zaire	3.6	-0.7	..	1.2	..	-1.1	..	-1.5	..	(.)
27 Niger	2.9	3.7	3.3	-1.5	13.9	10.2	..	..	(.)	4.6
28 Guinea	3.5	3.6	..	..	..	..	..	..	..	..
29 Central African Rep.	1.9	3.3	0.8	2.4	5.4	5.1	..	..	1.8	3.3
30 Madagascar	2.7	0.3	..	0.1	..	1.0	..	..	..	0.1
31 Uganda	5.9	-0.4	..	0.8	..	-7.9	..	-5.0	..	0.1
32 Mauritania	..	1.8	..	-1.4	..	0.1	..	1.0	..	7.2
33 Lesotho	4.6	7.0	..	1.8	..	7.0	..	10.2	..	13.9
34 Togo	8.5	3.6	..	0.3	..	7.8	..	..	..	4.0
35 Indonesia	3.9	7.6	2.7	3.6	5.2	11.3	3.3	12.5	4.8	9.2
36 Sudan	1.3	4.3	..	2.7	..	3.3	..	1.5	..	6.9
Middle-income countries	6.1 <i>w</i>	5.5 <i>w</i>	3.6 <i>m</i>	3.0 <i>m</i>	7.4 <i>m</i>	6.5 <i>m</i>	7.0 <i>m</i>	6.6 <i>m</i>	5.5 <i>m</i>	6.0 <i>m</i>
Oil exporters	6.5 <i>w</i>	5.5 <i>w</i>	3.4 <i>m</i>	2.2 <i>m</i>	7.6 <i>m</i>	7.8 <i>m</i>	7.0 <i>m</i>	8.2 <i>m</i>	5.1 <i>m</i>	7.2 <i>m</i>
Oil importers	5.9 <i>w</i>	5.5 <i>w</i>	3.9 <i>m</i>	3.3 <i>m</i>	7.1 <i>m</i>	5.7 <i>m</i>	7.5 <i>m</i>	6.6 <i>m</i>	5.7 <i>m</i>	5.7 <i>m</i>
37 Kenya	6.0	6.5	..	5.4	..	10.2	..	11.4	..	5.8
38 Ghana	2.1	-0.1	..	-0.2	..	-1.5	..	4.4	..	1.0
39 Yemen Arab Rep.	..	8.4	..	4.5	..	13.5	..	12.8	..	11.0
40 Senegal	2.5	2.5	2.9	3.6	4.4	3.5	6.2	..	1.7	1.6
41 Angola	4.8	-9.2	4.0	-10.2	11.0	-3.9	7.2	-12.0	4.2	-10.9
42 Zimbabwe	4.3	1.6	..	-0.5	..	1.8	..	2.8	..	2.1
43 Egypt	4.2	7.6	2.9	2.2	5.3	7.8	4.7	8.2	4.7	11.6
44 Yemen, PDR	..	..	..	..	..	..	..	..	..	..
45 Liberia	5.1	1.8	..	5.0	..	-0.6	..	8.3	..	1.9
46 Zambia	5.0	1.5	..	2.3	..	1.5	..	0.4	..	1.2
47 Honduras	5.3	3.5	5.7	1.3	5.4	5.0	4.5	5.5	4.8	4.4
48 Bolivia	5.2	5.2	3.0	3.1	6.2	4.8	5.4	6.7	5.4	6.0
49 Cameroon	3.7	5.4	..	3.5	..	6.5	..	5.4	..	6.3
50 Thailand	8.2	7.7	5.5	5.4	11.6	10.4	11.0	11.4	9.0	7.7
51 Philippines	5.1	6.2	4.3	4.9	6.0	8.4	6.7	6.7	5.2	5.4
52 Congo, People's Rep.	2.7	2.9	1.0	0.1	7.0	10.6	6.8	2.2	2.1	-0.1
53 Nicaragua	7.2	2.6	6.7	4.2	11.0	3.2	11.1	3.3	5.7	1.3
54 Papua New Guinea	6.5	2.2	..	..	..	..	..	..	..	..
55 El Salvador	5.9	4.9	3.0	3.2	8.5	6.0	8.8	4.3	6.5	5.1
56 Nigeria	3.1	7.5	-0.4	-0.3	12.0	11.2	9.1	11.8	4.9	11.0
57 Peru	4.9	3.1	3.7	0.1	5.0	3.7	5.7	3.2	5.3	3.6
58 Morocco	4.2	6.1	4.7	-0.3	4.0	7.3	3.8	6.3	4.0	7.4
59 Mongolia	2.8	6.0	..	..	..	..	..	..	..	..
60 Albania	7.3	6.8	..	..	..	..	..	..	..	..
61 Dominican Rep.	4.5	7.5	2.1	3.3	6.0	10.1	5.0	7.4	5.0	7.7
62 Colombia	5.1	6.0	3.5	4.8	6.0	5.0	5.7	6.6	5.7	7.2
63 Guatemala	5.6	5.9	4.3	5.1	7.8	8.0	8.2	6.6	5.5	5.5
64 Syrian Arab Rep.	5.7	9.0	4.4	6.4	6.3	10.8	5.6	13.2	6.2	9.1

Average annual growth rate (percent)

	GDP		Agriculture		Industry		Manufacturing		Services	
	1960-70 ^a	1970-79 ^b								
65 Ivory Coast	8.0	6.7	4.2	3.4	11.5	10.5	11.6	7.2	9.7	7.0
66 Ecuador	..	8.3	..	0.7	..	13.4	..	10.2	..	8.6
67 Paraguay	4.2	8.3	..	6.8	..	9.9	..	7.4	..	8.6
68 Tunisia	4.7	7.6	2.0	5.1	8.2	8.6	7.8	10.6	4.5	8.1
69 Korea, Dem. Rep.	7.8	6.2	..	..	..	..	..	..	..	..
70 Jordan	..	..	..	..	..	..	..	..	..	..
71 Lebanon	4.9	..	6.3	..	4.5	..	5.0	..	4.8	..
72 Jamaica	4.5	-0.9	1.5	1.3	5.0	-3.1	5.7	-1.3	4.7	0.2
73 Turkey	6.0	6.6	2.5	3.7	9.6	7.9	10.9	7.7	6.9	7.5
74 Malaysia	6.5	7.9	..	5.0	..	9.9	..	12.4	..	8.4
75 Panama	7.8	3.4	5.7	2.2	10.1	0.5	10.5	-0.6	7.6	4.9
76 Cuba	1.1	6.0	..	..	..	..	..	..	..	..
77 Korea, Rep. of	8.6	10.3	4.4	4.8	17.2	16.5	17.6	17.8	8.9	8.8
78 Algeria	4.6	5.8	0.4	0.6	12.9	6.5	7.7	8.8	-3.0	6.1
79 Mexico	7.2	5.1	3.8	2.2	9.1	6.4	9.4	6.4	6.9	4.7
80 Chile	4.5	1.9	2.6	3.5	5.0	0.3	5.5	-1.0	4.5	2.8
81 South Africa	6.4	3.6	..	..	..	..	..	..	..	..
82 Brazil	5.4	8.7	..	5.0	..	9.6	..	10.9	..	8.7
83 Costa Rica	6.5	6.0	5.7	2.6	9.4	8.5	10.6	8.4	5.7	6.0
84 Romania	8.6	10.6	..	6.2	..	11.2	..	..	..	..
85 Uruguay	1.2	2.5	1.9	0.2	1.1	4.2	1.5	3.9	1.0	2.0
86 Iran	11.3	..	4.4	..	13.4	..	12.0	..	10.0	..
87 Portugal	6.2	4.5	1.3	-1.5	8.8	4.6	8.9	4.6	5.9	6.3
88 Argentina	4.2	2.5	2.2	2.5	5.9	2.4	5.7	1.9	3.4	2.5
89 Yugoslavia	5.8	5.9	3.3	3.0	6.3	7.2	5.7	7.6	6.9	5.7
90 Venezuela	6.0	5.5	5.8	3.8	4.6	3.1	6.4	5.7	7.3	7.2
91 Trinidad and Tobago	3.9	5.2	..	..	..	..	..	..	..	..
92 Hong Kong	10.0	9.4	..	-11.0	..	4.3	..	6.1	..	10.1
93 Singapore	8.8	8.4	5.0	1.7	12.5	8.6	13.0	9.3	7.7	8.5
94 Greece	6.9	4.9	3.5	1.4	9.4	5.3	10.2	6.4	7.1	5.7
95 Israel	8.1	4.6	..	..	..	..	..	..	..	..
96 Spain	7.1	4.4	..	2.5	..	4.3	..	6.6	..	4.9
Industrial market economies	5.1 w	3.2 w	1.3 m	0.9 m	6.2 m	3.2 m	6.2 m	3.0 m	4.8 m	3.4 m
97 Ireland	4.2	3.7	0.9	..	6.1	..	..	..	4.3	..
98 Italy	5.3	2.9	2.8	0.8	6.2	2.8	7.2	..	5.1	3.3
99 New Zealand	3.9	2.4	..	..	..	..	..	..	..	..
100 United Kingdom	2.9	2.1	2.3	0.8	3.1	1.3	3.4	0.6	2.7	2.4
101 Finland	4.6	2.8	0.6	-0.9	6.3	3.2	6.2	2.8	5.3	3.9
102 Austria	4.5	3.7	1.2	2.0	4.9	3.4	4.8	3.5	4.5	4.2
103 Japan	10.5	5.2	4.0	1.1	10.9	5.6	11.0	6.2	11.7	4.9
104 Australia	5.5	3.2	2.7	..	4.6	..	5.6	..	4.0	..
105 Canada	5.6	4.2	2.5	2.2	6.8	3.5	6.7	3.5	5.5	4.7
106 France	5.7	3.7	1.8	0.1	6.4	3.2	6.6	3.7	5.7	4.3
107 Netherlands	5.5	3.1	2.9	3.7	6.8	3.3	6.6	3.0	5.1	3.3
108 United States	4.3	3.1	0.3	0.9	5.2	2.7	5.3	2.9	4.3	3.4
109 Norway	4.9	4.8	0.1	2.1	5.5	4.9	5.3	1.7	5.0	4.6
110 Belgium	4.8	3.2	-0.5	-0.7	6.0	3.3	6.2	3.2	4.6	3.3
111 Germany, Fed. Rep.	4.4	2.6	1.5	1.5	5.2	2.1	5.4	2.0	4.2	1.7
112 Denmark	4.7	2.8	0.2	..	5.5	..	5.4	..	4.9	..
113 Sweden	4.4	2.0	0.6	-1.3	6.2	0.9	6.2	0.8	3.9	2.8
114 Switzerland	4.3	0.2	..	..	..	..	..	..	..	..
Capital-surplus oil exporters	..	6.5 w	..	4.2 m	..	11.1 m	..	14.4 m	..	11.9 m
115 Iraq	6.1	10.5	5.7	-1.8	4.7	13.6	5.9	14.4	8.3	10.4
116 Saudi Arabia	..	11.1	..	4.2	..	11.1	..	5.9	..	11.9
117 Libya	24.4	1.9	..	11.8	..	-1.7	..	18.9	..	16.4
118 Kuwait	5.7	2.0	..	..	..	..	..	..	..	..
Nonmarket industrial economies	4.8 w	5.2 w	..	..	..	..	..	..	..	..
119 Bulgaria	5.9	6.2	..	..	..	..	..	..	..	..
120 Poland	4.3	6.1	..	..	..	..	..	..	..	..
121 Hungary	3.8	5.3	..	..	..	..	..	..	..	..
122 USSR	5.2	5.1	..	..	..	..	..	..	..	..
123 Czechoslovakia	3.1	4.8	..	..	..	..	..	..	..	..
124 German Dem. Rep.	3.1	4.5	..	..	..	..	..	..	..	..

a. Figures in italics are for 1961-70, not 1960-70. b. Figures in italics are for 1970-78, not 1970-79.

Table 3. Structure of Production

	GDP		Distribution of gross domestic product (percent)							
	(millions of dollars)		Agriculture		Industry		(Manufacturing) ^a		Services	
	1960 ^b	1979 ^c	1960 ^b	1979 ^c	1960 ^b	1979 ^c	(1960 ^b)	(1979 ^c)	1960 ^b	1979 ^c
Low-income countries			51 <i>w</i>	34 <i>w</i>	17 <i>w</i>	36 <i>w</i>	11 <i>w</i>	13 <i>w</i>	32 <i>w</i>	30 <i>w</i>
China and India			..	33 <i>w</i>	..	41 <i>w</i>	..	..	..	26 <i>w</i>
Other low-income			52 <i>w</i>	38 <i>w</i>	13 <i>w</i>	23 <i>w</i>	9 <i>w</i>	9 <i>w</i>	35 <i>w</i>	39 <i>w</i>
1 Kampuchea, Dem.	..	..	..	..	..	..	..	..	..	..
2 Lao PDR	..	..	..	..	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..	..	..
4 Bangladesh	3,100	7,670	61	56	8	13	6	8	31	31
5 Chad	180	570	52	70	12	11	4	8	36	19
6 Ethiopia	900	3,530	65	46	12	15	6	9	23	39
7 Nepal	410	1,760	..	58	..	..	..	..	..	..
8 Somalia	160	1,030	67	60	13	11	3	7	20	29
9 Mali	270	1,220	55	42	10	11	5	6	35	47
10 Burma	1,280	4,950	33	45	12	14	8	10	55	41
11 Afghanistan	1,190	3,760	..	..	..	..	..	..	..	..
12 Viet Nam	..	..	..	..	..	..	..	..	..	..
13 Burundi	190	730	..	55	..	15	..	10	..	30
14 Upper Volta	200	860	62	38	14	20	8	14	24	42
15 India	29,550	112,000	50	38	20	27	14	18	30	35
16 Malawi	170	1,220	58	43	11	20	6	12	31	37
17 Rwanda	120	860	81	42	7	21	1	15	12	37
18 Sri Lanka	1,500	3,160	32	27	20	31	15	21	48	42
19 Benin	160	850	55	43	8	12	3	8	37	45
20 Mozambique	830	2,360	55	44	9	16	8	9	36	40
21 Sierra Leone	..	790	..	36	..	23	..	5	..	41
22 China	..	252,230	..	31	..	47	..	..	..	22
23 Haiti	270	1,180	..	..	..	..	..	..	..	..
24 Pakistan	3,500	17,940	46	32	16	24	12	16	38	44
25 Tanzania	550	4,130	57	54	11	13	5	9	32	33
26 Zaire	130	6,020	30	33	27	24	13	4	43	43
27 Niger	250	1,710	69	44	9	32	4	10	22	24
28 Guinea	370	1,540	..	41	..	26	..	5	..	33
29 Central African Rep.	110	640	51	37	10	18	4	8	39	45
30 Madagascar	540	2,810	37	34	10	20	4	..	53	46
31 Uganda	540	8,410	52	55	13	7	9	6	35	38
32 Mauritania	70	470	..	27	..	33	..	8	..	40
33 Lesotho	30	240	73	36	..	15	..	2	..	49
34 Togo	120	1,000	55	25	16	23	8	7	29	52
35 Indonesia	8,670	49,210	54	30	14	33	8	9	32	37
36 Sudan	1,470	7,640	58	38	15	13	5	6	27	49
Middle-income countries			22 <i>w</i>	14 <i>w</i>	30 <i>w</i>	38 <i>w</i>	21 <i>w</i>	24 <i>w</i>	47 <i>w</i>	48 <i>w</i>
Oil exporters			23 <i>w</i>	14 <i>w</i>	26 <i>w</i>	42 <i>w</i>	17 <i>w</i>	19 <i>w</i>	51 <i>w</i>	44 <i>w</i>
Oil importers			21 <i>w</i>	14 <i>w</i>	32 <i>w</i>	36 <i>w</i>	23 <i>w</i>	26 <i>w</i>	46 <i>w</i>	50 <i>w</i>
37 Kenya	730	5,280	38	34	18	21	9	13	44	45
38 Ghana	1,220	10,160	41	66	..	21	10	..	..	13
39 Yemen Arab Rep.	..	2,910	..	32	..	..	..	5	..	..
40 Senegal	610	2,480	24	29	17	24	12	19	59	47
41 Angola	690	2,490	50	48	8	23	4	3	42	29
42 Zimbabwe	780	3,640	18	12	35	39	17	25	47	49
43 Egypt	3,880	17,050	30	23	24	35	20	28	46	42
44 Yemen, PDR	..	520	..	13	..	26	..	11	..	61
45 Liberia	220	940	..	35	..	26	..	6	..	39
46 Zambia	680	3,240	11	15	63	41	4	16	26	44
47 Honduras	300	1,900	37	32	19	26	13	17	44	42
48 Bolivia	460	4,930	26	17	25	29	15	13	49	54
49 Cameroon	550	5,330	..	32	..	16	..	9	..	52
50 Thailand	2,560	27,640	40	26	19	28	13	19	41	46
51 Philippines	6,980	29,380	26	24	28	35	20	24	46	41
52 Congo, People's Rep.	130	1,120	23	13	17	36	10	16	60	51
53 Nicaragua	340	1,560	24	29	21	28	16	24	55	43
54 Papua New Guinea	230	2,050	49	37	13	..	3	8	38	..
55 El Salvador	570	3,520	32	28	19	22	15	15	49	50
56 Nigeria	3,150	75,170	63	22	11	45	5	5	26	33
57 Peru	2,410	14,770	18	10	33	43	24	26	49	47
58 Morocco	2,040	14,950	23	19	27	32	16	17	50	49
59 Mongolia	..	..	..	..	..	..	..	..	..	..
60 Albania	..	..	..	..	..	..	..	..	..	..
61 Dominican Rep.	720	5,230	27	19	23	26	17	16	50	55
62 Colombia	4,010	25,250	34	29	26	28	17	21	40	43
63 Guatemala	1,040	6,890	..	..	..	..	..	..	..	..
64 Syrian Arab Rep.	800	9,110	..	16	..	22	..	..	..	62

	GDP (millions of dollars)		Distribution of gross domestic product (percent)							
			Agriculture		Industry		(Manufacturing) ^a		Services	
	1960 ^b	1979 ^c	1960 ^b	1979 ^c	1960 ^b	1979 ^c	(1960 ^b	1979 ^c)	1960 ^b	1979 ^c
65 Ivory Coast	570	9,130	43	26	14	23	7	12	43	51
66 Ecuador	910	9,510	33	15	19	37	14	19	48	48
67 Paraguay	300	3,420	36	31	20	24	17	16	44	45
68 Tunisia	770	6,070	24	16	18	33	8	12	58	51
69 Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
70 Jordan	..	1,870	..	8	..	32	..	16	..	60
71 Lebanon	830	..	12	..	20	..	13	..	68	..
72 Jamaica	700	2,390	10	7	36	40	15	15	54	53
73 Turkey	8,820	56,460	41	23	21	29	13	21	38	48
74 Malaysia	2,290	20,340	37	24	18	33	9	16	45	43
75 Panama	420	2,770	23	..	21	..	13	..	56	..
76 Cuba	..	..	..	..	..	..	..	..	..	..
77 Korea, Rep. of	3,810	60,660	37	20	20	39	14	27	43	41
78 Algeria	2,800	29,810	21	7	33	58	10	11	46	35
79 Mexico	12,040	121,330	16	10	29	38	23	29	55	52
80 Chile	3,780	20,920	11	8	38	37	23	24	51	55
81 South Africa	6,980	52,920	12	7	40	48	21	22	48	45
82 Brazil	24,080	204,480	16	11	35	38	26	28	49	51
83 Costa Rica	510	3,990	26	19	20	26	14	19	54	55
84 Romania	..	42,200	..	14	..	50	..	..	..	36
85 Uruguay	1,110	6,060	19	13	28	37	21	31	53	50
86 Iran	4,120	..	29	..	33	..	11	..	38	..
87 Portugal	2,340	18,560	25	13	36	47	29	37	39	40
88 Argentina	11,080	95,120	16	13	38	46	32	37	46	41
89 Yugoslavia	9,860	61,500	24	12	45	44	36	31	31	44
90 Venezuela	7,570	48,970	6	6	22	47	..	16	72	47
91 Trinidad and Tobago	470	4,070	8	3	46	54	24	17	46	43
92 Hong Kong	950	17,390	4	1	34	..	25	19	62	..
93 Singapore	700	9,010	4	2	18	36	12	28	78	62
94 Greece	3,110	33,370	23	16	26	32	16	19	51	52
95 Israel	2,030	15,300	11	5	32	36	23	24	57	59
96 Spain	10,350	180,800	..	9	..	31	..	..	..	60
Industrial market economies			<i>6 w</i>	<i>4 w</i>	<i>40 w</i>	<i>37 w</i>	<i>30 w</i>	<i>27 w</i>	<i>54 w</i>	<i>59 w</i>
97 Ireland	1,770	14,810	22	..	26	..	..	..	52	..
98 Italy	37,190	323,600	13	7	41	43	31	..	46	50
99 New Zealand	3,760	18,320	..	11	..	31	..	23	..	58
100 United Kingdom	71,380	401,580	4	2	43	36	32	25	53	62
101 Finland	4,940	41,410	18	8	35	35	24	26	47	57
102 Austria	6,280	68,390	11	4	49	41	38	29	40	55
103 Japan	43,060	974,040	13	5	45	42	34	30	42	53
104 Australia	16,310	127,820	12	..	37	..	26	..	51	..
105 Canada	39,940	227,000	6	4	34	33	23	19	60	63
106 France	60,060	571,300	10	5	38	34	29	25	52	61
107 Netherlands	11,010	149,060	9	4	46	37	34	29	45	59
108 United States	506,700	2,350,000	4	3	38	34	29	24	58	63
109 Norway	4,640	53,970	9	5	33	37	21	18	58	58
110 Belgium	11,280	110,920	6	2	41	37	30	26	53	61
111 Germany, Fed. Rep.	72,100	763,930	6	2	53	49	40	38	41	49
112 Denmark	5,900	66,230	11	..	32	..	22	..	57	..
113 Sweden	13,950	101,490	7	3	40	32	27	23	53	65
114 Switzerland	8,550	95,010	..	..	..	..	..	..	..	..
Capital-surplus oil exporters			..	<i>2 w</i>	..	<i>75 w</i>	..	<i>5 w</i>	..	<i>23 w</i>
115 Iraq	1,580	30,710	17	8	52	73	10	6	31	19
116 Saudi Arabia	..	74,060	..	1	..	74	..	5	..	25
117 Libya	310	24,570	..	2	..	73	..	3	..	25
118 Kuwait	..	23,300	..	(.)	..	81	..	5	..	19
Nonmarket industrial economies			<i>21 w</i>	<i>15 w</i>	<i>62 w</i>	<i>63 w</i>	<i>52 w</i>	..	<i>17 w</i>	<i>22 w</i>
119 Bulgaria	..	..	32	19	53	63	46	..	15	18
120 Poland	..	..	26	16	57	64	47	..	17	20
121 Hungary	..	..	24	15	69	59	59	..	7	26
122 USSR	..	..	21	16	62	62	52	..	17	22
123 Czechoslovakia	..	..	16	8	73	74	63	..	11	18
124 German Dem. Rep.	..	..	..	10	..	69	..	..	..	21

a. Manufacturing is a part of the industrial sector, but its share of GDP is shown separately because it typically is the most dynamic part of the industrial sector. b. Figures in italics are for 1961, not 1960. c. Figures in italics are for 1978, not 1979.

Table 4. Growth of Consumption and Investment

	Average annual growth rate (percent)					
	Public consumption		Private consumption		Gross domestic investment	
	1960-70 ^a	1970-79 ^b	1960-70 ^a	1970-79 ^b	1960-70 ^a	1970-79 ^b
Low-income countries	4.4 <i>m</i>	4.5 <i>m</i>	3.7 <i>m</i>	3.7 <i>m</i>	5.2 <i>m</i>	6.4 <i>m</i>
China and India	..	..	3.3 <i>m</i>	4.6 <i>m</i>	7.7 <i>m</i>	6.3 <i>m</i>
Other low-income	4.5 <i>m</i>	4.4 <i>m</i>	3.7 <i>m</i>	3.7 <i>m</i>	4.8 <i>m</i>	6.4 <i>m</i>
1 Kampuchea, Dem.	2.6	..	3.2	..	0.3	..
2 Lao PDR	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..
4 Bangladesh	c	c	3.4	3.1	11.1	-7.4
5 Chad	4.4	-1.7	-0.7	0.3	2.3	-0.5
6 Ethiopia	4.7	4.5	4.7	4.0	5.7	-1.8
7 Nepal	..	..	..	..	..	11.7
8 Somalia	3.7	11.7	-0.5	2.7	4.3	8.5
9 Mali	6.2	7.7	2.8	5.5	4.9	3.2
10 Burma	c	c	2.8	3.9	3.6	6.6
11 Afghanistan	c	9.8	2.5	3.5	-1.0	12.4
12 Viet Nam	..	..	..	..	..	..
13 Burundi	19.2	6.0	3.2	3.1	4.3	16.5
14 Upper Volta	..	3.8	..	1.1	..	1.2
15 India	-1.5	4.5	3.9	2.7	5.5	5.8
16 Malawi	4.6	6.1	4.1	5.7	15.4	2.3
17 Rwanda	1.1	14.0	4.2	1.6	3.5	18.9
18 Sri Lanka	c	c	2.1	3.0	6.6	6.4
19 Benin	1.7	1.0	4.9	3.8	4.2	8.3
20 Mozambique	6.8	-4.0	4.4	-2.3	8.3	-8.4
21 Sierra Leone	..	4.5	..	1.5	..	-1.3
22 China	c	c	2.7	5.4	9.8	6.8
23 Haiti	c	0.6	-1.0	3.8	1.7	12.5
24 Pakistan	7.3	4.3	7.1	4.7	6.9	0.6
25 Tanzania	c	c	5.2	6.0	9.8	3.0
26 Zaire	8.5	-2.2	3.9	-1.8	9.6	-5.0
27 Niger	2.0	3.8	3.9	3.2	3.0	6.8
28 Guinea	..	..	..	..	..	..
29 Central African Rep.	2.2	1.1	3.0	4.4	1.3	0.3
30 Madagascar	2.7	0.2	2.0	-0.6	5.4	-1.8
31 Uganda	5.9	1.3	5.6	1.1	9.8	-13.1
32 Mauritania	..	18.9	..	5.0	..	6.9
33 Lesotho	0.3	12.0	6.0	10.9	18.5	24.4
34 Togo	6.7	10.7	7.6	5.7	11.1	14.5
35 Indonesia	0.9	11.4	4.1	7.9	4.6	14.8
36 Sudan	12.1	-3.2	-1.2	7.3	-1.3	8.0
Middle-income countries	6.3 <i>m</i>	7.4 <i>m</i>	5.1 <i>m</i>	5.2 <i>m</i>	7.4 <i>m</i>	7.0 <i>m</i>
Oil exporters	7.4 <i>m</i>	9.4 <i>m</i>	4.3 <i>m</i>	7.0 <i>m</i>	7.2 <i>m</i>	10.3 <i>m</i>
Oil importers	6.1 <i>m</i>	6.4 <i>m</i>	5.5 <i>m</i>	4.6 <i>m</i>	7.9 <i>m</i>	6.0 <i>m</i>
37 Kenya	10.0	9.0	4.6	6.9	7.0	1.2
38 Ghana	6.1	-0.2	2.0	0.3	-3.2	-7.9
39 Yemen Arab Rep.	..	..	..	..	..	..
40 Senegal	-0.2	c	3.2	3.3	1.1	1.8
41 Angola	9.1	3.0	4.0	-7.9	9.7	-9.0
42 Zimbabwe	..	9.7	..	0.4	..	-2.1
43 Egypt	10.3	5.0	5.4	7.0	3.1	21.5
44 Yemen, PDR	..	..	..	..	..	..
45 Liberia	5.6	2.3	1.7	4.3	-4.2	5.2
46 Zambia	11.0	1.8	6.8	-2.2	10.6	-5.6
47 Honduras	5.3	7.4	4.8	3.8	10.2	9.6
48 Bolivia	8.9	8.0	4.1	5.2	9.6	6.3
49 Cameroon	6.1	5.4	2.7	5.3	9.3	7.9
50 Thailand	9.7	9.1	7.0	6.9	15.8	7.7
51 Philippines	5.0	8.4	4.7	4.7	8.2	10.6
52 Congo, People's Rep.	5.4	5.8	-0.3	2.8	2.9	0.2
53 Nicaragua	3.6	11.8	6.8	2.3	10.7	-2.2
54 Papua New Guinea	6.5	-1.0	6.9	2.3	21.2	-9.4
55 El Salvador	6.4	7.2	6.1	4.3	3.5	11.7
56 Nigeria	10.0	12.4	1.1	6.3	7.4	17.8
57 Peru	6.3	6.5	7.1	2.9	1.0	2.7
58 Morocco	4.5	12.5	4.0	4.5	8.0	15.2
59 Mongolia	..	..	..	..	..	..
60 Albania	..	..	..	..	..	..
61 Dominican Rep.	1.9	-0.5	6.3	7.2	11.4	10.6
62 Colombia	5.5	4.5	5.5	6.1	4.5	5.5
63 Guatemala	4.7	6.0	4.7	5.3	7.9	9.8
64 Syrian Arab Rep.	..	11.8	..	10.0	..	16.5

Average annual growth rate (percent)

	Public consumption		Private consumption		Gross domestic investment	
	1960-70 ^a	1970-79 ^b	1960-70 ^a	1970-79 ^b	1960-70 ^a	1970-79 ^b
65 Ivory Coast	11.8	10.0	8.0	7.3	12.7	13.8
66 Ecuador	..	12.1	..	8.9	..	10.3
67 Paraguay	6.9	4.8	4.5	7.4	5.8	18.7
68 Tunisia	5.2	9.8	3.2	8.2	4.2	11.4
69 Korea, Dem. Rep.	..	..	..	..	..	..
70 Jordan	..	..	..	..	..	..
71 Lebanon	5.9	..	4.4	..	6.2	..
72 Jamaica	8.6	8.0	3.1	-0.6	7.8	-9.6
73 Turkey	6.7	6.2	5.1	5.2	8.8	10.1
74 Malaysia	7.4	9.6	4.2	7.0	7.2	10.3
75 Panama	7.8	6.5	6.7	2.1	12.4	0.6
76 Cuba	..	..	..	..	..	..
77 Korea, Rep. of	5.5	8.7	7.0	8.0	23.6	14.9
78 Algeria	1.7	9.4	4.6	11.1	1.9	11.4
79 Mexico	9.5	10.0	6.6	3.8	9.6	6.9
80 Chile	4.7	-0.5	4.8	1.9	3.7	-2.0
81 South Africa	7.1	..	6.2	..	9.5	..
82 Brazil	3.5	8.6	5.1	9.1	7.0	10.1
83 Costa Rica	8.0	6.2	6.1	5.3	7.1	9.1
84 Romania	..	..	..	..	11.2	10.7
85 Uruguay	4.4	1.5	0.7	(.)	-1.8	7.5
86 Iran	16.0	..	10.0	..	12.2	..
87 Portugal	7.7	9.0	5.5	4.0	7.7	0.8
88 Argentina	1.2	12.1	4.1	-2.2	4.1	3.0
89 Yugoslavia	0.6	4.7	9.5	6.6	4.7	7.0
90 Venezuela	6.3	8.2	5.0	11.0	7.6	10.2
91 Trinidad and Tobago	6.2	..	4.3	..	-2.8	6.3
92 Hong Kong	8.6	9.3	8.6	9.2	6.9	12.5
93 Singapore	12.6	6.4	5.4	7.2	20.5	6.0
94 Greece	6.6	7.4	7.1	4.6	10.4	2.0
95 Israel	13.8	3.9	7.4	5.7	5.7	1.0
96 Spain	3.8	5.6	7.0	4.4	11.4	2.5
Industrial market economies	<i>4.8 m</i>	<i>3.7 m</i>	<i>4.3 m</i>	<i>3.6 m</i>	<i>5.6 m</i>	<i>1.4 m</i>
97 Ireland	3.9	5.5	3.7	2.8	8.8	5.2
98 Italy	3.9	3.0	6.1	2.6	3.8	0.1
99 New Zealand	..	..	..	..	..	..
100 United Kingdom	2.2	2.8	2.3	1.7	5.0	0.8
101 Finland	5.7	5.4	4.3	2.8	4.3	-0.8
102 Austria	2.9	3.8	4.4	4.4	5.6	3.2
103 Japan	6.4	5.0	9.0	5.3	14.0	3.2
104 Australia	6.8	5.6	2.7	3.6	6.2	1.4
105 Canada	6.2	2.9	4.9	5.2	5.8	4.5
106 France	3.4	3.3	5.5	4.3	7.3	2.0
107 Netherlands	3.1	2.8	6.1	3.8	6.8	(.)
108 United States	4.1	1.7	4.4	3.6	4.8	1.9
109 Norway	6.4	5.3	4.1	4.1	5.1	4.3
110 Belgium	5.7	4.7	3.8	3.9	6.0	1.7
111 Germany, Fed. Rep.	4.1	3.7	4.6	2.9	4.1	0.9
112 Denmark	6.0	3.9	4.3	2.9	6.7	0.5
113 Sweden	5.4	3.2	3.8	2.0	5.0	-1.1
114 Switzerland	4.8	1.9	4.3	1.4	4.1	-3.3
Capital-surplus oil exporters	..	..	..	<i>18.7 m</i>	..	<i>24.8 m</i>
115 Iraq	8.1	c	4.9	17.0	3.0	27.2
116 Saudi Arabia	..	c	..	18.8	..	46.7
117 Libya	..	21.6	..	18.7	16.3	10.6
118 Kuwait	..	c	..	..	..	22.4
Nonmarket industrial economies	..	..	..	..	..	..
119 Bulgaria	..	..	..	..	..	..
120 Poland	8.5	..	4.7	..	7.9	..
121 Hungary	6.5	..	4.6	..	7.2	..
122 USSR	..	..	..	..	..	..
123 Czechoslovakia	..	..	..	..	..	..
124 German Dem. Rep.	..	..	..	..	..	..

a. Figures in italics are for 1961-70, not 1960-70. b. Figures in italics are for 1970-78, not 1970-79. c. Separate figures are not available for public consumption, which is therefore included in private consumption.

Table 5. Structure of Demand

	Distribution of gross domestic product (percent)											
	Public consumption		Private consumption		Gross domestic investment		Gross domestic saving		Exports of goods and nonfactor services		Resource balance	
	1960 ^a	1979 ^b	1960 ^a	1979 ^b	1960 ^a	1979 ^b	1960 ^a	1979 ^b	1960 ^a	1979 ^b	1960 ^a	1979 ^b
Low-income countries	9 w	11 w	78 w	66 w	18 w	26 w	16 w	23 w	7 w	11 w	-2 w	-3 w
China and India	..	11 w	77 w	62 w	21 w	29 w	19 w	27 w	4 w	..	-1 w	-2 w
Other low-income	11 w	12 w	82 w	76 w	10 w	18 w	8 w	15 w	14 w	20 w	-2 w	-3 w
1 Kampuchea, Dem.	..	..	..	..	..	..	..	..	..	..	..	..
2 Lao PDR	..	..	..	..	..	..	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..	..	..	..	..
4 Bangladesh	6	c	86	98	7	14	8	2	10	10	1	-12
5 Chad	13	18	82	96	11	13	5	-14	23	33	-6	-27
6 Ethiopia	8	17	81	87	12	10	11	-4	9	10	-1	-14
7 Nepal	c	c	96	91	9	14	4	9	..	12	-5	-5
8 Somalia	8	19	89	79	10	16	3	2	11	12	-7	-14
9 Mali	12	23	79	82	14	15	9	-5	12	16	-5	-20
10 Burma	c	c	89	85	12	20	11	15	20	8	-1	-5
11 Afghanistan	c	c	87	89	16	14	13	11	4	11	-3	-3
12 Viet Nam	..	..	..	..	..	..	..	..	..	..	..	..
13 Burundi	3	16	92	80	6	12	5	4	13	13	-1	-8
14 Upper Volta	10	14	94	89	10	24	-4	-3	9	15	-14	-27
15 India	7	10	79	70	17	24	14	20	5	..	-3	-4
16 Malawi	16	17	88	70	10	29	-4	13	21	21	-14	-16
17 Rwanda	10	16	82	72	6	19	8	12	12	25	2	-7
18 Sri Lanka	13	9	78	77	14	26	9	14	43	34	-5	-12
19 Benin	16	12	75	87	15	21	9	1	12	27	-6	-20
20 Mozambique	11	15	81	85	10	10	8	(.)	14	13	-2	-10
21 Sierra Leone	..	18	..	78	..	15	..	4	..	24	..	-11
22 China	c	11	77	59	23	31	23	30	4	6	(.)	-1
23 Haiti	c	10	93	81	9	21	7	9	20	16	-2	-12
24 Pakistan	11	11	84	83	12	18	5	6	8	11	-7	-13
25 Tanzania	9	16	72	76	14	21	19	8	31	14	5	-13
26 Zaire	18	c	61	88	12	9	21	12	55	30	9	3
27 Niger	9	9	79	72	13	28	12	19	9	25	-1	-9
28 Guinea	..	16	..	70	..	15	..	14	..	24	..	-1
29 Central African Rep.	19	20	72	72	20	20	9	8	23	18	-11	-12
30 Madagascar	20	17	75	73	11	22	5	10	12	17	-6	-12
31 Uganda	9	c	75	96	11	4	16	4	26	4	5	(.)
32 Mauritania	..	39	..	47	..	51	..	14	..	38	..	-37
33 Lesotho	17	16	108	143	2	29	-25	-59	12	21	-27	-88
34 Togo	8	15	88	74	11	39	4	11	19	32	-7	-28
35 Indonesia	12	11	80	59	8	23	8	30	13	30	(.)	7
36 Sudan	6	11	85	84	9	14	9	5	12	9	(.)	-9
Middle-income countries	11 w	13 w	70 w	62 w	21 w	26 w	19 w	25 w	16 w	20 w	-2 w	-1 w
Oil exporters	10 w	13 w	68 w	58 w	20 w	30 w	22 w	29 w	21 w	25 w	2 w	-1 w
Oil importers	11 w	14 w	70 w	64 w	21 w	25 w	19 w	22 w	14 w	18 w	-2 w	-3 w
37 Kenya	11	20	72	65	20	22	17	15	31	26	-3	-7
38 Ghana	10	9	73	86	24	5	17	5	28	12	-7	(.)
39 Yemen Arab Rep.	..	..	..	..	..	..	..	..	..	..	..	..
40 Senegal	17	c	68	98	16	21	15	2	40	34	-1	-19
41 Angola	9	26	77	56	12	9	14	18	20	43	2	9
42 Zimbabwe	11	13	67	63	23	15	22	24	..	..	-1	5
43 Egypt	17	19	71	65	13	31	12	16	20	31	-1	-15
44 Yemen, PDR	..	..	..	..	..	..	..	..	..	..	-43	..
45 Liberia	7	15	58	62	28	27	35	23	39	53	7	-4
46 Zambia	11	27	48	45	25	21	41	28	56	45	16	7
47 Honduras	11	12	77	64	14	28	12	24	22	38	-2	-4
48 Bolivia	7	12	86	74	14	20	7	14	13	17	-7	-6
49 Cameroon	..	10	..	80	..	25	..	10	..	25	..	-15
50 Thailand	10	12	76	67	16	28	14	21	17	23	-2	-7
51 Philippines	8	9	76	67	16	29	16	24	11	19	(.)	-5
52 Congo, People's Rep.	23	30	98	58	45	22	-21	12	21	..	-66	-10
53 Nicaragua	9	17	79	71	15	..	12	12	24	37	-3	13
54 Papua New Guinea	28	27	70	55	13	15	2	18	17	52	-11	3
55 El Salvador	10	12	79	68	16	19	11	20	20	36	-5	1
56 Nigeria	6	10	87	58	13	31	7	32	15	25	-6	1
57 Peru	9	10	64	66	25	14	27	24	20	27	2	10
58 Morocco	12	23	77	68	10	23	11	9	24	18	1	-14
59 Mongolia	..	..	..	..	..	..	..	..	..	..	..	..
60 Albania	..	..	..	..	..	..	..	..	..	..	..	..
61 Dominican Rep.	13	6	68	80	12	21	19	14	24	18	7	-7
62 Colombia	6	7	73	67	21	24	21	26	16	18	(.)	2
63 Guatemala	8	7	84	79	10	19	8	14	13	21	-2	-5
64 Syrian Arab Rep.	..	19	..	71	..	28	..	10	..	20	..	-18

Distribution of gross domestic product (percent)

	Public consumption		Private consumption		Gross domestic investment		Gross domestic saving		Exports of goods and nonfactor services		Resource balance	
	1960 ^a	1979 ^b	1960 ^a	1979 ^b	1960 ^a	1979 ^b	1960 ^a	1979 ^b	1960 ^a	1979 ^b	1960 ^a	1979 ^b
65 Ivory Coast	10	17	73	56	15	31	17	27	37	35	2	-4
66 Ecuador	10	12	74	61	14	29	16	27	17	24	2	-2
67 Paraguay	8	6	76	74	17	29	16	20	18	11	-1	-9
68 Tunisia	17	16	76	61	17	29	7	23	20	38	-10	-6
69 Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
70 Jordan	..	33	..	93	..	48	..	26	..	51	..	74
71 Lebanon	10	..	85	..	16	..	5	..	27	..	-11	..
72 Jamaica	7	20	67	63	30	18	26	17	34	49	-4	-1
73 Turkey	11	13	76	71	16	21	13	16	3	5	-3	-5
74 Malaysia	11	15	62	51	14	25	27	34	54	58	13	9
75 Panama	11	18	78	63	16	29	11	19	31	44	-5	-10
76 Cuba	..	..	..	..	..	..	..	..	..	..	..	..
77 Korea, Rep. of	15	11	84	61	11	35	1	28	3	30	-10	-7
78 Algeria	16	14	50	45	42	44	34	41	28	32	-8	-3
79 Mexico	6	12	76	62	20	28	18	26	10	12	-2	-2
80 Chile	11	14	75	71	17	16	14	15	14	23	-3	-1
81 South Africa	9	13	64	52	22	25	27	35	30	35	5	10
82 Brazil	12	10	67	69	22	23	21	21	5	7	-1	-2
83 Costa Rica	10	18	77	69	18	25	13	13	21	27	-5	-12
84 Romania	..	..	..	..	..	35	..	..	..	25	..	-3
85 Uruguay	9	13	79	76	18	17	12	11	14	17	-6	-6
86 Iran	10	..	69	..	17	..	21	..	19	..	4	..
87 Portugal	11	15	77	73	19	21	12	12	17	26	-7	-9
88 Argentina	9	24	70	41	22	26	21	35	10	13	-1	9
89 Yugoslavia	19	17	49	54	37	38	32	29	14	14	-5	-9
90 Venezuela	14	14	53	52	21	34	33	34	32	31	12	(.)
91 Trinidad and Tobago	9	15	61	43	28	29	30	42	37	48	2	13
92 Hong Kong	7	6	87	66	18	28	6	28	82	..	-12	(.)
93 Singapore	8	11	95	63	11	39	-3	26	163	187	-14	-13
94 Greece	12	16	77	63	19	30	11	21	9	17	-8	-9
95 Israel	18	32	68	58	27	26	14	10	14	41	-13	-16
96 Spain	9	11	69	68	19	20	22	21	11	15	3	1
Industrial market economies	15 w	17 w	63 w	61 w	21 w	23 w	22 w	22 w	12 w	19 w	1 w	-1 w
97 Ireland	12	20	77	63	16	33	11	17	31	54	-5	-16
98 Italy	12	16	64	61	24	22	24	23	15	28	(.)	1
99 New Zealand	13	16	65	61	24	22	22	23	23	27	-2	1
100 United Kingdom	17	20	66	60	19	19	17	20	21	29	-2	1
101 Finland	13	18	58	55	30	25	29	27	23	33	-1	2
102 Austria	13	18	59	56	28	27	28	26	24	37	(.)	-1
103 Japan	9	10	57	59	34	33	34	31	11	12	(.)	-2
104 Australia	10	16	65	60	29	23	25	24	15	19	-3	1
105 Canada	14	19	65	56	23	24	21	25	18	28	-2	1
106 France	13	15	61	62	24	23	26	23	15	22	2	(.)
107 Netherlands	14	19	57	60	27	22	29	21	50	52	2	-1
108 United States	17	18	64	64	18	19	19	18	5	9	1	-1
109 Norway	12	20	60	49	30	29	28	31	41	45	-2	2
110 Belgium	13	18	69	63	19	21	18	19	33	55	-1	-2
111 Germany, Fed. Rep.	14	20	57	55	27	25	29	25	19	26	2	(.)
112 Denmark	12	25	66	56	23	22	22	19	34	29	-1	-3
113 Sweden	16	30	60	53	25	20	24	17	23	31	-1	-3
114 Switzerland	9	13	62	64	29	24	29	23	29	35	(.)	-1
Capital-surplus oil exporters	..	22 w	..	27 w	..	28 w	..	56 w	..	65 w	..	28 w
115 Iraq	18	c	48	41	20	33	34	59	42	63	14	26
116 Saudi Arabia	..	23	..	26	..	33	..	51	..	60	..	18
117 Libya	..	27	..	21	..	21	..	52	..	70	..	31
118 Kuwait	..	14	..	17	..	12	..	69	..	79	..	57
Nonmarket industrial economies	3 w	10 w	70 w	72 w	25 w	25 w	27 w	26 w	..	..	2 w	1 w
119 Bulgaria	3	..	69	..	27	..	28	..	..	..	1	..
120 Poland	8	13	68	64	24	26	24	23	..	..	(.)	-3
121 Hungary	7	8	72	64	24	37	21	28	..	..	-3	-9
122 USSR	2	c	70	74	26	24	28	26	..	..	2	2
123 Czechoslovakia	6	7	75	67	17	24	19	26	..	..	2	2
124 German Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..

a. Figures in italics are for 1961, not 1960. b. Figures in italics are for 1978, not 1979. c. Separate figures are not available for public consumption, which is therefore included in private consumption.

Table 6. Industrialization

	Distribution of manufacturing value added (percent, 1975 prices)					Value added in manufacturing (millions of 1975 dollars)		Gross manufacturing output per capita (1975 dollars)	
	Food and agriculture	Textiles and clothing	Machinery and transport equipment	Chemicals	Other manufacturing	1970	1978 ^a	1970	1977 ^b
	1978 ^a	1978 ^a	1978 ^a	1978 ^a	1978 ^a				
Low-income countries									
China and India									
Other low-income									
1 Kampuchea, Dem.	..	..	..	..	..	..	..	..	..
2 Lao PDR	..	..	..	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..	..
4 Bangladesh	..	..	..	..	..	729	874	25	26
5 Chad	..	..	..	..	..	37	47	..	..
6 Ethiopia	..	..	..	..	..	236	273	19	21
7 Nepal	..	..	..	..	..	..	..	..	..
8 Somalia	..	..	..	..	..	22	37	12	22
9 Mali	..	..	..	..	..	44	66	..	..
10 Burma	35	16	1	5	43	285	402	..	..
11 Afghanistan	..	..	..	..	..	..	..	..	..
12 Viet Nam	..	..	..	..	..	..	..	..	..
13 Burundi	..	..	..	..	..	23	35	..	..
14 Upper Volta	..	..	..	..	..	63	79	..	..
15 India	12	17	18	12	41	10,397	15,068	75	91
16 Malawi	51	12	..	..	37	56	93	43	..
17 Rwanda	..	..	..	..	..	113	90	75	..
18 Sri Lanka	38	15	..	4	43	556	644	..	..
19 Benin	..	..	..	..	..	..	53	..	..
20 Mozambique	48	14	..	6	32	246	224	66	..
21 Sierra Leone	..	..	..	..	..	25	35	..	..
22 China	..	..	..	..	..	..	..	..	190
23 Haiti	30	20	..	1	49	..	..	..	..
24 Pakistan	41	17	..	14	28	1,482	1,966	..	..
25 Tanzania	34	23	9	4	30	190	275	44	..
26 Zaire	43	20	..	9	28	186	187	..	..
27 Niger	..	..	..	..	..	67	146	..	..
28 Guinea	..	..	..	..	..	..	55	..	..
29 Central African Rep.	48	33	..	3	16	54	39	..	42
30 Madagascar	28	..	..	..	72	298	321	101	102
31 Uganda	..	..	..	..	..	222	150	..	..
32 Mauritania	..	..	..	..	..	30	38	..	..
33 Lesotho	..	..	..	..	..	4	5	..	..
34 Togo	..	..	..	..	..	32	57	37	..
35 Indonesia	26	10	..	..	64	1,517	3,755	50	78
36 Sudan	49	29	..	3	19	305	477	62	..
Middle-income countries									
Oil exporters									
Oil importers									
37 Kenya	26	9	30	7	28	199	532	63	157
38 Ghana	34	..	..	..	66	601	815	138	..
39 Yemen Arab Rep.	..	..	..	..	..	31	84	..	..
40 Senegal	44	18	..	9	29	276	338	..	..
41 Angola	..	..	..	..	..	158	80	..	..
42 Zimbabwe	22	17	9	11	41	519	707	248	264
43 Egypt	21	28	12	8	31	1,758	3,178	194	..
44 Yemen, PDR	..	..	..	..	..	..	..	..	..
45 Liberia	..	..	..	..	..	25	45	..	..
46 Zambia	16	17	11	13	43	275	321	163	..
47 Honduras	42	15	1	6	36	137	209	..	..
48 Bolivia	..	..	..	..	..	238	391	148	..
49 Cameroon	37	15	2	8	38	201	312	..	..
50 Thailand	..	..	..	..	..	1,545	3,795	198	..
51 Philippines	38	11	8	10	33	2,805	4,761	192	541
52 Congo, People's Rep.	22	..	..	9	69	57	71	107	..
53 Nicaragua	48	14	2	9	27	263	399	..	381
54 Papua New Guinea	..	..	..	..	..	..	..	..	..
55 El Salvador	..	..	..	..	..	252	368	..	189
56 Nigeria	..	..	..	..	..	1,199	2,835	39	73
57 Peru	28	14	11	11	36	2,911	3,685	525	545
58 Morocco	33	15	9	9	34	1,084	1,802	..	..
59 Mongolia	29	32	..	5	34	..	..	..	..
60 Albania	..	..	..	..	..	..	..	..	..
61 Dominican Rep.	72	4	1	5	18	483	843	234	404
62 Colombia	31	17	11	12	29	1,784	3,078	198	276
63 Guatemala	..	..	..	..	..	..	..	..	..
64 Syrian Arab Rep.	28	36	3	4	29	333	887	164	407

Distribution of manufacturing value added (percent, 1975 prices)

	Food and agriculture 1978 ^a	Textiles and clothing 1978 ^a	Machinery and transport equipment 1978 ^a	Chemicals 1978 ^a	Other manufacturing 1978 ^a	Value added in manufacturing (millions of 1975 dollars)		Gross manufacturing output per capita (1975 dollars)	
						1970	1978 ^a	1970	1977 ^b
65 Ivory Coast	..	..	..	..	..	398	707	..	278
66 Ecuador	31	14	9	7	39	424	888	186	242
67 Paraguay	37	16	6	5	36	182	319	..	..
68 Tunisia	26	16	7	17	34	222	538	174	298
69 Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..
70 Jordan	..	..	..	..	..	..	..	..	..
71 Lebanon	..	..	..	..	..	..	..	..	..
72 Jamaica	44	16	6	8	26	428	398	674	..
73 Turkey	26	11	..	..	63	3,714	7,041	204	438
74 Malaysia	21	9	17	5	48	923	2,363	303	..
75 Panama	52	11	2	6	29	252	254	419	603
76 Cuba	..	..	..	..	..	..	..	..	..
77 Korea, Rep. of	19	20	19	11	31	2,346	9,064	182	567
78 Algeria	29	20	8	4	39	967	2,220	..	..
79 Mexico	22	11	17	14	36	15,416	24,856	..	..
80 Chile	19	7	13	9	52	2,456	2,561	438	365
81 South Africa	15	11	17	10	47	..	..	..	..
82 Brazil	14	10	28	11	37	17,852	37,685	410	..
83 Costa Rica	..	..	..	..	..	261	516	..	..
84 Romania	12	14	31	13	30	..	..	..	..
85 Uruguay	27	25	8	8	32	797	1,008	..	916
86 Iran	74	13	10	7	56	2,601	7,030	243	..
87 Portugal	13	18	20	12	37	3,496	5,308	..	1,573
88 Argentina	11	13	26	13	37	9,174	10,641	..	..
89 Yugoslavia	15	14	21	8	42	6,556	11,740	833	1,686
90 Venezuela	18	9	7	7	59	3,302	5,355	..	..
91 Trinidad and Tobago	13	4	10	7	66	416	413	..	..
92 Hong Kong	..	..	..	..	..	1,490	2,629	..	1,413
93 Singapore	6	5	43	5	41	827	1,815	1,628	2,874
94 Greece	20	26	8	9	37	2,540	4,348	770	..
95 Israel	13	13	24	8	42	..	..	..	..
96 Spain	11	18	20	10	41	18,331	32,808	1,704	2,650
Industrial market economies									
97 Ireland	26	14	11	15	34	2,079	..	..	..
98 Italy	10	14	27	9	40	51,192	66,696	2,204	2,944
99 New Zealand	26	11	17	5	41	..	..	..	..
100 United Kingdom	14	8	29	11	38	55,997	61,743	2,436	2,796
101 Finland	13	8	23	7	49	5,636	7,084	3,449	4,056
102 Austria	74	9	22	7	48	9,402	12,400	3,292	4,836
103 Japan	9	7	33	10	41	115,465	190,085	2,866	4,413
104 Australia	18	8	21	9	45	15,895	..	3,202	..
105 Canada	13	7	23	8	49	26,023	36,834	3,016	4,021
106 France	16	8	32	9	35	75,800	104,703	..	4,546
107 Netherlands	18	4	26	15	37	19,114	25,258	4,443	5,279
108 United States	11	6	32	11	40	331,522	434,359	3,401	4,447
109 Norway	13	4	28	7	48	5,322	6,031	3,500	5,165
110 Belgium	17	8	28	12	35	14,403	18,749	..	..
111 Germany, Fed. Rep.	9	6	37	13	35	149,071	176,010	4,297	5,731
112 Denmark	22	7	25	7	39	6,495	..	3,111	..
113 Sweden	10	3	33	6	48	17,038	17,963	4,640	4,760
114 Switzerland	76	9	20	12	43	..	..	..	..
Capital-surplus oil exporters									
115 Iraq	28	26	..	4	42	522	1,442	124	..
116 Saudi Arabia	..	..	..	..	..	1,726	2,782	..	..
117 Libya	..	..	..	..	..	154	593	165	320
118 Kuwait	7	..	..	16	77	..	..	199	..
Nonmarket industrial economies									
119 Bulgaria	27	16	15	5	37	..	..	..	..
120 Poland	5	19	31	9	36	..	..	..	..
121 Hungary	10	10	29	10	41	..	..	..	..
122 USSR	13	12	27	6	42	..	..	..	..
123 Czechoslovakia	8	9	34	9	40	..	..	..	..
124 German Dem. Rep.	19	11	31	9	30	..	..	..	..

a. Figures in italics are for 1977, not 1978. b. Figures in italics are for 1976, not 1977.

Table 7. Commercial Energy

	Average annual growth rate (percent)				Energy consumption per capita (kilograms of coal equivalent)		Energy imports as a percentage of merchandise exports	
	Energy production		Energy consumption		1960	1979	1960 ^b	1978 ^c
	1960-74 ^a	1974-79	1960-74	1974-79				
Low-income countries	5.2 <i>w</i>	8.4 <i>w</i>	4.4 <i>w</i>	8.1 <i>w</i>	356 <i>w</i>	463 <i>w</i>	8 <i>w</i>	..
China and India	4.5 <i>w</i>	8.8 <i>w</i>	4.3 <i>w</i>	8.5 <i>w</i>	439 <i>w</i>	594 <i>w</i>	..	..
Other low-income	9.5 <i>w</i>	6.8 <i>w</i>	6.4 <i>w</i>	4.5 <i>w</i>	86 <i>w</i>	129 <i>w</i>	7 <i>w</i>	..
1 Kampuchea, Dem.	..	..	-0.7	-38.9	32	..	9	..
2 Lao PDR	..	16.1	13.7	13.6	17	102	..	..
3 Bhutan	..	..	..	..	..	..	..	..
4 Bangladesh	..	10.1	..	6.3	..	41	..	35
5 Chad	..	..	7.5	4.6	8	24	23	..
6 Ethiopia	14.1	2.3	14.0	-5.3	9	20	11	20
7 Nepal	26.8	4.6	12.4	2.3	5	14	..	..
8 Somalia	..	..	8.7	13.0	17	78	4	..
9 Mali	..	8.3	5.6	5.3	15	30	13	..
10 Burma	5.6	12.4	3.7	5.6	58	72	4	..
11 Afghanistan	38.8	-2.8	10.1	6.6	24	90	12	12
12 Viet Nam	..	7.6	11.2	-4.0	99	140	..	..
13 Burundi	..	22.0	..	6.9	..	17	..	..
14 Upper Volta	..	..	7.7	10.2	5	29	38	..
15 India	4.9	9.1	5.1	8.3	111	242	11	27
16 Malawi	..	6.9	..	5.7	..	70	..	22
17 Rwanda	..	3.5	..	10.4	..	30	..	..
18 Sri Lanka	10.1	8.2	3.9	3.8	114	140	8	18
19 Benin	..	..	9.5	-0.6	40	68	16	..
20 Mozambique	3.2	60.0	5.2	1.1	113	139	11	..
21 Sierra Leone	..	..	9.0	-1.1	31	89	11	..
22 China	4.4	8.7	4.1	8.5	650	835	..	..
23 Haiti	..	13.7	1.4	20.8	36	66	..	16
24 Pakistan	9.3	7.5	5.3	5.0	136	218	17	40
25 Tanzania	10.6	10.4	9.4	-2.9	43	53	..	..
26 Zaire	3.0	18.1	3.8	0.4	98	103	3	..
27 Niger	..	..	14.8	12.8	6	48	6	..
28 Guinea	16.0	(.)	3.2	1.6	67	87	7	..
29 Central African Rep.	14.1	4.1	7.6	8.5	38	55	12	1
30 Madagascar	6.7	4.1	9.0	3.9	40	94	9	16
31 Uganda	5.2	-4.4	9.1	-8.2	43	39	5	..
32 Mauritania	..	..	21.2	5.5	18	185	39	..
33 Lesotho	..	..	..	..	..	..	..	..
34 Togo	..	22.3	12.7	11.8	23	117	10	13
35 Indonesia	8.5	6.5	3.8	10.1	130	237	3	5
36 Sudan	..	13.7	13.1	-0.9	54	141	8	24
Middle-income countries	12.7 <i>w</i>	-0.5 <i>w</i>	8.4 <i>w</i>	6.3 <i>w</i>	509 <i>w</i>	1,225 <i>w</i>	10 <i>w</i>	20 <i>w</i>
Oil exporters	15.0 <i>w</i>	-2.1 <i>w</i>	9.0 <i>w</i>	6.1 <i>w</i>	362 <i>w</i>	893 <i>w</i>	5 <i>w</i>	10 <i>w</i>
Oil importers	6.5 <i>w</i>	3.8 <i>w</i>	8.2 <i>w</i>	6.4 <i>w</i>	576 <i>w</i>	1,388 <i>w</i>	13 <i>w</i>	24 <i>w</i>
37 Kenya	9.6	17.6	3.3	3.5	150	180	18	30
38 Ghana	..	2.6	12.2	2.3	105	265	7	19
39 Yemen Arab Rep.	..	..	12.8	15.8	7	73	..	..
40 Senegal	..	..	4.7	12.4	110	266	8	..
41 Angola	35.5	-2.4	10.3	1.1	90	208	6	..
42 Zimbabwe	2.5	-3.1	2.4	-0.3	1,346	791	..	..
43 Egypt	9.4	27.1	3.6	10.3	299	565	12	6
44 Yemen, PDR	..	..	7.6	7.0	237	545	..	..
45 Liberia	31.8	-1.3	18.9	-0.9	88	448	3	17
46 Zambia	..	5.1	..	5.2	..	858	..	11
47 Honduras	29.4	6.4	7.7	1.5	157	248	10	14
48 Bolivia	17.1	-3.0	6.8	9.3	185	470	4	1
49 Cameroon	1.1	45.3	6.2	7.8	87	148	7	9
50 Thailand	28.2	0.8	16.2	7.6	63	376	12	28
51 Philippines	2.4	24.9	8.3	5.6	159	356	9	32
52 Congo, People's Rep.	15.8	5.1	5.3	7.0	125	213	25	1
53 Nicaragua	26.4	-16.3	10.3	2.7	183	455	12	14
54 Papua New Guinea	12.3	16.2	16.4	4.9	51	299	7	..
55 El Salvador	5.1	15.6	7.7	8.3	150	351	6	13
56 Nigeria	36.6	1.0	9.4	1.4	29	83	7	2
57 Peru	3.5	18.5	6.5	2.7	436	737	4	20
58 Morocco	2.0	4.7	6.4	6.4	169	315	9	28
59 Mongolia	10.4	14.6	7.3	13.1	553	1,667	..	..
60 Albania	9.7	5.0	11.3	8.6	327	1,103	..	..
61 Dominican Rep.	1.8	-5.1	14.4	-1.0	164	515	..	32
62 Colombia	3.5	2.0	5.7	7.0	510	938	3	7
63 Guatemala	9.9	2.5	6.2	1.6	175	251	12	14
64 Syrian Arab Rep.	86.2	7.5	7.5	15.2	323	971	16	..

	Average annual growth rate (percent)				Energy consumption per capita (kilograms of coal equivalent)		Energy imports as a percentage of merchandise exports	
	Energy production		Energy consumption		1960	1979	1960 ^b	1978 ^c
	1960-74 ^a	1974-79	1960-74	1974-79				
65 Ivory Coast	9.7	-12.2	14.3	5.5	75	234	5	10
66 Ecuador	19.4	5.0	8.7	14.9	208	654	2	7
67 Paraguay	..	6.7	8.2	10.7	85	251	..	..
68 Tunisia	72.1	5.5	8.7	10.8	173	618	15	21
69 Korea, Dem. Rep.	9.4	3.0	9.3	3.6	1,193	2,846	..	..
70 Jordan	..	..	5.9	13.3	197	552	79	52
71 Lebanon	12.7	0.5	8.6	-3.7	567	1,083	68	..
72 Jamaica	-0.7	-2.0	11.0	-5.4	446	1,390	11	14
73 Turkey	7.6	3.1	9.8	7.0	254	807	16	63
74 Malaysia	37.3	27.2	10.5	4.1	253	767	2	9
75 Panama	14.7	35.9	9.0	4.3	438	947	..	91
76 Cuba	21.2	5.6	4.5	6.0	896	1,148	..	..
77 Korea, Rep. of	6.3	4.2	13.0	11.4	261	1,642	70	19
78 Algeria	11.1	6.5	7.1	12.3	277	671	14	2
79 Mexico	5.8	15.5	7.7	7.8	769	1,673	3	4
80 Chile	3.9	0.1	6.1	0.7	824	1,193	10	18
81 South Africa	3.8	8.1	5.0	4.4	2,320	3,479	9	..
82 Brazil	8.2	7.5	8.2	7.7	392	1,062	21	39
83 Costa Rica	9.5	3.5	10.1	7.6	315	842	7	13
84 Romania	5.8	3.1	8.2	6.9	1,469	4,810	..	..
85 Uruguay	3.7	8.5	2.8	3.4	895	1,274	35	34
86 Iran	14.6	-9.1	15.5	1.4	270	1,214	1	..
87 Portugal	4.4	11.7	7.4	6.0	473	1,496	17	34
88 Argentina	6.5	3.7	5.5	3.1	1,110	2,038	14	17
89 Yugoslavia	4.9	4.1	7.2	5.2	875	2,440	8	25
90 Venezuela	1.1	-3.3	7.0	5.4	1,615	3,055	1	22
91 Trinidad and Tobago	2.8	3.9	10.2	5.8	1,747	5,037	35	39
92 Hong Kong	..	..	9.6	16.7	468	2,401	5	6
93 Singapore	..	..	13.4	17.1	518	6,211	17	31
94 Greece	14.3	19.1	12.8	9.6	424	2,841	26	42
95 Israel	41.8	-62.3	11.6	4.7	1,270	3,643	17	20
96 Spain	2.6	6.0	8.8	3.8	892	2,822	22	40
Industrial market economies	<i>4.1 w</i>	<i>2.3 w</i>	<i>5.3 w</i>	<i>2.5 w</i>	<i>4,486 w</i>	<i>7,892 w</i>	<i>11 w</i>	<i>20 w</i>
97 Ireland	0.1	-1.2	4.9	4.3	1,922	3,819	17	13
98 Italy	2.3	0.9	7.8	1.4	1,317	3,438	18	24
99 New Zealand	5.7	5.6	6.0	1.7	2,699	4,891	7	13
100 United Kingdom	-1.0	13.5	2.0	1.0	4,489	5,637	14	13
101 Finland	3.3	2.9	8.7	2.4	1,925	6,259	11	20
102 Austria	1.4	0.4	5.0	2.6	2,523	5,206	12	14
103 Japan	-1.7	3.4	9.7	3.0	1,333	4,260	18	32
104 Australia	10.9	4.9	5.6	2.8	3,935	6,975	12	9
105 Canada	8.7	1.7	6.2	3.1	7,087	13,453	9	9
106 France	-1.3	2.9	5.5	2.3	2,674	4,995	16	21
107 Netherlands	16.1	0.3	9.0	2.7	2,500	6,745	15	16
108 United States	3.5	1.0	4.4	2.3	8,228	12,350	8	31
109 Norway	6.8	22.1	5.8	5.1	4,938	11,919	15	13
110 Belgium	-7.2	5.2	4.2	2.0	3,846	6,745	11	13
111 Germany, Fed. Rep.	0.3	4.9	6.0	4.3	2,711	6,627	7	14
112 Denmark	-20.4	39.5	8.1	0.8	2,767	5,978	15	20
113 Sweden	3.6	6.0	4.7	2.5	4,599	8,502	16	15
114 Switzerland	4.2	2.7	5.5	1.9	2,762	5,138	10	8
Capital-surplus oil exporters	<i>12.7 w</i>	<i>4.0 w</i>	<i>7.6 w</i>	<i>10.4 w</i>	<i>771 w</i>	<i>1,458 w</i>	<i>..</i>	<i>(.) w</i>
115 Iraq	5.0	9.2	6.0	2.6	494	692	(.)	(.)
116 Saudi Arabia	14.0	3.6	9.3	14.3	741	1,554	..	(.)
117 Libya	29.1	6.9	16.7	27.2	251	2,360	83	(.)
118 Kuwait	4.5	-0.2	4.0	9.2	10,584	6,348	..	(.)
Nonmarket industrial economies	<i>5.3 w</i>	<i>4.7 w</i>	<i>5.2 w</i>	<i>3.9 w</i>	<i>2,990 w</i>	<i>6,164 w</i>	<i>..</i>	<i>..</i>
119 Bulgaria	3.3	2.0	9.7	4.1	1,366	5,403	7	..
120 Poland	3.9	4.2	4.5	2.6	3,115	5,803	..	..
121 Hungary	2.6	3.7	4.7	4.8	1,732	4,073	13	14
122 USSR	5.9	5.2	5.2	4.4	2,866	6,122	4	..
123 Czechoslovakia	1.4	-3.3	3.2	-0.4	4,509	6,830	..	18
124 German Dem. Rep.	0.6	5.3	6.0	4.7	4,579	8,718	..	..

a. Figures in italics are for 1961-74, not 1960-74. b. Figures in italics are for 1961, not 1960. c. Figures in italics are for 1977, not 1978.

Table 8. Merchandise Trade

	Merchandise trade (millions of dollars)		Average annual growth rate ^a (percent)				Terms of trade (1975 = 100)	
	Exports 1979 ^b	Imports 1979 ^b	Exports		Imports		1960	1979 ^b
			1960-70	1970-79	1960-70	1970-79		
Low-income countries	47,194 <i>t</i>	49,699 <i>t</i>	5.0 <i>m</i>	-1.0 <i>m</i>	5.2 <i>m</i>	3.3 <i>m</i>	113 <i>m</i>	97 <i>m</i>
China and India	20,985 <i>t</i>	26,307 <i>t</i>	..	..	..	..	..	..
Other low-income	26,209 <i>t</i>	23,392 <i>t</i>	5.3 <i>m</i>	-1.1 <i>m</i>	5.4 <i>m</i>	4.2 <i>m</i>	111 <i>m</i>	99 <i>m</i>
1 Kampuchea, Dem.	..	..	..	..	..	..	..	..
2 Lao PDR	35	94	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..
4 Bangladesh	662	1,537	6.5	-4.1	7.0	0.6	201	90
5 Chad	..	..	5.9	-3.4	5.0	-0.1	98	100
6 Ethiopia	418	567	3.6	-2.7	6.2	0.4	143	142
7 Nepal	109	254	..	..	..	..	..	105
8 Somalia	111	287	2.3	5.6	2.6	7.7	145	97
9 Mali	177	180	3.0	6.7	-0.4	5.5	107	95
10 Burma	363	319	-11.6	-0.3	-5.7	-4.6	115	102
11 Afghanistan	494	686	2.5	3.0	0.7	4.8	82	102
12 Viet Nam	..	..	..	..	..	..	..	..
13 Burundi	105	152	..	..	..	..	..	..
14 Upper Volta	81	254	15.9	3.1	8.5	5.2	88	94
15 India	6,998	9,041	3.0	4.6	-0.9	2.3	134	88
16 Malawi	233	399	11.6	4.6	7.6	4.3	115	84
17 Rwanda	115	190	15.8	1.6	8.1	10.5	111	145
18 Sri Lanka	981	1,448	4.7	-3.0	-0.2	-0.6	203	116
19 Benin	190	357	5.0	-11.4	7.4	6.3	114	97
20 Mozambique	..	..	6.0	-16.6	7.9	-14.4	90	75
21 Sierra Leone	205	297	0.3	-6.5	1.9	-3.0	121	108
22 China	13,987	17,266	..	..	..	..	..	..
23 Haiti	184	221	..	..	..	..	..	..
24 Pakistan	2,056	4,056	8.2	-0.9	5.3	4.2	102	92
25 Tanzania	523	1,084	3.4	-6.6	6.0	-0.5	98	102
26 Zaire	1,324	597	-1.8	-1.1	5.4	-11.9	122	91
27 Niger	..	..	6.0	11.7	11.9	6.5	98	90
28 Guinea	373	347	..	..	..	..	..	..
29 Central African Rep.	80	70	8.1	-0.5	4.5	-5.0	109	108
30 Madagascar	394	641	5.3	-1.0	4.1	-1.7	136	105
31 Uganda	427	230	5.0	-7.0	6.2	-10.5	123	136
32 Mauritania	147	259	50.7	-1.1	4.5	5.5	149	78
33 Lesotho	..	..	..	..	..	..	..	..
34 Togo	251	441	10.5	-2.5	8.6	9.8	56	82
35 Indonesia	15,590	7,225	4.0	6.5	2.0	12.8	63	119
36 Sudan	581	1,200	0.1	-4.4	1.2	4.5	83	78
Middle-income countries	272,496 <i>t</i>	304,708 <i>t</i>	5.4 <i>m</i>	4.3 <i>m</i>	6.6 <i>m</i>	5.0 <i>m</i>	100 <i>m</i>	98 <i>m</i>
Oil exporters	94,803 <i>t</i>	77,204 <i>t</i>	4.5 <i>m</i>	1.7 <i>m</i>	3.6 <i>m</i>	11.1 <i>m</i>	69 <i>m</i>	113 <i>m</i>
Oil importers	177,693 <i>t</i>	227,504 <i>t</i>	6.3 <i>m</i>	4.4 <i>m</i>	7.7 <i>m</i>	3.7 <i>m</i>	109 <i>m</i>	94 <i>m</i>
37 Kenya	1,104	1,658	7.2	-0.5	6.6	-1.0	133	110
38 Ghana	1,096	993	0.2	-7.2	-1.5	0.1	111	144
39 Yemen Arab Rep.	14	1,492	..	..	..	..	..	..
40 Senegal	421	756	1.2	-0.8	2.3	4.5	71	76
41 Angola	..	..	9.0	-7.9	11.5	-4.2	60	113
42 Zimbabwe	1,194	940	..	..	..	..	..	..
43 Egypt	1,840	3,837	3.2	-2.1	-1.1	11.1	92	75
44 Yemen, PDR	44	434	..	..	..	..	..	..
45 Liberia	506	487	18.4	2.3	2.9	2.3	255	83
46 Zambia	1,377	755	2.2	-0.7	9.7	-8.1	115	100
47 Honduras	733	830	11.1	4.3	11.6	1.0	119	89
48 Bolivia	777	1,011	9.8	-1.6	8.2	11.8	56	139
49 Cameroon	1,129	1,271	7.1	0.5	9.2	7.0	106	144
50 Thailand	5,288	7,190	5.2	12.0	11.2	5.8	121	73
51 Philippines	4,601	6,613	2.2	6.2	7.1	3.7	112	107
52 Congo, People's Rep.	119	242	5.1	8.2	-1.0	3.3	87	91
53 Nicaragua	774	848	9.7	4.5	10.5	-1.1	112	98
54 Papua New Guinea	964	788	..	..	..	..	..	..
55 El Salvador	1,029	1,024	5.4	4.2	6.3	5.6	109	99
56 Nigeria	18,073	12,399	6.6	-0.3	1.6	20.6	32	119
57 Peru	3,474	2,090	2.0	1.7	3.6	1.6	89	97
58 Morocco	1,873	3,678	2.5	1.3	3.4	8.3	75	62
59 Mongolia	281	417	..	..	..	..	..	..
60 Albania	..	..	..	..	..	..	..	..
61 Dominican Rep.	822	1,062	-2.3	5.6	9.9	3.5	47	40
62 Colombia	4,062	3,409	2.2	0.9	2.5	5.8	96	118
63 Guatemala	1,192	1,504	9.1	4.5	7.1	5.9	126	107
64 Syrian Arab Rep.	1,644	3,329	3.4	7.4	4.0	13.9	69	102

	Merchandise trade (millions of dollars)		Average annual growth rate ^a (percent)				Terms of trade (1975 = 100)	
			Exports		Imports			
	Exports 1979 ^b	Imports 1979 ^b	1960-70	1970-79	1960-70	1970-79	1960	1979 ^b
65 Ivory Coast	2,515	2,491	8.8	5.2	9.7	10.1	113	129
66 Ecuador	2,013	1,986	2.9	8.2	11.5	10.5	83	119
67 Paraguay	305	577	5.4	8.4	7.3	8.5	116	101
68 Tunisia	1,766	2,830	4.2	4.8	1.9	11.2	64	81
69 Korea, Dem. Rep.	..	950	..	..	..	..	..	..
70 Jordan	402	1,949	10.1	19.6	3.5	15.3	78	63
71 Lebanon	773	2,700	14.2	2.3	5.1	0.5	87	85
72 Jamaica	769	1,010	4.7	-6.8	8.1	-7.0	85	93
73 Turkey	2,261	4,946	..	1.7	..	3.3	..	84
74 Malaysia	11,077	7,849	5.8	6.5	2.3	6.2	150	120
75 Panama	292	1,185	10.5	0.6	10.5	-3.6	117	84
76 Cuba	4,456	4,687	4.0	3.9	5.5	3.4	58	60
77 Korea, Rep. of	15,055	20,339	34.1	25.7	20.5	13.5	99	94
78 Algeria	8,714	8,360	4.5	0.0	-0.9	14.2	39	113
79 Mexico	8,768	11,829	2.8	10.9	6.4	5.0	97	84
80 Chile	3,766	4,219	0.6	10.7	4.7	0.6	126	89
81 South Africa	18,396	8,989	5.4	8.1	8.2	-2.9	108	81
82 Brazil	15,244	19,804	5.1	7.0	4.9	5.6	114	94
83 Costa Rica	923	1,392	9.6	4.4	9.9	4.6	132	103
84 Romania	9,724	10,916	9.4	4.7	8.8	6.1	..	98
85 Uruguay	788	1,206	2.2	4.3	-2.9	3.1	132	126
86 Iran	19,872	9,738	12.6	-4.6	11.4	14.7	27	118
87 Portugal	3,468	6,086	9.6	-0.3	14.2	3.3	97	95
88 Argentina	7,810	6,713	3.4	10.7	0.3	(.)	109	77
89 Yugoslavia	6,794	14,019	7.7	4.7	8.8	5.0	100	103
90 Venezuela	14,159	9,618	1.6	-10.3	4.2	12.0	36	116
91 Trinidad and Tobago	2,507	2,086	4.9	-2.6	3.2	-5.5	100	101
92 Hong Kong	15,156	17,137	12.7	8.3	9.2	8.4	94	102
93 Singapore	14,233	17,635	4.2	11.0	5.9	8.0	100	101
94 Greece	3,855	9,640	10.8	12.3	10.8	6.0	109	91
95 Israel	4,301	7,333	11.0	9.8	8.7	5.3	109	97
96 Spain	17,903	25,432	11.5	10.8	18.5	3.4	124	100
Industrial market economies	1,028,279 t	1,106,534 t	8.4 m	5.9 m	9.3 m	4.5 m	100 m	98 m
97 Ireland	7,175	9,858	7.1	8.4	8.3	6.6	96	99
98 Italy	72,242	77,970	13.6	7.3	9.7	3.4	130	99
99 New Zealand	4,694	4,542	4.6	3.4	2.9	1.0	135	124
100 United Kingdom	91,030	102,969	4.8	8.2	5.0	4.4	112	107
101 Finland	11,175	11,400	6.8	3.9	7.0	1.7	95	89
102 Austria	15,483	20,254	9.6	7.2	9.6	7.2	94	95
103 Japan	103,045	110,670	17.2	9.1	13.7	4.8	150	98
104 Australia	18,473	16,432	6.5	4.2	7.2	3.4	115	90
105 Canada	55,336	52,230	10.0	4.6	9.1	6.7	92	98
106 France	98,059	106,994	8.2	7.1	11.0	6.8	93	101
107 Netherlands	63,667	67,284	9.9	5.7	9.5	4.3	111	99
108 United States	178,578	217,664	6.0	6.9	9.8	5.4	115	91
109 Norway	13,271	13,818	9.1	7.2	9.7	4.5	89	101
110 Belgium	56,258	60,410	10.9	5.2	10.3	5.8	102	97
111 Germany, Fed. Rep.	171,540	157,747	10.1	6.0	10.0	6.0	90	95
112 Denmark	14,506	18,450	7.1	4.4	8.2	3.6	105	96
113 Sweden	27,240	28,488	7.7	2.6	7.2	2.4	97	90
114 Switzerland	26,507	29,354	8.5	4.2	9.0	4.1	85	107
Capital-surplus oil exporters	118,417 t	44,700 t	8.2 m	-2.0 m	10.8 m	18.0 m	26 m	118 m
115 Iraq	21,502	7,028	5.4	2.5	1.4	18.3	25	117
116 Saudi Arabia	63,427	24,254	10.9	5.6	10.9	39.0	27	109
117 Libya	15,236	8,214	67.5	-6.5	15.4	16.8	31	121
118 Kuwait	18,252	5,204	5.2	-8.5	10.6	17.6	23	118
Nonmarket industrial economies	126,079 t	122,992 t	9.0 m	7.5 m	7.9 m	7.6 m	..	..
119 Bulgaria	8,869	8,514	14.4	11.2	12.9	10.3	..	..
120 Poland	16,249	17,584	-0.3	7.3	-0.4	7.7	..	103
121 Hungary	7,938	8,674	9.7	8.6	9.1	6.7	..	83
122 USSR	64,762	57,744	9.7	7.3	7.1	9.6	..	..
123 Czechoslovakia	13,198	14,262	6.7	6.6	7.0	6.0	..	..
124 German Dem. Rep.	15,063	16,214	8.3	7.6	8.6	7.4	..	..

a. See the technical notes. b. Figures in italics are for 1978, not 1979.

Table 9. Structure of Merchandise Exports

	Percentage share of merchandise exports									
	Fuels, minerals and metals		Other primary commodities		Textiles and clothing		Machinery and transport equipment		Other manufactures	
	1960 ^a	1978	1960 ^a	1978	1960 ^a	1978	1960 ^a	1978	1960 ^a	1978
Low-income countries	13 w	32 w	69 w	38 w	13 w	12 w	(.) w	3 w	5 w	15 w
China and India	..	12 w	..	35 w	..	22 w	..	4 w	..	27 w
Other low-income	15 w	49 w	79 w	40 w	3 w	6 w	(.) w	1 w	3 w	4 w
1 Kampuchea, Dem.	0	0	100	83	0	4	0	1	0	12
2 Lao PDR	..	18	..	64	..	0	..	1	..	17
3 Bhutan	..	..	..	..	..	..	..	..	..	..
4 Bangladesh	..	1	..	36	..	50	..	1	..	12
5 Chad	3	0	94	96	0	1	0	0	3	3
6 Ethiopia	0	4	100	95	0	(.)	0	0	0	1
7 Nepal	..	0	..	87	..	6	..	(.)	..	7
8 Somalia	0	0	88	99	0	0	8	1	4	0
9 Mali	0	(.)	96	99	1	(.)	1	(.)	2	1
10 Burma	4	11	95	77	0	0	0	1	1	11
11 Afghanistan	(.)	17	82	70	14	11	3	0	1	2
12 Viet Nam	..	6	..	32	..	38	..	(.)	..	24
13 Burundi	..	8	..	91	..	0	..	0	..	1
14 Upper Volta	0	(.)	100	95	0	(.)	0	1	(.)	4
15 India	10	10	45	30	35	20	1	6	9	34
16 Malawi	..	(.)	..	95	..	3	..	(.)	..	2
17 Rwanda	..	10	..	90	..	0	..	0	..	(.)
18 Sri Lanka	(.)	11	99	81	0	4	0	(.)	1	4
19 Benin	10	6	80	85	7	2	(.)	0	3	7
20 Mozambique	0	12	100	86	0	2	0	0	0	(.)
21 Sierra Leone	15	8	20	48	0	0	0	0	65	44
22 China	..	13	..	38	..	24	..	3	..	22
23 Haiti	0	5	100	40	0	18	0	12	0	25
24 Pakistan	0	4	73	38	23	44	1	2	3	12
25 Tanzania	(.)	4	87	90	0	1	0	(.)	13	5
26 Zaire	42	71	57	21	0	0	0	1	1	7
27 Niger	..	40	100	25	0	1	0	0	0	34
28 Guinea	42	98	58	2	0	0	0	(.)	0	0
29 Central African Rep.	12	(.)	86	62	(.)	(.)	1	(.)	1	38
30 Madagascar	4	8	90	85	1	2	1	2	4	3
31 Uganda	8	1	92	99	0	(.)	0	(.)	(.)	(.)
32 Mauritania	4	87	69	9	1	(.)	20	(.)	6	4
33 Lesotho	..	32	..	31	..	1	..	6	..	30
34 Togo	3	49	89	45	3	3	0	2	5	1
35 Indonesia	33	72	67	26	0	(.)	(.)	1	(.)	1
36 Sudan	0	5	100	95	0	(.)	0	(.)	0	(.)
Middle-income countries	27 w	35 w	60 w	29 w	3 w	9 w	2 w	12 w	8 w	17 w
Oil exporters	46 w	78 w	50 w	14 w	1 w	3 w	(.) w	2 w	3 w	3 w
Oil importers	16 w	11 w	67 w	37 w	4 w	12 w	2 w	15 w	11 w	25 w
37 Kenya	1	19	87	67	0	1	0	1	12	12
38 Ghana	7	16	83	80	0	(.)	0	(.)	10	4
39 Yemen Arab Rep.	..	(.)	..	90	..	3	..	1	..	6
40 Senegal	3	13	94	80	1	1	1	(.)	1	6
41 Angola	..	64	..	28	..	0	..	1	..	7
42 Zimbabwe	71	25	25	62	1	10	(.)	3	3	0
43 Egypt	4	33	84	38	9	21	(.)	1	3	7
44 Yemen, PDR	..	92	..	7	..	(.)	..	(.)	..	1
45 Liberia	45	62	55	35	0	(.)	0	1	0	2
46 Zambia	..	94	..	2	..	0	..	0	..	4
47 Honduras	5	(.)	93	90	0	1	0	0	2	9
48 Bolivia	..	88	..	10	..	1	..	(.)	..	1
49 Cameroon	19	6	77	90	0	1	2	1	2	2
50 Thailand	7	11	91	64	0	10	0	3	2	12
51 Philippines	10	14	86	52	1	6	0	2	3	26
52 Congo, People's Rep.	7	60	84	24	(.)	0	5	2	4	14
53 Nicaragua	3	1	95	82	0	2	0	1	2	14
54 Papua New Guinea	0	37	92	62	0	0	0	(.)	8	1
55 El Salvador	0	3	94	63	3	12	(.)	3	3	19
56 Nigeria	8	91	89	8	0	0	0	(.)	3	1
57 Peru	49	46	50	43	0	3	0	1	1	7
58 Morocco	38	41	54	36	1	11	1	1	6	11
59 Mongolia	..	8	..	81	..	7	..	(.)	..	4
60 Albania	..	49	..	33	..	6	..	1	..	11
61 Dominican Rep.	6	4	92	75	0	(.)	0	1	2	20
62 Colombia	19	5	79	78	0	5	(.)	2	2	10
63 Guatemala	2	1	95	78	1	5	0	1	2	15
64 Syrian Arab Rep.	0	66	81	26	2	3	0	2	17	3

Percentage share of merchandise exports

	Fuels, minerals and metals		Other primary commodities		Textiles and clothing		Machinery and transport equipment		Other manufactures	
	1960 ^a	1978	1960 ^a	1978	1960 ^a	1978	1960 ^a	1978	1960 ^a	1978
	65 Ivory Coast	1	4	98	89	0	2	(.)	2	1	3
66 Ecuador	0	41	99	57	0	1	0	0	1	1
67 Paraguay	0	0	100	89	0	0	0	0	0	11
68 Tunisia	24	44	66	18	1	20	1	3	8	15
69 Korea, Dem. Rep.	..	31	..	29	..	5	..	5	..	30
70 Jordan	0	32	96	30	0	5	0	2	4	31
71 Lebanon	..	4	..	32	..	10	..	17	..	37
72 Jamaica	50	22	45	46	2	1	0	1	3	30
73 Turkey	8	6	89	72	0	15	0	1	3	6
74 Malaysia	20	27	74	52	(.)	2	(.)	11	6	8
75 Panama	..	24	..	64	..	4	..	2	..	6
76 Cuba	2	5	93	94	1	0	(.)	(.)	4	1
77 Korea, Rep. of	30	1	56	10	8	32	(.)	21	6	36
78 Algeria	12	97	81	2	0	0	1	0	6	1
79 Mexico	24	39	64	31	4	3	1	10	7	17
80 Chile	92	74	4	21	0	(.)	0	(.)	4	5
81 South Africa	29	29	42	29	2	1	4	6	23	35
82 Brazil	8	11	89	55	0	4	(.)	15	3	15
83 Costa Rica	0	(.)	95	71	0	3	0	3	5	23
84 Romania	..	12	..	18	..	10	..	24	..	36
85 Uruguay	..	1	71	56	21	20	..	3	8	20
86 Iran	88	95	9	2	0	2	0	(.)	3	1
87 Portugal	8	4	37	23	18	29	3	14	34	30
88 Argentina	1	2	95	72	0	3	(.)	8	4	15
89 Yugoslavia	18	9	45	19	4	8	15	32	18	32
90 Venezuela	74	97	26	1	0	(.)	0	(.)	(.)	2
91 Trinidad and Tobago	82	90	14	3	0	1	0	1	4	5
92 Hong Kong	5	1	15	2	45	46	4	15	31	36
93 Singapore	1	31	73	23	5	5	7	25	14	16
94 Greece	9	18	81	36	1	17	1	3	8	26
95 Israel	4	1	35	17	8	6	2	10	51	66
96 Spain	21	5	57	22	7	6	2	25	13	42
Industrial market economies	11 w	8 w	23 w	15 w	7 w	5 w	29 w	38 w	30 w	34 w
97 Ireland	5	3	67	43	6	9	4	14	18	31
98 Italy	8	7	19	8	17	12	29	33	27	40
99 New Zealand	(.)	6	97	72	0	3	(.)	7	3	12
100 United Kingdom	7	9	9	10	8	5	44	37	32	39
101 Finland	3	6	50	20	1	6	13	24	33	44
102 Austria	26	5	22	11	10	10	16	28	26	46
103 Japan	11	2	10	2	28	4	23	57	28	35
104 Australia	13	29	79	43	(.)	1	3	5	5	22
105 Canada	33	23	37	23	1	1	8	34	21	19
106 France	9	6	18	18	10	6	25	36	38	34
107 Netherlands	15	19	34	26	8	5	18	18	25	32
108 United States	10	6	27	25	3	2	35	43	25	24
109 Norway	22	34	34	13	2	1	10	30	32	22
110 Belgium	15	9	9	12	12	8	13	24	51	47
111 Germany, Fed. Rep.	9	6	4	6	4	5	44	47	39	36
112 Denmark	2	4	63	41	3	5	19	25	13	25
113 Sweden	10	6	29	13	1	2	31	43	29	36
114 Switzerland	2	3	8	5	12	7	30	33	48	52
Capital-surplus oil exporters	96 w	98 w	4 w	(.) w	0 w	(.) w	0 w	1 w	0 w	1 w
115 Iraq	97	99	3	1	0	(.)	0	(.)	0	(.)
116 Saudi Arabia	95	100	5	0	0	(.)	0	0	0	0
117 Libya	100	100	0	(.)	0	(.)	0	(.)	0	(.)
118 Kuwait	..	90	..	1	..	1	..	3	..	5
Nonmarket industrial economies	18 w	25 w	33 w	11 w	3 w	3 w	25 w	34 w	21 w	27 w
119 Bulgaria	3	2	75	32	12	4	6	42	4	20
120 Poland	..	20	..	11	..	7	..	41	..	21
121 Hungary	6	8	28	24	7	8	38	35	21	25
122 USSR	24	42	28	9	1	(.)	21	20	26	29
123 Czechoslovakia	20	6	11	6	(.)	5	45	53	25	30
124 German Dem. Rep.	..	3	..	3	..	5	..	61	..	28

a. Figures in italics are for 1961, not 1960.

Table 10. Structure of Merchandise Imports

	Percentage share of merchandise imports									
	Food		Fuels		Other primary commodities		Machinery and transport equipment		Other manufactures	
	1960 ^a	1978 ^b	1960 ^a	1978 ^b	1960 ^a	1978 ^b	1960 ^a	1978 ^b	1960 ^a	1978 ^b
Low-income countries	22 w	17 w	6 w	11 w	16 w	20 w	25 w	24 w	31 w	28 w
China and India	..	17 w	..	10 w	..	32 w	..	18 w	..	23 w
Other low-income	22 w	18 w	6 w	12 w	6 w	6 w	20 w	30 w	46 w	34 w
1 Kampuchea, Dem.	..	..	..	..	..	..	..	..	..	..
2 Lao PDR	..	..	..	..	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..	..	..
4 Bangladesh	..	21	..	15	..	14	..	18	..	32
5 Chad	19	..	12	..	4	..	19	..	46	..
6 Ethiopia	..	6	..	12	..	4	..	35	..	43
7 Nepal	..	13	..	10	..	16	..	20	..	41
8 Somalia	27	..	4	..	0	..	18	..	51	..
9 Mali	20	..	5	..	4	..	18	..	53	..
10 Burma	14	..	4	..	9	..	17	..	56	..
11 Afghanistan	14	14	7	8	4	0	14	7	61	71
12 Viet Nam	..	..	..	..	..	..	..	..	..	..
13 Burundi	..	23	..	11	..	8	..	27	..	31
14 Upper Volta	21	19	4	9	1	0	24	43	50	29
15 India	21	16	6	26	28	15	30	19	15	24
16 Malawi	..	5	..	12	..	2	..	37	..	44
17 Rwanda	..	..	..	..	..	..	..	..	..	..
18 Sri Lanka	39	30	7	16	5	4	15	24	34	26
19 Benin	17	15	10	15	1	2	18	22	54	46
20 Mozambique	..	..	..	..	..	..	..	..	..	..
21 Sierra Leone	23	21	12	12	5	1	15	24	45	42
22 China	..	17	..	0	..	43	..	18	..	22
23 Haiti	..	28	..	11	..	4	..	20	..	37
24 Pakistan	22	19	10	19	2	7	27	25	39	30
25 Tanzania	..	..	..	..	..	..	..	..	..	..
26 Zaire	..	17	..	18	..	..	..	38	..	27
27 Niger	24	..	5	..	4	..	18	..	49	..
28 Guinea	..	..	..	..	..	..	..	..	..	..
29 Central African Rep.	15	17	9	2	2	2	26	38	48	41
30 Madagascar	17	17	6	14	3	3	23	31	51	35
31 Uganda	6	..	8	..	8	..	25	..	53	..
32 Mauritania	5	..	3	..	3	..	39	..	50	..
33 Lesotho	..	..	..	..	..	..	..	..	..	..
34 Togo	16	8	6	14	3	4	32	37	43	37
35 Indonesia	23	18	5	9	10	6	17	36	45	31
36 Sudan	17	19	8	1	3	2	14	36	58	42
Middle-income countries	15 w	12 w	9 w	17 w	13 w	8 w	28 w	32 w	35 w	31 w
Oil exporters	18 w	16 w	7 w	6 w	8 w	5 w	27 w	42 w	40 w	31 w
Oil importers	14 w	11 w	10 w	19 w	16 w	9 w	29 w	28 w	31 w	33 w
37 Kenya	12	7	11	18	8	3	27	41	42	31
38 Ghana	19	9	5	16	4	5	26	26	46	44
39 Yemen Arab Rep.	..	..	..	..	..	..	..	..	..	..
40 Senegal	30	23	5	12	2	21	19	18	44	26
41 Angola	..	..	..	..	..	..	..	..	..	..
42 Zimbabwe	..	2	..	30	..	5	..	34	..	29
43 Egypt	23	26	11	2	16	7	25	37	25	28
44 Yemen, PDR	..	..	..	..	..	..	..	..	..	..
45 Liberia	16	17	4	18	7	1	34	32	39	32
46 Zambia	..	6	..	16	..	3	..	71	..	4
47 Honduras	13	9	9	12	3	2	24	31	51	46
48 Bolivia	..	..	..	..	..	..	..	..	..	..
49 Cameroon	20	10	8	7	3	2	17	39	52	42
50 Thailand	10	4	11	21	11	9	25	31	43	35
51 Philippines	15	8	10	21	5	7	36	27	34	37
52 Congo, People's Rep.	18	21	6	7	1	1	31	32	44	45
53 Nicaragua	9	10	10	15	5	2	22	24	54	49
54 Papua New Guinea	30	..	5	..	4	..	23	..	38	..
55 El Salvador	17	11	6	8	6	4	26	30	45	47
56 Nigeria	14	14	5	2	6	2	24	44	51	38
57 Peru	16	16	5	19	5	4	37	33	37	28
58 Morocco	27	20	8	15	7	8	19	30	39	27
59 Mongolia	..	..	..	..	..	..	..	..	..	..
60 Albania	..	17	..	2	..	3	..	45	..	33
61 Dominican Rep.	..	17	..	22	..	4	..	23	..	34
62 Colombia	8	11	3	7	15	7	43	36	31	39
63 Guatemala	12	15	10	16	7	39	26	23	45	7
64 Syrian Arab Rep.	24	12	8	25	5	4	15	22	48	37

Percentage share of merchandise imports

	Food		Fuels		Other primary commodities		Machinery and transport equipment		Other manufactures	
	1960 ^a	1978 ^b	1960 ^a	1978 ^b	1960 ^a	1978 ^b	1960 ^a	1978 ^b	1960 ^a	1978 ^b
	65 Ivory Coast	18	13	6	10	2	2	27	39	47	36
66 Ecuador	13	7	3	7	9	4	33	50	42	38
67 Paraguay	..	..	..	..	..	..	..	..	..	..
68 Tunisia	20	12	9	10	4	27	23	31	44	20
69 Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
70 Jordan	..	22	..	10	..	3	..	30	..	35
71 Lebanon	..	..	..	..	..	..	..	..	..	..
72 Jamaica	22	23	8	13	9	5	24	24	37	35
73 Turkey	7	1	11	32	16	5	42	31	24	31
74 Malaysia	29	17	16	13	13	7	14	34	28	29
75 Panama	15	10	10	24	1	1	22	23	52	42
76 Cuba	..	..	..	..	..	..	..	..	..	..
77 Korea, Rep. of	10	8	7	16	25	17	12	33	46	26
78 Algeria	26	17	4	2	2	3	14	45	54	33
79 Mexico	4	13	2	3	10	7	52	45	32	32
80 Chile	..	15	..	16	..	13	..	22	..	34
81 South Africa	6	6	7	7	9	7	37	52	41	34
82 Brazil	14	10	19	33	13	6	36	26	18	25
83 Costa Rica	13	7	6	10	6	3	26	30	49	50
84 Romania	..	..	..	..	..	..	..	..	..	..
85 Uruguay	5	7	24	32	46	9	17	25	8	27
86 Iran	14	..	1	..	1	..	23	..	61	..
87 Portugal	15	16	10	16	28	11	26	28	21	29
88 Argentina	3	6	13	12	11	9	44	39	29	34
89 Yugoslavia	11	7	5	14	25	11	37	37	22	31
90 Venezuela	18	12	1	1	10	4	36	52	35	31
91 Trinidad and Tobago	16	11	34	40	7	2	18	22	25	25
92 Hong Kong	27	15	3	5	16	7	10	19	44	54
93 Singapore	21	10	15	24	38	9	7	29	19	28
94 Greece	11	9	8	19	16	7	44	42	21	23
95 Israel	20	11	7	13	18	7	28	22	27	47
96 Spain	16	16	22	29	25	13	22	19	15	23
Industrial market economies	<i>22 w</i>	<i>13 w</i>	<i>11 w</i>	<i>19 w</i>	<i>24 w</i>	<i>10 w</i>	<i>16 w</i>	<i>25 w</i>	<i>27 w</i>	<i>33 w</i>
97 Ireland	18	12	12	10	11	5	21	30	38	43
98 Italy	20	18	14	24	31	14	13	20	22	24
99 New Zealand	8	7	8	14	16	7	29	31	39	41
100 United Kingdom	36	16	11	12	27	10	8	26	18	36
101 Finland	13	9	10	22	20	8	33	30	24	31
102 Austria	16	8	10	11	20	8	29	31	25	42
103 Japan	17	17	17	40	49	20	9	7	8	16
104 Australia	6	6	10	9	16	5	31	39	37	41
105 Canada	12	8	9	9	12	5	36	50	31	28
106 France	25	14	17	20	25	9	14	23	19	34
107 Netherlands	18	16	13	16	14	6	22	24	33	38
108 United States	24	10	10	24	25	8	10	27	31	31
109 Norway	12	8	9	12	13	6	36	34	30	40
110 Belgium	15	13	10	12	26	9	21	26	28	40
111 Germany, Fed. Rep.	26	15	8	16	28	10	10	21	28	38
112 Denmark	18	12	12	16	11	7	23	27	36	38
113 Sweden	13	9	14	16	13	6	26	30	34	39
114 Switzerland	18	10	8	8	13	6	21	28	40	48
Capital-surplus oil exporters	..	<i>12 w</i>	..	<i>1 w</i>	..	<i>2 w</i>	..	<i>42 w</i>	..	<i>43 w</i>
115 Iraq	..	<i>15</i>	..	<i>(.)</i>	..	<i>3</i>	..	<i>54</i>	..	<i>28</i>
116 Saudi Arabia	..	<i>11</i>	..	<i>1</i>	..	<i>2</i>	..	<i>43</i>	..	<i>43</i>
117 Libya	13	17	5	1	10	2	40	42	32	38
118 Kuwait	..	<i>12</i>	..	<i>7</i>	..	<i>2</i>	..	<i>45</i>	..	<i>40</i>
Nonmarket industrial economies	..	..	..	..	..	..	..	..	..	..
119 Bulgaria	..	..	..	..	..	..	..	..	..	..
120 Poland	..	..	..	..	..	..	..	..	..	..
121 Hungary	8	<i>11</i>	12	<i>12</i>	28	<i>12</i>	28	<i>31</i>	24	<i>34</i>
122 USSR	12	..	4	..	18	..	30	..	36	..
123 Czechoslovakia	..	10	..	17	..	14	..	39	..	20
124 German Dem. Rep.	..	..	..	..	..	..	..	..	..	..

a. Figures in italics are for 1961, not 1960. b. Figures in italics are for 1977, not 1978.

Table 11. Destination of Merchandise Exports

Origin	Destination of merchandise exports (percentage of total)							
	Industrial market economies		Developing countries		Nonmarket industrial economies		Capital-surplus oil exporters	
	1960	1979	1960	1979	1960	1979	1960	1979
Low-income countries	51 w	61 w	29 w	29 w	19 w	5 w	1 w	5 w
China and India	39 w	52 w	25 w	33 w	36 w	9 w	(.) w	6 w
Other low-income	63 w	69 w	33 w	26 w	3 w	2 w	1 w	3 w
1 Kampuchea, Dem.	..	..	..	..	..	..	..	..
2 Lao PDR	..	55	..	45	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..
4 Bangladesh	..	55	..	30	..	10	..	5
5 Chad	73	30	27	65	0	..	0	5
6 Ethiopia	69	72	24	11	1	7	6	10
7 Nepal	..	60	..	40	..	..	..	..
8 Somalia	85	18	15	2	0	(.)	(.)	80
9 Mali	93	68	7	32	0	(.)	(.)	(.)
10 Burma	23	37	74	61	3	(.)	(.)	2
11 Afghanistan	48	48	24	26	28	23	0	3
12 Viet Nam	..	..	..	..	..	..	..	..
13 Burundi	..	89	..	10	..	1	..	0
14 Upper Volta	4	75	96	25	0	..	0	..
15 India	66	54	25	20	7	14	2	12
16 Malawi	..	84	..	16	..	..	..	..
17 Rwanda	..	80	..	20	..	..	..	..
18 Sri Lanka	75	50	22	35	3	5	0	10
19 Benin	90	89	8	10	2	1	0	(.)
20 Mozambique	29	43	71	49	(.)	1	(.)	7
21 Sierra Leone	99	98	1	2	0	..	0	(.)
22 China	14	51	25	39	61	7	(.)	3
23 Haiti	98	97	2	3	(.)	..	0	..
24 Pakistan	56	47	38	35	4	4	2	14
25 Tanzania	74	57	25	40	1	2	0	1
26 Zaire	89	64	11	36	(.)	(.)	(.)	(.)
27 Niger	74	97	26	1	0	..	0	2
28 Guinea	63	69	19	29	18	..	(.)	2
29 Central African Rep.	83	78	17	22	0	(.)	0	(.)
30 Madagascar	79	67	20	33	1	(.)	(.)	(.)
31 Uganda	62	67	38	30	0	1	0	2
32 Mauritania	89	88	11	11	0	..	0	1
33 Lesotho	..	..	..	..	..	..	..	..
34 Togo	74	67	26	25	0	8	0	..
35 Indonesia	54	76	42	23	11	1	(.)	(.)
36 Sudan	59	36	29	45	8	9	4	10
Middle-income countries	68 w	67 w	24 w	26 w	8 w	4 w	(.) w	3 w
Oil exporters	68 w	73 w	27 w	26 w	5 w	1 w	(.) w	(.) w
Oil importers	68 w	64 w	23 w	27 w	9 w	6 w	(.) w	3 w
37 Kenya	77	63	23	36	0	(.)	(.)	1
38 Ghana	88	70	5	17	7	13	(.)	(.)
39 Yemen Arab Rep.	46	34	36	46	18	(.)	(.)	20
40 Senegal	89	59	11	41	0	(.)	0	(.)
41 Angola	64	33	34	66	2	0	0	1
42 Zimbabwe	..	..	..	..	..	..	..	..
43 Egypt	26	51	39	24	33	21	2	4
44 Yemen, PDR	42	44	56	49	(.)	(.)	2	7
45 Liberia	100	86	(.)	14	0	(.)	0	(.)
46 Zambia	..	82	..	18	..	(.)	..	(.)
47 Honduras	77	84	23	16	0	..	0	(.)
48 Bolivia	88	70	12	30	0	..	0	..
49 Cameroon	93	84	6	14	1	2	(.)	(.)
50 Thailand	47	58	48	37	2	1	3	4
51 Philippines	94	81	6	16	0	2	(.)	1
52 Congo, People's Rep.	93	72	7	28	0	(.)	0	(.)
53 Nicaragua	91	65	9	35	(.)	(.)	0	(.)
54 Papua New Guinea	..	90	..	10	..	..	..	..
55 El Salvador	88	74	12	26	0	..	0	(.)
56 Nigeria	95	87	4	13	1	(.)	0	(.)
57 Peru	84	76	16	20	(.)	4	0	(.)
58 Morocco	74	72	23	20	3	6	(.)	2
59 Mongolia	..	..	..	..	..	..	..	..
60 Albania	1	..	6	..	93	..	0	..
61 Dominican Rep.	92	87	7	13	0	..	1	..
62 Colombia	94	75	5	22	1	3	0	(.)
63 Guatemala	94	70	6	29	0	(.)	0	1
64 Syrian Arab Rep.	39	65	31	20	19	8	11	7

Destination of merchandise exports (percentage of total)

Origin	Industrial market economies		Developing countries		Nonmarket industrial economies		Capital-surplus oil exporters	
	1960	1979	1960	1979	1960	1979	1960	1979
65 Ivory Coast	84	78	16	17	0	5	0	(.)
66 Ecuador	91	56	8	42	1	2	0	(.)
67 Paraguay	61	64	39	36	0	..	0	..
68 Tunisia	76	69	19	27	3	1	2	3
69 Korea, Dem. Rep.	..	..	..	..	..	..	..	..
70 Jordan	1	15	62	45	11	3	26	37
71 Lebanon	21	11	39	29	8	9	32	51
72 Jamaica	96	78	4	20	0	2	0	(.)
73 Turkey	71	62	17	19	12	11	(.)	8
74 Malaysia	58	62	35	34	7	3	0	1
75 Panama	99	77	1	22	0	(.)	0	1
76 Cuba	72	..	9	..	19	..	(.)	..
77 Korea, Rep. of	89	73	11	20	0	(.)	0	7
78 Algeria	93	94	7	5	0	1	(.)	(.)
79 Mexico	93	80	7	20	(.)	(.)	0	(.)
80 Chile	91	63	9	36	(.)	(.)	(.)	1
81 South Africa	71	83	28	17	1	(.)	(.)	..
82 Brazil	81	66	13	26	6	6	(.)	2
83 Costa Rica	93	73	7	25	(.)	1	(.)	1
84 Romania	20	31	14	24	66	43	(.)	2
85 Uruguay	82	48	11	47	7	4	0	1
86 Iran	62	64	34	35	3	(.)	1	1
87 Portugal	56	79	42	18	2	2	(.)	1
88 Argentina	75	51	20	42	5	6	(.)	1
89 Yugoslavia	48	38	20	17	31	39	1	6
90 Venezuela	62	62	38	38	0	(.)	0	(.)
91 Trinidad and Tobago	80	78	20	22	0	(.)	(.)	(.)
92 Hong Kong	54	68	45	29	(.)	(.)	1	3
93 Singapore	38	44	57	49	4	2	1	5
94 Greece	65	59	13	21	21	8	1	12
95 Israel	76	79	23	21	1	(.)	0	(.)
96 Spain	80	62	18	30	2	3	(.)	5
Industrial market economies	67 w	69 w	30 w	24 w	3 w	3 w	(.) w	4 w
97 Ireland	96	89	4	8	(.)	1	(.)	2
98 Italy	65	68	29	22	4	3	2	7
99 New Zealand	95	72	4	21	1	5	(.)	2
100 United Kingdom	57	70	38	23	3	2	2	5
101 Finland	69	72	12	10	19	16	(.)	2
102 Austria	69	70	18	16	13	12	(.)	2
103 Japan	45	46	51	43	2	3	2	8
104 Australia	75	61	21	32	3	4	1	3
105 Canada	90	88	9	9	1	2	(.)	1
106 France	53	67	44	25	3	4	(.)	4
107 Netherlands	78	84	20	12	1	2	1	2
108 United States	61	57	37	36	1	3	1	4
109 Norway	80	84	16	14	4	2	(.)	(.)
110 Belgium	79	84	18	12	2	2	1	2
111 Germany, Fed. Rep.	70	73	25	20	4	4	1	3
112 Denmark	83	83	13	13	4	2	(.)	2
113 Sweden	79	80	17	12	4	4	(.)	4
114 Switzerland	72	69	24	19	3	8	1	4
Capital-surplus oil exporters	83 w	70 w	16 w	29 w	1 w	(.) w	0 w	1 w
115 Iraq	85	55	14	45	1	(.)	(.)	(.)
116 Saudi Arabia	74	75	26	25	0	(.)	0	(.)
117 Libya	67	80	26	20	7	(.)	0	..
118 Kuwait	91	65	9	30	0	(.)	0	5
Nonmarket industrial economies	19 w	..	22 w	..	59 w	..	(.) w	..
119 Bulgaria	13	..	7	..	80	..	(.)	..
120 Poland	29	..	17	..	54	..	(.)	..
121 Hungary	22	..	17	..	61	..	(.)	..
122 USSR	18	..	31	..	51	..	(.)	..
123 Czechoslovakia	16	..	17	..	67	..	0	..
124 German Dem. Rep.	19	..	13	..	68	..	(.)	..

Table 12. Trade in Manufactured Goods

Origin	Destination of manufactured exports (percentage of total)								Value of manufactured exports (millions of dollars)	
	Industrial market economies		Developing countries		Nonmarket industrial economies		Capital-surplus oil exporters		1962 ^a	1978 ^b
	1962 ^a	1978	1962 ^a	1978	1962 ^a	1978	1962 ^a	1978	1962 ^a	1978 ^b
Low-income countries	56 <i>w</i>	45 <i>w</i>	38 <i>w</i>	48 <i>w</i>	4 <i>w</i>	5 <i>w</i>	2 <i>w</i>	2 <i>w</i>		
China and India	..	43 <i>w</i>	..	52 <i>w</i>	..	3 <i>w</i>	..	2 <i>w</i>		
Other low-income	58 <i>w</i>	52 <i>w</i>	40 <i>w</i>	33 <i>w</i>	1 <i>w</i>	11 <i>w</i>	1 <i>w</i>	4 <i>w</i>		
1 Kampuchea, Dem.	30	21	69	79	1	0	0	0	1	2
2 Lao PDR	35	88	65	12	0	0	0	0	(.)	3
3 Bhutan	..	..	..	..	..	..	..	..	..	..
4 Bangladesh	..	46	..	43	..	8	..	3	..	346
5 Chad	19	31	75	69	0	0	6	0	1	3
6 Ethiopia	47	68	51	27	1	1	1	4	2	3
7 Nepal	..	79	..	21	..	0	..	0	..	11
8 Somalia	60	77	36	18	0	5	4	0	(.)	1
9 Mali	34	29	66	71	(.)	0	0	0	(.)	2
10 Burma	58	82	42	18	(.)	0	0	0	3	28
11 Afghanistan	96	82	3	10	1	7	0	1	9	43
12 Viet Nam	9	3	91	38	0	58	0	1	1	297
13 Burundi	..	100	..	0	..	0	..	0	..	1
14 Upper Volta	19	46	81	54	0	0	0	0	1	2
15 India	56	60	37	32	5	4	2	4	630	4,006
16 Malawi	..	26	..	74	..	0	..	0	..	14
17 Rwanda	..	0	..	100	..	0	..	0	(.)	(.)
18 Sri Lanka	63	74	35	20	2	0	(.)	6	6	65
19 Benin	19	26	78	70	3	4	0	0	1	5
20 Mozambique	..	67	..	27	..	0	..	6	..	3
21 Sierra Leone	100	100	0	0	0	0	0	0	23	72
22 China	..	27	..	70	..	3	..	(.)	..	4,510
23 Haiti	..	95	..	5	..	0	..	0	..	88
24 Pakistan	45	51	52	33	1	6	2	10	97	863
25 Tanzania	85	85	15	15	0	0	(.)	0	20	23
26 Zaire	93	89	7	11	0	0	0	0	12	70
27 Niger	8	89	93	11	0	0	0	0	1	76
28 Guinea	..	27	..	73	..	0	..	0	..	55
29 Central African Rep.	74	89	24	11	2	0	0	0	3	27
30 Madagascar	80	88	20	12	0	0	0	0	5	27
31 Uganda	..	100	..	0	..	0	..	0	..	2
32 Mauritania	77	84	23	16	0	0	0	0	2	4
33 Lesotho	..	..	..	..	..	..	..	..	..	..
34 Togo	44	45	56	50	0	5	0	0	1	21
35 Indonesia	52	47	46	52	1	0	1	1	2	226
36 Sudan	35	90	54	10	0	0	11	0	(.)	4
Middle-income countries	51 <i>w</i>	58 <i>w</i>	44 <i>w</i>	33 <i>w</i>	4 <i>w</i>	5 <i>w</i>	1 <i>w</i>	4 <i>w</i>		
Oil exporters	71 <i>w</i>	61 <i>w</i>	28 <i>w</i>	31 <i>w</i>	(.) <i>w</i>	6 <i>w</i>	1 <i>w</i>	2 <i>w</i>		
Oil importers	47 <i>w</i>	58 <i>w</i>	47 <i>w</i>	33 <i>w</i>	4 <i>w</i>	5 <i>w</i>	1 <i>w</i>	4 <i>w</i>		
37 Kenya	..	9	..	90	..	0	..	1	12	155
38 Ghana	38	56	50	44	11	0	1	0	12	40
39 Yemen Arab Rep.	..	..	..	..	..	..	..	..	..	1
40 Senegal	76	50	24	50	0	0	0	0	5	28
41 Angola	..	80	..	20	..	0	..	(.)	..	60
42 Zimbabwe	..	..	..	..	..	..	..	..	..	16
43 Egypt	..	21	..	14	..	55	..	10	88	504
44 Yemen, PDR	..	64	..	36	..	0	..	0	..	2
45 Liberia	100	45	0	55	0	0	0	0	3	9
46 Zambia	..	67	..	33	..	0	..	0	..	35
47 Honduras	3	30	97	70	0	0	0	0	2	58
48 Bolivia	82	..	18	..	0	..	0	..	4	22
49 Cameroon	25	64	75	36	0	0	0	0	4	31
50 Thailand	51	62	49	33	(.)	0	(.)	5	21	1,039
51 Philippines	91	78	9	20	0	(.)	(.)	2	26	1,136
52 Congo, People's Rep.	85	62	15	38	0	0	0	(.)	14	42
53 Nicaragua	..	1	..	99	..	0	..	0	..	142
54 Papua New Guinea	..	100	..	0	..	0	..	0	2	16
55 El Salvador	7	5	99	95	0	0	0	0	18	217
56 Nigeria	91	88	9	12	0	0	0	(.)	34	162
57 Peru	53	42	47	56	0	2	0	(.)	5	205
58 Morocco	49	73	49	20	2	2	(.)	5	28	345
59 Mongolia	..	(.)	..	46	..	54	..	0	..	33
60 Albania	..	33	..	67	..	0	..	0	..	44
61 Dominican Rep.	..	93	..	7	..	0	..	0	..	127
62 Colombia	57	43	43	56	0	1	0	(.)	16	430
63 Guatemala	..	6	..	94	..	0	..	0	..	230
64 Syrian Arab Rep.	..	11	..	33	..	33	..	23	21	89

Origin	Destination of manufactured exports (percentage of total)								Value of manufactured exports (millions of dollars)	
	Industrial market economies		Developing countries		Nonmarket industrial economies		Capital-surplus oil exporters		1962 ^a	1978 ^b
	1962 ^a	1978	1962 ^a	1978	1962 ^a	1978	1962 ^a	1978	1962 ^a	1978 ^b
65 Ivory Coast	58	33	42	67	0	0	0	0	2	155
66 Ecuador	46	21	54	79	0	0	0	0	2	27
67 Paraguay	83	46	17	54	0	0	0	0	4	29
68 Tunisia	59	77	33	15	0	1	8	7	10	429
69 Korea, Dem. Rep.	..	5	..	41	..	45	..	9	..	242
70 Jordan	..	15	..	26	..	0	..	59	1	134
71 Lebanon	..	9	..	32	..	(.)	..	59	8	402
72 Jamaica	72	80	28	18	0	2	0	0	20	475
73 Turkey	73	70	10	15	17	4	(.)	11	4	501
74 Malaysia	11	55	89	44	0	(.)	(.)	1	58	1,714
75 Panama	24	17	76	83	0	0	0	0	1	30
76 Cuba	..	39	..	49	..	12	..	0	..	39
77 Korea, Rep. of	83	74	17	17	0	0	(.)	9	10	11,220
78 Algeria	..	68	..	22	..	6	..	4	..	35
79 Mexico	71	69	29	31	0	(.)	0	(.)	122	1,620
80 Chile	44	38	56	62	0	0	0	(.)	20	118
81 South Africa	..	67	..	29	..	0	..	4	318	2,576
82 Brazil	54	50	44	47	2	1	0	2	39	4,335
83 Costa Rica	..	27	..	73	..	0	..	0	..	263
84 Romania	..	36	..	52	..	11	..	1	..	5,712
85 Uruguay	..	65	..	34	..	1	..	(.)	..	290
86 Iran	64	82	28	7	1	6	7	5	33	597
87 Portugal	53	80	46	18	(.)	2	1	(.)	205	1,157
88 Argentina	61	40	36	56	3	4	(.)	(.)	39	1,674
89 Yugoslavia	31	28	40	19	28	46	1	7	344	4,054
90 Venezuela	93	55	7	45	0	0	0	0	158	144
91 Trinidad and Tobago	34	64	66	36	0	0	0	0	13	147
92 Hong Kong	62	71	37	26	0	(.)	1	3	642	10,693
93 Singapore	5	48	95	48	0	(.)	(.)	4	328	4,679
94 Greece	52	61	41	18	4	3	3	18	27	1,543
95 Israel	66	61	32	39	2	0	0	0	184	3,195
96 Spain	57	59	41	34	1	2	1	5	205	9,620
Industrial market economies	<i>62 w</i>	<i>64 w</i>	<i>33 w</i>	<i>28 w</i>	<i>3 w</i>	<i>3 w</i>	<i>2 w</i>	<i>5 w</i>		
97 Ireland	76	90	24	8	0	1	(.)	1	134	3,093
98 Italy	64	65	29	24	5	4	2	7	3,490	47,493
99 New Zealand	90	67	10	32	0	0	0	1	23	850
100 United Kingdom	57	63	38	28	3	2	2	7	8,947	57,872
101 Finland	55	63	13	11	31	24	1	2	608	6,413
102 Austria	65	66	17	16	16	16	1	2	931	10,238
103 Japan	44	45	50	45	4	3	2	7	4,340	93,954
104 Australia	61	29	39	70	(.)	(.)	(.)	1	263	4,198
105 Canada	89	89	11	9	(.)	1	(.)	1	1,959	23,922
106 France	58	63	38	29	4	4	(.)	4	5,317	58,238
107 Netherlands	76	78	20	16	2	2	2	4	2,443	27,434
108 United States	47	55	51	39	(.)	1	2	5	13,957	99,083
109 Norway	79	74	19	21	2	4	(.)	1	442	5,346
110 Belgium	82	82	15	13	2	2	1	3	3,257	35,498
111 Germany, Fed. Rep.	73	69	23	22	3	5	1	4	11,623	125,246
112 Denmark	75	77	17	17	7	3	1	3	627	6,417
113 Sweden	76	75	19	18	5	4	(.)	3	1,958	17,590
114 Switzerland	72	66	25	26	2	4	1	4	2,005	21,653
Capital-surplus oil exporters	..	<i>20 w</i>	..	<i>72 w</i>	..	<i>1 w</i>	..	<i>7 w</i>		
115 Iraq	(.)	18	21	82	(.)	0	79	0	5	53
116 Saudi Arabia	..	16	..	73	..	1	..	10	..	237
117 Libya	68	46	32	54	0	(.)	0	0	(.)	40
118 Kuwait	..	..	..	..	..	..	..	..	..	959
Nonmarket industrial economies	..	<i>13 w</i>	..	<i>36 w</i>	..	<i>49 w</i>	..	<i>2 w</i>		
119 Bulgaria	..	5	..	35	..	57	..	3	..	4,926
120 Poland	..	19	..	38	..	42	..	1	..	9,836
121 Hungary	..	20	..	42	..	34	..	4	..	4,329
122 USSR	..	..	..	..	..	..	..	..	..	25,456
123 Czechoslovakia	..	13	..	17	..	68	..	2	..	10,296
124 German Dem. Rep.	..	9	..	49	..	41	..	1	..	11,412

a. Figures in italics are for 1963, not 1962. b. Figures in italics are for 1977, not 1978.

Table 13. Balance of Payments and Debt Service Ratios

	Current account balance before interest payments on external public debt (millions of dollars)		Interest payments on external public debt (millions of dollars)		Debt service as percentage of:			
	1970	1979 ^a	1970	1979	GNP		Exports of goods and services	
					1970	1979 ^a	1970	1979 ^a
Low-income countries					1.1 <i>w</i>	1.8 <i>w</i>	12.6 <i>w</i>	10.8 <i>w</i>
China and India					..	..	..	..
Other low-income					1.4 <i>w</i>	2.8 <i>w</i>	9.1 <i>w</i>	10.8 <i>w</i>
1 Kampuchea, Dem.	..	..	..	..	..	..	..	..
2 Lao PDR	..	..	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..
4 Bangladesh	-60	-1,269	..	41	..	0.9	..	8.4
5 Chad	2	-72	(.)	4	1.0	3.3	3.9	14.4
6 Ethiopia	-26	-79	6	13	1.2	0.7	11.4	4.9
7 Nepal	..	-7	(.)	2	0.3	0.2	..	1.4
8 Somalia	-5	-205	(.)	1	0.3	0.2	2.1	1.1
9 Mali	-2	-64	(.)	3	0.2	0.7	1.2	8.5
10 Burma	-61	-328	3	31	0.9	1.8	15.8	22.0
11 Afghanistan	..	..	9	4	2.5	1.4	..	..
12 Viet Nam	..	..	..	..	..	..	..	..
13 Burundi	2	-38	(.)	1	0.3	0.4	2.3	3.1
14 Upper Volta	9	-68	(.)	4	0.6	0.8	4.0	3.8
15 India	-205	1,395	189	375	0.9	0.8	20.9	9.5
16 Malawi	-32	-185	3	16	1.8	2.1	7.0	9.4
17 Rwanda	6	44	(.)	1	0.2	0.1	1.4	0.6
18 Sri Lanka	-47	-203	12	28	2.0	2.3	10.3	6.5
19 Benin	-1	-87	(.)	3	0.7	1.4	2.2	5.1
20 Mozambique	..	..	..	..	..	..	..	..
21 Sierra Leone	-14	-109	2	12	2.9	8.6	10.1	22.2
22 China	..	..	..	..	..	..	..	..
23 Haiti	2	-57	(.)	3	1.0	0.7	5.8	2.9
24 Pakistan	-591	-984	76	213	1.9	2.3	23.6	12.0
25 Tanzania	-29	-457	6	23	1.2	0.9	8.2	7.4
26 Zaire	-55	-463	9	95	2.0	2.3	4.4	9.1
27 Niger	1	-96	1	7	0.6	0.8	3.8	3.6
28 Guinea	..	..	4	24	2.4	5.7	26.7	22.2
29 Central African Rep.	-11	-9	(.)	(.)	1.1	(.)	3.3	0.1
30 Madagascar	12	-425	2	8	0.8	0.7	3.5	3.9
31 Uganda	24	32	4	5	0.6	0.3	3.4	7.4
32 Mauritania	-5	-70	(.)	16	2.0	13.6	3.2	32.4
33 Lesotho	..	-22	(.)	1	0.5	0.3	..	0.6
34 Togo	4	-219	1	16	0.9	6.9	3.0	24.4
35 Indonesia	-286	1,711	24	772	0.9	4.5	6.9	13.4
36 Sudan	-29	-151	13	86	1.3	4.5	10.7	33.0
Middle-income countries					1.5 <i>w</i>	3.2 <i>w</i>	9.0 <i>w</i>	14.2 <i>w</i>
Oil exporters					2.0 <i>w</i>	5.3 <i>w</i>	11.2 <i>w</i>	20.1 <i>w</i>
Oil importers					1.3 <i>w</i>	2.4 <i>w</i>	8.1 <i>w</i>	11.5 <i>w</i>
37 Kenya	-38	-419	11	60	1.7	1.8	7.9	7.5
38 Ghana	-56	282	12	26	1.1	0.5	5.2	4.2
39 Yemen Arab Rep.	..	-118	..	6	0.2	1.2	..	1.8
40 Senegal	-14	-394	2	43	0.8	5.0	2.7	13.7
41 Angola	..	..	..	..	..	..	..	..
42 Zimbabwe	-13	-61	..	..	..	..	..	..
43 Egypt	-116	-1,316	38	237	4.1	5.5	28.7	15.8
44 Yemen, PDR	-4	-31	..	2	..	1.3	..	2.8
45 Liberia	..	-91	6	22	5.5	8.1	..	13.8
46 Zambia	131	264	23	93	3.2	9.7	5.8	19.7
47 Honduras	-61	-154	3	45	0.8	5.3	2.8	12.7
48 Bolivia	-16	-350	6	116	2.2	5.4	10.9	29.6
49 Cameroon	-26	-290	4	65	0.8	2.5	3.2	9.5
50 Thailand	-234	-1,945	16	146	0.6	1.0	3.3	4.2
51 Philippines	-23	-1,266	25	298	1.4	2.7	7.5	12.6
52 Congo, People's Rep.	..	-144	3	38	3.4	10.1	..	7.3
53 Nicaragua	-32	202	7	41	3.2	3.2	11.1	8.1
54 Papua New Guinea	..	87	1	26	0.1	2.3	..	4.3
55 El Salvador	12	1,128	4	22	0.9	1.0	3.6	3.2
56 Nigeria	-348	1,429	20	205	0.7	0.4	4.2	1.5
57 Peru	284	1,055	44	437	2.1	6.6	11.6	22.3
58 Morocco	-101	-1,110	23	411	1.5	5.2	7.7	21.8
59 Mongolia	..	..	..	..	..	..	..	..
60 Albania	..	..	..	..	..	..	..	..
61 Dominican Rep.	-98	-287	4	54	0.8	3.1	4.5	13.9
62 Colombia	-249	759	44	231	1.7	2.4	11.6	12.5
63 Guatemala	-2	-187	6	19	1.4	0.5	7.4	2.2
64 Syrian Arab Rep.	-63	173	6	86	2.1	3.8	11.0	16.5

	Current account balance before interest payments on external public debt (millions of dollars)		Interest payments on external public debt (millions of dollars)		Debt service as percentage of:			
	1970	1979 ^a	1970	1979	GNP		Exports of goods and services	
					1970	1979 ^a	1970	1979 ^a
65 Ivory Coast	-26	-560	11	225	2.8	6.0	6.8	15.2
66 Ecuador	-106	-424	7	161	1.5	7.4	9.1	29.6
67 Paraguay	-13	-239	4	22	1.8	1.5	11.8	8.5
68 Tunisia	-35	-134	18	163	4.5	4.8	18.5	11.8
69 Korea, Dem. Rep.	..	..	..	..	..	..	..	..
70 Jordan	-15	31	2	39	0.7	3.5	3.6	5.3
71 Lebanon	..	..	1	4	0.2	..	..	..
72 Jamaica	-145	-47	8	95	1.1	8.7	2.5	15.9
73 Turkey	-28	-752	42	253	1.3	1.1	16.3	12.9
74 Malaysia	29	1,564	21	189	1.7	2.9	3.6	4.7
75 Panama	-57	-113	7	202	3.0	15.7	7.7	18.8
76 Cuba	..	..	..	..	..	..	..	..
77 Korea, Rep. of	-553	-3,216	70	937	3.1	4.4	19.4	13.5
78 Algeria	-116	-568	10	1,162	0.8	8.6	3.2	25.6
79 Mexico	-844	-1,672	216	2,874	2.1	8.8	24.1	64.1
80 Chile	-13	-522	78	354	3.1	6.2	18.9	26.2
81 South Africa	-1,156	4,447	59	890	1.2	4.1	5.1	10.6
82 Brazil	-704	-7,600	133	2,865	0.9	3.1	12.4	34.6
83 Costa Rica	-67	-498	7	80	2.9	6.6	9.9	23.1
84 Romania	..	..	..	..	..	..	..	..
85 Uruguay	-29	-248	16	69	2.6	1.8	25.2	9.9
86 Iran	-422	3,084	85	394	3.0	..	12.2	..
87 Portugal	98	373	28	235	1.3	1.9	4.4	5.3
88 Argentina	-37	158	121	584	1.9	1.5	21.5	15.5
89 Yugoslavia	-276	-3,442	72	219	1.7	0.8	8.3	4.2
90 Venezuela	-64	366	40	655	0.7	3.2	2.9	9.4
91 Trinidad and Tobago	-74	327	6	39	1.9	1.2	4.4	2.3
92 Hong Kong	..	-870	..	11	(.)	0.1	..	..
93 Singapore	-566	-1,091	6	86	0.6	2.5	0.6	1.3
94 Greece	-364	-1,591	41	301	1.0	1.9	7.1	8.4
95 Israel	-600	-1,093	13	379	0.7	4.7	2.6	10.3
96 Spain	151	2,309	72	853	0.5	0.9	3.6	5.6
Industrial market economies^b								
97 Ireland	-189	-1,283	..	..	..	..	..	..
98 Italy	902	5,110	..	..	..	..	..	..
99 New Zealand	-29	-545	..	..	..	..	..	..
100 United Kingdom	1,881	-3,814	..	..	..	..	..	..
101 Finland	-239	-284	..	..	..	..	..	..
102 Austria	-23	-1,782	..	..	..	..	..	..
103 Japan	1,980	-8,695	..	..	..	..	..	..
104 Australia	-832	-1,932	..	..	..	..	..	..
105 Canada	1,078	-4,358	..	..	..	..	..	..
106 France	72	1,535	..	..	..	..	..	..
107 Netherlands	-520	-2,348	..	..	..	..	..	..
108 United States	2,357	-685	..	..	..	..	..	..
109 Norway	-242	-1,156	..	..	..	..	..	..
110 Belgium	715	-3,810	..	..	..	..	..	..
111 Germany, Fed. Rep.	850	-6,357	..	..	..	..	..	..
112 Denmark	-544	-2,983	..	..	..	..	..	..
113 Sweden	-266	-2,619	..	..	..	..	..	..
114 Switzerland	70	2,434	..	..	..	..	..	..
Capital-surplus oil exporters								
115 Iraq	110	3,250	9	37	0.9	1.0	2.2	..
116 Saudi Arabia	71	10,857	..	..	..	..	..	..
117 Libya	645	7,364	..	..	..	..	..	..
118 Kuwait	..	14,219	..	..	..	..	..	..
Nonmarket industrial economies^b								
119 Bulgaria	..	..	..	..	..	..	..	..
120 Poland	..	..	..	..	..	..	..	..
121 Hungary	..	..	..	..	..	..	..	..
122 USSR	..	..	..	..	..	..	..	..
123 Czechoslovakia	..	..	..	..	..	..	..	..
124 German Dem. Rep.	..	..	..	..	..	..	..	..

a. Figures in italics are for 1978, not 1979. b. See the technical notes.

Table 14. Flow of External Capital

	Public and publicly guaranteed medium- and long-term loans (millions of dollars)						Net direct private investment (millions of dollars)	
	Gross inflow		Repayment of principal		Net inflow		1970	1979 ^a
	1970	1979	1970	1979	1970	1979		
Low-income countries								
China and India								
Other low-income								
1 Kampuchea, Dem.	..	..	..	..	..	..	..	..
2 Lao PDR	..	..	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..
4 Bangladesh	..	543	..	43	..	500	..	..
5 Chad	6	27	2	15	4	12	1	37
6 Ethiopia	27	122	15	13	12	109	4	..
7 Nepal	1	41	2	2	-1	39	..	..
8 Somalia	4	87	(.)	1	4	86	5	(.)
9 Mali	21	79	(.)	6	21	73	..	-5
10 Burma	16	409	18	60	-2	349	..	..
11 Afghanistan	31	41	15	5	16	36	..	..
12 Viet Nam	..	..	..	..	..	..	..	..
13 Burundi	1	38	(.)	2	1	36	..	..
14 Upper Volta	2	68	2	4	(.)	64	1	..
15 India	890	1,164	307	588	583	576	6	..
16 Malawi	38	138	3	11	35	127	9	13
17 Rwanda	(.)	42	(.)	1	(.)	41	(.)	13
18 Sri Lanka	61	187	27	48	34	139	(.)	47
19 Benin	2	51	1	10	1	41	7	..
20 Mozambique	..	..	..	..	..	..	..	..
21 Sierra Leone	8	96	10	42	-2	54	8	11
22 China	..	..	..	..	..	..	..	..
23 Haiti	4	42	4	5	(.)	37	3	15
24 Pakistan	484	882	114	272	370	610	31	61
25 Tanzania	50	215	10	17	40	198	..	..
26 Zaire	31	216	28	73	3	143	42	30
27 Niger	12	85	1	7	11	78	1	12
28 Guinea	90	131	10	59	80	72	..	..
29 Central African Rep.	2	12	2	(.)	(.)	12	1	22
30 Madagascar	10	81	5	10	5	71	10	-7
31 Uganda	26	35	4	22	22	13	4	2
32 Mauritania	4	79	3	51	1	28	1	84
33 Lesotho	(.)	19	(.)	1	(.)	18	..	..
34 Togo	5	290	2	52	3	238	1	..
35 Indonesia	441	1,945	59	1,335	382	610	83	226
36 Sudan	54	384	22	191	32	193	..	..
Middle-income countries								
Oil exporters								
Oil importers								
37 Kenya	30	370	15	44	15	326	14	65
38 Ghana	40	143	12	23	28	120	8	-1
39 Yemen Arab Rep.	..	141	..	25	..	116	..	-5
40 Senegal	15	219	5	79	10	140	5	45
41 Angola	..	..	..	..	..	..	..	..
42 Zimbabwe	..	..	..	..	..	..	..	..
43 Egypt	302	2,293	247	804	55	1,489	..	1,211
44 Yemen, PDR	1	102	..	10	1	92	..	..
45 Liberia	7	173	12	54	-5	119	..	..
46 Zambia	351	369	32	208	319	161	..	..
47 Honduras	29	211	3	63	26	148	8	10
48 Bolivia	54	330	17	142	37	188	-76	18
49 Cameroon	28	506	4	62	24	444	16	54
50 Thailand	55	1,124	23	132	32	992	43	52
51 Philippines	132	1,677	73	506	59	1,171	-29	75
52 Congo, People's Rep.	35	101	6	68	29	33	..	4
53 Nicaragua	44	112	17	14	27	98	15	3
54 Papua New Guinea	25	53	(.)	20	25	33	..	41
55 El Salvador	8	77	6	13	2	64	4	23
56 Nigeria	62	1,583	36	60	26	1,523	205	304
57 Peru	148	1,113	101	482	47	631	-70	70
58 Morocco	163	1,434	36	388	127	1,046	20	39
59 Mongolia	..	..	..	..	..	..	..	..
60 Albania	..	..	..	..	..	..	..	..
61 Dominican Rep.	36	228	7	105	29	123	72	-13
62 Colombia	235	1,036	75	433	160	603	39	124
63 Guatemala	37	129	20	14	17	115	29	117
64 Syrian Arab Rep.	59	571	30	264	29	307	..	-52

	Public and publicly guaranteed medium- and long-term loans (millions of dollars)						Net direct private investment (millions of dollars)	
	Gross inflow		Repayment of principal		Net inflow		1970	1979 ^a
	1970	1979 ^a	1970	1979 ^a	1970	1979 ^a		
65 Ivory Coast	77	967	27	307	50	660	31	36
66 Ecuador	42	1,148	16	553	26	595	89	50
67 Paraguay	15	82	7	29	8	53	4	53
68 Tunisia	89	765	45	174	44	591	16	49
69 Korea, Dem. Rep.	..	..	..	..	..	..	..	..
70 Jordan	14	249	3	56	11	193	..	26
71 Lebanon	12	51	2	6	10	45	..	..
72 Jamaica	15	227	6	113	9	114	161	-26
73 Turkey	328	4,150	128	387	200	3,763	58	129
74 Malaysia	43	793	45	386	-2	407	94	873
75 Panama	67	407	24	192	43	215	33	40
76 Cuba	..	..	..	..	..	..	..	..
77 Korea, Rep. of	440	4,648	198	1,699	242	2,949	66	17
78 Algeria	292	4,172	33	1,525	259	2,647	45	72
79 Mexico	772	10,667	476	7,484	296	3,183	323	668
80 Chile	397	1,315	163	904	234	411	-79	233
81 South Africa	519	2,129	146	1,266	373	863	145	-359
82 Brazil	882	8,760	254	3,387	628	5,373	407	2,220
83 Costa Rica	30	501	21	175	9	326	26	46
84 Romania	..	..	..	..	..	..	..	..
85 Uruguay	37	173	47	54	-10	119	..	216
86 Iran	940	1,752	235	663	705	1,089	25	..
87 Portugal	21	1,014	62	175	-41	839	50	59
88 Argentina	487	3,018	342	902	145	2,116	11	234
89 Yugoslavia	180	526	168	344	12	182	..	..
90 Venezuela	224	3,836	42	890	182	2,946	-23	81
91 Trinidad and Tobago	8	20	10	10	-2	10	83	130
92 Hong Kong	(.)	180	(.)	11	(.)	169	..	..
93 Singapore	58	353	6	133	52	220	93	815
94 Greece	164	798	61	440	103	358	50	19
95 Israel	410	1,199	25	477	385	722	40	9
96 Spain	268	1,788	122	850	146	938	179	623
Industrial market economies^b								
97 Ireland	..	..	..	..	..	..	32	381
98 Italy	..	..	..	..	..	..	496	-182
99 New Zealand	..	..	..	..	..	..	22	26
100 United Kingdom	..	..	..	..	..	..	-440	-3,091
101 Finland	..	..	..	..	..	..	-34	-98
102 Austria	..	..	..	..	..	..	84	107
103 Japan	..	..	..	..	..	..	-261	-2,662
104 Australia	..	..	..	..	..	..	787	1,092
105 Canada	..	..	..	..	..	..	566	-373
106 France	..	..	..	..	..	..	248	508
107 Netherlands	..	..	..	..	..	..	-14	-1,092
108 United States	..	..	..	..	..	..	-6,130	-14,638
109 Norway	..	..	..	..	..	..	32	399
110 Belgium	..	..	..	..	..	..	162	-278
111 Germany, Fed. Rep.	..	..	..	..	..	..	-290	-3,527
112 Denmark	..	..	..	..	..	..	75	103
113 Sweden	..	..	..	..	..	..	-105	-526
114 Switzerland	..	..	..	..	..	..	..	..
Capital-surplus oil exporters								
115 Iraq	63	308	18	195	45	113	24	..
116 Saudi Arabia	..	..	..	..	..	..	20	-1,173
117 Libya	..	..	..	..	..	..	139	-319
118 Kuwait	..	..	..	..	..	..	..	145
Nonmarket industrial economies^b								
119 Bulgaria	..	..	..	..	..	..	..	..
120 Poland	..	..	..	..	..	..	..	..
121 Hungary	..	..	..	..	..	..	..	..
122 USSR	..	..	..	..	..	..	..	..
123 Czechoslovakia	..	..	..	..	..	..	..	..
124 German Dem. Rep.	..	..	..	..	..	..	..	..

a. Figures in italics are for 1978, not 1979. b. See the technical notes.

Table 15. External Public Debt and International Reserves

	External public debt outstanding and disbursed				Gross international reserves		
	Millions of dollars		As percentage of GNP		Millions of dollars		In months of import coverage 1979 ^a
	1970	1979	1970	1979 ^a	1970	1979 ^a	
Low-income countries			22.2 <i>w</i>	29.5 <i>w</i>			4.2 <i>w</i>
China and India			..	..			..
Other low-income			17.9 <i>w</i>	21.3 <i>w</i>			2.8 <i>w</i>
1 Kampuchea, Dem.	..	..	..	..	..	..	..
2 Lao PDR	..	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..
4 Bangladesh	..	2,842	..	29.6	..	412	2.4
5 Chad	32	172	11.8	30.8	2	17	0.5
6 Ethiopia	169	620	9.5	15.7	72	321	5.4
7 Nepal	3	125	0.3	6.9	95	241	8.9
8 Somalia	77	546	24.4	40.4	21	54	1.4
9 Mali	238	545	88.1	44.2	1	17	0.5
10 Burma	101	1,141	4.7	23.2	98	331	4.8
11 Afghanistan	454	1,143	48.2	29.1	50	933	..
12 Viet Nam	..	..	..	..	..	..	..
13 Burundi	7	103	3.1	12.9	15	95	5.7
14 Upper Volta	21	256	6.4	25.4	36	67	2.0
15 India	7,935	15,641	14.8	12.3	1,023	11,816	10.2
16 Malawi	121	423	38.7	33.1	29	75	1.7
17 Rwanda	2	124	0.9	13.0	8	153	5.8
18 Sri Lanka	317	1,086	16.1	32.4	43	547	4.1
19 Benin	41	186	16.0	19.2	16	20	..
20 Mozambique	..	..	..	..	..	..	..
21 Sierra Leone	59	289	14.3	33.4	39	47	1.3
22 China	..	..	..	..	..	..	..
23 Haiti	40	209	10.3	18.0	4	66	2.3
24 Pakistan	3,059	7,998	30.5	38.5	194	1,120	2.5
25 Tanzania	248	1,153	19.4	25.3	65	69	0.9
26 Zaire	311	3,780	17.1	51.8	189	335	1.4
27 Niger	32	234	8.7	14.4	19	137	..
28 Guinea	314	990	51.7	68.6	13	35	1.0
29 Central African Rep.	19	150	11.2	24.0	1	49	2.7
30 Madagascar	93	348	10.8	12.6	37	5	0.1
31 Uganda	128	245	9.8	2.6	57	..	..
32 Mauritania	27	590	16.8	120.9	3	118	3.6
33 Lesotho	8	52	9.2	11.1	..	..	..
34 Togo	40	851	16.0	85.9	35	71	2.0
35 Indonesia	2,443	13,326	27.1	28.3	160	4,205	3.4
36 Sudan	309	2,114	11.6	34.5	22	67	0.7
Middle-income countries			10.4 <i>w</i>	17.4 <i>w</i>			5.2 <i>w</i>
Oil exporters			10.9 <i>w</i>	24.5 <i>w</i>			4.9 <i>w</i>
Oil importers			10.2 <i>w</i>	14.8 <i>w</i>			5.4 <i>w</i>
37 Kenya	313	1,427	20.3	24.3	220	669	3.7
38 Ghana	489	977	22.6	9.6	58	404	4.8
39 Yemen Arab Rep.	..	466	..	11.9	..	1,433	10.3
40 Senegal	98	786	11.6	32.3	22	35	..
41 Angola	..	..	..	..	..	..	..
42 Zimbabwe	..	..	..	..	..	..	..
43 Egypt	1,644	11,409	23.8	60.4	165	1,794	2.6
44 Yemen, PDR	1	441	..	49.0	60	230	5.7
45 Liberia	158	454	49.6	48.4	..	55	..
46 Zambia	596	1,559	34.5	50.5	515	193	1.8
47 Honduras	90	746	12.8	36.3	20	215	2.4
48 Bolivia	477	1,835	46.4	38.7	46	526	4.5
49 Cameroon	131	1,634	12.1	32.9	81	141	0.5
50 Thailand	322	2,699	4.9	9.9	911	3,102	4.2
51 Philippines	633	5,180	9.2	17.3	255	3,120	4.6
52 Congo, People's Rep.	143	799	54.5	75.8	9	47	0.2
53 Nicaragua	155	1,101	20.6	62.9	50	58	0.9
54 Papua New Guinea	36	393	6.2	19.5	..	555	5.8
55 El Salvador	88	397	8.6	11.5	63	401	3.5
56 Nigeria	478	3,744	6.4	5.0	223	5,870	4.5
57 Peru	856	5,931	12.7	42.9	338	2,114	7.0
58 Morocco	711	6,227	18.6	40.3	141	916	2.1
59 Mongolia	..	..	..	..	..	..	..
60 Albania	..	..	..	..	..	..	..
61 Dominican Rep.	212	828	14.6	16.2	32	295	2.2
62 Colombia	1,249	3,426	18.1	12.6	207	5,032	12.7
63 Guatemala	106	482	5.7	7.0	80	963	6.1
64 Syrian Arab Rep.	232	2,283	13.6	24.9	57	1,006	3.2

	External public debt outstanding and disbursed				Gross international reserves		
	Millions of dollars		As percentage of GNP		Millions of dollars		In months of import coverage 1979 ^a
	1970	1979 ^a	1970	1979 ^a	1970	1979 ^a	
65 Ivory Coast	256	3,647	18.3	40.3	119	168	1.6
66 Ecuador	213	2,207	13.3	22.8	85	932	3.7
67 Paraguay	112	491	19.1	14.4	18	629	8.8
68 Tunisia	545	3,057	38.5	43.5	60	667	2.5
69 Korea, Dem. Rep.	..	..	..	..	..	..	..
70 Jordan	118	1,047	..	38.1	258	1,586	7.7
71 Lebanon	64	93	4.2	..	405	6,253	..
72 Jamaica	154	1,182	11.5	49.4	139	68	0.6
73 Turkey	1,854	10,972	14.4	19.0	440	2,697	5.3
74 Malaysia	390	3,004	10.0	15.4	667	5,006	5.6
75 Panama	194	2,106	19.0	83.9	16	119	0.6
76 Cuba	..	..	..	..	..	..	..
77 Korea, Rep. of	1,797	14,694	20.9	24.5	610	3,112	1.5
78 Algeria	937	15,330	18.5	49.1	352	5,505	5.4
79 Mexico	3,206	28,805	9.7	24.5	756	3,406	1.7
80 Chile	2,066	4,767	26.4	23.6	392	2,716	5.7
81 South Africa	1,089	7,399	6.3	13.9	1,057	5,569	3.9
82 Brazil	3,227	35,092	7.2	17.7	1,190	9,837	4.1
83 Costa Rica	134	1,277	13.8	33.0	16	165	1.2
84 Romania	..	..	..	..	..	2,338	..
85 Uruguay	267	914	11.0	13.3	186	2,331	17.8
86 Iran	2,193	7,372	20.8	..	217	17,205	..
87 Portugal	471	3,708	7.0	16.8	1,565	12,262	19.2
88 Argentina	1,878	8,716	7.6	8.6	682	11,625	13.4
89 Yugoslavia	1,198	3,700	8.5	5.2	144	2,137	..
90 Venezuela	728	9,797	6.6	20.0	1,047	13,152	9.7
91 Trinidad and Tobago	101	422	12.5	10.5	43	2,164	14.6
92 Hong Kong	2	405	0.1	2.2	..	..	..
93 Singapore	152	1,323	7.9	14.8	1,012	5,819	4.1
94 Greece	905	3,531	8.9	8.9	318	2,902	3.2
95 Israel	2,274	9,954	41.3	55.1	451	3,694	3.7
96 Spain	1,209	8,656	3.3	4.4	1,851	20,705	8.2
Industrial market economies^b							5.0 w
97 Ireland	..	..	..	..	698	2,408	2.7
98 Italy	..	..	..	..	5,547	52,353	7.0
99 New Zealand	..	..	..	..	258	476	1.0
100 United Kingdom	..	..	..	..	2,918	29,087	2.7
101 Finland	..	..	..	..	456	2,047	1.8
102 Austria	..	..	..	..	1,806	15,395	6.8
103 Japan	..	..	..	..	4,876	31,927	2.9
104 Australia	..	..	..	..	1,709	5,484	2.8
105 Canada	..	..	..	..	4,732	14,220	2.4
106 France	..	..	..	..	5,199	59,523	5.5
107 Netherlands	..	..	..	..	3,362	30,104	4.4
108 United States	..	..	..	..	15,237	143,259	6.1
109 Norway	..	..	..	..	813	4,820	2.6
110 Belgium	..	..	..	..	2,947	22,930	3.7
111 Germany, Fed. Rep.	..	..	..	..	13,879	101,316	5.9
112 Denmark	..	..	..	..	488	4,075	2.0
113 Sweden	..	..	..	..	775	6,412	2.2
114 Switzerland	..	..	..	..	5,317	59,074	19.9
Capital-surplus oil exporters							6.9 w
115 Iraq	274	878	8.8	3.9	472	..	..
116 Saudi Arabia	..	..	..	..	670	21,614	5.3
117 Libya	..	..	..	..	1,596	7,604	11.0
118 Kuwait	..	..	..	..	209	4,171	6.5
Nonmarket industrial economies^b							..
119 Bulgaria	..	..	..	..	..	..	..
120 Poland	..	..	..	..	..	..	..
121 Hungary	..	..	..	..	..	..	..
122 USSR	..	..	..	..	..	..	..
123 Czechoslovakia	..	..	..	..	..	..	..
124 German Dem. Rep.	..	..	..	..	..	..	..

a. Figures in italics are for 1978, not 1979. b. See the technical notes.

**Table 16. Official Development Assistance
from OECD and OPEC Members**

	Amount								
	1960	1965	1970	1975	1976	1977	1978	1979	1980 ^a
OECD									
Millions of US dollars									
98 Italy	77	60	147	182	226	186	375	279	600
99 New Zealand	..	..	14	66	53	52	55	62	63
100 United Kingdom	407	472	500	910	885	1,120	1,456	2,067	1,766
101 Finland	..	2	7	48	51	49	55	86	106
102 Austria	..	10	11	79	48	108	166	127	174
103 Japan	105	244	458	1,148	1,105	1,424	2,215	2,638	3,300
104 Australia	59	119	212	552	377	400	588	620	653
105 Canada	75	96	337	848	763	945	1,060	1,042	1,035
106 France	823	752	971	2,093	2,146	2,267	2,705	3,358	4,041
107 Netherlands	35	70	196	608	728	908	1,074	1,404	1,577
108 United States	2,702	4,023	3,153	4,161	4,360	4,682	5,664	4,567	7,091
109 Norway	5	11	37	184	218	295	355	428	472
110 Belgium	101	102	120	378	340	371	536	631	575
111 Germany, Fed. Rep.	223	456	599	1,689	1,592	1,717	2,347	3,350	3,512
112 Denmark	5	13	59	205	214	258	388	448	464
113 Sweden	7	38	117	566	608	779	783	956	928
114 Switzerland	4	12	30	104	112	119	173	205	246
Total	4,628	6,478	6,967	13,820	13,829	15,680	19,994	22,267	26,603
OECD									
As percentage of donor GNP									
98 Italy	.22	.10	.16	.11	.13	.10	.14	.09	.15
99 New Zealand	..	..	.23	.52	.41	.39	.34	.30	.27
100 United Kingdom	.56	.47	.41	.39	.40	.46	.48	.52	.34
101 Finland	..	.02	.06	.18	.17	.16	.17	.21	.22
102 Austria	..	.11	.07	.21	.12	.22	.29	.19	.22
103 Japan	.24	.27	.23	.23	.20	.21	.23	.26	.32
104 Australia	.37	.53	.59	.59	.41	.42	.54	.52	.47
105 Canada	.19	.19	.41	.52	.39	.48	.52	.47	.42
106 France	1.35	.76	.66	.62	.62	.62	.57	.59	.62
107 Netherlands	.31	.36	.61	.75	.83	.86	.82	.93	.99
108 United States	.53	.58	.32	.27	.26	.25	.27	.19	.27
109 Norway	.11	.16	.32	.66	.70	.83	.90	.93	.82
110 Belgium	.88	.60	.46	.59	.51	.46	.55	.56	.48
111 Germany, Fed. Rep.	.31	.40	.32	.40	.36	.33	.37	.44	.43
112 Denmark	.09	.13	.38	.58	.56	.60	.75	.75	.72
113 Sweden	.05	.19	.38	.82	.82	.99	.90	.94	.76
114 Switzerland	.04	.09	.15	.19	.19	.19	.20	.21	.24
OECD									
National currencies									
98 Italy (billions of lire)	48	38	92	119	188	148	318	233	505
99 New Zealand (millions of dollars)	..	..	13	55	53	54	53	61	64
100 United Kingdom (millions of pounds)	145	168	208	411	490	642	759	974	762
101 Finland (millions of markkaa)	..	6	29	177	195	196	226	335	392
102 Austria (millions of schillings)	..	260	286	1,376	861	1,785	2,411	1,698	2,214
103 Japan (billions of yen)	38	88	165	341	328	383	466	578	767
104 Australia (millions of dollars)	53	106	189	422	308	361	514	555	575
105 Canada (millions of dollars)	73	104	353	863	752	1,005	1,209	1,221	1,203
106 France (millions of francs)	4,063	3,713	5,393	8,975	10,255	11,762	12,207	14,287	16,797
107 Netherlands (millions of guilders)	133	253	710	1,538	1,925	2,229	2,323	2,817	3,086
108 United States (millions of dollars)	2,702	4,023	3,153	4,161	4,360	4,682	5,664	4,567	7,091
109 Norway (millions of kroner)	36	78	264	962	1,190	1,570	1,861	2,167	2,313
110 Belgium (millions of francs)	5,050	5,100	6,000	13,903	13,129	13,234	16,836	18,500	16,511
111 Germany, Fed. Rep. (millions of deutsche marks)	937	1,824	2,192	4,156	4,009	3,987	4,715	6,140	6,276
112 Denmark (millions of kroner)	35	90	443	1,178	1,294	1,549	2,140	2,357	2,575
113 Sweden (millions of kronor)	36	196	605	2,350	2,647	3,504	3,538	4,098	3,897
114 Switzerland (millions of francs)	17	52	131	260	281	284	309	341	408
OECD									
Summary									
ODA (billions of US dollars, nominal prices)	4.6	6.5	7.0	13.8	13.8	15.7	20.0	22.3	26.6
ODA as percentage of GNP	.51	.49	.34	.36	.33	.33	.35	.34	.37
ODA (billions of US dollars, constant 1978 prices)	13.1	16.7	14.9	17.9	17.3	18.0	20.0	20.3	22.2
GNP (trillions of US dollars, nominal prices)	.9	1.3	2.0	3.8	4.2	4.7	5.6	6.5	7.1
ODA deflator ^c	.35	.39	.47	.77	.80	.87	1.00	1.10	1.20

1981 ^a	1982 ^a	1983 ^a	1984 ^a	1985 ^a
821	1,020	1,248	1,515	1,749
71	76	81	86	91
2,777	2,689	2,971	3,199	3,440
150	194	245	321	402
208	252	292	336	385
3,595	4,107	4,807	5,437	6,323
798	897	1,002	1,116	1,240
1,213	1,400	1,564	1,741	1,934
4,490	4,968	5,500	6,157	6,861
1,808	2,060	2,280	2,463	2,730
7,295	7,885	8,437	8,588	9,070
561	669	777	889	993
729	888	1,010	1,142	1,264
3,726	4,163	4,595	5,043	5,504
548	598	667	731	810
1,214	1,431	1,599	1,779	1,970
260	357	422	480	544
30,264	33,654	37,497	41,023	45,310
.18	.20	.22	.24	.25
.26	.25	.24	.23	.22
.48	.42	.42	.41	.40
.26	.30	.34	.40	.45
.25	.27	.28	.29	.30
.31	.31	.32	.32	.33
.49	.49	.49	.49	.49
.43	.44	.44	.44	.44
.62	.62	.62	.63	.64
1.02	1.04	1.03	1.00	1.00
.26	.25	.24	.22	.21
.90	.95	.98	1.00	1.00
.55	.60	.61	.62	.62
.43	.44	.45	.45	.45
.74	.73	.73	.72	.72
.90	.95	.95	.95	.95
.25	.31	.33	.34	.35
696	864	1,058	1,284	1,482
73	78	83	88	93
1,172	1,135	1,254	1,350	1,452
550	711	898	1,176	1,473
2,638	3,196	3,703	4,261	4,883
807	922	1,079	1,221	1,420
690	775	866	964	1,072
1,406	1,623	1,813	2,018	2,242
18,634	20,618	22,826	25,553	28,475
3,525	4,016	4,445	4,802	5,322
7,295	7,885	8,437	8,588	9,070
2,730	3,256	3,782	4,327	4,833
20,875	25,428	28,921	32,701	36,195
6,670	7,453	8,225	9,027	9,853
3,034	3,311	3,693	4,047	4,484
5,069	5,975	6,676	7,428	8,226
429	589	697	793	898
30.3	33.7	37.5	41.0	45.3 ^b
.38	.38	.38	.38	.37 ^c
23.1	23.7	24.5	24.9	25.7
7.9	8.8	9.8	10.9	12.1
1.31	1.42	1.53	1.65	1.76

	Amount					
	1975	1976	1977	1978	1979	1980 ^d
OPEC						
Millions of US dollars						
54 Nigeria	14	83	64	38	31	42
78 Algeria	41	54	47	44	272	83
86 Iran	593	752	221	278	21	29
90 Venezuela	31	103	52	109	82	130
115 Iraq	218	232	61	172	868	854
116 Saudi Arabia	1,997	2,407	2,409	1,470	2,298	3,033
117 Libya	261	94	115	169	108	281
118 Kuwait	976	616	1,517	1,268	1,053	1,186
United Arab Emirates	1,046	1,059	1,175	684	1,113 ^d	1,062
Qatar	339	195	197	106	277	299
Total OAPEC ^e	4,878	4,657	5,521	3,913	5,989	6,798
Total OPEC	5,516	5,595	5,858	4,338	6,123	6,999
OPEC						
As percentage of donor GNP						
54 Nigeria	.04	.19	.13	.06	.04	.05
78 Algeria	.28	.33	.24	.18	.87	.21
86 Iran	1.12	1.16	.29	.37	.03	.03
90 Venezuela	.11	.33	.14	.27	.17	.23
115 Iraq	1.64	1.44	.33	.76	2.60	2.19
116 Saudi Arabia	5.62	5.13	4.09	2.27	3.01	2.60
117 Libya	2.30	.63	.65	.99	.46	.92
118 Kuwait	8.11	4.52	10.02	7.36	4.08	3.87
United Arab Emirates	11.68	9.21	8.05	4.82	6.17	3.96
Qatar	15.62	7.95	7.90	3.56	5.89	4.50
Total OAPEC ^e	4.99	3.83	3.75	2.39	2.80	2.34
Total OPEC	2.59	2.14	1.91	1.29	1.49	1.36

Net bilateral flow to low-income countries

	1960	1965	1970	1975	1976	1977	1978	1979
OECD								
As percentage of donor GNP								
98 Italy	.03	.04	.06	.01	.01	.02	.01	.01
99 New Zealand	.22	.23	.15	.11	.14	.11	.15	.16
100 United Kingdom	.22	.23	.15	.11	.14	.11	.15	.16
101 Finland	.06	.06	.05	.02	.02	.01	.01	.02
102 Austria	.06	.06	.05	.02	.02	.01	.01	.02
103 Japan	.12	.13	.11	.08	.08	.06	.07	.11
104 Australia	.08	.09	.10	.07	.07	.08	.08	.09
105 Canada	.11	.10	.22	.24	.14	.13	.17	.13
106 France	.01	.12	.09	.10	.10	.07	.08	.08
107 Netherlands	.19	.08	.24	.24	.26	.33	.34	.30
108 United States	.22	.26	.14	.08	.05	.03	.04	.03
109 Norway	.02	.04	.12	.25	.22	.30	.39	.34
110 Belgium	.27	.56	.30	.31	.26	.24	.23	.28
111 Germany, Fed. Rep.	.13	.14	.10	.12	.09	.07	.10	.10
112 Denmark	.02	.10	.20	.21	.24	.21	.26	.26
113 Sweden	.01	.07	.12	.41	.40	.44	.37	.40
114 Switzerland	.02	.05	.10	.07	.05	.08	.08	.06
Total	.18	.20	.13	.11	.09	.07	.09	.09

a. Estimated. b. These figures are based on exchange rates of October 1980. If the exchange rates of May 1981 had been used, the figure for ODA in 1985 would be \$39.8 billion, that for ODA as a percentage of GNP .36 percent. c. See the technical notes. d. Provisional. e. Organization of Arab Petroleum Exporting Countries.

Table 17. Population Growth, Past and Projected, and Hypothetical Stationary Population^a

	Average annual growth of population (percent)		Projected population (millions)		Hypothetical size of stationary population (millions)	Assumed year of reaching net reproduction rate of 1	Year of reaching stationary population
	1960-70	1970-79	1980	2000			
Low-income countries	2.2 <i>w</i>	2.1 <i>w</i>	2,300 <i>t</i>	3,275 <i>t</i>			
China and India	2.1 <i>w</i>	1.9 <i>w</i>	1,650 <i>t</i>	2,214 <i>t</i>			
Other low-income	2.4 <i>w</i>	2.6 <i>w</i>	650 <i>t</i>	1,061 <i>t</i>			
1 Kampuchea, Dem.	2.7	..	..	..	..	..	..
2 Lao PDR	2.2	1.4	3	5	11	2035	2130
3 Bhutan	2.0	2.1	1	2	4	2035	2130
4 Bangladesh	2.4	3.0	92	148	338	2035	2105
5 Chad	1.8	2.0	4	7	19	2045	2140
6 Ethiopia	2.4	2.1	31	53	162	2045	2140
7 Nepal	2.0	2.2	14	21	44	2035	2130
8 Somalia	2.4	2.3	4	6	17	2040	2130
9 Mali	2.4	2.6	7	12	35	2040	2130
10 Burma	2.2	2.2	34	50	90	2020	2110
11 Afghanistan	2.3	2.6	16	25	59	2040	2135
12 Viet Nam	3.1	2.9	54	88	153	2015	2075
13 Burundi	1.6	2.0	4	7	17	2040	2135
14 Upper Volta	1.6	1.6	6	10	28	2040	2130
15 India	2.3	2.1	673	975	1,621	2020	2115
16 Malawi	2.8	2.8	6	11	36	2040	2110
17 Rwanda	2.8	2.8	5	9	29	2040	2110
18 Sri Lanka	2.4	1.7	15	21	31	2010	2065
19 Benin	2.6	2.9	4	6	19	2040	2110
20 Mozambique	2.2	2.5	10	20	51	2040	2130
21 Sierra Leone	2.2	2.5	3	6	17	2040	2130
22 China	1.9	1.9	977	1,239	1,564	2005	2070
23 Haiti	1.5	1.7	5	8	17	2030	2090
24 Pakistan	2.8	3.1	82	141	340	2035	2100
25 Tanzania	2.7	3.4	19	35	97	2035	2100
26 Zaire	2.0	2.7	28	49	139	2040	2130
27 Niger	3.3	2.8	5	10	29	2040	2130
28 Guinea	2.8	2.9	5	9	23	2040	2130
29 Central African Rep.	2.2	2.2	2	3	9	2040	2130
30 Madagascar	2.1	2.5	9	15	45	2040	2110
31 Uganda	3.7	3.0	13	24	67	2035	2100
32 Mauritania	2.5	2.7	2	3	9	2045	2135
33 Lesotho	2.0	2.3	1	2	5	2035	2105
34 Togo	2.7	2.4	2	4	13	2040	2110
35 Indonesia	2.0	2.3	146	220	388	2020	2110
36 Sudan	2.2	2.6	18	31	86	2040	2105
Middle-income countries	2.5 <i>w</i>	2.4 <i>w</i>	1,008 <i>t</i>	1,569 <i>t</i>			
Oil exporters	2.7 <i>w</i>	2.7 <i>w</i>	334 <i>t</i>	565 <i>t</i>			
Oil importers	2.3 <i>w</i>	2.2 <i>w</i>	674 <i>t</i>	1,004 <i>t</i>			
37 Kenya	3.2	3.4	16	34	109	2035	2095
38 Ghana	2.4	3.0	12	21	52	2035	2100
39 Yemen Arab Rep.	1.8	1.8	6	9	22	2040	2130
40 Senegal	2.4	2.6	6	10	30	2045	2135
41 Angola	1.5	2.3	7	12	35	2045	2135
42 Zimbabwe	3.9	3.3	7	15	42	2035	2095
43 Egypt	2.2	2.0	40	60	104	2020	2080
44 Yemen, PDR	1.9	2.3	2	3	8	2040	2110
45 Liberia	3.1	3.3	2	4	11	2035	2095
46 Zambia	2.8	3.0	6	11	31	2035	2125
47 Honduras	3.1	3.3	4	7	16	2030	2090
48 Bolivia	2.3	2.5	6	9	20	2035	2095
49 Cameroon	1.8	2.2	8	14	37	2040	2130
50 Thailand	2.9	2.4	46	68	103	2005	2070
51 Philippines	3.0	2.6	48	75	125	2015	2075
52 Congo, People's Rep.	2.1	2.5	2	3	7	2040	2130
53 Nicaragua	2.9	3.3	3	5	11	2030	2090
54 Papua New Guinea	2.1	2.3	3	4	9	2035	2125
55 El Salvador	2.9	2.9	5	8	15	2020	2080
56 Nigeria	2.5	2.5	85	161	459	2035	2105
57 Peru	2.8	2.7	18	28	55	2025	2085
58 Morocco	2.5	2.9	20	36	81	2030	2090
59 Mongolia	2.9	2.9	2	3	5	2020	2080
60 Albania	2.8	2.5	3	4	6	2005	2060
61 Dominican Rep.	2.9	2.9	5	9	16	2015	2075
62 Colombia	3.0	2.3	27	40	61	2010	2070
63 Guatemala	2.8	2.9	7	12	23	2025	2085
64 Syrian Arab Rep.	3.2	3.6	9	16	33	2020	2080

	Average annual growth of population (percent)		Projected population (millions)		Hypothetical size of stationary population (millions)	Assumed year of reaching net reproduction rate of 1	Year of reaching stationary population
	1960-70	1970-79	1980	2000			
65 Ivory Coast	3.7	5.5	9	15	45	2040	2110
66 Ecuador	3.1	3.3	8	14	28	2025	2085
67 Paraguay	2.6	2.9	3	5	9	2020	2080
68 Tunisia	1.9	2.1	6	9	16	2020	2070
69 Korea, Dem. Rep.	2.8	2.5	18	28	47	2020	2085
70 Jordan	3.0	3.4	3	6	13	2025	2085
71 Lebanon	2.8	0.8	3	4	6	2010	2070
72 Jamaica	1.4	1.6	2	3	5	2005	2065
73 Turkey	2.5	2.5	45	69	114	2015	2075
74 Malaysia	2.9	2.2	13	20	30	2010	2120
75 Panama	2.9	2.3	2	3	4	2010	2070
76 Cuba	2.0	1.4	10	13	15	2000	2045
77 Korea, Rep. of	2.4	1.9	38	53	72	2005	2065
78 Algeria	2.8	3.3	19	34	79	2030	2090
79 Mexico	3.2	2.9	67	109	188	2015	2075
80 Chile	2.1	1.7	11	15	19	2005	2070
81 South Africa	2.6	2.7	29	50	107	2025	2090
82 Brazil	2.9	2.2	119	177	281	2015	2075
83 Costa Rica	3.4	2.5	2	3	5	2005	2065
84 Romania	1.0	0.9	22	26	29	2000	2075
85 Uruguay	1.1	0.3	3	4	4	2010	2075
86 Iran	2.7	2.9	38	64	140	2030	2090
87 Portugal	-0.2	1.4	10	11	14	2000	2070
88 Argentina	1.4	1.6	28	34	43	2010	2075
89 Yugoslavia	1.0	0.9	22	26	29	2005	2065
90 Venezuela	3.4	3.3	15	24	41	2015	2075
91 Trinidad and Tobago	2.0	1.3	1	2	2	2000	2065
92 Hong Kong	2.5	2.6	5	6	8	2000	2035
93 Singapore	2.4	1.4	2	3	4	2000	2035
94 Greece	0.5	0.6	9	10	11	2000	2065
95 Israel	3.4	2.7	4	5	7	2010	2080
96 Spain	1.1	1.0	37	43	50	2000	2065
Industrial market economies	1.0 w	0.7 w	675 t	744 t			
97 Ireland	0.4	1.1	3	4	5	2000	2060
98 Italy	0.6	0.6	57	61	63	2000	2030
99 New Zealand	1.7	1.5	3	4	5	2000	2070
100 United Kingdom	0.5	0.1	56	58	60	2000	2025
101 Finland	0.4	0.5	5	5	5	2000	2020
102 Austria	0.6	0.1	7	8	8	2000	2025
103 Japan	1.0	1.1	117	130	133	2000	2015
104 Australia	2.0	1.5	14	17	19	2000	2075
105 Canada	1.8	1.1	24	28	31	2000	2030
106 France	1.0	0.6	54	58	61	2000	2030
107 Netherlands	1.3	0.8	14	16	16	2000	2025
108 United States	1.3	1.0	227	259	283	2000	2030
109 Norway	0.8	0.5	4	4	5	2000	2030
110 Belgium	0.5	0.2	10	10	10	2000	2025
111 Germany, Fed. Rep.	0.9	0.1	61	62	62	2000	2000
112 Denmark	0.7	0.4	5	5	5	2000	2020
113 Sweden	0.7	0.3	8	8	8	2000	2000
114 Switzerland	1.6	0.3	6	7	7	2000	2005
Capital-surplus oil exporters	3.6 w	4.0 w	26 t	45 t			
115 Iraq	3.1	3.3	13	23	52	2030	2090
116 Saudi Arabia	3.4	4.5	9	15	37	2035	2095
117 Libya	3.8	4.1	3	5	12	2030	2090
118 Kuwait	9.8	6.0	1	2	5	2030	2085
Nonmarket industrial economies	1.1 w	0.8 w	355 t	410 t			
119 Bulgaria	0.8	0.6	9	10	10	2000	2055
120 Poland	1.0	0.9	36	41	47	2000	2060
121 Hungary	0.4	0.4	11	11	12	2000	2030
122 USSR	1.3	0.9	267	314	356	2000	2060
123 Czechoslovakia	0.5	0.7	15	17	19	2000	2085
124 German Dem. Rep.	-0.1	-0.1	17	17	18	2000	2015
Total^b			4,364	6,043			

a. For the assumptions used in the projections, see the technical notes. b. Excludes countries with populations of less than one million.

Table 18. Demographic and Fertility-related Indicators

	Crude birth rate per thousand population		Crude death rate per thousand population		Percentage change in:		Total fertility rate 1979	Percentage of women in reproductive age group (aged 15-44) 1979	Percentage of married women using contraceptives ^a	
	1960	1979	1960	1979	Crude birth rate 1960-79	Crude death rate 1960-79			1970	1978
Low-income countries	40 w	29 w	18 w	11 w	-27.5 w	-38.2 w	4.5 w	46 w	..	..
China and India	38 w	24 w	16 w	9 w	-35.7 w	-40.8 w	4.0 w	47 w	..	..
Other low-income	47 w	42 w	24 w	16 w	-11.6 w	-35.0 w	5.7 w	42 w	..	..
1 Kampuchea, Dem.	49	..	22	..	..	..	..	..	..	..
2 Lao PDR	44	42	23	21	-3.4	-6.7	6.2	40	..	..
3 Bhutan	46	41	28	20	-9.4	-29.3	6.0	43	..	..
4 Bangladesh	49	44	23	16	-11.6	-30.2	5.7	44	..	9
5 Chad	45	44	29	24	-2.4	-18.4	5.9	42	..	..
6 Ethiopia	51	50	28	24	-1.8	-13.2	6.7	42	..	..
7 Nepal	46	42	29	20	-8.3	-29.7	6.2	41	1	4
8 Somalia	49	46	29	20	-5.9	-30.0	6.1	41	..	..
9 Mali	50	49	27	22	-0.8	-18.9	6.7	41	..	..
10 Burma	43	37	22	14	-13.1	-38.5	5.3	42	..	..
11 Afghanistan	50	47	30	23	-6.4	-23.6	6.7	42	..	1
12 Viet Nam	47	36	21	9	-21.8	-58.2	5.3	42	..	..
13 Burundi	47	45	27	22	-3.2	-15.8	5.9	43	..	..
14 Upper Volta	49	48	27	21	-1.4	-19.2	6.5	41	..	..
15 India	44	34	23	14	-23.1	-40.5	4.8	45	12	23
16 Malawi	53	51	27	19	-3.6	-31.0	7.0	40	..	..
17 Rwanda	51	50	27	19	-2.9	-30.5	6.9	40	..	..
18 Sri Lanka	36	28	9	7	-22.3	-18.7	3.8	47	8	41
19 Benin	51	49	27	19	-3.6	-30.2	6.7	41	..	..
20 Mozambique	46	45	26	18	-2.4	-29.5	6.1	41	..	..
21 Sierra Leone	47	46	27	19	-2.8	-30.5	6.1	41	..	..
22 China ^b	34	18	11	6	-47.4	-42.6	2.7	49	..	..
23 Haiti	45	41	19	14	-8.7	-27.5	5.7	42	..	5
24 Pakistan	48	44	23	14	-8.3	-36.7	6.5	42	4	6
25 Tanzania	47	46	22	15	-0.6	-31.5	6.5	40	..	..
26 Zaire	48	46	24	18	-4.6	-25.2	6.1	42	..	(.)
27 Niger	52	52	27	22	-0.6	-18.1	7.1	41	..	..
28 Guinea	47	46	30	20	-1.9	-32.8	6.2	42	..	..
29 Central African Rep.	43	44	28	21	3.0	-23.8	5.9	41	..	..
30 Madagascar	47	46	27	18	-1.9	-31.6	6.5	41	..	..
31 Uganda	45	45	20	14	-0.4	-32.0	6.1	41	..	..
32 Mauritania	51	50	27	22	-0.8	-19.4	6.9	41	..	..
33 Lesotho	40	40	23	16	-1.7	-30.7	5.4	42	..	..
34 Togo	51	48	27	18	-5.3	-30.9	6.5	41	..	..
35 Indonesia	47	36	25	13	-22.5	-46.4	4.8	43	(.)	27
36 Sudan	45	46	25	18	0.9	-26.2	6.6	42	..	..
Middle-income countries	41 w	34 w	15 w	10 w	-16.9 w	-32.7 w	4.8 w	43 w	..	..
Oil exporters	47 w	41 w	19 w	12 w	-12.6 w	-35.8 w	5.8 w	42 w	..	..
Oil importers	38 w	31 w	14 w	9 w	-20.0 w	-31.3 w	4.4 w	43 w	..	..
37 Kenya	52	51	24	13	-1.3	-42.7	7.8	37	1	..
38 Ghana	49	48	24	17	-1.4	-30.0	6.7	41	2	4
39 Yemen Arab Rep.	50	47	29	23	-5.0	-19.5	6.5	41	..	..
40 Senegal	48	48	26	21	0.2	-18.0	6.5	41	..	..
41 Angola	50	48	31	22	-4.0	-27.5	6.4	42	..	..
42 Zimbabwe	47	47	19	13	0.6	-30.9	6.6	40	..	14
43 Egypt	44	37	19	12	-14.7	-35.1	4.9	44	9	17
44 Yemen, PDR	50	46	29	20	-7.9	-30.1	6.8	41	..	..
45 Liberia	50	48	21	14	-4.2	-33.0	6.9	40	..	..
46 Zambia	51	49	24	17	-2.8	-31.4	6.9	40	..	..
47 Honduras	51	46	19	11	-10.6	-39.5	6.8	40	..	9
48 Bolivia	46	43	22	16	-6.7	-25.5	6.2	42	..	..
49 Cameroon	43	42	27	19	-1.2	-30.2	5.7	41	..	..
50 Thailand	44	31	16	8	-29.8	-50.0	4.3	44	8	39
51 Philippines	46	34	16	8	-24.7	-47.4	4.8	45	8	37
52 Congo, People's Rep.	46	45	27	18	-2.2	-29.8	6.0	41	..	..
53 Nicaragua	51	45	19	12	-10.3	-37.4	6.3	41	..	19
54 Papua New Guinea	44	37	23	15	-15.5	-32.5	5.3	42	..	3
55 El Salvador	48	39	17	9	-19.1	-48.2	5.8	41	..	34
56 Nigeria	52	50	25	17	-4.2	-31.6	6.9	41	..	..
57 Peru	46	38	20	11	-18.5	-43.7	5.3	43	..	..
58 Morocco	50	44	21	13	-12.0	-38.5	6.6	41	1	5
59 Mongolia	41	36	15	8	-12.4	-46.9	5.2	42	..	..
60 Albania	41	30	11	6	-26.8	-44.0	3.9	45	..	..
61 Dominican Rep.	50	36	16	9	-27.9	-45.6	4.8	43	..	31
62 Colombia	46	30	14	8	-33.8	-41.0	3.9	45	..	46
63 Guatemala	48	40	18	11	-16.8	-41.8	5.5	43	..	..
64 Syrian Arab Rep.	47	45	18	8	-4.7	-52.0	7.0	40	..	(.)

	Crude birth rate per thousand population		Crude death rate per thousand population		Percentage change in:		Total fertility rate 1979	Percentage of women in reproductive age group (aged 15-44) 1979	Percentage of married women using contraceptives ^a	
	1960	1979	1960	1979	Crude birth rate 1960-79	Crude death rate 1960-79			1970	1978
	65 Ivory Coast	50	47	26	18	-6.4			-32.0	6.7	41	..	..
66 Ecuador	47	40	14	10	-13.3	-29.9	6.1	42	..	6
67 Paraguay	43	38	13	8	-11.0	-36.3	5.5	42	..	16
68 Tunisia	47	31	19	11	-33.5	-43.4	4.4	43	10	27
69 Korea, Dem. Rep.	41	32	13	8	20.6	-37.8	4.4	44	..	..
70 Jordan	47	45	20	10	-5.5	-50.3	7.0	40	..	..
71 Lebanon	43	30	14	8	-30.3	-40.4	4.1	43	14	..
72 Jamaica	39	29	9	7	-27.8	-30.9	3.9	41	..	40
73 Turkey	43	34	16	10	-19.5	-37.4	4.8	43	3	38
74 Malaysia	39	28	9	6	-27.6	-37.4	3.8	45	7	36
75 Panama	41	31	10	6	-24.4	-42.0	4.0	44	..	47
76 Cuba	32	18	9	6	-45.1	-29.7	2.2	47	..	..
77 Korea, Rep. of	43	25	14	8	-39.9	-41.5	3.3	48	32	49
78 Algeria	51	46	20	14	-9.1	-32.8	7.0	40	..	..
79 Mexico	45	36	12	7	-20.0	-36.0	5.0	41	..	40
80 Chile	37	23	12	7	-36.3	-42.3	2.8	47	..	..
81 South Africa	39	38	15	10	-2.6	-33.1	5.1	42	..	..
82 Brazil	43	29	13	9	-27.1	-32.6	4.1	45	2	..
83 Costa Rica	47	29	10	5	-38.1	-46.4	3.5	47	..	64
84 Romania	20	18	9	10	-5.7	5.6	2.5	40	..	..
85 Uruguay	22	20	9	10	-9.5	4.3	2.8	40	..	..
86 Iran	47	43	21	13	-8.1	-36.4	6.1	42	3	23
87 Portugal	24	18	8	10	-24.5	28.0	2.4	42	..	..
88 Argentina	24	21	9	8	-11.5	-9.3	2.8	43	..	..
89 Yugoslavia	23	18	10	9	-24.6	-13.3	2.2	44	59	..
90 Venezuela	45	35	10	6	-22.1	-37.3	4.7	44	..	..
91 Trinidad and Tobago	38	22	8	6	-40.3	-30.5	2.6	48	44	..
92 Hong Kong	35	19	7	5	-44.2	-28.8	2.3	48	50	79
93 Singapore	38	18	8	5	-50.3	-33.8	2.1	54	45	71
94 Greece	19	16	8	10	-16.1	30.3	2.3	40	..	..
95 Israel	27	26	6	7	-2.3	18.0	3.4	42	..	..
96 Spain	21	18	9	9	-17.3	-4.4	2.6	41	..	..
Industrial market economies	<i>20 w</i>	<i>15 w</i>	<i>10 w</i>	<i>10 w</i>	<i>-27.5 w</i>	<i>-2.2 w</i>	<i>1.9 w</i>	<i>43 w</i>	..	..
97 Ireland	22	21	12	10	-1.9	-16.8	3.3	40	..	..
98 Italy	18	14	10	10	-27.0	3.1	2.0	41	..	..
99 New Zealand	26	18	9	8	-31.0	-12.2	2.2	45	..	..
100 United Kingdom	17	12	12	12	-29.1	0.8	1.8	40	72	93
101 Finland	19	14	9	10	-26.6	3.3	1.7	44	77	..
102 Austria	18	12	13	13	-32.0	0.8	1.7	40	..	..
103 Japan	18	15	8	7	-17.6	-12.0	1.8	45	56	61
104 Australia	22	17	9	8	-24.8	-9.2	2.1	45	66	..
105 Canada	27	17	8	7	-36.9	-8.9	1.9	48	..	..
106 France	18	14	12	11	-23.1	-5.3	1.9	41	64	79
107 Netherlands	21	13	8	9	-38.9	13.0	1.6	45	59	75
108 United States	24	17	9	9	-29.8	-3.2	1.9	45	65	68
109 Norway	18	13	9	11	-24.9	16.3	1.9	40	..	84
110 Belgium	17	13	12	12	-25.1	-0.8	1.8	41	..	87
111 Germany, Fed. Rep.	17	10	11	12	-40.2	9.7	1.5	41	..	..
112 Denmark	17	13	9	11	-24.9	13.7	1.8	42	67	..
113 Sweden	15	12	10	12	-20.0	19.4	1.7	40	..	..
114 Switzerland	18	12	10	10	-34.8	2.1	1.6	43	..	..
Capital-surplus oil exporters	<i>49 w</i>	<i>45 w</i>	<i>21 w</i>	<i>12 w</i>	<i>-8.9 w</i>	<i>-39.9 w</i>	<i>6.8 w</i>	<i>41 w</i>	..	..
115 Iraq	49	45	20	12	-8.1	-37.6	6.7	41	..	23
116 Saudi Arabia	49	44	23	14	-10.2	-39.0	7.0	40	..	..
117 Libya	49	45	19	12	-7.0	-36.5	7.1	40	..	..
118 Kuwait	44	42	10	4	-6.3	-54.2	6.3	42	..	..
Nonmarket industrial economies	<i>23 w</i>	<i>18 w</i>	<i>8 w</i>	<i>9 w</i>	<i>-20.2 w</i>	<i>-14.1 w</i>	<i>2.3 w</i>	<i>43 w</i>	..	..
119 Bulgaria	18	15	9	11	-14.2	23.5	2.2	41	..	..
120 Poland	24	19	8	9	-17.9	9.8	2.3	44	57	..
121 Hungary	16	15	10	12	0.7	16.7	2.1	41	..	73
122 USSR	24	18	7	9	-22.1	17.6	2.3	43	..	..
123 Czechoslovakia	17	18	10	11	2.9	14.6	2.3	41	66	..
124 German Dem. Rep.	17	14	13	13	-20.1	0.0	1.8	41	..	..

a. Figures in italics are for years other than those specified. See the technical notes. b. Figures in italics are for 1957 or 1957-79, not for 1960 or 1960-79.

Table 19. Labor Force

	Percentage of population of working age (15-64 years)		Percentage of labor force in:						Average annual growth of labor force (percent)		
	1960	1979	Agriculture		Industry		Services		1960-70	1970-80	1980-2000
			1960	1979	1960	1979	1960	1979			
Low-income countries	56 <i>w</i>	59 <i>w</i>	76 <i>w</i>	71 <i>w</i>	10 <i>w</i>	14 <i>w</i>	14 <i>w</i>	15 <i>w</i>	1.6 <i>w</i>	1.9 <i>w</i>	1.6 <i>w</i>
China and India	..	61 <i>w</i>	..	71 <i>w</i>	..	15 <i>w</i>	..	14 <i>w</i>	..	1.8 <i>w</i>	1.3 <i>w</i>
Other low-income	55 <i>w</i>	54 <i>w</i>	79 <i>w</i>	70 <i>w</i>	8 <i>w</i>	11 <i>w</i>	13 <i>w</i>	19 <i>w</i>	1.8 <i>w</i>	2.3 <i>w</i>	2.3 <i>w</i>
1 Kampuchea, Dem.	53	..	82	..	4	..	14	..	2.1	..	..
2 Lao PDR	56	51	83	76	4	6	13	18	1.4	0.3	2.0
3 Bhutan	56	55	95	93	2	2	3	5	1.7	2.0	2.0
4 Bangladesh	53	54	87	74	3	11	10	15	2.1	3.3	2.6
5 Chad	57	54	95	85	2	7	3	8	1.5	1.8	2.4
6 Ethiopia	54	53	88	80	5	7	7	13	2.0	1.7	2.6
7 Nepal	57	55	95	93	2	2	3	5	1.5	2.1	2.1
8 Somalia	54	54	88	84	4	8	8	8	1.7	2.2	2.0
9 Mali	54	52	94	88	3	5	3	7	2.0	2.2	2.9
10 Burma	59	55	..	67	..	10	..	23	1.1	1.5	2.0
11 Afghanistan	55	53	85	79	6	8	9	13	2.0	2.1	2.4
12 Viet Nam	..	..	81	71	5	10	14	19	..	..	2.6
13 Burundi	55	55	90	84	3	5	7	11	1.2	1.5	2.2
14 Upper Volta	54	53	92	83	5	12	3	5	1.2	1.2	2.7
15 India	57	56	74	71	11	11	15	18	1.5	1.7	2.0
16 Malawi	52	49	92	86	3	5	5	9	2.3	2.2	3.3
17 Rwanda	53	51	95	91	1	2	4	7	2.4	2.4	3.2
18 Sri Lanka	54	59	56	54	14	14	30	32	2.1	2.0	2.0
19 Benin	53	51	54	46	9	16	37	38	2.1	2.3	2.6
20 Mozambique	56	53	81	67	8	17	11	16	1.9	1.7	2.4
21 Sierra Leone	55	53	78	66	12	19	10	15	1.5	1.8	2.7
22 China	..	64	..	71	..	17	..	12	..	1.9	0.9
23 Haiti	55	53	80	74	6	7	14	19	0.7	1.2	2.5
24 Pakistan	52	51	61	57	18	20	21	23	1.9	2.6	3.0
25 Tanzania	54	51	89	83	4	6	7	11	2.1	2.7	3.1
26 Zaire	53	53	83	75	9	13	8	12	1.4	2.1	2.7
27 Niger	53	51	95	91	1	3	4	6	3.0	2.6	3.4
28 Guinea	55	53	88	82	6	11	6	7	2.5	2.2	2.3
29 Central African Rep.	58	55	94	88	2	4	4	8	1.7	1.7	2.3
30 Madagascar	55	53	93	87	2	4	5	9	1.7	2.0	2.8
31 Uganda	54	52	89	83	4	6	7	11	3.3	2.5	3.3
32 Mauritania	53	52	91	85	3	5	6	10	2.2	2.4	2.8
33 Lesotho	57	55	93	87	2	4	5	9	1.6	1.9	2.4
34 Togo	53	51	80	68	8	15	12	17	2.2	1.7	2.9
35 Indonesia	56	56	75	59	8	12	17	29	1.7	2.5	2.0
36 Sudan	53	53	86	78	6	10	8	12	2.2	2.4	2.7
Middle-income countries	55 <i>w</i>	55 <i>w</i>	58 <i>w</i>	43 <i>w</i>	17 <i>w</i>	23 <i>w</i>	25 <i>w</i>	34 <i>w</i>	1.9 <i>w</i>	2.3 <i>w</i>	2.6 <i>w</i>
Oil exporters	52 <i>w</i>	52 <i>w</i>	60 <i>w</i>	44 <i>w</i>	16 <i>w</i>	24 <i>w</i>	24 <i>w</i>	32 <i>w</i>	2.1 <i>w</i>	2.5 <i>w</i>	3.2 <i>w</i>
Oil importers	56 <i>w</i>	57 <i>w</i>	57 <i>w</i>	42 <i>w</i>	17 <i>w</i>	23 <i>w</i>	25 <i>w</i>	35 <i>w</i>	1.9 <i>w</i>	2.2 <i>w</i>	2.3 <i>w</i>
37 Kenya	50	48	86	78	5	10	9	12	2.7	2.8	3.9
38 Ghana	53	51	64	54	14	20	22	26	1.6	2.4	3.2
39 Yemen Arab Rep.	54	51	83	76	7	11	10	13	1.1	0.7	2.7
40 Senegal	54	53	84	76	5	10	11	14	1.9	1.9	2.5
41 Angola	55	53	69	60	12	16	19	24	1.0	1.9	2.7
42 Zimbabwe	52	50	69	60	11	15	20	25	3.2	2.6	3.5
43 Egypt	55	57	58	50	12	29	30	21	1.9	2.0	2.5
44 Yemen, PDR	52	51	70	47	15	15	15	38	1.4	1.6	2.9
45 Liberia	52	50	80	71	10	14	10	15	2.4	2.6	3.5
46 Zambia	53	50	79	68	7	11	14	21	2.3	2.4	3.0
47 Honduras	52	50	70	63	11	14	19	23	2.5	3.1	3.5
48 Bolivia	55	53	61	50	18	24	21	26	1.7	2.3	2.9
49 Cameroon	57	54	87	83	5	7	8	10	1.3	1.3	1.8
50 Thailand	53	54	84	77	4	9	12	14	2.0	2.7	2.2
51 Philippines	52	53	61	47	15	17	24	36	2.2	2.4	2.8
52 Congo, People's Rep.	56	53	52	35	17	26	31	39	1.5	2.0	2.9
53 Nicaragua	50	50	62	40	16	14	22	46	2.6	3.3	3.8
54 Papua New Guinea	57	55	89	82	4	8	7	10	1.6	1.8	1.5
55 El Salvador	52	51	62	51	17	22	21	27	2.6	2.8	3.5
56 Nigeria	52	50	71	55	10	18	19	27	1.8	1.7	3.3
57 Peru	52	54	53	38	19	20	28	42	2.0	3.0	3.1
58 Morocco	53	50	63	53	14	21	23	26	1.6	3.0	3.5
59 Mongolia	54	53	70	56	13	22	17	22	2.1	2.5	3.3
60 Albania	54	57	71	61	18	25	11	14	2.3	2.8	2.4
61 Dominican Rep.	49	52	67	50	12	18	21	32	2.3	3.4	3.3
62 Colombia	50	59	51	27	19	21	30	52	3.0	3.6	2.5
63 Guatemala	51	53	67	56	14	21	19	23	2.5	3.0	2.9
64 Syrian Arab Rep.	52	48	54	32	19	31	27	37	2.1	3.3	3.7

	Percentage of population of working age (15-64 years)		Percentage of labor force in:						Average annual growth of labor force (percent)		
	1960	1979	Agriculture		Industry		Services		1960-70	1970-80	1980-2000
			1960	1979	1960	1979	1960	1979			
65 Ivory Coast	54	54	89	79	2	4	9	17	3.6	5.0	2.8
66 Ecuador	52	52	57	52	19	18	24	30	3.0	3.3	3.3
67 Paraguay	51	52	56	50	19	19	25	31	2.4	3.1	3.4
68 Tunisia	53	55	56	35	18	32	26	33	0.7	3.0	2.7
69 Korea, Dem. Rep.	53	56	62	50	23	32	15	18	2.3	2.9	2.8
70 Jordan	52	51	44	21	26	19	30	60	2.8	3.1	3.4
71 Lebanon	53	55	38	12	23	26	39	62	2.1	1.3	2.8
72 Jamaica	54	52	39	22	25	25	36	53	0.4	2.2	3.3
73 Turkey	55	56	78	54	11	13	11	33	1.4	2.2	2.4
74 Malaysia	51	55	63	51	12	16	25	33	2.8	2.6	2.9
75 Panama	52	56	51	34	14	18	35	48	3.4	2.4	2.6
76 Cuba	61	60	39	24	22	31	39	45	0.8	2.0	1.9
77 Korea, Rep. of	54	61	66	36	9	30	25	34	3.0	2.8	2.1
78 Algeria	52	49	67	32	12	24	21	44	1.0	3.4	3.5
79 Mexico	51	51	55	37	20	26	25	37	2.8	3.0	3.6
80 Chile	57	62	30	20	20	20	50	60	1.4	1.9	2.1
81 South Africa	55	54	32	30	30	29	38	41	3.2	2.6	3.2
82 Brazil	54	55	52	40	15	22	33	38	2.8	2.2	2.7
83 Costa Rica	50	57	51	30	19	23	30	47	3.5	3.6	2.7
84 Romania	65	64	65	33	15	34	20	33	0.9	0.6	0.7
85 Uruguay	64	63	21	11	29	32	50	57	0.9	0.1	1.1
86 Iran	51	52	54	40	23	33	23	27	2.5	2.7	3.2
87 Portugal	63	63	44	25	29	36	27	39	(.)	1.1	0.9
88 Argentina	64	63	20	13	36	28	44	59	1.3	1.4	1.2
89 Yugoslavia	63	66	63	31	18	33	19	36	0.6	0.6	0.6
90 Venezuela	51	55	35	19	22	27	43	54	2.8	4.0	3.2
91 Trinidad and Tobago	53	61	22	16	34	36	44	48	2.4	2.6	2.1
92 Hong Kong	56	65	8	3	52	57	40	40	3.2	3.8	1.2
93 Singapore	55	66	8	2	23	38	69	60	2.8	2.7	1.4
94 Greece	65	64	56	38	20	28	24	34	(.)	0.5	0.5
95 Israel	59	59	14	7	35	36	51	57	3.6	2.5	2.1
96 Spain	64	63	42	15	31	40	27	45	0.2	1.1	0.9
Industrial market economies	63 w	66 w	16 w	6 w	39 w	38 w	45 w	56 w	1.2 w	1.2 w	0.6 w
97 Ireland	58	58	36	19	25	37	39	44	(.)	1.0	1.5
98 Italy	66	65	31	11	40	45	29	44	-0.1	0.7	0.4
99 New Zealand	59	63	15	9	37	35	48	56	2.2	2.1	1.2
100 United Kingdom	65	64	4	2	48	42	48	56	0.6	0.3	0.3
101 Finland	62	68	36	12	31	35	33	53	0.4	1.1	0.4
102 Austria	66	64	24	9	46	37	30	54	-0.6	0.8	0.4
103 Japan	64	68	33	13	30	38	37	49	1.9	1.3	0.8
104 Australia	61	65	11	6	40	33	49	61	2.6	1.8	1.0
105 Canada	59	67	13	5	35	29	52	66	2.6	2.0	0.9
106 France	62	64	22	9	39	39	39	52	0.6	1.0	0.6
107 Netherlands	61	66	11	6	42	45	47	49	1.6	1.3	0.6
108 United States	60	66	7	2	36	32	57	66	1.8	1.8	0.9
109 Norway	63	63	20	8	37	38	43	54	0.5	0.7	0.6
110 Belgium	65	65	8	3	48	41	44	56	0.3	0.7	0.2
111 Germany, Fed. Rep.	68	66	14	4	48	47	38	49	0.2	0.7	(.)
112 Denmark	64	65	18	7	37	36	45	57	1.1	0.6	0.5
113 Sweden	66	64	14	5	45	35	41	60	1.0	0.3	0.3
114 Switzerland	66	66	11	5	50	46	39	49	2.0	0.5	0.3
Capital-surplus oil exporters	53 w	51 w	58 w	44 w	16 w	22 w	26 w	34 w	3.2 w	3.6 w	3.1 w
115 Iraq	51	51	53	43	18	26	29	31	2.9	2.9	3.3
116 Saudi Arabia	54	52	71	62	10	14	19	24	3.1	4.5	2.7
117 Libya	53	51	53	20	17	27	30	53	3.6	3.7	3.1
118 Kuwait	63	52	1	2	34	34	65	64	7.5	4.5	3.1
Nonmarket industrial economies	63 w	66 w	41 w	17 w	31 w	44 w	28 w	39 w	0.8 w	1.2 w	0.6 w
119 Bulgaria	66	66	57	38	25	38	18	24	0.7	0.4	0.4
120 Poland	61	66	48	31	29	39	23	30	1.8	1.5	0.8
121 Hungary	66	66	38	16	35	52	27	32	0.5	0.4	0.2
122 USSR	63	66	42	15	29	44	29	41	0.7	1.3	0.6
123 Czechoslovakia	64	64	26	11	46	48	28	41	0.9	0.8	0.7
124 German Dem. Rep.	65	64	18	10	48	50	34	40	-0.2	0.5	0.3

Table 20. Urbanization

	Urban population				Percentage of urban population				Number of cities of over 500,000 persons	
	As percentage of total population		Average annual growth rate (percent)		In largest city		In cities of over 500,000 persons		1960	1980
	1960	1980	1960-70	1970-80	1960	1980	1960	1980		
Low-income countries	15 <i>w</i>	17 <i>w</i>	3.8 <i>w</i>	3.7 <i>w</i>	11 <i>w</i>	13 <i>w</i>	31 <i>w</i>	42 <i>w</i>	58 <i>t</i>	144 <i>t</i>
China and India	..	17 <i>w</i>	..	3.2 <i>w</i>	7 <i>w</i>	6 <i>w</i>	33 <i>w</i>	42 <i>w</i>	48 <i>t</i>	106 <i>t</i>
Other low-income	12 <i>w</i>	19 <i>w</i>	4.7 <i>w</i>	5.0 <i>w</i>	24 <i>w</i>	27 <i>w</i>	23 <i>w</i>	42 <i>w</i>	10 <i>t</i>	38 <i>t</i>
1 Kampuchea, Dem.	11	..	3.6	..	..	..	0	0	0	0
2 Lao PDR	8	14	4.1	4.8	69	48	0	0	0	0
3 Bhutan	3	4	4.1	4.5	..	..	0	0	0	0
4 Bangladesh	5	11	6.3	6.8	20	30	20	51	1	3
5 Chad	7	18	6.7	6.5	..	39	0	0	0	0
6 Ethiopia	6	15	6.1	6.6	30	37	0	37	0	1
7 Nepal	3	5	4.3	4.7	41	27	0	0	0	0
8 Somalia	17	30	5.3	5.0	..	34	0	0	0	0
9 Mali	11	20	5.4	5.5	32	34	0	0	0	0
10 Burma	19	27	3.9	3.9	23	23	23	29	1	2
11 Afghanistan	8	15	5.5	5.9	33	17	0	17	0	1
12 Viet Nam	15	19	5.3	3.3	32	21	32	50	1	4
13 Burundi	2	2	1.6	2.5	..	..	0	0	0	0
14 Upper Volta	5	9	5.3	3.8	..	41	0	0	0	0
15 India	18	22	3.3	3.3	7	6	26	39	11	36
16 Malawi	4	10	6.6	6.8	..	19	0	0	0	0
17 Rwanda	2	4	5.6	5.9	..	..	0	0	0	0
18 Sri Lanka	18	27	4.3	3.6	28	16	0	16	0	1
19 Benin	10	14	5.3	3.9	..	63	0	63	0	1
20 Mozambique	4	9	6.6	6.8	75	83	0	83	0	1
21 Sierra Leone	13	25	5.5	5.6	37	47	0	0	0	0
22 China	..	13	..	3.1	6	6	42	45	38	70
23 Haiti	16	28	4.0	4.9	42	56	0	56	0	1
24 Pakistan	22	28	4.0	4.3	20	21	33	51	2	7
25 Tanzania	5	12	6.3	8.7	34	50	0	50	0	1
26 Zaire	16	34	5.2	7.2	14	28	14	38	1	2
27 Niger	6	13	7.0	6.8	..	31	0	0	0	0
28 Guinea	10	18	6.2	5.5	37	80	0	80	0	1
29 Central African Rep.	23	41	5.3	5.0	40	36	0	0	0	0
30 Madagascar	11	18	5.0	5.2	44	36	0	36	0	1
31 Uganda	5	12	7.8	7.0	38	52	0	52	0	1
32 Mauritania	3	23	15.8	8.6	..	39	0	0	0	0
33 Lesotho	2	5	7.5	7.7	..	..	0	0	0	0
34 Togo	10	20	5.6	6.6	..	60	0	0	0	0
35 Indonesia	15	20	3.6	4.0	20	23	34	50	3	9
36 Sudan	10	25	6.9	6.8	30	31	0	31	0	1
Middle-income countries	37 <i>w</i>	50 <i>w</i>	4.1 <i>w</i>	3.8 <i>w</i>	28 <i>w</i>	29 <i>w</i>	35 <i>w</i>	48 <i>w</i>	56 <i>t</i>	125 <i>t</i>
Oil exporters	33 <i>w</i>	45 <i>w</i>	4.5 <i>w</i>	4.3 <i>w</i>	29 <i>w</i>	30 <i>w</i>	32 <i>w</i>	46 <i>w</i>	9 <i>t</i>	31 <i>t</i>
Oil importers	39 <i>w</i>	52 <i>w</i>	4.0 <i>w</i>	3.5 <i>w</i>	28 <i>w</i>	27 <i>w</i>	36 <i>w</i>	48 <i>w</i>	47 <i>t</i>	94 <i>t</i>
37 Kenya	7	14	6.4	6.8	40	57	0	57	0	1
38 Ghana	23	36	4.6	5.1	25	35	0	48	0	2
39 Yemen Arab Rep.	3	10	7.5	7.2	..	25	0	0	0	0
40 Senegal	23	25	2.9	3.3	53	65	0	65	0	1
41 Angola	10	21	5.1	5.7	44	64	0	64	0	1
42 Zimbabwe	13	23	6.8	6.4	40	50	0	50	0	1
43 Egypt	38	45	3.3	2.8	38	39	53	53	2	2
44 Yemen, PDR	28	37	3.2	3.7	61	49	0	0	0	0
45 Liberia	21	33	5.6	5.6	..	..	0	0	0	0
46 Zambia	23	38	5.4	5.5	..	35	0	35	0	1
47 Honduras	23	36	5.4	5.5	31	33	0	0	0	0
48 Bolivia	24	33	3.9	4.1	47	44	0	44	0	1
49 Cameroon	14	35	5.6	7.5	26	21	0	21	0	1
50 Thailand	13	14	3.5	3.3	65	69	65	69	1	1
51 Philippines	30	36	3.8	3.6	27	30	27	34	1	2
52 Congo, People's Rep.	30	45	4.7	4.1	77	56	0	0	0	0
53 Nicaragua	41	53	4.2	4.5	41	47	0	47	0	1
54 Papua New Guinea	3	20	15.2	8.7	..	25	0	0	0	0
55 El Salvador	38	41	3.2	3.3	26	22	0	0	0	0
56 Nigeria	13	20	4.7	4.7	13	17	22	58	2	9
57 Peru	46	67	4.9	4.3	38	39	38	44	1	2
58 Morocco	29	41	4.2	4.6	16	26	16	50	1	4
59 Mongolia	36	51	5.2	4.1	53	52	0	0	0	0
60 Albania	31	37	3.7	3.4	27	25	0	0	0	0
61 Dominican Rep.	30	51	5.8	5.3	50	54	0	54	0	1
62 Colombia	48	70	5.2	3.9	17	26	28	51	3	4
63 Guatemala	33	39	3.6	3.7	41	36	41	36	1	1
64 Syrian Arab Rep.	37	50	4.8	5.0	35	33	35	55	1	2

	Urban population				Percentage of urban population				Number of cities of over 500,000 persons	
	As percentage of total population		Average annual growth rate (percent)		In largest city		In cities of over 500,000 persons		1960	1980
	1960	1980	1960-70	1970-80	1960	1980	1960	1980		
65 Ivory Coast	19	38	7.3	8.5	27	34	0	34	0	1
66 Ecuador	34	45	4.5	4.5	31	29	0	51	0	2
67 Paraguay	36	39	3.0	3.5	44	44	0	44	0	1
68 Tunisia	36	52	3.8	3.9	40	30	40	30	1	1
69 Korea, Dem. Rep.	40	60	5.0	4.3	15	12	15	19	1	2
70 Jordan	43	56	4.5	4.7	31	37	0	37	0	1
71 Lebanon	44	76	6.2	2.8	64	79	64	79	1	1
72 Jamaica	34	50	3.5	3.4	77	66	0	66	0	1
73 Turkey	30	47	5.1	4.6	18	24	32	42	3	4
74 Malaysia	25	29	3.6	3.1	19	27	0	27	0	1
75 Panama	41	54	4.4	3.6	61	66	0	66	0	1
76 Cuba	55	65	2.9	2.2	38	32	38	32	1	1
77 Korea, Rep. of	28	55	6.3	4.8	35	41	61	77	3	7
78 Algeria	30	44	3.9	5.8	27	12	27	12	1	1
79 Mexico	51	67	4.8	4.2	28	32	36	48	3	7
80 Chile	68	80	3.1	2.3	38	44	38	44	1	1
81 South Africa	47	50	2.8	3.1	16	13	44	53	4	7
82 Brazil	46	65	4.8	3.7	14	16	35	52	6	14
83 Costa Rica	37	43	4.2	3.3	67	64	0	64	0	1
84 Romania	34	48	2.8	2.5	22	17	22	17	1	1
85 Uruguay	80	84	1.3	0.6	56	52	56	52	1	1
86 Iran	34	50	4.7	4.9	26	28	26	47	1	6
87 Portugal	23	31	1.3	2.9	47	44	47	44	1	1
88 Argentina	74	82	2.0	2.1	46	45	54	60	3	5
89 Yugoslavia	28	42	3.2	2.9	11	10	11	23	1	3
90 Venezuela	67	83	4.7	4.2	26	26	26	44	1	4
91 Trinidad and Tobago	22	22	1.7	1.3	..	..	0	0	0	0
92 Hong Kong	89	90	2.6	2.7	100	100	100	100	1	1
93 Singapore	100	100	2.4	1.4	100	100	100	100	1	1
94 Greece	43	62	2.6	2.2	51	57	51	70	1	1
95 Israel	77	89	4.3	3.2	46	35	46	35	1	1
96 Spain	57	74	2.6	2.2	13	17	37	44	5	6
Industrial market economies	68 w	77 w	1.8 w	1.3 w	18 w	18 w	48 w	55 w	99 t	146 t
97 Ireland	46	58	1.6	2.2	51	48	51	48	1	1
98 Italy	59	69	1.5	1.3	13	17	46	52	7	9
99 New Zealand	76	85	2.4	1.9	25	30	0	30	0	1
100 United Kingdom	86	91	0.9	0.3	24	20	61	55	15	17
101 Finland	38	62	3.2	2.7	28	27	0	27	0	1
102 Austria	50	54	0.9	0.5	51	39	51	39	1	1
103 Japan	62	78	2.4	2.0	18	22	35	42	5	9
104 Australia	81	89	2.5	1.9	26	24	62	68	4	5
105 Canada	69	80	2.7	1.7	14	18	31	62	2	9
106 France	62	78	2.4	1.4	25	23	34	34	4	6
107 Netherlands	80	76	1.0	0.6	9	9	27	24	3	3
108 United States	67	73	1.7	1.5	13	12	61	77	40	65
109 Norway	32	53	3.5	2.8	50	32	50	32	1	1
110 Belgium	66	72	1.2	0.4	17	14	28	24	2	2
111 Germany, Fed. Rep.	77	85	1.4	0.4	20	18	48	45	11	11
112 Denmark	74	84	1.5	0.9	40	32	40	32	1	1
113 Sweden	73	87	1.8	1.0	15	15	15	35	1	3
114 Switzerland	51	58	2.2	1.0	19	22	19	22	1	1
Capital-surplus oil exporters	37 w	69 w	7.4 w	6.7 w	33 w	42 w	22 w	53 w	1 t	6 t
115 Iraq	43	72	6.2	5.4	35	55	35	70	1	3
116 Saudi Arabia	30	67	8.4	7.6	15	18	0	33	0	2
117 Libya	23	52	8.0	8.3	57	64	0	64	0	1
118 Kuwait	72	88	10.4	7.4	75	30	0	0	0	0
Nonmarket industrial economies	49 w	64 w	2.5 w	2.1 w	9 w	7 w	23 w	32 w	35 t	64 t
119 Bulgaria	39	64	3.8	2.6	23	18	23	18	1	1
120 Poland	48	57	1.8	1.7	17	15	41	47	5	8
121 Hungary	40	54	1.7	2.1	45	37	45	37	1	1
122 USSR	49	65	2.8	2.2	6	4	21	33	25	50
123 Czechoslovakia	47	63	2.1	2.0	17	12	17	12	1	1
124 German Dem. Rep.	72	77	0.1	0.3	9	9	14	17	2	3

Table 21. Indicators Related to Life Expectancy

	Life expectancy at birth (years)		Infant mortality rate (aged 0-1) ^a		Child death rate (aged 1-4)	
	1960	1979	1960	1978	1960	1979
Low-income countries	42 <i>w</i>	57 <i>w</i>	..	..	29 <i>w</i>	17 <i>w</i>
China and India	..	59 <i>w</i>	..	..	..	..
Other low-income	41 <i>w</i>	51 <i>w</i>	..	..	31 <i>w</i>	18 <i>w</i>
1 Kampuchea, Dem.	43	..	..	..	27	..
2 Lao PDR	40	42	..	..	30	27
3 Bhutan	36	44	..	..	36	25
4 Bangladesh	43	49	..	130	25	19
5 Chad	35	41	192	..	45	35
6 Ethiopia	36	40	172	..	43	36
7 Nepal	37	44	..	..	35	25
8 Somalia	36	44	..	..	43	30
9 Mali	37	43	..	..	41	31
10 Burma	44	54	..	..	24	13
11 Afghanistan	34	41	..	237	40	29
12 Viet Nam	43	63	..	62	26	5
13 Burundi	37	42	..	..	41	33
14 Upper Volta	37	43	263	..	41	31
15 India	42	52	..	125	27	15
16 Malawi	37	47	..	..	41	25
17 Rwanda	37	47	..	..	41	25
18 Sri Lanka	62	66	55	49	6	3
19 Benin	37	47	206	..	41	25
20 Mozambique	37	47	..	..	41	25
21 Sierra Leone	37	47	..	..	41	25
22 China	..	64	..	56	..	..
23 Haiti	44	53	..	..	36	21
24 Pakistan	44	52	135	..	24	15
25 Tanzania	42	52	..	..	32	18
26 Zaire	40	47	..	..	36	25
27 Niger	37	43	200	..	41	31
28 Guinea	35	44	141	..	45	28
29 Central African Rep.	36	44	..	..	43	30
30 Madagascar	37	47	..	..	41	25
31 Uganda	44	54	159	..	29	16
32 Mauritania	37	43	186	..	41	29
33 Lesotho	42	51	..	..	33	20
34 Togo	37	47	..	..	41	25
35 Indonesia	39	53	159	120	31	14
36 Sudan	39	47	..	..	47	29
Middle-income countries	53 <i>w</i>	61 <i>w</i>	..	..	19 <i>w</i>	10 <i>w</i>
Oil exporters	47 <i>w</i>	57 <i>w</i>	..	..	27 <i>w</i>	14 <i>w</i>
Oil importers	55 <i>w</i>	63 <i>w</i>	..	..	16 <i>w</i>	8 <i>w</i>
37 Kenya	41	55	126	91	34	15
38 Ghana	40	49	141	..	36	22
39 Yemen Arab Rep.	36	42	..	..	54	41
40 Senegal	37	43	..	..	41	31
41 Angola	33	42	..	..	49	33
42 Zimbabwe	45	55	..	..	28	15
43 Egypt	46	57	109	85	32	15
44 Yemen, PDR	36	45	..	..	54	34
45 Liberia	44	54	..	..	29	16
46 Zambia	40	49	..	..	36	22
47 Honduras	46	58	130	118	32	14
48 Bolivia	43	50	150	..	39	23
49 Cameroon	37	47	172	157	41	25
50 Thailand	51	62	..	68	16	6
51 Philippines	51	62	98	65	16	6
52 Congo, People's Rep.	37	47	..	..	41	27
53 Nicaragua	47	56	..	..	30	16
54 Papua New Guinea	41	51	159	..	29	16
55 El Salvador	50	63	..	60	23	8
56 Nigeria	39	49	..	..	36	22
57 Peru	48	58	..	86	29	14
58 Morocco	47	56	..	..	30	16
59 Mongolia	52	63	..	..	15	5
60 Albania	62	70	33	..	6	2
61 Dominican Rep.	51	61	..	37	23	10
62 Colombia	53	63	77	65	20	8
63 Guatemala	47	59	113	..	30	13
64 Syrian Arab Rep.	50	65	..	..	25	7

	Life expectancy at birth (years)		Infant mortality rate (aged 0-1) ^a		Child death rate (aged 1-4)	
	1960	1979	1960	1978	1960	1979
65 Ivory Coast	37	47	..	..	41	25
66 Ecuador	51	61	140	66	23	10
67 Paraguay	56	64	..	..	16	7
68 Tunisia	48	58	148	90	28	13
69 Korea, Dem. Rep.	54	63	..	..	12	5
70 Jordan	47	61	..	97	30	10
71 Lebanon	58	66	..	..	13	6
72 Jamaica	64	71	52	16	7	3
73 Turkey	51	62	194	..	23	9
74 Malaysia	53	68	..	32	13	2
75 Panama	62	70	90	47	9	3
76 Cuba	63	72	..	25	8	2
77 Korea, Rep. of	54	63	62	37	12	5
78 Algeria	47	56	..	..	30	16
79 Mexico	58	66	78	60	13	5
80 Chile	57	67	108	55	15	6
81 South Africa	53	61	..	..	17	9
82 Brazil	55	63	128	92	17	8
83 Costa Rica	62	70	80	28	9	3
84 Romania	65	71	76	31	4	1
85 Uruguay	68	71	47	34	4	3
86 Iran	46	54	..	..	22	12
87 Portugal	63	71	78	39	5	1
88 Argentina	65	70	62	..	6	3
89 Yugoslavia	63	70	88	34	5	2
90 Venezuela	59	67	72	40	12	5
91 Trinidad and Tobago	64	70	45	29	7	3
92 Hong Kong	65	76	42	12	4	(.)
93 Singapore	65	71	35	13	4	1
94 Greece	69	74	40	20	2	1
95 Israel	69	72	31	18	4	2
96 Spain	68	73	44	15	2	1
Industrial market economies	70 w	74 w	29 w	13 w	1 w	1 w
97 Ireland	70	73	29	16	2	1
98 Italy	69	73	44	18	2	1
99 New Zealand	72	73	23	14	1	1
100 United Kingdom	71	73	22	14	1	1
101 Finland	68	73	21	9	2	1
102 Austria	69	72	38	15	1	1
103 Japan	68	76	30	9	2	(.)
104 Australia	71	74	20	13	1	1
105 Canada	71	74	27	12	1	1
106 France	70	74	27	11	1	1
107 Netherlands	73	75	18	10	1	(.)
108 United States	70	74	26	14	1	1
109 Norway	73	75	19	9	1	(.)
110 Belgium	70	72	31	12	1	1
111 Germany, Fed. Rep.	70	73	34	16	2	1
112 Denmark	72	75	22	9	1	1
113 Sweden	73	76	17	8	1	(.)
114 Switzerland	71	75	21	10	1	(.)
Capital-surplus oil exporters	46 w	56 w	..	..	32 w	16 w
115 Iraq	47	56	..	92	30	16
116 Saudi Arabia	43	54	..	..	38	19
117 Libya	47	56	..	..	30	16
118 Kuwait	60	70	33	39	11	3
Nonmarket industrial economies	68 w	72 w	36 w	20 w	2 w	1 w
119 Bulgaria	69	73	45	22	2	1
120 Poland	67	72	56	22	3	1
121 Hungary	68	71	48	24	2	1
122 USSR	68	73	33	..	2	1
123 Czechoslovakia	70	71	24	19	2	1
124 German Dem. Rep.	69	72	39	13	2	1

a. Figures in italics are for years other than those specified. See the technical notes.

Table 22. Health-related Indicators

	Population per:				Percentage of population with access to safe water 1975	Daily per capita calorie supply ^a	
	Physician ^a		Nursing person ^a			Total 1977	As percentage of requirement 1977
	1960	1977	1960	1977			
Low-income countries	11,680 <i>w</i>	6,150 <i>w</i>	5,700 <i>w</i>	6,200 <i>w</i>	29 <i>w</i>	2,231 <i>w</i>	98 <i>w</i>
China and India	3,730 <i>w</i>	2,160 <i>w</i>	5,510 <i>w</i>	2,900 <i>w</i>	..	2,279 <i>w</i>	99 <i>w</i>
Other low-income	39,290 <i>w</i>	16,380 <i>w</i>	7,370 <i>w</i>	14,890 <i>w</i>	25 <i>w</i>	2,108 <i>w</i>	96 <i>w</i>
1 Kampuchea, Dem.	34,830	..	..	..	..	1,926	85
2 Lao PDR	54,140	20,060	..	3,040	..	2,082	94
3 Bhutan	..	..	..	..	..	2,028	88
4 Bangladesh	..	8,780	..	56,880	53	2,100	91
5 Chad	72,190	41,940	8,040	4,810	26	1,762	74
6 Ethiopia	100,470	75,320	14,920	5,400	6	1,754	75
7 Nepal	72,870	35,250	..	53,540	9	2,002	91
8 Somalia	36,570	..	6,220	..	33	2,033	88
9 Mali	67,050	25,150	4,980	3,230	9	2,117	90
10 Burma	15,560	5,120	..	6,120	17	2,286	106
11 Afghanistan	28,140	20,550	23,210	25,920	6	2,695	110
12 Viet Nam	..	5,620	..	900	..	1,801	83
13 Burundi	96,570	45,020	6,770	6,180	..	2,254	97
14 Upper Volta	81,650	49,810	4,090	4,510	25	1,875	79
15 India	4,850	3,620	9,630	6,430	33	2,021	91
16 Malawi	35,250	40,680	12,920	2,790	33	2,066	90
17 Rwanda	138,100	38,920	11,200	10,490	35	2,264	98
18 Sri Lanka	4,490	6,750	4,150	2,060	20	2,126	96
19 Benin	23,030	26,880	..	3,040	21	2,249	98
20 Mozambique	20,390	33,980	4,720	..	..	1,906	81
21 Sierra Leone	20,420	..	5,900	..	..	2,150	93
22 China	3,010	1,160	2,850	480	..	2,453	104
23 Haiti	9,230	5,940	10,340	4,230	14	2,100	93
24 Pakistan	11,000	3,760	..	9,980	29	2,281	99
25 Tanzania	18,220	17,550	10,440	3,080	39	2,063	89
26 Zaire	37,620	15,530	3,510	1,940	16	2,271	104
27 Niger	82,170	42,720	8,450	6,270	27	2,139	91
28 Guinea	48,000	16,630	3,260	2,490	10	1,943	84
29 Central African Rep.	41,580	17,610	2,760	1,560	16	2,242	99
30 Madagascar	8,900	10,240	3,110	3,470	26	2,486	115
31 Uganda	14,060	27,600	9,420	4,300	35	2,110	91
32 Mauritania	40,400	15,160	7,320	3,430	..	1,976	86
33 Lesotho	23,510	18,640	..	4,340	17	2,245	99
34 Togo	35,760	17,980	5,340	2,000	16	2,069	90
35 Indonesia	46,780	13,640	..	8,850	12	2,272	105
36 Sudan	33,500	8,690	3,040	1,280	46	2,184	93
Middle-income countries	10,430 <i>w</i>	4,380 <i>w</i>	3,390 <i>w</i>	1,820 <i>w</i>	58 <i>w</i>	2,581 <i>w</i>	109 <i>w</i>
Oil exporters	22,320 <i>w</i>	5,940 <i>w</i>	4,820 <i>w</i>	2,120 <i>w</i>	60 <i>w</i>	2,458 <i>w</i>	103 <i>w</i>
Oil importers	4,570 <i>w</i>	3,580 <i>w</i>	2,790 <i>w</i>	1,610 <i>w</i>	57 <i>w</i>	2,641 <i>w</i>	112 <i>w</i>
37 Kenya	10,690	11,630	2,230	1,090	17	2,032	88
38 Ghana	21,600	9,920	5,430	860	35	1,983	86
39 Yemen Arab Rep.	..	12,460	..	5,660	4	2,192	91
40 Senegal	24,540	15,710	4,110	1,660	37	2,261	95
41 Angola	14,910	..	..	..	..	2,133	91
42 Zimbabwe	4,790	7,030	1,010	1,380	..	2,576	108
43 Egypt	2,560	1,050	2,730	1,100	66	2,760	109
44 Yemen, PDR	13,760	7,760	..	1,620	24	1,945	81
45 Liberia	12,600	9,260	5,810	2,900	20	2,404	104
46 Zambia	9,540	10,190	9,920	1,930	42	2,002	87
47 Honduras	12,610	3,290	..	1,240	46	2,015	89
48 Bolivia	3,830	1,850	..	3,070	38	1,974	83
49 Cameroon	48,110	16,500	6,150	2,230	26	2,069	89
50 Thailand	8,000	8,150	4,900	3,540	22	1,929	105
51 Philippines	6,930	2,760	..	3,110	43	2,189	108
52 Congo, People's Rep.	16,430	7,290	1,510	800	17	2,284	103
53 Nicaragua	2,740	1,670	5,460	800	70	2,446	109
54 Papua New Guinea	14,390	14,040	2,450	1,930	20	2,268	85
55 El Salvador	5,260	3,600	..	1,310	53	2,051	90
56 Nigeria	73,710	15,740	6,020	4,030	..	1,951	83
57 Peru	2,010	1,550	2,210	750	48	2,274	97
58 Morocco	9,410	11,040	..	1,690	55	2,534	105
59 Mongolia	1,070	480	300	250	..	2,523	104
60 Albania	3,630	960	540	370	..	2,730	113
61 Dominican Rep.	..	..	..	..	55	2,094	93
62 Colombia	2,640	1,970	3,740	1,250	64	2,364	102
63 Guatemala	4,410	2,490	9,040	..	40	2,156	98
64 Syrian Arab Rep.	4,630	2,570	6,660	3,890	75	2,684	108

	Population per:				Percentage of population with access to safe water 1975	Daily per capita calorie supply ^a	
	Physician ^a		Nursing person ^a			Total 1977	As percentage of requirement 1977
	1960	1977	1960	1977			
65 Ivory Coast	29,190	15,220	2,920	2,370	19	2,517	105
66 Ecuador	2,660	1,620	2,280	..	42	2,104	92
67 Paraguay	1,800	2,150	..	2,260	13	2,824	122
68 Tunisia	10,030	4,800	..	1,070	70	2,674	112
69 Korea, Dem. Rep.	..	..	..	..	..	2,837	121
70 Jordan	5,800	1,960	1,650	820	61	2,107	62
71 Lebanon	1,210	..	..	..	..	2,495	101
72 Jamaica	2,590	3,520	1,990	550	86	2,660	119
73 Turkey	3,000	1,770	..	1,460	75	2,907	115
74 Malaysia	7,470	8,730	1,780	1,290	62	2,610	117
75 Panama	2,730	1,220	3,460	1,410	79	2,341	101
76 Cuba	1,060	1,110	910	..	..	2,720	118
77 Korea, Rep. of	3,540	1,990	3,220	550	71	2,785	119
78 Algeria	5,230	5,330	..	1,480	77	2,372	99
79 Mexico	1,800	1,820	..	1,400	62	2,654	114
80 Chile	1,780	1,620	640	440	84	2,656	109
81 South Africa	2,180	..	540	..	..	2,831	116
82 Brazil	2,560	1,700	2,770	..	77	2,562	107
83 Costa Rica	2,700	1,390	710	590	77	2,550	114
84 Romania	780	740	620	640	..	3,444	130
85 Uruguay	960	540	..	3,700	84	3,036	114
86 Iran	4,090	..	8,160	..	51	3,138	130
87 Portugal	1,200	700	1,430	500	65	3,076	126
88 Argentina	740	530	..	..	66	3,347	126
89 Yugoslavia	1,620	760	1,350	410	..	3,445	136
90 Venezuela	1,510	930	1,890	380	..	2,435	99
91 Trinidad and Tobago	2,390	1,970	..	580	..	2,694	111
92 Hong Kong	3,070	1,180	2,950	1,090	..	2,883	126
93 Singapore	2,360	1,250	650	380	100	3,074	134
94 Greece	790	450	2,080	600	..	3,400	136
95 Israel	400	310	360	..	..	3,141	122
96 Spain	820	560	1,290	900	..	3,149	128
Industrial market economies	830 w	620 w	450 w	220 w	..	3,377 w	131 w
97 Ireland	950	830	190	200	..	3,541	141
98 Italy	640	490	920	330	..	3,428	136
99 New Zealand	690	740	..	200	..	3,345	127
100 United Kingdom	1,090	750	420	300	..	3,336	132
101 Finland	1,570	630	220	110	..	3,100	114
102 Austria	550	430	600	260	..	3,535	134
103 Japan	930	850	460	290	..	2,949	126
104 Australia	860	650	..	120	..	3,428	129
105 Canada	910	560	300	130	..	3,374	127
106 France	930	610	530	170	..	3,434	136
107 Netherlands	900	580	..	270	..	3,338	124
108 United States	750	570	340	150	..	3,576	135
109 Norway	850	540	330	100	..	3,175	118
110 Belgium	780	440	450	250	..	3,583	136
111 Germany, Fed. Rep.	670	490	450	260	..	3,381	127
112 Denmark	810	510	270	150	..	3,418	127
113 Sweden	1,150	560	..	130	..	3,221	120
114 Switzerland	740	510	390	220	..	3,485	130
Capital-surplus oil exporters	8,920 w	1,810 w	5,810 w	1,860 w	68 w	2,407 w	93 w
115 Iraq	5,270	2,190	6,680	2,990	62	2,134	89
116 Saudi Arabia	16,370	1,700	5,850	950	64	2,624	88
117 Libya	6,580	900	2,390	280	100	2,985	126
118 Kuwait	1,150	790	190	290	89	..	..
Nonmarket industrial economies	660 w	350 w	360 w	210 w	..	3,489 w	136 w
119 Bulgaria	710	440	550	240	..	3,611	144
120 Poland	1,070	610	490	270	..	3,656	140
121 Hungary	720	430	350	200	..	3,521	134
122 USSR	560	290	340	210	..	3,460	135
123 Czechoslovakia	620	390	280	160	..	3,340	139
124 German Dem. Rep.	1,180	530	..	..	..	3,641	139

a. Figures in italics are for years other than those specified. See the technical notes.

Table 23. Education^a

	Number enrolled in primary school as percentage of age group						Number enrolled in secondary school as percentage of age group		Number enrolled in higher education as percentage of population aged 20-24		Adult literacy rate (percent)	
	Total		Male		Female		1960	1978	1960	1977	1960	1976
	1960	1978	1960	1978	1960	1978						
Low-income countries	76 w	83 w	71 w	92 w	37 w	63 w	14 w	36 w	2 w	3 w	28 w	51 w
China and India	86 w	87 w	..	..	..	..	..	42 w	..	4 w	..	54 w
Other low-income	46 w	74 w	59 w	89 w	33 w	63 w	6 w	20 w	1 w	2 w	27 w	43 w
1 Kampuchea, Dem.	64	..	82	..	46	..	3	..	(.)	..	36	..
2 Lao PDR	25	92	34	99	16	85	1	14	(.)	..	28	..
3 Bhutan	3	12	5	16	(.)	7	..	1	(.)	..	..	..
4 Bangladesh	47	72	66	103	26	40	8	22	1	3	22	26
5 Chad	17	35	29	51	4	19	(.)	3	..	(.)	6	15
6 Ethiopia	7	38	11	..	3	..	(.)	9	(.)	(.)	..	15
7 Nepal	10	69	19	104	1	31	6	14	1	2	9	19
8 Somalia	9	44	13	57	5	32	1	4	(.)	1	2	60
9 Mali	10	28	14	36	6	20	1	9	..	1	3	10
10 Burma	56	84	61	87	52	81	10	22	1	2	60	67
11 Afghanistan	9	20	15	33	2	6	1	7	(.)	1	8	12
12 Viet Nam	..	122	..	128	..	116	..	51	..	3	..	87
13 Burundi	18	21	27	26	9	17	1	3	(.)	(.)	14	25
14 Upper Volta	8	17	12	21	5	12	(.)	2	..	(.)	2	..
15 India	61	79	80	94	40	63	20	28	3	8	28	36
16 Malawi	..	59	..	73	..	51	1	4	..	(.)	..	25
17 Rwanda	49	64	68	68	30	59	2	2	..	(.)	16	..
18 Sri Lanka	95	94	100	98	90	90	27	52	1	1	75	85
19 Benin	26	60	38	78	15	42	2	12	..	1	8	..
20 Mozambique	48	..	60	..	36	..	2	..	..	(.)	11	..
21 Sierra Leone	23	37	30	45	15	30	2	12	(.)	1	7	..
22 China	102	93	..	..	..	..	..	51	..	1	..	66
23 Haiti	46	58	50	..	42	..	4	9	(.)	1	15	..
24 Pakistan	30	51	46	69	13	32	11	17	1	2	15	24
25 Tanzania	25	70	33	80	18	61	2	4	..	(.)	10	66
26 Zaire	60	90	88	103	32	77	3	19	(.)	..	31	15
27 Niger	5	23	7	29	3	17	(.)	3	..	(.)	1	8
28 Guinea	30	34	44	46	16	22	2	16	..	..	7	20
29 Central African Rep.	32	78	53	101	12	55	1	9	..	1	7	..
30 Madagascar	52	94	58	104	45	87	4	12	(.)	2	..	50
31 Uganda	49	50	65	58	32	41	3	5	(.)	1	35	..
32 Mauritania	8	26	13	34	3	17	(.)	5	..	(.)	5	17
33 Lesotho	83	101	63	82	102	122	3	17	(.)	..	..	52
34 Togo	44	102	63	129	24	75	2	25	..	1	10	18
35 Indonesia	71	94	86	100	58	89	6	22	1	2	39	62
36 Sudan	25	50	35	58	14	42	3	16	(.)	2	13	20
Middle-income countries	79 w	95 w	85 w	103 w	72 w	94 w	16 w	41 w	4 w	11 w	53 w	72 w
Oil exporters	60 w	91 w	71 w	110 w	50 w	91 w	11 w	34 w	3 w	8 w	34 w	64 w
Oil importers	87 w	97 w	92 w	100 w	83 w	95 w	19 w	44 w	5 w	13 w	62 w	76 w
37 Kenya	47	99	64	105	30	94	2	18	(.)	1	20	45
38 Ghana	38	71	52	80	25	61	5	32	(.)	1	27	..
39 Yemen Arab Rep.	8	29	14	50	(.)	7	(.)	4	..	1	3	13
40 Senegal	27	41	36	50	17	32	3	10	1	2	6	10
41 Angola	21	..	28	..	13	..	2	..	(.)	..	5	..
42 Zimbabwe	96	97	107	105	86	90	6	9	(.)	..	39	..
43 Egypt	66	74	80	88	52	58	16	47	5	14	26	44
44 Yemen, PDR	13	72	20	92	5	51	5	28	..	2	..	27
45 Liberia	31	64	45	80	18	48	2	20	(.)	2	9	30
46 Zambia	42	98	51	106	34	89	2	16	..	2	..	39
47 Honduras	67	85	68	85	67	84	8	13	1	7	45	60
48 Bolivia	64	86	78	96	50	76	12	29	4	13	39	63
49 Cameroon	65	101	87	42	43	91	2	16	..	1	19	..
50 Thailand	83	82	88	85	79	78	13	28	2	5	68	84
51 Philippines	95	105	98	102	93	107	26	56	13	24	72	88
52 Congo, People's Rep.	78	156	103	163	53	148	4	69	1	3	16	..
53 Nicaragua	66	85	65	83	66	88	7	26	1	11	..	90
54 Papua New Guinea	32	60	59	70	7	49	1	13	..	..	29	..
55 El Salvador	80	79	82	80	77	77	13	23	1	8	49	62
56 Nigeria	36	62	46	..	27	..	4	13	(.)	1	15	..
57 Peru	83	112	95	116	71	106	15	50	4	16	61	80
58 Morocco	47	72	67	90	27	54	5	20	1	4	14	28
59 Mongolia	79	108	79	111	78	105	51	81	8	8	..	..
60 Albania	94	..	102	..	86	..	20	..	5	..	..	..
61 Dominican Rep.	98	96	99	95	98	96	7	28	1	10	65	67
62 Colombia	77	124	77	122	77	127	12	43	2	10	63	..
63 Guatemala	45	64	50	68	39	58	7	15	2	5	32	..
64 Syrian Arab Rep.	65	89	89	105	39	73	16	50	4	14	30	58

	Number enrolled in primary school as percentage of age group						Number enrolled in secondary school as percentage of age group		Number enrolled in higher education as percentage of population aged 20-24		Adult literacy rate (percent)	
	Total		Male		Female		1960	1978	1960	1977	1960	1976
	1960	1978	1960	1978	1960	1978						
65 Ivory Coast	46	71	68	88	24	54	2	14	(.)	2	5	20
66 Ecuador	83	108	87	110	79	106	12	46	3	29	68	77
67 Paraguay	98	85	105	87	90	84	11	25	2	8	75	84
68 Tunisia	66	100	88	116	43	83	12	30	1	5	16	62
69 Korea, Dem. Rep.	..	113	..	115	..	112	..	..	..	..	..	..
70 Jordan	77	102	94	103	59	101	25	74	1	7	32	70
71 Lebanon	102	96	105	103	99	89	19	46	6	..	..	..
72 Jamaica	92	98	92	97	93	97	45	58	2	..	82	..
73 Turkey	75	105	90	115	58	95	14	41	3	8	38	60
74 Malaysia	96	94	108	95	83	92	19	48	1	4	53	60
75 Panama	96	88	98	89	94	86	29	116	5	21	73	..
76 Cuba	109	122	109	125	109	119	14	51	3	16	..	96
77 Korea, Rep. of	94	111	99	112	89	111	27	74	5	11	71	93
78 Algeria	46	99	55	114	37	82	8	29	(.)	4	10	35
79 Mexico	80	116	82	119	77	114	11	39	3	11	65	82
80 Chile	109	118	111	118	107	117	24	52	4	13	84	..
81 South Africa	89	..	94	..	85	..	15	..	3	..	57	..
82 Brazil	95	88	97	87	93	88	11	24	2	13	61	76
83 Costa Rica	96	107	97	108	95	107	21	46	5	19	..	90
84 Romania	98	106	101	109	95	103	24	84	5	10	..	98
85 Uruguay	111	105	111	103	111	108	37	64	8	18	..	94
86 Iran	41	101	56	121	27	80	12	44	1	5	16	50
87 Portugal	..	117	..	119	..	115	..	55	4	11	62	70
88 Argentina	98	110	98	110	99	111	23	41	11	29	91	94
89 Yugoslavia	111	99	113	100	108	98	58	82	9	23	77	85
90 Venezuela	100	106	100	106	100	106	21	38	4	21	63	82
91 Trinidad and Tobago	88	99	89	98	87	101	24	39	1	4	93	95
92 Hong Kong	87	115	93	116	79	114	20	57	4	10	70	90
93 Singapore	111	109	121	111	101	107	32	57	6	9	..	..
94 Greece	102	104	104	104	101	103	37	79	4	19	81	..
95 Israel	98	97	99	96	97	97	48	68	10	25	84	..
96 Spain	110	110	106	110	116	110	23	76	4	22	87	..
Industrial market economies	114 w	100 w	109 w	102 w	108 w	102 w	68 w	89 w	17 w	37 w	..	99 w
97 Ireland	110	104	107	105	112	104	35	92	9	19	..	98
98 Italy	111	103	112	104	109	103	34	73	7	27	91	98
99 New Zealand	108	108	110	109	106	108	73	82	13	28	..	99
100 United Kingdom	92	106	92	105	92	106	66	83	9	19	..	99
101 Finland	97	85	100	86	95	85	74	89	7	20	99	100
102 Austria	105	100	106	100	104	99	50	72	8	21	99	99
103 Japan	103	98	103	98	102	98	74	93	10	32	98	99
104 Australia	103	94	103	94	103	93	51	73	13	26	..	100
105 Canada	107	101	108	101	105	100	46	89	16	38	..	99
106 France	144	112	144	113	143	111	46	83	10	26	..	99
107 Netherlands	105	101	105	100	104	102	58	92	13	28	..	99
108 United States	118	98	..	..	..	..	86	97	32	56	98	99
109 Norway	100	100	100	100	100	100	57	90	7	24	..	99
110 Belgium	109	102	111	101	108	102	69	86	9	23	..	99
111 Germany, Fed. Rep.	133	90	..	..	..	..	..	94	6	25	..	99
112 Denmark	103	103	103	102	103	104	65	80	10	32	..	99
113 Sweden	96	99	95	99	96	99	55	73	9	35	..	99
114 Switzerland	118	86	118	86	118	87	26	55	7	16	..	99
Capital-surplus oil exporters	48 w	97 w	71 w	110 w	25 w	85 w	13 w	45 w	2 w	8 w	14 w	..
115 Iraq	65	117	94	130	36	103	19	50	2	9	18	..
116 Saudi Arabia	12	59	22	74	2	44	2	26	(.)	7	3	..
117 Libya	59	123	92	128	24	119	9	67	1	7	..	50
118 Kuwait	117	104	131	110	102	98	37	74	..	13	47	60
Nonmarket industrial economies	101 w	97 w	101 w	97 w	101 w	97 w	47 w	71 w	11 w	21 w	97 w	..
119 Bulgaria	93	96	94	96	92	95	55	90	11	22	91	..
120 Poland	109	100	110	102	107	99	50	67	9	18	95	98
121 Hungary	101	97	103	96	100	97	46	69	7	12	97	98
122 USSR	100	97	100	97	100	97	49	72	11	22	98	100
123 Czechoslovakia	93	94	93	94	93	95	25	40	11	15	95	..
124 German Dem. Rep.	112	94	111	92	113	95	39	92	16	29	..	..

a. Figures in italics are years other than those specified. See the technical notes.

Table 24. Defense and Social Expenditure

	Defense expenditure as percentage of:				Central government expenditure per capita (1975 dollars)					
	GNP		Central government expenditure		Defense		Education		Health	
	1972 ^a	1978 ^b	1972 ^a	1978 ^b	1972 ^a	1978 ^b	1972 ^a	1978 ^b	1972 ^a	1978 ^b
Low-income countries	3.7 <i>w</i>	4.0 <i>w</i>	19.4 <i>w</i>	16.2 <i>w</i>	6 <i>w</i>	7 <i>w</i>	3 <i>w</i>	4 <i>w</i>	2 <i>w</i>	2 <i>w</i>
China and India	..	4.0 <i>w</i>	..	15.9 <i>w</i>	..	7 <i>w</i>	..	4 <i>w</i>	..	..
Other low-income	3.7 <i>w</i>	3.9 <i>w</i>	19.4 <i>w</i>	18.9 <i>w</i>	6 <i>w</i>	7 <i>w</i>	3 <i>w</i>	3 <i>w</i>	2 <i>w</i>	2 <i>w</i>
1 Kampuchea, Dem.	..	..	..	..	..	..	..	..	..	..
2 Lao PDR	..	..	..	..	..	..	..	..	..	..
3 Bhutan	..	..	..	..	..	..	..	..	..	..
4 Bangladesh	0.5	..	5.1	..	(.)	..	1	..	(.)	..
5 Chad	4.5	..	24.6	..	6	..	3	..	1	..
6 Ethiopia	2.0	..	14.3	..	2	..	2	2	1	1
7 Nepal	0.6	0.8	7.1	6.4	1	1	1	2	(.)	1
8 Somalia	6.2	7.3	23.3	20.1	7	7	2	5	2	2
9 Mali	..	3.3	..	18.6	..	4	..	5	..	1
10 Burma	6.3	3.7	31.6	26.3	7	5	3	2	1	1
11 Afghanistan	..	..	..	..	..	..	..	..	..	..
12 Viet Nam	..	..	..	..	..	..	..	..	..	..
13 Burundi	2.0	2.5	10.3	11.2	2	3	6	6	1	1
14 Upper Volta	1.3	3.2	11.5	21.8	1	4	3	3	1	1
15 India	..	2.8	..	18.7	..	4	..	(.)	..	(.)
16 Malawi	0.6	2.8	3.2	11.2	1	4	4	4	1	2
17 Rwanda	3.0	1.7	25.6	12.4	4	2	3	3	1	1
18 Sri Lanka	1.3	0.7	4.1	1.9	4	2	12	8	6	5
19 Benin	..	..	..	..	..	..	..	..	..	..
20 Mozambique	..	..	..	..	..	..	..	..	..	..
21 Sierra Leone	..	1.7	..	7.8	..	3	..	7	..	3
22 China	..	4.8	..	15.1	..	9	..	6	..	..
23 Haiti	..	..	..	..	..	..	..	..	..	..
24 Pakistan	6.6	5.3	39.9	31.4	10	10	(.)	1	(.)	1
25 Tanzania	2.3	4.0	11.9	14.7	4	7	5	7	2	4
26 Zaire	..	..	..	..	..	..	..	..	..	..
27 Niger	..	0.9	..	6.1	..	2	..	6	..	2
28 Guinea	..	..	..	..	..	..	..	..	..	..
29 Central African Rep.	..	..	..	..	..	..	..	..	..	..
30 Madagascar	0.8	..	3.6	..	2	..	5	..	2	..
31 Uganda	..	..	..	..	..	..	..	..	..	..
32 Mauritania	..	..	..	..	..	..	..	..	..	..
33 Lesotho	..	..	..	..	..	..	5	..	2	..
34 Togo	..	3.2	..	9.6	..	8	..	12	..	5
35 Indonesia	..	..	..	..	..	..	..	..	..	..
36 Sudan	3.5	3.5	23.0	13.5	8	10	3	4	2	1
Middle-income countries	2.9 <i>w</i>	2.8 <i>w</i>	13.6 <i>w</i>	12.1 <i>w</i>	27 <i>w</i>	29 <i>w</i>	22 <i>w</i>	33 <i>w</i>	9 <i>w</i>	15 <i>w</i>
Oil exporters	3.0 <i>w</i>	2.6 <i>w</i>	16.4 <i>w</i>	10.8 <i>w</i>	31 <i>w</i>	22 <i>w</i>	25 <i>w</i>	32 <i>w</i>	10 <i>w</i>	8 <i>w</i>
Oil importers	2.8 <i>w</i>	2.9 <i>w</i>	12.6 <i>w</i>	12.6 <i>w</i>	24 <i>w</i>	32 <i>w</i>	20 <i>w</i>	34 <i>w</i>	9 <i>w</i>	20 <i>w</i>
37 Kenya	1.3	4.0	6.0	16.0	3	10	11	12	4	5
38 Ghana	1.6	0.8	8.0	5.3	8	4	20	11	6	5
39 Yemen Arab Rep.	..	4.1	..	30.6	..	15	..	5	..	2
40 Senegal	..	..	..	..	..	..	..	..	..	..
41 Angola	..	..	..	..	..	..	..	..	..	..
42 Zimbabwe	..	..	..	..	..	..	..	..	..	..
43 Egypt	..	3.7	..	8.2	..	17	..	24	..	7
44 Yemen, PDR	..	..	..	..	..	..	..	..	..	..
45 Liberia	..	1.2	..	4.1	..	5	..	20	..	10
46 Zambia	..	..	..	..	..	..	33	23	13	11
47 Honduras	1.9	..	12.4	..	7	..	13	..	6	..
48 Bolivia	1.5	2.0	16.1	16.1	7	10	13	18	4	5
49 Cameroon	..	1.4	..	8.3	..	5	..	11	..	3
50 Thailand	3.5	3.1	19.5	18.1	11	13	11	15	2	3
51 Philippines	1.5	2.8	10.1	19.0	5	11	7	7	1	3
52 Congo, People's Rep.	..	..	..	..	..	..	..	..	..	..
53 Nicaragua	1.9	..	12.3	..	12	..	16	..	4	..
54 Papua New Guinea	..	1.5	..	4.3	..	6	..	26	..	12
55 El Salvador	0.8	1.0	6.6	6.8	4	5	11	14	6	6
56 Nigeria	5.2	4.0	40.2	17.9	20	20	2	11	2	2
57 Peru	2.5	2.1	14.8	13.1	23	18	35	23	10	8
58 Morocco	2.8	6.8	12.3	16.3	13	41	21	34	5	7
59 Mongolia	..	..	..	..	..	..	..	..	..	..
60 Albania	..	..	..	..	..	..	..	..	..	..
61 Dominican Rep.	1.5	..	8.5	..	11	..	18	..	15	..
62 Colombia	..	..	..	..	..	..	..	..	..	..
63 Guatemala	1.1	1.2	11.0	11.0	3	8	5	9	2	5
64 Syrian Arab Rep.	10.9	15.3	37.2	34.9	64	121	19	22	2	3

	Defense expenditure as percentage of:				Central government expenditure per capita (1975 dollars)					
	GNP		Central government expenditure		Defense		Education		Health	
	1972 ^a	1978 ^b	1972 ^a	1978 ^b	1972 ^a	1978 ^b	1972 ^a	1978 ^b	1972 ^a	1978 ^b
65 Ivory Coast	..	..	..	..	..	..	..	..	..	..
66 Ecuador	2.0	2.2	16.9	19.2	11	15	20	20	3	6
67 Paraguay	1.8	1.3	13.8	11.3	9	9	8	11	2	2
68 Tunisia	1.1	1.5	4.8	4.3	7	13	46	62	11	21
69 Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
70 Jordan	..	..	..	..	..	..	..	..	..	..
71 Lebanon	..	..	..	..	..	..	..	..	..	..
72 Jamaica	..	1.0	..	2.6	..	12	..	83	..	35
73 Turkey	3.4	3.1	15.4	12.1	27	16	32	27	6	3
74 Malaysia	5.1	4.0	18.5	14.7	33	35	42	51	12	15
75 Panama	..	..	..	..	..	..	..	64	..	47
76 Cuba	..	..	..	..	..	..	..	..	..	..
77 Korea, Rep. of	4.9	6.3	25.8	38.0	22	49	14	21	1	2
78 Algeria	..	..	..	..	..	..	..	..	..	..
79 Mexico	0.6	0.6	4.9	3.4	8	8	27	47	8	9
80 Chile	2.6	4.4	6.1	12.0	4	37	9	40	5	20
81 South Africa	..	..	..	..	..	..	..	..	..	..
82 Brazil	1.4	1.1	8.3	5.8	13	14	11	14	10	20
83 Costa Rica	0.5	0.7	2.6	2.7	5	8	48	68	6	10
84 Romania	..	..	..	..	..	..	..	..	..	..
85 Uruguay	1.4	2.5	5.6	10.5	16	17	28	15	5	8
86 Iran	7.4	..	24.1	..	104	..	45	..	16	..
87 Portugal	..	..	..	..	..	..	..	..	..	..
88 Argentina	1.5	2.5	9.0	11.9	22	36	29	25	8	6
89 Yugoslavia	4.1	4.1	20.5	19.0	54	72	..	..	66	98
90 Venezuela	2.1	2.3	9.7	7.8	41	55	73	101	27	35
91 Trinidad and Tobago	..	..	..	..	..	..	..	..	..	..
92 Hong Kong	..	..	..	..	..	..	..	..	..	..
93 Singapore	6.0	5.4	35.3	26.8	126	164	56	88	28	52
94 Greece	7.8	5.7	14.6	19.0	90	145	54	77	44	73
95 Israel	17.6	23.4	39.8	35.8	620	861	141	222	55	109
96 Spain	1.3	1.0	6.5	4.2	34	32	43	66	5	5
Industrial market economies	5.1 <i>w</i>	2.9 <i>w</i>	21.6 <i>w</i>	13.4 <i>w</i>	301 <i>w</i>	281 <i>w</i>	80 <i>w</i>	120 <i>w</i>	152 <i>w</i>	229 <i>w</i>
97 Ireland	..	..	6.3	..	70	..	178	..	150	..
98 Italy	2.0	..	5.8	4.4	69	70	215	231	195	241
99 New Zealand	1.5	1.6	16.7	..	217	..	34	..	158	..
100 United Kingdom	5.5	..	6.1	4.7	80	83	203	272	140	196
101 Finland	1.5	1.4	3.0	3.1	47	67	160	215	156	272
102 Austria	1.0	1.2	..	..	..	..	..	..	..	..
103 Japan	..	..	..	..	..	..	..	..	..	..
104 Australia	2.8	3.0	14.5	9.4	188	175	55	171	108	193
105 Canada	..	1.8	..	8.0	..	135	..	75	..	129
106 France	..	2.6	..	7.0	..	181	..	251	..	375
107 Netherlands	..	3.4	..	6.4	..	223	..	520	..	19
108 United States	6.3	3.1	32.2	21.2	453	374	45	52	120	179
109 Norway	3.4	3.3	9.4	8.1	201	236	206	264	255	319
110 Belgium	2.6	2.9	6.6	5.8	157	202	364	514	34	63
111 Germany, Fed. Rep.	3.0	2.8	12.4	9.8	200	216	24	21	281	433
112 Denmark	2.3	2.5	7.0	6.5	169	200	377	307	231	50
113 Sweden	3.6	3.3	12.2	8.0	283	280	335	364	81	86
114 Switzerland	2.0	2.0	15.1	10.0	184	182	51	68	122	197
Capital-surplus oil exporters	..	..	..	..	..	..	..	..	..	..
115 Iraq	..	..	..	..	..	..	..	..	..	..
116 Saudi Arabia	..	..	..	..	..	..	..	..	..	..
117 Libya	..	..	..	..	..	..	..	..	..	..
118 Kuwait	2.7	10.3	8.4	11.2	26	36	47	34	17	19
Nonmarket industrial economies	..	..	..	..	..	..	..	..	..	..
119 Bulgaria	..	..	..	..	..	..	..	..	..	..
120 Poland	..	..	..	..	..	..	..	..	..	..
121 Hungary	..	..	..	..	..	..	..	..	..	..
122 USSR	..	..	..	..	..	..	..	..	..	..
123 Czechoslovakia	..	..	..	..	..	..	..	..	..	..
124 German Dem. Rep.	..	..	..	..	..	..	..	..	..	..

a. Figures in italics are for 1973, not 1972. b. Figures in italics are for 1977, not 1978.

Table 25. Income Distribution

		Percentage share of household income, by percentile groups of households ^a						
	Year	Lowest 20 percent	Second quintile	Third quintile	Fourth quintile	Highest 20 percent	Highest 10 percent	
Low-income countries								
China and India								
Other low-income								
1	Kampuchea, Dem.	..	..	..	..	..	..
2	Lao PDR	..	..	..	..	..	..
3	Bhutan	..	..	..	..	..	..
4	Bangladesh	..	..	..	..	..	..
5	Chad	..	..	..	..	..	..
6	Ethiopia	..	..	..	..	..	..
7	Nepal	1976-77	4.6	8.0	11.7	16.5	59.2	46.5
8	Somalia	..	..	..	..	..	..
9	Mali	..	..	..	..	..	..
10	Burma	..	..	..	..	..	..
11	Afghanistan	..	..	..	..	..	..
12	Viet Nam	..	..	..	..	..	..
13	Burundi	..	..	..	..	..	..
14	Upper Volta	..	..	..	..	..	..
15	India	1975-76	7.0	9.2	13.9	20.5	49.4	33.6
16	Malawi	1967-68	10.4	11.1	13.1	14.8	50.6	40.1
17	Rwanda	..	..	..	..	..	..
18	Sri Lanka	1969-70	7.5	11.7	15.7	21.7	43.4	28.2
19	Benin	..	..	..	..	..	..
20	Mozambique	..	..	..	..	..	..
21	Sierra Leone	..	..	..	..	..	..
22	China	..	..	..	..	..	..
23	Haiti	..	..	..	..	..	..
24	Pakistan	..	..	..	..	..	..
25	Tanzania	1969	5.8	10.2	13.9	19.7	50.4	35.6
26	Zaire	..	..	..	..	..	..
27	Niger	..	..	..	..	..	..
28	Guinea	..	..	..	..	..	..
29	Central African Rep.	..	..	..	..	..	..
30	Madagascar	..	..	..	..	..	..
31	Uganda	..	..	..	..	..	..
32	Mauritania	..	..	..	..	..	..
33	Lesotho	..	..	..	..	..	..
34	Togo	..	..	..	..	..	..
35	Indonesia	1976	6.6	7.8	12.6	23.6	49.4	34.0
36	Sudan	..	..	..	..	..	..
Middle-income countries								
Oil exporters								
Oil importers								
37	Kenya	..	..	..	..	..	..
38	Ghana	..	..	..	..	..	..
39	Yemen Arab Rep.	..	..	..	..	..	..
40	Senegal	..	..	..	..	..	..
41	Angola	..	..	..	..	..	..
42	Zimbabwe	..	..	..	..	..	..
43	Egypt	..	..	..	..	..	..
44	Yemen, PDR	..	..	..	..	..	..
45	Liberia	..	..	..	..	..	..
46	Zambia	..	..	..	..	..	..
47	Honduras	1967	2.3	5.0	8.0	16.9	67.8	50.0
48	Bolivia	..	..	..	..	..	..
49	Cameroon	..	..	..	..	..	..
50	Thailand	..	..	..	..	..	..
51	Philippines	1970-71	5.2	9.0	12.8	19.0	54.0	38.5
52	Congo, People's Rep.	..	..	..	..	..	..
53	Nicaragua	..	..	..	..	..	..
54	Papua New Guinea	..	..	..	..	..	..
55	El Salvador	..	..	..	..	..	..
56	Nigeria	..	..	..	..	..	..
57	Peru	1972	1.9	5.1	11.0	21.0	61.0	42.9
58	Morocco	..	..	..	..	..	..
59	Mongolia	..	..	..	..	..	..
60	Albania	..	..	..	..	..	..
61	Dominican Rep.	..	..	..	..	..	..
62	Colombia	..	..	..	..	..	..
63	Guatemala	..	..	..	..	..	..
64	Syrian Arab Rep.	..	..	..	..	..	..

Percentage share of household income, by percentile groups of households^a

	Year	Lowest 20 percent	Second quintile	Third quintile	Fourth quintile	Highest 20 percent	Highest 10 percent
65	Ivory Coast	..	..	..	..	..	..
66	Ecuador	..	..	..	..	..	..
67	Paraguay	..	..	..	..	..	..
68	Tunisia	..	..	..	..	..	..
69	Korea, Dem. Rep.	..	..	..	..	..	..
70	Jordan	..	..	..	..	..	..
71	Lebanon	..	..	..	..	..	..
72	Jamaica	..	..	..	..	..	..
73	Turkey	1973	3.4	8.0	12.5	19.5	56.5
74	Malaysia	1970	3.3	7.3	12.2	20.7	56.6
75	Panama	..	..	..	..	..	..
76	Cuba	..	..	..	..	..	..
77	Korea, Rep. of	1976	5.7	11.2	15.4	22.4	45.3
78	Algeria	..	..	..	..	..	..
79	Mexico	1977	2.9	7.0	12.0	20.4	57.7
80	Chile	1968	4.4	9.0	13.8	21.4	51.4
81	South Africa	..	..	..	..	..	..
82	Brazil	1972	2.0	5.0	9.4	17.0	66.6
83	Costa Rica	1971	3.3	8.7	13.3	19.9	54.8
84	Romania	..	..	..	..	..	..
85	Uruguay	..	..	..	..	..	..
86	Iran	..	..	..	..	..	..
87	Portugal	..	..	..	..	..	..
88	Argentina	1970	4.4	9.7	14.1	21.5	50.3
89	Yugoslavia	1978	6.6	12.1	18.7	23.9	38.7
90	Venezuela	1970	3.0	7.3	12.9	22.8	54.0
91	Trinidad and Tobago	1975-76	4.2	9.1	13.9	22.8	50.0
92	Hong Kong	..	..	..	..	..	..
93	Singapore	..	..	..	..	..	..
94	Greece	..	..	..	..	..	..
95	Israel	..	..	..	..	..	..
96	Spain	1974	6.0	11.8	16.9	23.1	42.2
Industrial market economies							
97	Ireland	..	..	..	..	..	..
98	Italy	1969	5.1	10.5	16.2	21.7	46.5
99	New Zealand	..	..	..	..	..	..
100	United Kingdom	1977-78	7.4	11.7	17.0	24.7	39.5
101	Finland	..	..	..	..	..	..
102	Austria	..	..	..	..	..	..
103	Japan	1969	7.9	13.1	16.8	21.2	41.0
104	Australia	1966-67	6.6	13.5	17.8	23.4	38.8
105	Canada	1969	5.0	11.8	17.9	24.3	41.0
106	France	1970	4.3	9.8	16.3	22.7	46.9
107	Netherlands	1975	8.5	13.6	17.8	23.0	37.1
108	United States	1972	4.5	10.7	17.3	24.7	42.8
109	Norway	1970	6.3	12.9	18.8	24.7	37.3
110	Belgium	..	..	..	..	..	..
111	Germany, Fed. Rep.	1973	6.5	10.3	15.0	22.0	46.2
112	Denmark	..	..	..	..	..	..
113	Sweden	1972	6.6	13.1	18.5	24.8	37.0
114	Switzerland	..	..	..	..	..	..
Capital-surplus oil exporters							
115	Iraq	..	..	..	..	..	..
116	Saudi Arabia	..	..	..	..	..	..
117	Libya	..	..	..	..	..	..
118	Kuwait	..	..	..	..	..	..
Nonmarket industrial economies							
119	Bulgaria	..	..	..	..	..	..
120	Poland	..	..	..	..	..	..
121	Hungary	..	..	..	..	..	..
122	USSR	..	..	..	..	..	..
123	Czechoslovakia	..	..	..	..	..	..
124	German Dem. Rep.	..	..	..	..	..	..

a. These estimates should be treated with caution. See the technical notes.

Technical Notes

Table 1. Basic Indicators

The estimates of *population* for mid-1979 are primarily from the UN Population Division. In some cases the UN population data were adjusted by using more recent data from the World Bank and the US Bureau of the Census.

The data on *area* are from the FAO *Production Yearbook, 1979*.

Gross national product (GNP) measures the total domestic and foreign output claimed by residents of a country. It comprises gross domestic product (see the technical notes for Table 2) and factor incomes (such as investment receipts and workers' remittances) accruing to residents from abroad, less the income earned in the domestic economy accruing to persons abroad. It is calculated without making deductions for depreciation. For some countries the estimates of GNP are adjusted from data on net material product.

The *GNP per capita* figures were calculated according to the *World Bank Atlas* method: GNP in national currency units was expressed first in weighted average prices for the base period 1977-79, converted into dollars at the GNP-weighted average exchange rate for this period, and adjusted for US inflation. The resulting estimate of GNP was then divided by the population in mid-1979. This method reduces the effect of temporary undervaluation or overvaluation of a currency and generally assures greater comparability of the estimates of GNP per capita across countries.

The *average annual rate of inflation* was calculated from the "implicit gross domestic product (GDP) deflator," which is calculated by dividing, for each year of

the period, the value of GDP in current market prices by the value of GDP in constant market prices, both in national currency. This measure of inflation has limitations, especially for the oil-producing countries in the light of sharp increases in oil prices.

The *adult literacy rate* is the percentage of persons aged 15 and over who can read and write. These rates are based primarily on information from the UN Educational, Scientific and Cultural Organization (UNESCO), supplemented by World Bank data. For some countries the estimates are for years other than, but generally not more than two years distant from, those specified. Thus the series are not strictly comparable for all countries.

Life expectancy at birth indicates the number of years newborn children would live if subject to the mortality risks prevailing for the cross-section of population at the time of their birth. Data are from the UN Population Division, supplemented by World Bank estimates.

The *index of food production per capita* shows the average annual quantity of food produced per capita in 1977-79 in relation to that in 1969-71. The estimates were derived from those of the Food and Agriculture Organization (FAO), which are calculated by dividing indices of the quantity of food production by indices of total population. Food is considered to comprise cereals, starchy roots, sugar cane, sugar beet, pulses, edible oils, nuts, fruits, vegetables, livestock and livestock products. Quantities of food production are measured net of animal feed, seeds for use in agriculture and food lost in processing and distribution.

The country-group averages in this table are weighted by country population.

The accompanying table shows basic indicators for 31 countries that have a population of less than a million and are members of the United Nations, the World Bank or both.

Tables 2 and 3. Growth and Structure of Production

Most of the definitions used are those of the UN *System of National Accounts*.

Gross domestic product (GDP) measures the total final output of goods and services produced by an economy—that is, within a country's territory by residents and nonresidents, regardless of its allocation to domestic and foreign claims. It is calculated without making deductions for depreciation. For most countries, GDP by industrial origin is measured at factor cost, but for some countries without complete national accounts series at factor cost, market price series were used. GDP at factor cost is equal to GDP at market prices, less indirect taxes net of subsidies.

The *agricultural sector* comprises agriculture, forestry, hunting and fishing. The *industrial sector* comprises mining, manufacturing, construction, and electricity, water and gas. All other branches of economic activity are categorized as *services*.

National accounts series in domestic currency units were used to compute the indicators in these tables. The growth rates in Table 2 were calculated from constant price series, the shares of GDP in Table 3 from current price series.

The average growth rates for the country groups in Table 2 are weighted by country GDP in 1970 in dollars. The average sectoral shares in Table 3 are weighted by country GDP in current dollars.

UN/World Bank members with a population of less than 1 million	Population (millions) Mid-1979	Area (thousands of square kilometers)	GNP per capita (dollars) 1979	Life expectancy at birth (years) 1979	Average index of food production per capita (1969-71 = 100) 1977-79
Guinea-Bissau	0.8	36	170	42	94
Maldives	0.2	(.)	200	47	..
Comoros	0.4	2	220	47	..
Gambia, The	0.6	11	250	42	77
Cape Verde	0.3	4	260	61	..
Equatorial Guinea	0.4	28	..	47	..
Western Samoa	0.2	3	..	68	..
Solomon Islands	0.2	28	..	..	124
Dominica	0.1	1	400	..	..
Djibouti	0.3	22	420	45	..
Sao Tome and Principe	0.1	1	450	..	..
Guyana	0.8	215	580	68	97
Grenada	0.1	(.)	620	69	..
Swaziland	0.5	17	650	47	109
Botswana	0.8	600	720	49	89
St. Lucia	0.1	1	780	..	..
Mauritius	0.9	2	1,030	65	100
Seychelles	0.1	(.)	1,400	..	..
Fiji	0.6	18	1,680	72	124
Barbados	0.2	(.)	2,440	71	81
Suriname	0.4	163	2,590	68	148
Malta	0.3	(.)	2,610	72	126
Bahamas	0.2	14	2,750	69	..
Oman	0.9	300	2,970	48	..
Cyprus	0.6	9	3,110	73	94
Gabon	0.6	268	3,280	45	94
Bahrain	0.4	1	5,270	67	..
Iceland	0.2	103	10,400	75	115
Luxembourg	0.4	3	12,670	72	104
United Arab Emirates	0.8	84	15,590	62	..
Qatar	0.2	11	16,670	58	..

Tables 4 and 5. Growth of Consumption and Investment; Structure of Demand

GDP is defined in the technical notes for Table 2.

Public consumption (or general government consumption) includes all current expenditure for purchases of goods and services by all levels of government. Capital expenditure on national defense and security is regarded as consumption expenditure.

Private consumption is the market value of all goods and services purchased or received as income in kind by households and non-profit institutions. It includes imputed rent for owner-occupied

dwellings.

Gross domestic investment consists of the outlays for additions to the fixed assets of the economy, plus the net value of inventory changes.

Gross domestic saving shows the amount of gross domestic investment financed from domestic output. Comprising public and private saving, it is the difference between gross domestic investment and the deficit on the current account of goods and nonfactor services, excluding net current transfers.

Exports of goods and nonfactor services represent the value of all goods and nonfactor services sold to the rest of the world; they

include merchandise, freight, insurance, travel and other non-factor services. The value of factor services, such as investment receipts and workers' remittances from abroad, is excluded.

The *resource balance* is the difference between exports and imports of goods and nonfactor services.

National accounts series in domestic currency units were used to compute the indicators in these tables. The growth rates in Table 4 were calculated from constant price series, the shares of GDP in Table 5 from current price series.

The country-group averages in Table 5 are weighted by country GDP in current dollars.

Table 6. Industrialization

The percentage *distribution of value added* among manufacturing industries was calculated from data obtained from the UN Industrial Development Organization (UNIDO), with the base values expressed in 1975 dollars.

The classification of manufacturing industries is in accord with the UN International Standard Industrial Classification of All Economic Activities (ISIC). *Food and agriculture* comprise ISIC Major Groups 311, 313 and 314; *Textiles and clothing* 321-24; *Machinery and transport equipment* 382-84; and *Chemicals* 351 and 352. *Other manufacturing* comprises ISIC Major Division 3, less all of the above.

The figures for *value added in manufacturing* are from the World Bank's national accounts series in national currencies, converted to 1975 dollars.

To calculate *gross manufacturing output per capita*, ratios of gross output to value added in manufacturing, derived from various issues of the UN *Yearbook of Indus-*

trial Statistics, were applied to the World Bank's data on value added in manufacturing. Per capita values were then calculated by using mid-year estimates of country population.

Table 7. Commercial Energy

All data on energy are from UN sources. They refer to commercial forms of primary energy: coal and lignite, petroleum, natural gas and natural gas liquids, and hydroelectricity and nuclear power—all converted into coal equivalents. The use of firewood and other traditional fuels, though substantial in some developing countries, is not taken into account because reliable and comprehensive data are not available.

The country-group averages of growth rates of *energy production* are weighted by volumes of country production in 1974; those of growth rates of *energy consumption*, by volumes of country consumption in 1974; those of *energy consumption per capita*, by country population.

Energy imports refer to the dollar value of energy imports—Revised Standard International Trade Classification (SITC) Section 3—and are expressed as a percentage of earnings from merchandise exports. The country-group averages are weighted by country merchandise exports in current dollars.

Because data on energy imports do not permit a distinction between petroleum imports for fuel and for use in the petrochemicals industry, these percentages may be overestimates of the dependence on imported energy.

Table 8. Merchandise Trade

The statistics on merchandise trade are from UN publications and the UN trade data system,

supplemented by statistics from the UN Conference on Trade and Development (UNCTAD), International Monetary Fund (IMF), *Direction of Trade, International Financial Statistics* and in a few cases from World Bank country documentation.

Merchandise exports and imports cover, with some exceptions, all international changes in ownership of merchandise passing across the customs borders of the reporting countries. Exports are valued f.o.b. (free on board), imports c.i.f. (cost, insurance and freight), unless otherwise specified in the foregoing sources. These values are in current dollars.

The *growth rates of merchandise exports and imports* are in real terms and calculated from quantum (volume) indices of exports and imports. For the majority of developing countries these indices are from the UNCTAD *Handbook of International Trade and Development Statistics* and supplementary data that show revisions. For industrialized countries the indices are from the UN *Yearbook of International Trade Statistics* and UN *Monthly Bulletin of Statistics*.

The *terms of trade*, or the "net barter terms of trade," are calculated as the ratio of a country's index of export unit values to that of import unit values. The terms-of-trade index numbers shown for 1960 and 1979, with 1975 = 100, thus indicate changes in export prices in relation to import prices. The unit value indices are from the same sources cited above for the growth rates of exports and imports.

Tables 9 and 10. Structure of Merchandise Trade

The shares in these tables are derived from trade values in current dollars reported in UN trade tapes and the UN *Yearbook of Inter-*

national Trade Statistics.

Merchandise exports and imports are defined in the technical notes for Table 8.

In the categorization of exports in Table 9, *fuels, minerals and metals* are the commodities in SITC (Revised) Section 3, Divisions 27 and 28, and the nonferrous metals of Division 68. *Other primary commodities* comprise SITC Sections 0, 1, 2 and 4 (food and live animals, beverages and tobacco, inedible crude materials, oils, fats and waxes) less Divisions 27 and 28 (minerals, crude fertilizers and metalliferous ores). *Textiles and clothing* represent SITC Divisions 65 and 84 (textiles, yarns, fabrics and clothing). *Machinery and transport equipment* are the commodities in SITC Section 7. *Other manufactures*, calculated as the residual from the total value of manufactured exports, represent SITC Sections 5 to 9 less Section 7 and Divisions 65, 68 and 84.

In the categorization of imports in Table 10, *food* commodities are those in SITC (Revised) Sections 0, 1 and 4 and in Division 22 (food and live animals, beverages and tobacco, oils and fats). *Fuels* are the commodities in SITC Section 3 (mineral fuels, lubricants and related materials). *Other primary commodities* comprise SITC Section 2 (crude materials excluding fuels), less Division 22 (oilseeds and nuts) plus Division 68 (nonferrous metals). *Machinery and transport equipment* are the commodities in SITC Section 7. *Other manufactures*, calculated as the residual from the total value of manufactured imports, represent SITC Sections 5 to 9 less Section 7 and Division 68.

The country-group averages in Table 9 are weighted by country merchandise exports in current dollars; those in Table 10, by country merchandise imports in current dollars.

Table 11. Destination of Merchandise Exports

Merchandise exports are defined in the technical notes for Table 8. All trade shares in this table are based on statistics on the value of trade in current dollars in IMF, *Direction of Trade*. Unallocated exports are distributed among the country groups in proportion to their respective shares of allocable trade. *Industrial market economies* also include Gibraltar, Iceland and Luxembourg; *capital-surplus oil exporters* also include Oman, Qatar and United Arab Emirates.

The country-group averages are weighted by country merchandise exports in current dollars.

Table 12. Trade in Manufactured Goods

The data in this table are from the United Nations and are among those used to compute special Table B in the UN *Yearbook of International Trade Statistics*. *Manufactured goods* are the commodities in SITC (Revised) Sections 5 through 9 (chemicals and related products, manufactured articles, machinery and transport equipment) excluding Division 68 (nonferrous metals).

The country groups are the same as those in Table 11. The country-group averages are weighted by country manufactured exports in current dollars.

Table 13. Balance of Payments and Debt Service Ratios

The *current account balance* is the difference between (i) exports of goods and services plus inflows of unrequited official and private transfers and (ii) imports of goods and services plus unrequited transfers to the rest of the world. Excluded from this figure are all

interest payments on external public and publicly guaranteed debt, which are shown separately. These interest payments represent those on the disbursed portion of outstanding public and publicly guaranteed debt plus commitment charges on undisbursed debt. The current account estimates are from IMF data files; estimates of interest payments are from the World Bank Debt Reporting System.

Debt service is the sum of interest payments and repayments of principal on external public and publicly guaranteed debt. Debt service data are from the World Bank Debt Reporting System. The ratio of debt service to exports of goods and services is one of several rules of thumb commonly used to assess the ability to service debt. The debt service ratios in the table do not cover unguaranteed private debt, which for some countries is substantial; the debt contracted for purchases of military equipment is also excluded because it usually is not reported. The average ratios of debt service to GNP for the country groups are weighted by country GNP in current dollars. The average ratios of debt service to exports of goods and services are weighted by country exports of goods and services in current dollars.

The World Bank Debt Reporting System is concerned solely with developing countries and does not collect data on external debt for other groups of countries. Nor are comparable data for those countries available from other sources.

Table 14. Flow of External Capital

Data on the *gross inflow and repayment of principal* (amortization) of public and publicly guaranteed

medium- and long-term loans are from the World Bank Debt Reporting System. The *net inflow* is the gross inflow less the repayment of principal.

Net direct private investment is the net amount invested or reinvested by nonresidents of the country in enterprises in which they or other nonresidents exercise significant managerial control. These net figures also take into account the value of direct investment abroad by residents. IMF data files were used in compiling these estimates.

Table 15. External Public Debt and International Reserves

External public debt outstanding represents the amount of public and publicly guaranteed loans that have been disbursed, net of canceled loan commitments and repayments of principal. The data refer to the end of the year indicated and are from the World Bank Debt Reporting System. In estimating external public debt as a percentage of GNP, GNP was converted from national currencies to dollars at the average official exchange rate for the year in question. The country-group averages are weighted by country GNP in current dollars.

Gross international reserves comprise a country's holdings of gold, special drawing rights (SDRs), the reserve position of IMF members in the Fund and holdings of foreign exchange under the control of monetary authorities. The gold component of these reserves is valued throughout at year-end London prices: that is, \$37.37 an ounce in 1970 and \$512.00 an ounce in 1979. The data for holdings of international reserves are from IMF data files. The reserve levels for 1970 and 1979 refer to the end of the year indicated and are in current dollars. The reserve

holdings at the end of 1979 are also expressed in the number of months of imports of goods and services they could pay for, with imports at the average level for 1978 or 1979. The country-group averages are weighted by country imports of goods and services in current dollars.

Table 16. Official Development Assistance from OECD and OPEC Members

Official development assistance (ODA) consists of net disbursements of loans and grants made at concessional financial terms by official agencies of the members of the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) and members of the Organization of Petroleum Exporting Countries (OPEC) with the objective of promoting economic development and welfare. It includes the value of technical cooperation and assistance.

Amounts shown are net disbursements to developing countries and multilateral institutions. The disbursements to multilateral institutions are now reported for all DAC members on the basis of the date of issue of notes; some DAC members previously reported on the basis of the date of encashment. *Net bilateral flows to low-income countries* exclude unallocated bilateral flows and all disbursements to multilateral institutions.

Figures for 1960 to 1980 were supplied by the OECD. All others are projections by World Bank staff, based on OECD and World Bank estimates of GNP growth, information on budget appropriations for aid, and statements on aid policy by governments. They are projections based on present plans rather than predictions of what will occur.

The nominal values shown in the summary for ODA from OECD

countries were converted into 1978 prices using the dollar GNP deflator. This deflator is based on price increases in OECD countries (excluding Greece, Portugal, Spain and Turkey) measured in dollars. It takes into account the parity changes between the dollar and national currencies. For example, when the dollar depreciates, price increases measured in national currencies have to be adjusted upward by the amount of the depreciation to obtain price increases in dollars.

The projections are sensitive to exchange rates, which affect the dollar values of ODA and GNP and the relative weights of countries in the total. No attempt has been made to project changes in exchange rates.

The table, in addition to showing totals for OPEC, shows totals for the Organization of Arab Petroleum Exporting Countries (OAPEC). The donor members of OAPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia and United Arab Emirates. ODA data for OPEC and OAPEC were also obtained from the OECD.

Table 17. Population Growth, Past and Projected, and Hypothetical Stationary Population

The *growth rates of population* are period averages calculated from mid-year country populations. The country-group averages are weighted by country population in 1970.

The *projections of population* for 1980 and 2000, and to the year in which it will eventually become stationary, were made for each country separately. Starting with information on total population, fertility rates and mortality rates in the base year 1979, these parameters were projected to 1980 and thereafter for five-year intervals on the basis of generalized assump-

tions until the population became stationary. The base-year estimates are from UN, *World Population Trends and Prospects by Country, 1950–2025*, and from the World Bank, the Population Council, the US Bureau of the Census, and recent national censuses.

The *net reproduction rate* (NRR) indicates the number of daughters that a newborn girl will bear during her lifetime, assuming fixed age-specific fertility rates and a fixed set of mortality rates.

The NRR thus measures the extent to which a cohort of newborn girls will reproduce themselves under given schedules of fertility and mortality. An NRR of 1 indicates that fertility is at replacement level: at this rate child-bearing women, on the average, bear only enough daughters to replace themselves in the population. A population continues to grow after replacement-level fertility has been reached because its past higher birth rates will have produced an age distribution with a relatively high proportion of women in, or still to enter, the reproductive ages. The time taken for a country's population to become stationary after reaching replacement-level fertility thus depends on its age structure and previous fertility patterns.

A *stationary population* is one in which age- and sex-specific mortality rates have not changed over a long period, while age-specific fertility rates have simultaneously remained at replacement level (NRR = 1). In such a population, the birth rate is constant and equal to the death rate, the age structure also is constant and the growth rate is zero.

For all the projections, it was assumed that international migration would have no effect.

The estimates of the hypothetical size of the stationary population, the assumed year of reaching replacement-level fertility and the

year of reaching a stationary population are speculative. *They should not be regarded as predictions.* They are included to provide a summary indication of the long-run implications of recent trends on the basis of highly stylized assumptions. A fuller description of the methods and assumptions used to calculate the estimates is available from the Population and Human Resources Division of the World Bank.

Table 18. Demographic and Fertility-related Indicators

The *crude birth and death rates* indicate the number of live births and deaths per thousand population in a year. They are from the same sources mentioned in the technical notes for Table 17. Percentage changes are computed from unrounded data.

The *total fertility rate* represents the number of children that would be born per woman, if she were to live to the end of her child-bearing years and bear children at each age in accord with prevailing age-specific fertility rates. The rates given are from the same sources mentioned in the technical notes for Table 17.

The *percentage of women in the reproductive age group* refers to women of child-bearing age (15–44 years) as a percentage of the total female population. The estimates were derived from the population estimates in Table 1.

The *percentage of married women using contraceptives* refers only to married women of child-bearing age (15–44 years). These data are mainly derived from Dorothy Nortman and Ellen Hofstatter, *Population and Family Planning Programs: A Factbook* (New York: Population Council, various issues); Dorothy Nortman, "Changing Contraceptive Patterns: A Global Perspective," *Population Bulletin*,

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All country-group averages are weighted by country population.

Table 19. Labor Force

The *population of working age* refers to the population aged 15–64. The estimates for 1979 are based on the population estimates in Table 1; those for 1960 are from the UN Population Division. The country-group averages are weighted by country population.

The *labor force* comprises economically active persons, including the armed forces and the unemployed, but excluding housewives, students and economically inactive groups. *Agriculture, industry and services* are defined in the same manner as in Table 2. The estimates of the sectoral distribution of the labor force in 1960 are from International Labour Office (ILO), *Labor Force Estimates and Projections, 1950–2000*; most of those for 1979 are geometric extrapolations of ILO estimates for 1960 and 1970 in the same source. The country-group averages are weighted by country labor force.

The *labor force growth rates* were derived from the Bank's population projections and ILO data on activity rates, again from the source cited above. The country-group averages for 1960–70 and 1970–80 are weighted by country labor force in 1970; those for 1980–2000, by projections of country labor force in 1980.

The application of ILO activity rates to the Bank's latest popula-

tion estimates may be inappropriate for some countries in which there have been important changes in levels of unemployment and underemployment, in international and internal migration or in both. The labor force projections for 1980–2000 should thus be treated with caution.

Table 20. Urbanization

The data on *urban population as a percentage of total population* are from the UN (*Patterns of Urban and Rural Population Growth*, Population Studies, no. 68, 1980), supplemented by data from the World Bank and from various issues of the UN *Demographic Yearbook*.

The *growth rates of urban population* were calculated from the World Bank's population estimates; the estimates of urban population shares were calculated from the sources cited above.

Data on urban agglomeration are also from the United Nations.

Because the estimates in this table are based on different national definitions of what is "urban," cross-country comparisons should be interpreted with caution.

The country-group averages for urban population as a percentage of total population are weighted by country population; the other country-group averages in this table are weighted by country urban population.

Table 21. Indicators Related to Life Expectancy

Life expectancy at birth is defined in the technical notes for Table 1.

The *infant mortality rate* is the number of infants who die before reaching 1 year of age, per thousand live births in a given year. The data are from a variety of sources, including different issues of the UN *Demographic*

Yearbook and the US Bureau of the Census publication, *World Population: 1977*; they refer to a variety of years, generally not more than two years distant from those specified.

The *child death rate* is the number of deaths of children aged 1–4 per thousand children in the same age group in a given year. For countries with reliable death registration, these rates are from different issues of the UN *Demographic Yearbook*; they refer to a variety of years, generally not more than two years distant from those specified. For other countries, the rates were derived from the appropriate Coale-Demeny Model life tables to correspond to the expectation of life at birth for 1960 and 1979; see Ansley J. Coale and Paul Demeny, *Regional Model Life Tables and Stable Populations* (Princeton, N.J.: Princeton University Press, 1966).

The country-group averages in this table are weighted by country population.

Table 22. Health-related Indicators

The estimates of *population per physician and nursing person* were derived from World Health Organization (WHO) data, some of which have been revised to reflect new information supplied by reporting countries. They also take into account revised estimates of population, which are shown in Table 1. Nursing persons include graduate, practical and assistant nurses. Because country definitions of nursing personnel vary—and because the data shown are for a variety of years, generally not more than two years distant from those specified—the data for these two indicators are not strictly comparable across countries.

The *percentage of total population*

with access to safe water, estimated by the WHO, is the proportion of persons with reasonable access to safe water, which is defined as including treated surface water and such untreated but uncontaminated water as that from boreholes, springs and sanitary wells.

The *daily calorie supply per capita* was calculated by dividing the calorie equivalent of the food supplies in a country by its population. Food supplies comprise domestic production, imports less exports, and changes in stocks; they exclude animal feed, seeds for use in agriculture and food lost in processing and distribution. The *daily calorie requirement per capita* refers to the calories needed to sustain a person at normal levels of activity and health, taking into account age and sex distributions, average body weights and environmental temperatures. Both sets of estimates are from the Food and Agriculture Organization.

The country-group averages in this table are weighted by country population.

Table 23. Education

The data in this table refer to a variety of years, generally not more than two years distant from those specified, and are mostly from UNESCO.

The data on *number enrolled in primary school* refer to estimates of total, male and female enrollment of students of all ages in primary school; they are expressed as percentages of the total, male, or female populations of primary-school age to give "gross primary enrollment ratios." Although primary-school age is generally considered to be 6–11 years, the differences in country practices in the ages and duration of schooling are reflected in the ratios

given. For countries with universal primary education, the gross enrollment ratios may exceed 100 percent because some pupils may be below or above the official primary-school age.

The data on *number enrolled in secondary school* were calculated in the same manner, with secondary-school age generally considered to be 12–17 years.

The data on *number enrolled in higher education* are from UNESCO.

The *adult literacy rate* is defined in the technical notes for Table 1.

The country-group averages in this table are weighted by country population.

Table 24. Defense and Social Expenditure

All data on the central government transactions are from the IMF *Government Finance Statistics Yearbook* and IMF data files. These transactions include current and capital (development) expenditure. The inadequate statistical coverage of state, provincial and local governments and the non-availability of data for these lower levels of government has dictated the use of only central government data. This may seriously understate or distort the statistical portrayal of the allocation of resources for various purposes, especially in large countries where lower levels of government have considerable autonomy and are responsible for a large number of social functions.

Central government expenditure covers that by all government departments, offices, establishments and other bodies that are agencies or instruments of the central authority of a country. It does not necessarily comprise all public expenditure.

Defense expenditure covers all expenditure, whether by defense

or other departments, for the maintenance of military forces, including the purchase of military supplies and equipment, construction, recruiting and training. Also falling under this category is expenditure for strengthening the public services to meet wartime emergencies, for training civil defense personnel and for foreign military aid and contributions to international military organizations and alliances.

Education expenditure comprises expenditure for the provision, management, inspection and support of preprimary, primary and secondary schools, of universities and colleges and of vocational, technical and other training institutions by central governments. Also included is expenditure on the general administration and regulation of the education system, on research into its objectives, organization, administration and method, and on such subsidiary services as transport, school meals and medical and dental services in schools.

Health expenditure covers public expenditure on hospitals, medical and dental centers, and clinics with a major medical component; on national health and medical insurance schemes; and on family planning and preventive care. Also included is expenditure on the general administration and regulation of relevant government departments, hospitals and clinics, health and sanitation, and the national health and medical insurance schemes.

It must be emphasized that the data presented, especially those for education and health, are not comparable across countries for a number of reasons. In many countries private health and education services are substantial; in others, public services represent the major component of total

expenditure. Great caution should therefore be exercised in using the data for cross-country comparisons.

The country-group averages for defense expenditure as a percentage of GNP are weighted by country GNP in current dollars; those for defense expenditure as a percentage of central government expenditure, by country central government expenditure in current dollars. The other country-group averages in this table are weighted by country population.

Table 25. Income Distribution

The data in this table refer to the distribution of total disposable household income accruing to percentile groups of households ranked by total household income. The distributions cover rural and urban areas and refer to different years between 1966 and 1978.

The estimates for Latin American countries other than Mexico come from the preliminary results of a joint project of the World Bank and the UN Economic Commission for Latin America (ECLA) or from the Bank's adjusted data on income distribution. Those for Mexico are the results from the 1977 Household Budget Survey. The estimates for most developing countries in Asia and Africa are from the preliminary results of a joint project of the World Bank and the Economic and Social Commission for Asia and the Pacific (ESCAP) or from the Bank's adjusted data on income distribution. The estimates for other developing countries are from data gathered by the World Bank from national sources but not adjusted.

Data for the Netherlands and the United Kingdom are from country statistical offices. Those

for the other industrial market economies are from Malcolm Sawyer, *Income Distribution in OECD Countries* (OECD Occasional Studies, July 1976); they refer to posttax income and conceptually are roughly comparable with the distributions for developing countries.

Because the collection of data on income distribution has not been systematically organized and integrated with the official statistical system in many countries, estimates were typically derived from surveys designed for other purposes, most often consumer expenditure surveys, which also collect some information on income. These surveys use a variety of income concepts and sample designs. Furthermore, the coverage of many of these surveys is too limited to provide reliable nationwide estimates of income distribution. Thus, although the estimates shown are considered the best available, they do not avoid all these problems and should be interpreted with extreme caution.

The scope of the indicator is similarly limited. Because households vary in size, a distribution in which households are ranked according to per capita household income, not according to their total household income, is superior for many purposes. The distinction is important because households with low per capita incomes frequently are large households, whose total income may be relatively high. Information on the distribution of per capita household income exists, however, for only a few countries. The World Bank has launched the Living Standards Measurement Study to develop procedures and applications that can assist countries in improving their collection and analysis of data on income distribution.

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The World Bank

Headquarters

1818 H Street, N.W.

Washington, D.C. 20433, U.S.A.

Telephone (202) 477-1234

Cable address: INTBAFRAD

WASHINGTONDC



European Office

66, avenue d'Iéna

75116 Paris, France

Tokyo Office

Kokusai Building

1-1 Marunouchi 3-chome

Chiyoda-ku, Tokyo 100, Japan