Economic and Social Survey of Asia and the Pacific 1982

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ECONOMIC AND SOCIAL SURVEY OF ASIA AND THE PACIFIC 1982

Bangkok
1983

Since the 1957 issue, the *Economic and Social Survey of Asia and the Pacific* has, in addition to a review of the current situation of the region, contained a study or studies of some major aspect(s) or problem(s) of economies of Asia and the Pacific, as specified below:

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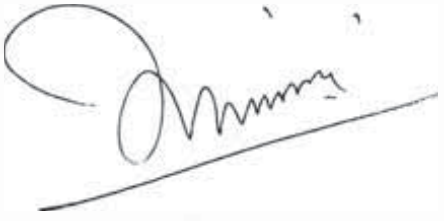
FOREWORD

The worst recession in half a century has cast a shadow over the growth prospects of the developing countries of Asia and the Pacific. In 1981, many of these nations managed to maintain the tempo of economic progress, but 1982 brought a general slow-down in growth rates under the grim pressures of lingering recession, high interest rates and faltering export earnings because of slack demand and increasing protectionism in the industrialized countries. The impact was felt not only in widespread development cutbacks and mounting fiscal imbalances but also by millions of people as unemployment rose and hardships worsened for the region's ragged legions of rural poor.

Growth prospects for the developing Asia-Pacific countries in 1983 did not appear to be promising. As this volume went to press early in the year, there were some signs that the world economy had neared or reached the bottom of its long slide, as indicated by declining inflation and interest rates in the United States of America. However, unemployment in the industrialized countries was widely forecast to remain high throughout 1983, as protectionist pressures likely would as well. There was also considerable doubt whether a global economic recovery, if it was indeed at hand, would be potent enough to fuel a full resurgence of growth rates in the developing world during 1983. As an in-depth analysis of the current situation, this volume forms a useful preliminary to the secretariat's forthcoming major review and appraisal of the implementation of the International Development Strategy for the Third United Nations Development Decade.

This thirty-sixth annual *Economic and Social Survey of Asia and the Pacific* (until 1974 titled the *Economic Survey of Asia and the Far East*) pursues two closely related themes. Part One reviews recent economic and social developments in the region in the context of the present recession. Part Two examines the role of fiscal policy in development, a particularly important issue in the difficult economic circumstances of the developing ESCAP region today.

Like previous *Surveys,* this issue is published on the sole responsibility of the ESCAP secretariat. The views expressed are not, therefore, necessarily those of the Commission or the Governments of its members and associate members. Every effort has been made to ensure that the data herein are authoritative and up to date. While the review of developments is comprehensive until mid-1982, later information has been included to the extent possible up to year-end.



S.A.M.S. Kibria
Executive Secretary
ESCAP

February 1983

EXPLANATORY NOTE

The term "ESCAP region" is used in the present issue of the *Survey* to include Afghanistan, Australia, Bangladesh, Bhutan, Brunei, Burma, China, Cook Islands, Democratic Kampuchea, Fiji, Guam, Hong Kong, India, Indonesia, Iran, Japan, Lao People's Democratic Republic, Malaysia, Maldives, Mongolia, Nauru, Nepal, New Zealand, Niue, Pakistan, Papua New Guinea, the Philippines, Republic of Kiribati, the Republic of Korea, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Tonga, Trust Territory of the Pacific Islands, Tuvalu, Vanuatu and Viet Nam. The term "developing ESCAP region" excludes Australia, Japan and New Zealand.

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

Reference to "tons" indicates metric tons.

Values are in United States dollars unless specified otherwise.

The term "billion" signifies a thousand million.

In the tables, three dots (. . .) indicate that data are not available or are not separately reported, a dash (–) indicates that the amount is nil or negligible, and a blank indicates that the item is not applicable.

In dates, a hyphen (-) is used to signify the full period involved, including the beginning and end years, and a stroke (/) indicates a crop year, a fiscal year or plan year. The fiscal years, currencies and 1982 exchange rates of the ESCAP countries are listed in the following table:

Country	*Fiscal year*	*Currency and abbreviation*	*Mid-point rate of exchange for $US 1 as of June 1982*
Afghanistan	21 March to 20 March	Afghani (Af)	50.600
Australia	1 July to 30 June	Australian dollar ($A)	0.978
Bangladesh	1 July to 30 June	Taka (Tk)	22.113
Bhutan	1 April to 31 March	Ngultrum (Nu)	9.493
Brunei	1 January to 31 December	Brunei dollar ($Br)	2.139[a]
Burma	1 April to 31 March	Kyat (K)	7.894
China	1 January to 31 December	Yuan renminbi (YRMB)	1.931
Cook Islands	1 April to 31 March	New Zealand dollar ($NZ)	1.346
Democratic Kampuchea	1 January to 31 December	Riel (KR)	. . .
Fiji	1 January to 31 December	Fijian dollar ($F)	0.939
Guam	1 October to 30 September	United States dollar ($US)	1.000
Hong Kong	1 April to 31 March	Hong Kong dollar ($HK)	5.568
India	1 April to 31 March	Rupee (Rs)	9.492
Indonesia	1 April to 31 March	Rupiah (Rp)	657.200
Iran	21 March to 20 March	Rial (Rls)	84.788
Japan	1 April to 31 March	Yen (Y)	254.000
Kiribati	1 July to 30 June	Australian dollar ($A)	0.978
Lao People's Democratic Republic	1 July to 30 June	New Kip (NK)	10.000
Malaysia	1 January to 31 December	Ringgit ($M)	2.360
Maldives	1 October to 30 September	Rupee (Mal Rs)	7.050
Mongolia	1 January to 31 December	Tughrik (Tug)	3.150
Nauru	1 July to 30 June	Australian dollar ($A)	0.978
Nepal	16 July to 15 July	Rupee (NRs)	13.200
New Zealand	1 April to 31 March	New Zealand dollar ($NZ)	1.346
Pakistan	1 July to 30 June	Rupee (PRs)	12.208
Papua New Guinea	1 January to 31 December	Kina (K)	0.739
Philippines	1 January to 31 December	Peso (P)	8.470
Republic of Korea	1 January to 31 December	Won (W)	748.800
Samoa	1 January to 31 December	Tala ($WS)	1.219
Singapore	1 April to 31 March	Singapore dollar ($S)	2.150
Solomon Islands	1 January to 31 December	Solomon Islands dollar ($SI)	0.931
Sri Lanka	1 January to 31 December	Rupee (SLRs)	20.850
Thailand	1 October to 30 September	Baht (B)	23.000
Tonga	1 July to 30 June	Pa'anga (P)	0.980
Tuvalu	1 January to 31 December	Australian dollar ($A)	0.978
Vanuatu	1 January to 31 December	Vatu (VT)	97.235
Viet Nam	. . .	Dong	9.453

Sources: United Nations, *Monthly Bulletin of Statistics,* various issues; International Monetary Fund, *International Financial Statistics,* various issues; and national sources.

[a] End of August 1982.

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RECENT ECONOMIC AND SOCIAL DEVELOPMENTS

I. INTERNATIONAL ECONOMIC DEVELOPMENTS

The world economy during 1982 continued to be dominated by the progressive weakening of economic activity in the industrial countries. For much of the year, the attention of policy makers remained fixed on combating the resurgence of inflationary conditions in the wake of the second oil shock of 1979-1980. Industrial production in Europe and North America in particular declined; unemployment reached the highest level in decades; world trade stagnated.

For the developing countries the situation grew increasingly serious. Prices of manufactures imported by developing countries fell slightly in 1981, but they began to rise again at the end of the year and in the first half of 1982. At the same time, world commodity prices declined sharply due to depressed demand in the industrial countries. As a result, the terms of trade worsened significantly for many developing countries in 1981 and 1982, raising serious problems for them in securing the external resources needed to maintain the momentum of development.

These problems were compounded in 1982 by foreign exchange rate movements which cheapened the relative value of the developing countries' currencies against those of certain major developed countries. With the fall-off in external earnings and currency values, the developing countries found it increasingly difficult to service their external debt. Indeed, management of the developing countries' debt burden rose in 1982 to crisis proportions in several cases, placing severe strain on the survival of an orderly international monetary system.

In the presence of depressed economic conditions, the rate of inflation in many of the major industrial countries fell substantially as 1982 progressed, accompanied by a significant decline in interest rates and an easing of monetary restraint. Even allowing for these encouraging developments and their implications for positive policy adjustments, it seemed optimistic as 1982 drew to a close to expect any more than a weak recovery in investment, consumer spending and economic growth in the industrial countries in 1983. A major factor threatening to prevent the hoped-for international economic revival was the rising tide of protectionism. In these circumstances, prospects that the developing countries would in 1983 make any real progress toward achievement of the objectives set for the Third United Nations Development Decade were bleak.

A. OUTPUT AND PRICES

1. The industrial economies

The global economic recession which began in late 1979 gathered momentum throughout 1980 and 1981 and intensified further in 1982. In the industrial countries, the growth of output in 1980 was barely a third of the annual average achieved during the previous three years. Even by comparison with the 1970s as a whole, which had encountered relatively subdued performance and included the sharp recession of 1974-1975, the record for 1980, at 1.3 per cent, was dismal.

Output growth in the industrial countries slipped further in 1981 to a meagre 1.1 per cent, and it continued to decline in 1982. Though the evidence suggests that a fitful recovery began in some industrial countries in the second half of the year, economic growth in the main industrial economies of the Organisation for Economic Co-operation and Development (OECD) area for 1982 as a whole was estimated to have declined by 0.5 per cent.[1]

Although economic growth in the industrial economies as a group was sharply depressed during 1980-1982, the experience of individual countries varied. The United States of America and Canada recovered somewhat in 1981 from the very low or negative growth rates they had experienced in 1980, but at the same time most of the European and smaller industrial economies slipped into negative growth. For 1982 the situation was re-

[1] Organisation for Economic Co-operation and Development, *Economic Outlook*, No. 31 (Paris, December 1982).

versed, but the positive growth rates recorded in Europe and Japan were not enough to outweigh the effect of a decline of nearly 2 per cent in the United States and 5.0 per cent in Canada as these economies sank back into recession in the first half of the year.[2] Of all the major industrial countries, Japan alone managed to maintain fairly steady growth of industrial output until 1981, and the subsequent decline was relatively muted.

The severity of the recession in the industrial countries was manifested in many ways. One was the emergence of substantial unemployment in virtually all of their economies – Japan being the major exception – at levels higher than any experienced since before the Second World War, surpassing 10 per cent of the labour force in some cases in the second half of 1982.[3] Another was the pronounced fall in industrial output in western Europe and Japan in 1981 following upon the heels of the decline starting in early 1980, and the sharp drop in Canada and the United States from mid-1981 after their temporary recovery from the major downturn of the first half of 1980. For the major industrial countries as a group, industrial output in the first quarter of 1982 was approximately 5 per cent lower than that achieved in early 1980. Industrial capacity utilization as a consequence fell markedly in these countries. In the United States, for example, capacity utilization fell to 68 per cent in October 1982. The existence of such idle capacity could be expected to exercise a restraining influence on business investment and the expansion of employment in the early stages of recovery from the recession.

The fall-off in domestic demand which lay behind the poor performance of the industrial economies reflected the weakness in consumer spending resulting from the marked decline in the growth of household incomes and rising uncertainties concerning the future. Household consumption in real

[2] *Ibid.*

[3] It should be recalled, however, that the rate of unemployment had shown a persistent tendency to rise from the mid-1960s as one aspect of the secular decline in the economic growth of the industrial economies which began about that time.

Box I.1 Protectionism

One of the most alarming aspects of the current world recession for the developing ESCAP countries has been the resurgence of protectionist forces in the industrial countries as unemployment in these countries has continued to mount and as their industries have had to face increasingly intense competition in markets that have failed to expand because of depressed levels of effective demand.

Protectionism is not a new phenomenon. Indeed, it could be argued that protectionist attitudes have historically been a more dominant characteristic in the conduct of world trade than has the ideal of an unfettered trading system. A trend away from protectionism was observable in the quarter century following the Second World War, a period of persistent expansion which permitted – and in fact flourished as a direct result of – increasing global economic interdependence. From 1947 on, much was done under the auspices of the General Agreement on Tariffs and Trade (GATT) to reduce trade barriers, especially tariffs, as well as to promote non-discrimination in trade on the basis of the most favoured nation principle (MFN). In the presence of growing nationalistic economic concerns in recent years, however, that success has led to a shift in the attention of Governments to alternative approaches to protection in the form of non-tariff barriers, for which the GATT rules provide no effective counterweight. Non-tariff trade barriers include such practices as complex and cumbersome customs documentation, excessive plant and animal health regulations, "domestic content" legislation and legal and administrative procedures such as requirements that imports be channelled through a single location or single buyer. Such practices are often structured to discriminate against particular countries or groups of countries.

In addition to the growth of non-tariff barriers to trade, a disturbing aspect of the current recession has been the increasing resort to bilateral agreements to restrict imports alleged to be harmful to particular industries in developed countries. Such agreements, euphemistically described as "voluntary", are in most cases reached under duress with developing countries which, as the weaker parties, have little alternative but to accept such restrictive arrangements. A well-known case is the Multifibre Agreement (MFA). Though concerned with textiles, it effectively covered approximately one third of the manufactured exports of the developing countries in 1982. MFA is of concern both because of the restrictions it imposes on trade in textiles, which are commonly prominent among the manufactured exports of countries in the early stages of industrialization, and because of the implication it has for the proliferation of similar agreements covering other products as the developing countries attempt to industrialize their economies and reduce their dependence on a narrow range of agricultural exports.

Much concern has been expressed in international forums, including most recently the ministerial meeting of GATT member countries held in late November 1982, about the resurgence of protectionism. Though the 1982 GATT session reached general agreement on the need to reduce trade restrictions and avoid protectionist measures, there could be little confidence that in practice, given the likelihood of rising unemployment in the industrial economies during 1983 and 1984, the individual member countries would translate these general sentiments into firm resistance to protectionist pressures in particular cases.

terms in the industrial countries grew by 4.5 per cent in 1978 but by 1980 had fallen to only 1 per cent, followed by a slight improvement to 1.4 per cent in 1981. In addition, the drawing down of inventories in 1980 and 1981 contributed to the weakness of aggregate demand.

An encouraging feature of 1981 and 1982 was the decline in the rate of inflation in the larger industrial countries. In the United States, the annual rate of consumer price increase had fallen to 5-6 per cent by late 1982, compared with over 9 per cent in 1981. In the United Kingdom of Great Britain and Northern Ireland the deceleration of inflation was even more marked, as reflected in the reduction in the gross national product (GNP) deflator from nearly 19 per cent in 1980 to 10 per cent in 1982, with the annual rate of consumer price change falling to less than 6 per cent in December 1982. Smaller changes were recorded in other industrial countries. With the exceptions of Japan and the Federal Republic of Germany, however, prices continued to move upward at historically high rates throughout most of 1982.

Table I.1 Industrial countries. Changes in output and prices, 1976-1982
(Percentages)

	1976	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*[a]
				Real GNP or GDP[b]			
USA	5.4	5.5	4.8	3.2	-0.2	2.0	-1.0
Japan	5.0	5.3	5.1	5.2	4.2	2.9	3.5
Canada	5.5	2.1	3.6	2.9	0.5	3.1	-0.5
France	5.2	3.1	3.8	3.3	1.4	0.4	2.1
Germany, Federal Rep. of	5.3	2.8	3.6	4.4	1.8	-0.3	1.0
Italy	5.9	1.9	2.7	4.9	3.9	-0.2	2.3
UK	2.8	2.2	3.7	1.9	-2.1	-2.2	0.8
Other industrial countries[c]	3.7	2.4	2.1	2.8	2.1	-0.1	1.6
All industrial countries[c]	4.9	4.0	4.0	3.6	1.3	1.1	0.8
				Prices[d]			
USA	5.2	5.8	7.3	8.5	9.0	9.2	7.0
Japan	6.6	5.7	4.6	2.6	3.0	2.9	2.3
Canada	9.5	7.1	6.5	10.2	11.1	10.1	9.8
France	9.9	9.0	9.7	10.1	11.5	13.6	13.7
Germany, Federal Rep. of	3.3	3.8	3.8	3.7	4.9	4.3	4.5
Italy	18.0	19.5	13.9	15.9	20.8	17.6	17.0
UK	14.6	14.0	10.9	15.0	18.8	12.5	10.0
Other industrial countries[c]	10.4	10.3	9.0	7.7	8.3	9.0	9.0
All industrial countries[c]	7.6	7.7	7.5	7.9	8.9	8.7	7.6

Sources: International Monetary Fund, *World Economic Outlook*, Occasional Paper 9 (Washington, D.C., April 1982), table 1 and *Annual Report 1982* (Washington, D.C., 1982), table 1.

Notes: [a] Estimated. [b] GNP for Canada, United States, Japan and Federal Republic of Germany; GDP for France, Italy and United Kingdom. [c] Weighted average of percentage changes for individual countries. [d] GNP deflator.

The poor economic performance of the industrial countries over 1980-1982 was closely associated with certain policies followed by the major industrial economies, especially the United States and the United Kingdom. The prime economic policy target was the elimination or at least substantial reduction of inflation, which had emerged along with unemployment as a structural condition in the 1970s in the wake of various earlier adverse developments, including the secular drift to lower growth rates starting in the 1960s and the massive increases in oil prices in 1973 and 1974. For the industrial countries as a group the average rate of change in prices as measured by the GNP deflator had been 4.2 per cent over the 1963-1972 period. The rate of inflation was considerably higher during the next 10 years, averaging 8.6 per cent per annum, though Japan and the Federal Republic of Germany were much more successful in containing prices in the latter part of the 1970s than were others of the industrial group. A resurgence of inflation in 1979, partly as a consequence of the second round of oil price increases, stimulated the adoption of restrictive fiscal and monetary policies in many industrial countries in the conviction that the elimination of the high rates of inflation experienced in the 1970s was an essential requirement for the achievement of full employment and economic growth over the longer term.

The relative degree of emphasis on fiscal and monetary policy varied among the industrial countries. By and large, however, priority was given to monetary policy, partly because of strong convictions among policy makers in the larger economies but also because of the difficulties of applying discretionary fiscal policy instruments to restrict demand in the short term under existing institutional and political conditions. High levels of unemployment placed considerable pressure on government budgets to finance social benefits while at the same time the low level of economic activity constricted revenue growth. The major emphasis, therefore,

turned to the control of money and credit and the concomitant financing of budget deficits out of private savings. These policies, in combination with other factors, led to a very sharp rise in interest rates, at first in nominal terms and later in real terms as the rate of inflation moderated, with ensuing depressing effects on business investment in new capital and inventories as well as on household consumption and investment.

2. The third world

Though many of the developing countries, especially those of the ESCAP region, displayed considerable resilience in the face of the global economic recession, almost all of them had by 1982 been drawn into the vortex of the world-wide depression. For the oil exporters, other factors such as military conflict in the Middle East and the effects of conservation and substitution policies in oil-importing countries added to the effects of the general decline in activity in the industrial countries, resulting in an even greater rate of decline in output than had occurred in 1980.

For the non-oil developing countries, the main effects of the global recession were felt through declining terms of trade associated with a drastic fall-off in their commodity export prices, declining export volume as a result of stagnation in world trade and increasing difficulties in servicing external debt as well as in gaining access to external financial resources. Restrictive internal policies were inescapable for many developing countries, and these policies tended to reinforce the depressive influences on growth coming from external developments.

Economic growth for the non-oil developing countries as a whole fell in 1981 to 2.5 per cent, about half what it had been in 1979 and in 1980, a level which itself was well below what had been achieved by the developing world during the latter half of the 1970s. Nonetheless, there were considerable differences among regions and among countries within regions, as might be expected given the diversity of production and export structures and policy responses to external developments.

Net oil exporters among the non-oil developing countries[4] had the benefit of higher oil prices in 1979 and 1980, but the weakening of oil prices and unfavourable influences on other commodity exports subsequently brought about a decline in these countries' growth rates in 1981. A further fall to around 5 per cent was in prospect for 1982. Among the developing countries, major exporters of manufactures showed negative growth in 1981; much of this was attributable to the negative growth brought about by adjustment policies in Argentina and Brazil, which accounted for a large part of the output of the group as a whole. By contrast, other members of this group, such as Hong Kong, the Republic of Korea and

Table I.2 Developing countries. Changes in output and prices, 1976-1982
(Percentages)

	1976	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*[a]
				Real GDP			
Oil-exporting countries	12.3	5.9	1.8	2.9	-2.7	4.6	-1.0
Oil sectors	13.5	1.8	-4.2	3.1	-12.2	-15.7	-9.0
Non-oil sectors	11.3	8.9	5.8	2.8	4.4	5.2	4.9
Non-oil developing countries[b]	5.9[c]	5.5	6.4	5.0	4.8	2.5	3.8
By area[b]							
Africa	4.2	1.9	2.4	2.6	4.6	2.6	2.0
Asia	7.2[c]	7.1	9.6	4.6	4.8	4.7	4.8
Europe	7.1	5.2	5.4	4.1	1.7	2.7	2.8
Middle East	4.4	5.6	6.8	5.0	6.1	4.7	6.8
Western hemisphere	5.3	5.6	4.4	6.7	6.0	-0.1	3.5
By analytical group[b]							
Net oil exporters	6.6	3.5	6.2	7.2	7.3	6.6	5.1
Net oil importers	5.8[c]	5.9	6.4	4.7	4.4	1.9	3.6
Major exporters of manufactures	6.3	5.6	4.9	6.3	4.4	-0.2	3.5
Low-income countries[d]	4.3[c]	6.5	8.8	3.4	5.2	3.6	3.9
Other net oil importers	6.2	5.2	5.5	3.6	3.1	3.3	3.5
				Consumer prices			
Oil-exporting countries[e]	16.8	15.5	10.2	10.5	12.6	13.1	10.5
Non-oil developing countries[b e]	27.6[c]	23.0	20.0	24.7	32.1	31.4	29.4
Africa	14.9	19.3	15.2	19.2	19.3	22.7	24.3
Asia	0.3[c]	5.8	3.7	6.5	12.6	9.9	7.7
Europe	12.5	16.2	21.1	27.5	40.5	25.9	21.2
Middle East	19.1	19.6	21.1	25.8	42.7	32.8	31.8
Western hemisphere	66.2	51.2	42.4	49.6	58.3	65.7	61.1

Sources: International Monetary Fund, *World Economic Outlook, op. cit.*, tables 2 and 3 and *Annual Report 1982, op. cit.*, tables 2 and 3.

Notes: [a] Estimated. [b] Arithmetic averages of country growth rates weighted by the average United States dollar values of gross domestic product (GDP) over the previous three years. [c] Excluding China. [d] Comprising 40 countries whose per capita GDP did not exceed $US350 in 1978. [e] Geometric averages of country indexes, weighted by the average United States dollar values of GDP over the previous three years.

[4] See Table I.2 for classification of non-oil developing countries which are net oil exporters.

Singapore, grew at very high rates. Net oil importers were badly hit both because of their dependence on oil, which absorbed a high proportion of their export earnings, and their dependence on exports of primary products, which caused the impact of the decline in commodity prices to be severely felt. In contrast with those developing countries with a significant proportion of manufactures in exports, the primary commodities exporters were particularly susceptible to external shocks.

Among the major world regions in which developing countries predominate, the Middle East and Asia on the whole held out better than others. Growth rates in Asia, though well below the high level of around 8 per cent averaged during 1976-1978, were maintained at nearly 5 per cent during 1980 and 1981. All of the countries in south-east and east Asia with the exception of the Philippines grew at 7 per cent or more in 1981. There were also a number of good performances among the south Asian group, especially Bangladesh, Burma and Pakistan, where rates of more than 6 per cent were achieved. For 1982, however, almost all the countries of Asia were likely to show lower rates of growth, though still above what was expected for other regions. Much the same could be said of the developing island countries of the Pacific.

Price movements among the non-oil developing countries diverged markedly among the different regions. Rates of inflation reached very high levels in Europe, the Middle East and Latin America in 1980 after a general upward movement during the preceding years. Asia again stood out in achieving much lower rates of inflation than other regions, with China's outstanding performance playing a major part in reducing the regional average.

Not all of the acceleration of inflation rates in the non-oil developing countries was attributable to external influences such as oil price increases. These undoubtedly played their part, but expansionary policies in many developing countries during the second half of the 1970s also contributed, especially in Latin America. For 1982, some abatement in price increases was in prospect under the influence of more restrictive monetary and fiscal policies adopted in many countries in reaction to the adverse external environment.

B. TRADE

1. Volume of trade

The effects of the recession on world trade were striking. Total trade slumped to a rate of growth of about 1.5 per cent in 1980 compared with an annual average of over 5.5 per cent during the previous two years. There was no recovery in 1981; indeed, the expansion of world trade came to a halt. For 1982, early forecasts indicated that while some growth would take place it would amount to no more than about 1.5 per cent. Even this moderate increase appeared doubtful as the year proceeded. The picture looked somewhat brighter if trade in oil were excluded, though even with that adjustment the volume of total trade grew by only 2.5 per cent in 1981 as against 4.5 per cent in 1980.[5]

The low level of trade growth for the industrial economies as a whole masks some important differences among these economies. United States exports fell in volume by over 3 per cent in 1981. A further fall of over 8 per cent was forecast[6] for 1982, and indications late in the year were that the decline would be even greater while import growth would be significantly in excess of the 1 per cent forecast earlier in the year. The United Kingdom also experienced a decline in export growth in 1981, though that position was expected to be reversed in 1982.

By contrast, following a massive increase of 16.7 per cent in 1980, exports from Japan continued their impressive growth with an increase of 10.5 per cent in 1981, well above that of any other country in the industrial group. France, the Federal Republic of Germany and Italy also expanded their exports by about 5 per cent in 1981. Import growth in all of these countries, as well as the United Kingdom and the smaller industrial economies, declined.

An important factor accounting for these differences was the effect of exchange rate variations among the major industrial countries, together with the effects of inflation and changes in labour costs on relative competitiveness within the group. The impact of these factors was complex but generally tended to favour exports from Japan and European countries (except the United Kingdom) and work against United States exports. Conversely, they helped to push up the volume of United States imports while restraining import demand in Japan and Europe.

The volume of exports from oil-exporting countries fell by about 17 per cent in 1981 following a slightly larger drop in 1980. In 1982, an even larger fall of around 20 per cent was expected as energy-importing countries, especially the developed market countries, adjusted their demand both in consequence of their lower level of economic activity and the impact of conservation and substitution

[5] World Bank, *World Bank Annual Report 1982* (Washington, D.C., 1982), p. 27.

[6] International Monetary Fund, *World Economic Outlook*, Occasional Paper 9 (Washington, D.C., 1982), p. 152, table 11.

policies. Despite the decline in earnings, the oil exporters continued to expand their imports during 1980 and 1981 at an average annual rate of nearly 20 per cent. But with the substantial reduction in their net exchange surplus because of both lower export volumes and prices, the import growth rate was expected to fall drastically to 5 per cent in 1982.

The developed market economies were the principal beneficiaries of the continued strong import demand from oil exporters, especially those in the Middle East, but some of the newly industrializing countries also found these markets an increasingly valuable destination for their manufactured goods exports. Together with increased exports to other developing countries, this market helped to maintain the export expansion of the newly industrializing economies, although at lower rates than in 1979 and 1980, despite lower demand from the industrial economies. Export volume of the net energy importers among the developing countries generally however grew at the reduced rate of 4 per cent in 1981, with little recovery expected in 1982. At the same time, these countries managed to reduce their growth in volume of imports in 1981 and 1982 to less than a third of what it had been in 1978, a development reflecting widespread efforts to contain the substantial balance of payments deficits that had emerged following the oil price increases of 1979-1980 and the fall in commodity prices during 1981-1982.

Table I.3 World trade. Changes in volume and prices, 1976-1982
(Percentages)

	1976-1979	*1978*	*1979*	*1980*	*1981*[a]	*1982*[b]
			Volume			
Exports						
World	6.6	4.9	6.1	1.5	–	1 ½
Developed market economies	7.1	6.5	6.2	3.8	2	2 ½
Developing countries	5.0	0.1	6.2	-5.8	-4 ½	-2 ½
Capital surplus countries	2.4	-6.1	2.2	-18.4	-17	-20
Other net energy exporters	5.2	2.2	10.3	-9.5	-5	2
Net energy importers	7.6	5.6	7.8	7.6	4	5
Centrally planned economies[c]	6.8	5.5	4.8	2.2	-3	½
Imports						
World	6.7	5.5	5.2	1.0	–	1 ½
Developed market economies	7.4	5.3	7.5	-1.4	-3	1
Developing countries	5.2	5.0	-0.5	8.5	8 ½	2
Capital surplus countries	10.6	0.6	-4.4	18.4	20	5
Other net energy exporters	3.3	4.6	-10.8	16.5	15	–
Net energy importers	4.6	6.6	5.5	2.6	2	2
Centrally planned economies[c]	5.1	8.3	1.7	2.7	–	1 ½
			Unit value			
Exports						
Developed market economies	9.1	12.8	15.8	13.8	-4	3
Developing countries						
Capital surplus countries	14.0	0.3	44.0	71.8	9 ½	-5
Other net energy exporters	14.2	1.8	34.9	57.1	5 ¼	-5
Net energy importers	10.5	5.5	15.7	14.5	-6	- ½
Imports						
Developed market economies	9.8	10.0	19.2	22.3	-2 ½	½
Developing countries						
Capital surplus countries	9.4	11.4	16.3	15.7	- 3 ¾	2
Other net energy exporters	9.5	11.2	17.1	17.3	-3 ½	1 ½
Net energy importers	10.4	9.1	21.0	25.0	-1 ¾	½

Source: *World Economic Survey 1981-1982* (United Nations publication, Sales No. E.82.II.C.1), p. 56, table III-1.

Notes: Fractions are shown for 1981-1982 to avoid any suggestion of undue precision in the estimates. [a] Preliminary estimates. [b] Forecasts. [c] Europe only.

2. Commodity prices and terms of trade

A particular cause of concern to developing countries during 1981 and 1982 was the steep decline in commodity prices. The aggregate index of commodity prices excluding petroleum fell by nearly 15 per cent in 1981 and then, after a period of stabilization at the end of the year, by a further 9 per cent over the first eight months of 1982.

Not all of this price decline was attributable to the recession. In the case of food and beverages an important factor was the marked expansion in output of some commodities following the very high prices reached in 1977. This was especially true of coffee and cocoa. As a result of increased quantities on the world market, prices of these commodities began to recede in 1978; they fell by 22 per cent in 1981 and by a further 8 per cent up to August 1982. Increased supplies were also a factor in the price decline of agricultural raw materials such as cotton and jute, but here the main cause was the receding growth of consumer demand in the

industrial countries. Recession in the motor vehicle industry led to a fall in natural rubber prices of 24 per cent in 1981 and their continuing weakness in 1982; metals and minerals demand also fell off as output of consumer durables and capital goods slumped, though supply shortages of some metals, such as zinc and nickel, held up prices despite the general recession. A moderating influence was the operation of various commodity price stabilization arrangements, but these proved far from adequate in restraining the fall in commodity prices. For sugar, support operations under the International Sugar Agreement came into effect in May 1981; export quotas under the International Coffee Agreement operated from October 1980; intervention purchases for the Cocoa Buffer Stock began in September 1981; and the International Rubber Agreement started expanding its buffer stock in November 1981.

Table I.4 Commodity price changes, 1979-1982
(Percentages)

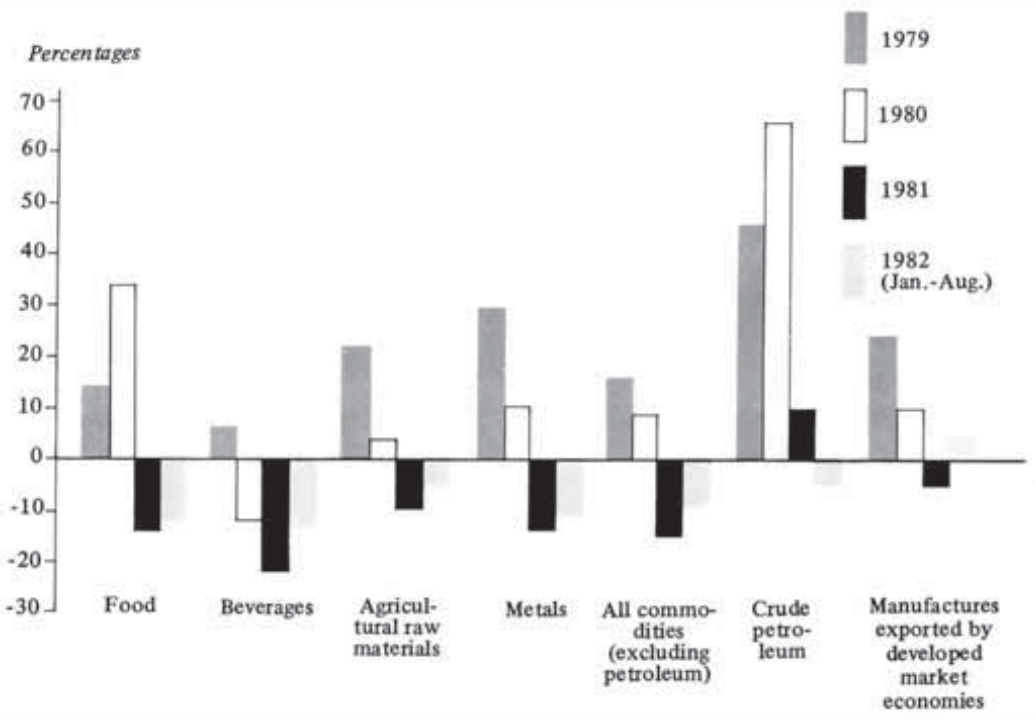
	1979	*1980*	*1981*	*1982*[a]
Food	14.1	34.1	-13.9	-12.6
Beverages	5.8	-12.2	-22.2	-7.9
Agricultural raw materials	22.0	4.1	-9.8	-4.8
Metals	29.8	10.6	-13.8	-11.2
All commodities	16.4	8.8	-14.7	-9.4
Crude petroleum	46.0	66.0	9.8	-5.0[b]
Manufactures exported by developed market economies	14.4	10.4	-5.0	5.0[b]

Sources: International Monetary Fund, *International Financial Statistics*, vol. XXXV, No. 10 (October 1982); and *World Economic Survey 1981-1982, op. cit.*, p. 59, table III-2.

Notes: [a] January-August. [b] Forecast for year.

The market for oil also showed increasing weakness in 1981 and 1982. Following price rises of 46 and 66 per cent, respectively, in 1979 and 1980, 1981 experienced a rise of nearly 10 per cent, and it was estimated that in 1982 prices would fall by about 5 per cent. Both supply and demand factors influenced this downswing. Lower demand for oil reflected not only the global recession but also the effects of energy conservation measures induced by the massive price rises of the 1970s, shifts to other forms of energy and the drawing down of inventories. On the supply side, world oil output

Figure I.1 Commodity price changes, 1979-1982



fell by around 6 per cent during 1981 and by a further 5 per cent in the first quarter of 1982. Much larger cutbacks in output were recorded by members of the Organization of Petroleum Exporting Countries (OPEC), but these were in part offset by increases in output by certain non-OPEC developing countries. Further restrictions on OPEC oil output agreed to in early 1982 helped to restrain the price fall during the remainder of the year, but the overall effect of lower production volumes and lower prices nevertheless reduced substantially the current account surplus of the oil-exporting group. At the same time, lower real prices of oil helped to ease the pressure on the non-oil developing countries' external accounts.

For the developing countries as a whole there was little movement in the terms of trade over the period 1978-1981, but that disguised very considerable differences among countries and regions. For oil exporters, the 1979 and 1980 increase in oil prices meant a large shift in their favour in contrast to the negative influence on the non-oil developing countries, especially in 1980. These changes, coupled with the effects of falling commodity prices, were noticeably more severe in the case of the low-income countries and those dependent on primary commodity exports.

The extent to which individual countries among the different regional groups were affected by these changes in commodity prices depended on their patterns of production and exports. Smaller countries, especially the least developed – with high concentration on one or two primary commodities such as jute, sugar, beverages and minerals – proved particularly vulnerable. Countries with more diversified production and export structures, especially those which had succeeded in diversifying away from primary commodities towards manufactured products, were less vulnerable to the commodity price decline, though their vulnerability to increased protectionism rose. Despite these variations, commodity price changes in conjunction with oil price increases, exchange rate fluctuations and relative increases in the prices of manufactured goods from industrial countries worked to produce declining terms of trade throughout the non-oil third world.

Table I.5 Changes in terms of trade
(Percentages)

	1976	*1977*	*1978*	*1979*	*1980*	*1981*
Industrial countries	-1.0	-1.1	2.7	-2.6	-7.6	-0.6
Developing countries						
Oil exporters	5.8	0.6	-10.7	28.6	41.6	11.5
Non-oil developing countries	6.0[a]	6.0[a]	-4.1	-0.3	-4.3	-2.2

Source: International Monetary Fund, *Annual Report 1982, op. cit.*, p. 15.
Note: [a] Excluding China.

Table I.6 Balance of payments on current account[a] by country groups, 1978-1982
($US billion)

	1978	*1979*	*1980*	*1981*[b]	*1982*[c]
Developed market economies	31.3	-5.7	-42.7	-3.3	35.5
Major industrial countries	35.5	5.8	-15.2	15.5	41.0
Other countries	-4.2	-11.4	-25.7	-18.8	-6.5
Developing countries[d]	-34.0	10.6	35.9	-11.5	-62.5
Capital surplus countries	19.0	65.9	103.7	81.5	32.5
Other net energy exporters	-22.8	-7.1	0.9	-15.5	-20.0
Net energy importers	-30.2	-48.2	-68.7	-77.5	-75.0
Centrally planned economies[e]	-6.2	-0.3	1.6	3.3	-0.5
China	-1.2	-2.1	-1.2	0.5	0.5
Eastern Europe	-6.7	-5.1	-5.1	-3.4	-2.0
USSR	1.6	6.9	8.0	6.2	1.0
Residual balance[f]	8.9	-4.6	5.2	11.5	27.5

Source: *World Economic Survey 1981-1982, op. cit.*, p. 63.
Notes: [a] Excluding government transfers. [b] Preliminary. [c] Forecasts based on Project LINK results for developed market economies, plan figures for centrally planned economies and secretariat estimates for developing countries. [d] Deficits underestimated due to the exclusion of certain developing centrally planned economies. [e] Merchandise trade balances only. [f] Reflecting errors and omissions in reported statistics, and including services balances for the centrally planned economies.

C. PAYMENTS

Large shifts began emerging in current account balances in 1980 as the effects of the second round of oil price increases came into play. The large surpluses on current account of the main oil-exporting countries were matched by substantial increases in net deficits of the industrial economies and the energy importers among the developing countries. The oil exporters' surpluses were subsequently cut back drastically because of the importers' demand responses to the price increases and the economic stagnation in the industrial world.

For these reasons as well as such others as more favourable terms of trade and the still buoyant import demand of the oil exporters, the industrial countries in 1981 regained the net surplus that they had enjoyed in 1979.

By contrast with the industrial economies, the current account positions of the net energy importers among the developing countries worsened in 1981, and only a slight improvement was expected in 1982. Not all of this was due to the lower (though still substantial) net surplus of the energy-exporting countries, since that of the developed market economies was almost as great. Apart from the continuing effects of high oil prices, the increased payments deficits incurred by the energy importers reflected their deteriorating terms of trade as well as the dramatically increased burden of interest payments on external debt during 1981-1982.

Many net energy importers among the developing countries attempted to adjust their economies to the worsening external position by constraining the level of domestic economic activity, including reductions in development and other public expenditure as well as increases in taxation. For some countries, these adjustment measures had been instituted for other reasons prior to the onset of the recession, but the increasingly serious and widespread effects of current account difficulties in 1981 and 1982 meant that there were few developing countries which did not have to respond similarly.

For the non-oil developing countries the combined current account deficit (taking into account both goods and services flows) increased by nearly $US60 billion between 1978 and 1981. Some four fifths was attributable to the net oil importers in the group, and 80 per cent of this amount derived in turn from an increase in the deficit on account of oil imports. The non-oil trade balance of these countries as a group remained virtually unchanged over the period.

On the services side, the net deficit grew relatively modestly over the period. The main feature was an increase of nearly $US23 billion in interest payments on long-term debt, of which well over half resulted from the rise in interest rates between 1978 and 1981. An offsetting factor was an increase of nearly $US17 billion in receipts from migrant remittances and tourism, though the growth of both of these items slowed substantially with the rise of unemployment and slow-down in income growth in the industrial economies.

There were clear differences along regional lines. For Asia, which was responsible for about 37 per cent of the increase in the balance of payments deficit over 1978-1981, the main contribution came from worsened trade balances. For the western hemisphere (mainly Latin America), which accounted for over 42 per cent of the increase in total deficit, it was the deterioration on account of debt service that was mainly responsible.

Though the balance of payments deficits of the non-oil developing countries grew by over 150 per cent between 1978 and 1981, the actual increase in the final year was quite modest. Furthermore, the average ratio of the total deficit to goods and services export earnings stood at 22 per cent; though higher than in the late 1970s, this was well below the peak of 31 per cent reached in 1975 following the first round of oil price increases. However, there were wide differences among countries in this regard. For the major exporters of manufactures among the non-oil developing countries the ratio was only 17 per cent, whereas for the low-income countries, the ratio was 49 per cent, close to the peak level reached in 1974. For

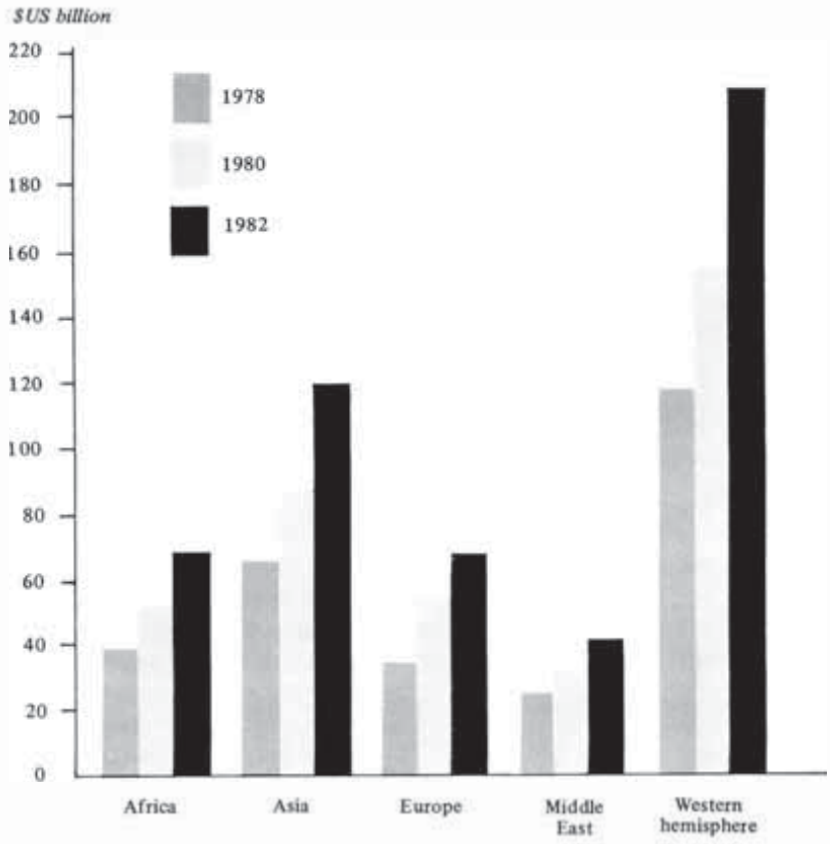
Table I.7 Non-oil developing countries. Current account deficit financing, 1976-1982
($US billion)

	1976	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*
Current account deficit financing	32.0	28.3	39.2	58.9	86.2	99.0	97.0
Official transfers	7.4	8.3	8.2	10.9	12.3	12.9	13.6
SDR allocation, etc.[a]	-0.2	1.3	2.1	2.8	1.8	-0.2	–
Net direct investment	4.7	5.3	6.9	9.2	10.0	13.6	14.1
Net long-term borrowing							
From official sources	10.8	12.6	14.2	15.4	20.5	20.2	22.3
From private sources	19.3	23.0	27.9	33.1	31.4	37.0	38.5
From residual flows[b]	-2.3	-9.2	-6.9	-10.6	-6.4	-1.4	-1.4
Reduction of reserves	-13.8	-12.4	-15.8	-12.4	-4.9	-1.6	-4.0
Net short-term borrowing[c]	16.6	0.7	5.2	9.9	21.6	18.5	13.8
Errors and omissions	-11.2	-1.1	-2.5	0.5			

Source: International Monetary Fund, *World Economic Outlook, op. cit.*, p. 166.

Notes: [a] Including valuation adjustments and gold monetization. [b] Comprising net changes in long-term external assets of non-oil developing countries and errors and omissions from the mismatching of creditor-source data (taken from debt records) with capital flow data (taken from national balance of payments records). [c] Including use of reserve-related facilities (i.e. International Monetary Fund credit and short-term borrowing by monetary authorities from other monetary authorities).

Figure I.2 Non-oil developing countries. Long-term external debt, 1978-1982



other net oil importers, the ratio was significantly higher than the 1975 peak of 23 per cent.

Regional differences are also marked. For Asia the ratio of deficit to exports of goods and services in 1981 was 16 per cent, well below the global average in that year (as in every year since 1974), whereas the ratios for Africa and Latin America, at 33 and 36 per cent, respectively, were well above the average and not far short of the peaks reached in 1975.

Financing the large balance of payments deficits incurred in 1980 and 1981 involved some changes by comparison with earlier years. Particularly important is the fact that from 1979 the non-oil developing countries largely ceased adding to their reserves, as they had done since 1975. From 1975 until 1979 their net long-term borrowing had increased by about $US114 billion, but they had added over $US50 billion to reserves. Following 1979, however, virtually all foreign borrowing was used to finance the growing current account deficit, and net reserve accumulation by the non-oil developing countries as a whole was very small.

Within that group, the low-income countries fared worst. Their reserves fell during 1980-1981 by over 26 per cent. Even though the sum involved ($US3 billion) was small in relation to total international capital movements, it was large in relation to the external resources which the low-income countries could command. Furthermore, having regard to the rise in price of manufactured goods from industrial countries during 1980-1981, the loss of real external purchasing power experienced by these countries was substantially greater than for others. At the same time, the low-income countries suffered a steady deterioration in the ratio of reserves to imports of goods and services between 1978, when it stood at 26.5 per cent, and 1982, at under 17 per cent. Though this movement was shared by most non-oil developing countries, the most severe decline was experienced by the low-income group.

D. INDEBTEDNESS

Long-term borrowing continued to provide the main source of finance to cover the current account deficits incurred by the non-oil developing countries. The ratio of long-term borrowing to the current account deficit averaged about 55 per cent in 1981 as against 50 per cent in 1980; the proportion had been in excess of 60 per cent during 1976-1978. Official long-term capital from Governments and such international institutions as the World Bank, the International Development Association and the Asian Development Bank was down slightly in 1981, but long-term capital from private sources such as commercial banks and other financial institutions increased.

Short-term borrowing from financial institutions declined in 1981 after a sharp rise in 1980. A variety of influences operated here. Though International Monetary Fund credit rose by some $US5.5 billion, this was more than offset by a reduction in short-term borrowing from private financial sources. Private short-term credit extension was expected to decline further in 1982 as lenders shrank back in the presence of growing international economic insecurity

and borrowers sought to avoid high-interest short-term accommodation.

The greatly expanded levels of external debt incurred by the non-oil developing countries as a consequence of the persistent balance of payments deficits they had incurred in recent years became a worrying factor in international economic affairs in 1981 and 1982. The growing concern was neither about the levels of debt as such nor about the continued need to borrow, since it was well recognized that increasing absolute debt levels are a normal concomitant of the development process. The concern was with the capacity of countries to service their outstanding debt out of their diminishing export earnings.

In the late 1970s and early 1980s, the need for external borrowing derived increasingly from the developing countries' inability to earn sufficient export income to pay for imports required for consumption as well as development purposes. At the same time, the cost of borrowing rose dramatically because of high interest rates in the capital surplus countries. Much of the new borrowing at these higher interest rates was needed to service or refinance earlier borrowings at lower interest rates. Furthermore, a growing proportion of loans featured variable interest rates.

Total long-term debt of the non-oil developing countries expanded by about 83 per cent between 1978 and 1982. Private sources of credit increased their share slightly to 60.5 per cent of the total, consistent with the trend towards private borrowing since the

Figure I.3 Non-oil developing countries. Ratio of reserves to value of imports of goods and services, 1978-1982

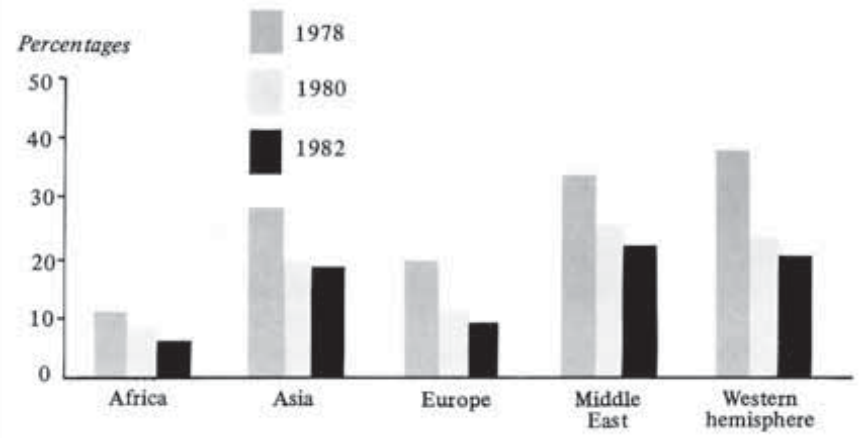


Table I.8 Non-oil developing countries. Long-term external debt, 1978-1982

($US billion)

	1978	*1979*	*1980*	*1981*	*1982*[a]	*Percentage increase 1978-1982*
Total outstanding debt of non-oil developing countries	276.4	324.4	375.4	436.9	505.2	82.8
By type of creditor						
Official creditors	117.4	133.3	155.5	175.6	199.5	69.9
Governments	79.6	88.9	102.1	114.3	128.1	60.9
International institutions	37.8	44.5	53.4	61.4	71.4	88.9
Private creditors	159.0	191.1	220.0	261.4	305.7	92.3
Unguaranteed debt	52.4	58.6	68.8	84.8	101.5	93.7
Guaranteed debt	106.6	132.5	151.2	176.5	204.2	91.6
Financial institutions	75.4	101.9	117.4	138.8	162.6	115.6
Other private creditors	31.2	30.6	33.8	37.7	41.6	33.3
By analytical group						
Net oil exporters	61.4	68.9	78.0	90.6	107.0	60.8
Net oil importers	214.9	255.6	297.4	346.3	398.2	85.3
Major exporters of manufactures	108.4	128.3	143.4	169.1	194.1	107.3
Low-income countries	47.3	53.4	62.3	70.6	79.7	46.8
Other net oil importers	59.2	73.8	91.7	106.6	124.3	110.0

Source: International Monetary Fund, *World Economic Outlook, op. cit.*, table 30.

Note: [a] Estimated.

Table I.9 Non-oil developing countries. Debt service payments on long-term external debt, 1978-1982[a]

(Values in $US billion; ratios in percentages)

	Average 1973-1977[a]	*1978*	*1979*	*1980*	*1981*	*1982*
Non-oil developing countries						
Value of debt service payment	21.7	44.7	60.2	68.6	92.3	107.8
Interest	7.2	14.2	20.7	30.1	37.5	40.8
Amortization	14.5	30.5	39.5	38.5	54.8	67.0
Debt service ratio[b]	13.5	17.3	18.1	16.3	21.0	22.3
Interest payments ratio	4.5	5.5	6.2	7.2	8.5	8.5
Amortization ratio	9.1	11.8	11.9	9.2	12.5	13.8
Debt service ratio[b]						
Net oil exporters						
Interest payments ratio	6.6	9.5	9.4	10.2	11.9	12.5
Amortization ratio	13.6	22.8	21.3	14.2	21.1	24.6
Total	20.2	32.3	30.7	24.4	33.0	37.1
Net oil importers:						
Major exporters of manufactures						
Interest payments ratio	4.6	5.2	6.4	7.0	8.1	8.0
Amortization ratio	9.2	10.4	11.3	8.4	10.9	12.1
Total	13.8	15.6	17.6	15.4	18.8	20.1
Low-income countries						
Interest payments ratio	3.9	3.1	2.8	3.7	4.2	4.3
Amortization ratio	7.4	4.8	4.5	6.8	9.2	9.9
Total	11.3	7.9	7.3	10.5	13.5	14.1
Other net oil importers						
Interest payments ratio	3.4	4.8	5.5	7.0	8.7	8.6
Amortization ratio	7.1	11.8	9.7	8.8	11.7	12.8
Total	10.5	16.7	15.1	15.8	20.4	21.4

Source: International Monetary Fund, *World Economic Outlook, op. cit.*, p. 173.

Notes: [a] Excluding data for China prior to 1977. [b] Payments (interest, amortization or both) as percentages of exports of goods and services.

early 1970s, when private and official sources had been about equal. Among official creditors, international institutions maintained their share of total lending at 13-14 per cent over this period, while loans from Governments declined from 29 to 25 per cent.

Among the different types of borrowers, net oil importers in 1982 accounted for about 79 per cent of total debt, a proportion which was only slightly higher than in 1978. Nor did regional shares change very much, with the western hemisphere (mainly Latin America) at 41 per cent of the total and Asia at 24 per cent accounting for the greater part of total indebtedness.

For the net oil exporters, around 68 per cent of debt was with private creditors in 1982. Among the net oil importers which are major exporters of manufactures, 78 per cent of indebtedness was to private institutions, while for other net oil importers the proportion was 53 per cent. In contrast, only 17 per cent of the debt of low-income countries was held by private lenders, the balance of 83 per cent coming from official sources. This meant that in 1982 around a third of outstanding official lending was to the low-income group.

The obvious reason for these differences is that the low-income countries have a much lower capacity to borrow privately – as suggested by the data on deficit/export ratios – and must depend very heavily on official assistance from Governments and multilateral institutions, including assistance on concessional terms from organizations such as the International Development Association and bilaterally from major donor countries. It also means that debt service ratios, especially the interest component, tend to be significantly lower for these countries than for other non-oil developing countries.

Nevertheless, debt service ratios for the low-income countries virtually doubled between 1979 and 1982, partly because of poor export performance but also because of higher amortization rates. For the non-oil developing countries as a group, the debt service ratio improved between 1979 and 1980 and then increased sharply in 1981 to about 50 per cent above that of 1973-1977. The principal

factors, aside from trade influences, were higher interest rates and the shortening of maturities in refinancing operations, which tended to increase amortization ratios.

Though debt service ratios have deteriorated during the course of the present world recession for the non-oil developing countries as a whole, there are important differences among the countries that constitute the group. Much of the debt continues to be concentrated in a few countries – Argentina, Brazil, Mexico, Peru, Colombia and Venezuela in Latin America (the first four of which have much higher debt service ratios than the average) and Algeria, Egypt and Morocco in the Middle East and Africa (also with high ratios).[7] India, Indonesia, Pakistan, the Philippines, the Republic of Korea and Thailand held 84 per cent of total public debt outstanding in Asia at end-1980 (about a quarter of all developing-country external public debt), but their debt service ratios were much lower than the average for non-oil developing countries generally and well below those of the major debtors in Latin America.[8]

It must be borne in mind, however, that debt service ratios do not by themselves provide a firm indication of the capacity of any country to service external debt or raise its level of borrowing, nor does it provide a basis for simple international comparisons about such capacities. Many other factors are relevant, including the structure of export trade and market diversification, general level of development, size and capacity to augment foreign exchange reserves and prudence of public economic management. Finally, external public debt is only a part of total indebtedness since it does not include private claims of various kinds and degrees of liquidity and transferability.

The growing level of indebtedness of developing countries is a matter of considerable concern in the light of the continuing world recession. However, recent difficulties involving such developing countries as Mexico, and such countries as Poland outside the developing world, should not obscure the fact that debt rescheduling for countries that find themselves too heavily burdened has for years been an important task for institutions such as the International Monetary Fund and for *ad hoc* groups of industrial countries such as the Paris Club, in addition to special programmes of structural-adjustment lending such as that commenced by the World Bank in 1980.

In the circumstances of the current recession, however, such rescheduling has become more difficult. The excessive concentration of debt in a few countries is part of the problem, especially because of the spill-over effects of these exceptional cases on the general terms of lending to other countries in the developing world. In 1981 and 1982, financial intermediaries – especially transnational bankers – tended to become more cautious and selective in their international operations, and as a consequence the terms of long-term lending hardened; but there was firm reason to expect that these institutions would continue to play a major part in the financing of developing-country deficits, even if only to protect their existing interests.

At the same time, however, there is an obvious need for expansion of the capacity of multilateral institutions to respond to the needs of developing countries for financial assistance to meet the problems raised for them by persistent payments deficits. The moves in 1982 towards an agreement on the expansion of the resources of the International Monetary Fund were thus timely and welcome. Less welcome was the reluctance of donor Governments to add to the resources of major multilateral lending and aid-extending institutions such as the International Development Association, which are a major source of assistance to the least developed and low-income countries. A more satisfactory approach to the growing payments deficit and indebtedness problems of the developing countries continued to lie elsewhere – namely, in the firm recognition of the interdependence of the economic interests of the developed and developing worlds and a shift in economic policies of the developed countries to permit the resumption of economic growth without inflation and expansion rather than restriction of world trade.

E. THE IMMEDIATE PROSPECT

At the end of 1982, the likelihood of a sustained recovery in world economic activity during the ensuing year seemed remote. The key issue, of course, was whether the industrial countries could emerge from the depressed economic conditions that they had been experiencing for nearly three years. That, in turn, depended to an important degree upon the performance of the United States economy and the evolution of fiscal and monetary policy in that country.

Forecasts by the OECD were, however, discouraging. The OECD's projections for 1982 published at mid-year indicated a growth rate of 0.5 per cent for the industrial countries; this estimate was subsequently revised downwards to

[7] World Bank, *World Bank Annual Report 1982, op. cit.*

[8] *Ibid.* These data are not strictly comparable with those given in Table I.9, though the orders of magnitude in debt composition and distribution are similar.

Box I.2 The long-term view

Prospects for the recovery of the industrial economies from the recession under way since 1980 had to be viewed at end-1982 against the background of the longer-term economic evolution of the developed countries. The rate of growth of world output reached its highest post-war level in the mid-1960s, after which it entered upon a persistent decline.[a] The slowdown in growth rates began first in the developed market economies in the mid-1960s and spread in the 1970s to the centrally planned and developing economies.

Many reasons for the continuing erosion of the rate of growth of the industrial countries have been suggested. One is that the high growth rates experienced in the late 1950s and early 1960s were the outcome of special circumstances such as the high level of investment needed to refurbish the global economy in the years of recovery from the Second World War, the process of integration and expansion of trade among the OECD countries and between them and the developing world, and the rapid advance of scientific invention and technological innovation. These sources of growth, it is suggested, began to weaken in the 1960s. Under such circumstances, a subsidence to lower rates more closely in line with what had been experienced historically was to be expected.

Another explanation, not inconsistent with the foregoing, points to the decline in the share of national income accruing as profits of business enterprise and the concomitant rise in the share going as wages to labour. In turn, and along with numerous other factors such as the crises of the 1970s,[b] this change in wage and profit shares apparently induced a decline in business confidence about the future profitability of investment and thus a downward drift in investment rates.

An associated aspect is the widely observed decline in the productivity of labour, the reasons for which remain obscure. Changing attitudes to work, the dehumanization of work in large enterprises, high rates of taxation, the depressing effect of extensive social welfare systems and bureaucratization on individual incentives and the restrictive attitudes of labour unions to the introduction of new technology are often cited as possible reasons. However, none of these factors explains adequately why labour productivity, and with it economic growth, has declined persistently in recent years. Other explanations of a more sociological and psychological nature have also been offered, such as the adverse effects on the willingness to save and to invest consequent upon the disillusion engendered by the fear of nuclear war. The manner in which all of these factors have interacted, or indeed whether other more fundamental forces are at work to form a comprehensive brake on growth, constitutes an issue deserving of the most urgent consideration.

For the developing countries – many of which, especially in the ESCAP region, encountered a strong growth dynamic in the 1960s and 1970s – the growth deceleration in the developed economies, whatever the cause, poses a critical policy dilemma. Quantitative aggregate and sectoral targets were set for growth and investment in the International Development Strategy for the Third United Nations Development Decade.[c] To take account of the special circumstances of the developing ESCAP region, a regional strategy input was drawn up providing for an annual rate of GDP growth over 1981-1990 of 6.7 per cent, including 3.5 per cent for agriculture and 8.9 per cent for industry and including, furthermore, 8.0 per cent for industrial exports.[d] Achievement of these targets was recognized to be dependent, among other conditions, on the maintenance of economic growth in the industrial economies throughout the decade at a rate of around 4 per cent. These growth rates, as well as the need for structural adjustment and avoidance of protectionist policies against the developing countries' exports, especially manufactures, reflected a general view that strengthened economic co-operation between the industrially advanced and the developing countries offered the best chance for the developing countries to achieve sustained growth throughout the Decade and thereby bring about a significant impact on the problem of poverty and a reduction in the gap between the rich and the poor countries.

If, however, the industrial countries – even allowing for the optimistic possibility of a shallow recovery in 1983 and 1984 – are in fact locked into a process of depressed long-term growth, a reassessment of development strategies may be necessary. The developing countries may in such circumstances find it worthwhile to revise their strategic options in favour of giving higher priority to the strengthening of economic links among themselves and less on locking themselves into growing dependence on the trade and finance linkages with the world economy as a whole. The dilemma is that this strategic option would imply, on the one hand, acceptance of the proposition that low or even zero growth will be a continuing condition in the industrial economies and, on the other, that opportunities for major expansion of complementarities among developing countries are readily available. Both propositions are open to considerable doubt.

Alternative scenarios thus cannot be forecast with sufficient confidence at this time to permit a fundamental change in development strategy. Furthermore, to do so would provide industrial countries with a good reason not to undertake the structural adjustments in production patterns on which the concept of global economic interdependence under the International Development Strategy rests.

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[a] *World Economic Survey 1981-1982* (United Nations publication, Sales No. E.82.II.C.1), pp. 8-14.

[b] "The international economic crises and developing Asia and the Pacific", *Economic and Social Survey of Asia and the Pacific, 1977* (United Nations publication, Sales No. E.78.II.F.1), pp. 31-104.

[c] United Nations General Assembly resolution 35/36, Annex.

[d] "Regional input into the formulation of an international development strategy for the 1980s" (E/ESCAP/188, Annex I).

-0.5 per cent for the year. Industrial production in the seven largest industrial countries was at year-end estimated by OECD to have fallen in 1982 by 4.25 per cent, as against the mid-year forecast of a fall of 1.75 per cent. The mid-year forecast of a revival in growth to 2.5 per cent for the industrial countries as a whole in 1983 was also revised downwards at year-end to only 1.5 per cent, which would be less than half the average experienced during the 1970s.

The OECD's year-end economic performance estimates for 1982 and 1983 were thus more sombre than the forecasts made at mid-year owing to the evident failure over the course of 1982 of business investment and consumer spending in North America and Europe to rise as expected. Similar downward revisions in projections for 1983 were forthcoming from other agencies monitoring world economic performance. This offered little comfort to the developing countries, many of which had been relying on the revival of the industrial economies from recession early in 1983 so that their own growth momentum might be resumed in the presence of improved international economic circumstances.

Even if growth rates in the industrial countries in 1983 and 1984 were to revive to the modest levels forecast at end-1982, such a limited improvement in world economic conditions would be insufficient to provide the developing countries with an adequate basis upon which to achieve the rates of growth targeted in the International Development Strategy for the Third United Nations Development Decade. Moreover, the resumption of growth even at the low levels forecast for 1983 would not prevent unemployment in the industrial countries of Europe and North America from rising even higher than in 1982. The expectation at end-1982 was that the rate would rise to around 11 per cent of the labour force, with the possibility that it would become even worse in the first half of 1984.

In such circumstances, the pressures on Governments of the industrial countries to adopt protectionist measures against imports were likely to become even stronger than in late 1982, and severely test their commitment to an open trading system, the survival of which is a crucial requirement if the developing countries are to achieve their development objectives.

II. ECONOMIC PERFORMANCE OF THE DEVELOPING ESCAP ECONOMIES

A dominant policy concern of most developing ESCAP countries in 1980-1981 was that of dealing with the domestic inflation which the escalation of oil import prices in 1979-1980 had brought in its train. Some countries of the region succeeded in handling this problem with reasonable success, but others, especially the poorest and least developed, found themselves bearing a heavy burden as a consequence of their limited adjustment capacity.

For the developing ESCAP region as a whole, including its oil-exporting countries, concern shifted in 1981-1982 from imported inflation to the weakening of export demand accompanying the mounting recession in the industrial economies. As might be expected among such a diverse group of economies as those of the developing ESCAP region, featuring widely differing economic structures, development strategies and degree of dependence on international trade and finance, the effects of the recession on economic growth, the balance of payments, employment and budgetary and financial conditions were more swiftly and strongly transmitted to some than to others. By 1982, however, nearly all had begun to feel the pinch, recording significantly lower rates of growth, increased payments deficits, intensified unemployment and greater fiscal and monetary policy problems than in the preceding years.

Though external factors such as imported inflation and recession have been crucial in the recent development of the ESCAP region, year-to-year variations in economic performance have also depended on domestic policy changes and, especially in those countries where agricultural output forms a high proportion of total production or exports, on weather fluctuations. Many countries of the region with large agricultural sectors performed well in 1981, when favourable weather brought good harvests in all but a few cases. By contrast, dry climatic conditions in many countries of the region in 1982 added to other influences in depressing overall performance levels. Low production levels in agriculture, together with falling prices for most primary commodities, resulted in declines in farm incomes. Manufacturing activity, already beset by weak external demand, was subsequently further dampened by lower purchasing power in the domestic economy. At the same time, the decline in export earnings due to low commodity prices and falling terms of trade produced larger balance of payments deficits in many countries of the region. This problem was magnified by increased debt service costs.

As a result of government efforts to stimulate economic activity through expanded public works programmes, public housing projects and investment incentives to the private sector, construction became the fastest growing sector in many developing ESCAP countries. Alongside such policy-induced expenditure, the slower growth of government revenue accompanying depressed income and profit levels led to increased budget deficits. This forced the introduction in a number of countries of additional revenue and borrowing measures in 1981-1982 and, finally, expenditure cutbacks under austerity budgets.

As a partial counterpoise to the adverse impact of this series of exogenous shocks and policy adjustments on economic performance, most developing ESCAP economies found some relief in the decelerating rate of inflation. Increases in food prices were generally more modest in the second half of 1981 and especially in 1982 as a result of improved supplies and intensified competition on world markets. After the sharp increase of 1979, oil prices levelled off or even declined. Whereas oil-importing countries benefited from this price development, the region's oil-exporting countries suffered setbacks to economic growth.

A. GROWTH OF GROSS OUTPUT, 1981-1982

The economies of south-east and east Asia on the whole grew more rapidly than those of south Asia over 1980-1982, though the differential in growth rates between

these subregions narrowed. The South Pacific island countries experienced marked variations in growth rates in 1980-1981 mainly because of their heavy dependence on primary exports, the prices of which fluctuated sharply. Preliminary information indicated a worsening of output performance in this subregion in 1982. In the centrally planned ESCAP economies, the growth rates of real output in 1981 show, as in the rest of the region, a wide range of variation among the countries and in comparison with those recorded in 1980.

1. West and south Asia

The seven south Asian countries showed divergent growth experiences during 1981-1982.

India's lower rate of real GNP growth of around 5 per cent in 1981/82 was not unexpected because the 7.7 per cent rate achieved in 1980/81 had been unusually high, representing a recovery from negative growth the year before.[1] While the 1981/82 growth rate constituted a solid achievement, a decline to a real growth rate of 2.5-3.0 per cent was expected for 1982/83 because of lower agricultural output as a result of a dry summer. Industrial growth was also expected to decline in 1982/83 partly because of lower domestic demand in the wake of depressed agricultural income and partly because the industrial growth rate in 1981/82 had been exceptionally high as energy and raw material shortages evident in the preceding year were alleviated. As a result, per capita income was estimated to have grown by 1.4 per cent in 1981/82, but its growth was apparently negligible in 1982/83.

[1] Growth rates in the accompanying tables and figures refer to the fiscal year and are assigned to the calendar year which covers the major part or second half of the fiscal year.

Drought and pest attack reduced Bangladesh's agricultural output in 1981/82, and real GDP increased only marginally by 0.1 per cent, the lowest since 1974/75 and in sharp contrast to the 6.1 per cent growth rate achieved in 1980/81. Except for the public utilities sector, all other sectors recorded lower rates of growth in 1981/82 than in 1980/81. The manufacturing sector grew at one third the previous year's rate, affected by low demand in both domestic and foreign markets and by shortages of imported raw materials. Imports were constrained by the tight external payments situation. Lower domestic output and lower imports in turn resulted in sluggish activities in the trade and transportation sectors. As population growth remained above the 2 per cent rate, real GDP per capita declined. Unlike most other countries of the region, the rate of inflation in Bangladesh accelerated in 1981/82 as a result of higher prices of imports and of foodgrains as well as because of monetary expansion in the previous year.

By contrast, Pakistan's real GDP grew by 6.6 per cent in 1981/82, exceeding both the target and 1980/81 rates of 6.1 per cent. The most rapidly growing sectors during the year were construction, manu-

Table I.10 Selected developing ESCAP economies. Growth of real GDP, 1975-1982
(Percentages)

	1975-1979 average	*1980*	*1981*	*1982*[a]
West and south Asia				
Bangladesh	5.1	2.8	6.1	0.1
Burma	5.6	7.8	6.7	5.9
India[b]	4.0	7.7	4.6-5.5	2.5-3.0
Iran	1.6	-12.0	1.0	-2.0
Nepal	3.0[c]	-5.2	3.3	4.1
Pakistan	4.4	7.3	6.1	6.6
Sri Lanka	4.9	5.8	5.8	5.0
Unweighted mean	4.1	2.0	4.9	3.2
South-east and east Asia				
Hong Kong	10.9	9.8	11.0	4.0
Indonesia	6.5	7.0	7.6	4.0-6.0
Malaysia	6.0	7.8	6.9	3.9
Philippines	4.0	4.9	3.8	2.6-2.8
Rep. of Korea[b]	10.1	-6.2	7.1	6.0
Singapore	7.5	10.3	9.9	5.0-7.0
Thailand	7.8	5.8	7.6	4.5
Unweighted mean	7.5	5.6	7.8	4.6
South Pacific				
Fiji	4.2	-3.2	6.3	0.1
Papua New Guinea	1.4	-0.6	-4.0	...
Centrally planned				
Afghanistan	1.6[c]	...	1.5	6.3[d]
China[e]	12.6[f]	6.9	3.0	4.0[d]
Lao People's Dem. Rep.	...	...	-5.0[g]	...
Mongolia[e]	8.7[h]	3.4	7.2	8.2[d]
Viet Nam	3.7[c]	-3.7	2.7	...

Sources: National sources.
Notes: [a] Provisional, including secretariat estimates. [b] GNP. [c] 1976-1979. [d] Planned. [e] Net material product. [f] 1978-1979 average at current prices. [g] International Monetary Fund, *World Economic Outlook*, Occasional Paper 9 (April 1982), p. 89. [h] 1979 only.

Table I.11 Selected developing countries of south Asia. Real sectoral growth rates, 1980-1982[a]
(Percentages)

	Agriculture	*Mining and quarrying*	*Manufacturing*	*Electricity, gas and water*	*Construction*	*Transport*	*Trade*	*Finance*
Bangladesh								
1981	8.1	–	8.9	6.4	5.4	1.6	5.0	18.1
1982	-1.5	–	3.0	14.3	3.8	-1.0	1.3	–
Burma								
1980	10.0	-5.4	8.7	13.7	20.8	9.8	4.0	6.2
1981	8.7	15.8	9.0	25.2	5.8	6.2	3.3	3.9
1982[b]	5.2	8.0	7.2	32.3	12.1	8.9	4.2	6.3
India								
1980	12.5	3.3	2.8	5.2	-0.8	5.8	5.0	1.8
Iran								
1980	-14.4	-35.1 (oil)	--------	-21.3	----------	-----	1.1	------
1981	-12.5	-10.1 (oil)	--------	-28.7	----------	-----	15.0	------
1982[b]	-3.1	13.1 (oil)	--------	-18.3	----------	-----	-1.8	------
Maldives								
1980	15.1 (10.3)[c]	17.2	8.5	-6.9	13.4	24.5	28.3	...
1981	-0.4 (-4.1)[c]	34.4	10.3	123.9	34.5	22.4	10.2	...
Nepal								
1981	3.5	----------	24.0	---------	...	...	...	...
Pakistan								
1981	4.0	13.2	9.9	10.9	4.2	8.3	6.7	-0.8
1982	4.0	4.9	12.1	11.0	13.4	6.4	7.7	4.4
Sri Lanka								
1980	3.1	4.9	0.8	10.0	11.0	7.1	8.4	14.9
1981	6.9	4.2	5.2	12.0	-3.0	6.5	4.8	14.9
1982	2.2	4.1	9.1	9.8	-2.0	6.2	5.3	8.0

Sources: National sources.

Notes: [a] Excluding public administration, defence and tourism, ownership of dwellings and certain other services.
[b] Projected. [c] Fisheries subsector.

facturing, utilities and trade. Buoyancy in the construction sector was highlighted by the 16.4 per cent increase in gross domestic fixed capital formation, against a decline of 1.1 per cent in 1980/81. The agricultural sector in 1981/82 grew at the same rate of 4 per cent as achieved in the previous year, as a much smaller increase in wheat output, the country's main food crop, was offset by substantially higher production of sugarcane, rice and cotton.

In Nepal, where agriculture is the overwhelming determinant of growth, the 4 per cent increase in real GDP in 1981/82 was mainly due to a favourable monsoon. However, severe drought in 1982 was likely to pull down the rate of growth in 1982/83 as well as generate strong upward pressure on food prices. The trade deficit in 1981/82 was expected to exceed that of the previous year although, largely because of import restrictions, the deceleration in the rate of increase in imports was greater than that of exports over the first nine months of the fiscal year.

The real GDP growth rate of Sri Lanka in 1982 was estimated to be 5 per cent, a lower rate than those recorded in 1980 and 1981. The lower rate of increase in output was attributable primarily to production declines in tea, rubber and paddy and to reduced residential and non-residential construction, although not in civil engineering works. The contributory factors to growth were the continued buoyancy of manufacturing, trade and transport. Although these three sectors have expanded relatively more rapidly than agriculture since the economic reforms of late 1977, the agriculture sector continues to predominate, accounting for 24 per cent of GDP in 1982.

Burma's relatively high output growth of 6.7 per cent in 1981/82 exceeded the plan target rate. Per capita income grew by an estimated 4.1 per cent. The most rapidly growing sectors were agriculture, mining, manufacturing and power generation. Their performance reflected the policy emphasis on increasing productivity and diversification of the production base as well as exports. Investment priorities favoured the primary producing sectors, construction of industrial buildings and irrigation projects. Because of much higher capital expenditure, the budget deficit was expected to widen, although over 50 per cent of planned public investment in 1982/83 was

scheduled to be financed from foreign loans and grants.

The Maldivian economy grew in real terms by 9 per cent in 1981, less than half the 21 per cent real GDP growth rate attained in 1980. The fisheries sector registered a decline of 4 per cent while the construction sector, which grew by 35 per cent, became the third largest sector in the economy, sharing this position with trade. Consequently, the economic structure in 1981 was more diversified than in 1976, when the fisheries and government sectors together had accounted for over 50 per cent of real GDP. The private sector was a greater contributor to growth in 1981 than the government sector, which showed negative real growth for the year, in contrast to the phenomenal rate of increase in 1980. Indications for 1982 suggested that, with the drastic fall in the world price of tuna, further contraction in the fisheries sector would occur.

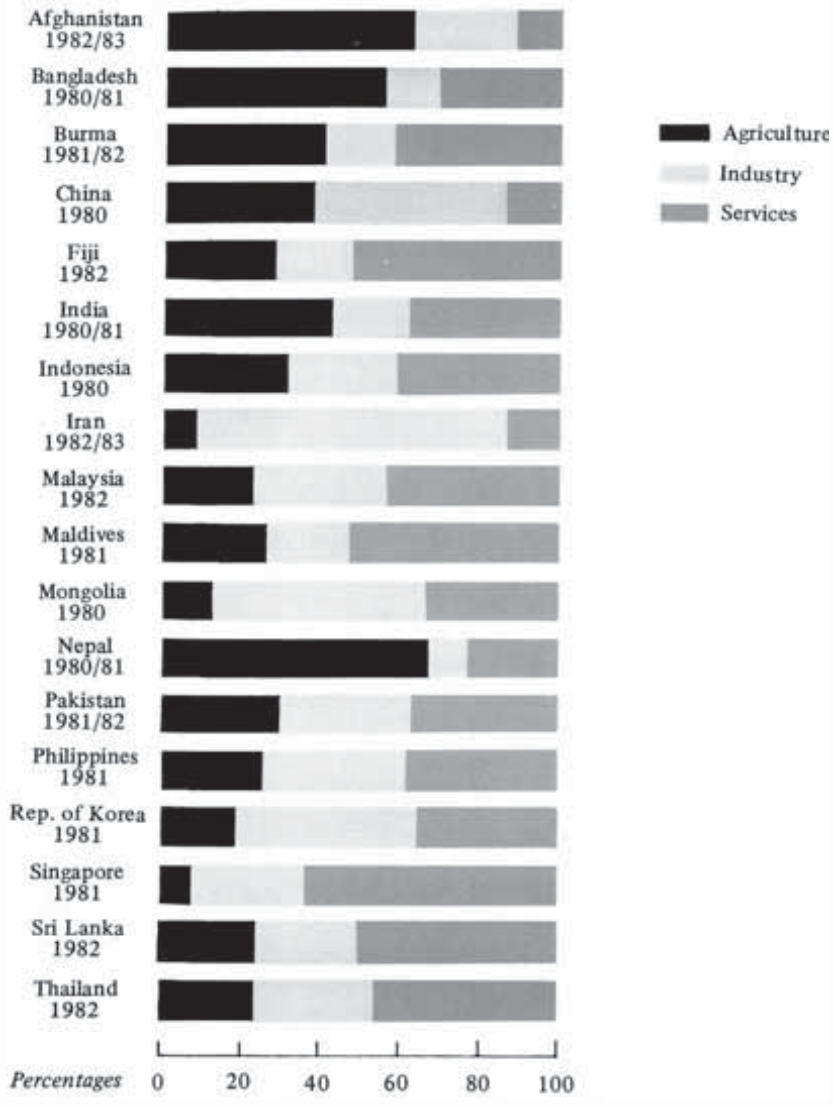
For Iran, a real GNP growth rate of 1 per cent in 1981/82 was estimated. This represented a dramatic change from the 12 per cent decline in output in 1980/81 and was based on expectations of increased oil production despite the continuing Iran-Iraq conflict. For 1982/83, however, the expectation was for a decline of 2 per cent in the rate of growth as a result of lower oil prices and lower production in the non-oil sectors of the economy. Besides the fall in exports, capital formation in 1982/83 was estimated to be only half of the level reached in 1977/78.

2. South-east and east Asia

Most of the economies in these subregions were expected to experience growth rates in 1982 much lower than in 1981 or indeed for some years past. The deceleration of growth rates was particularly sharp in Hong Kong, Malaysia and Singapore.

The dramatic decline in Hong Kong's growth was the outcome of a combination of domestic and international influences. The world recession as well as growing protectionism in the industrial countries meant a substantial weakening of the export demand growth to which Hong Kong had become accustomed. In 1981, the economy grew by 11 per cent, but for 1982 the rate was expected to be no more than 4 per cent. Even this was dependent on the maintenance of public sector demand, given the weakness of the private sector. The increase in private consumption expenditure was estimated at only 3 per cent, with private sector investment in plant, machinery and equipment declining by 7 per cent due to the depressed investment climate and especially the uncertainty about Hong Kong's political future. In contrast, public sector capital formation was expected to increase by 27 per cent in building and construction and by 30 per cent in machinery and equipment as a consequence of public works,

Figure I.4 Selected developing ESCAP countries. Sectoral contribution to GDP, latest year available



public housing and mass transport programmes.

While Singapore managed to pass through 1981 largely unaffected by the gathering global recession, its economic buoyancy in 1982 began to flag in the face of the continuing adverse external environment. During the first half of the year, Singapore's real GDP rose by 6.8 per cent over the same period of 1981. This was the lowest annual rate of growth since 1976, and because the economy was expected to weaken further in the remaining months of the year, growth over 1982 as a whole was expected to be in the range of 5-7 per cent, against a recorded rate of 9.9 per cent in 1981. The manufacturing sector was particularly weak, with output 1.2 per cent lower in the first half of 1982 than in the same period of 1981, largely because of the fall-off in export demand. The shipbuilding and oil rig subsector, which had in the past been important to manufacturing growth, suffered from a dearth of new orders, and growth in the petroleum refining industry was not sustained because of the global oil glut. The construction sector, however, continued to provide strong growth impetus in both the private and public sectors. As in 1981, construction continued to centre on hotels, office buildings and private and public housing. Construction of a mass transit system was scheduled to begin in early 1983, and for this reason as well as increased investment in public housing the sector was expected to remain buoyant for the next few years.

The economy of the Republic of Korea grew by 7.1 per cent in 1981, a dramatic turnaround from the fall of over 6 per cent in 1980. Agricultural output, which recovered from the rice crop failure of 1980, accounted for half of GNP growth in 1981. The other contributory factor to the output expansion was merchandise exports, which registered a real increase of 18.3 per cent and induced a 7 per cent real rate of growth in the manufacturing sector. GNP growth was not expected to be greater than about 6 per cent in 1982, this slower rate of growth being attributable to the poorer performance of merchandise exports and depressed domestic demand. Manufacturing output in the first half of 1982 was only 3 per cent greater than in the same period of the previous year. As with Singapore, the focal point of growth in the first half of 1982 was the construction sector, especially housing. Also, gross fixed investment rose by 10 per cent in com-

Table I.12 Selected developing east and south-east Asian and South Pacific countries. Real sectoral growth rates, 1980-1982[a]

(Percentages)

	Agriculture	*Mining and quarrying*	*Manufacturing*	*Electricity, gas and water*	*Construction*	*Transport*	*Trade*	*Finance*
Indonesia								
1980	5.0	-1.5	11.5	21.9	7.8	10.0	8.0	15.0
Fiji								
1981	11.8	24.1	10.1	4.4	4.6	5.8	5.6	3.9
1982	4.4	–	3.6	4.4	-15.2	6.9	-7.3	3.4
Malaysia								
1980	3.1	-2.2	9.0	8.6	17.7	16.4	11.7	4.9
1981	5.3	-3.4	4.0	6.9	9.0	7.6	8.0	7.4
1982	1.9	3.9	3.5	5.8	7.0	6.0	5.0	6.5
Philippines								
1980	4.4	10.1	5.1	16.4	5.7	5.4	5.3	4.9[b]
1981	3.6	1.7	3.4	7.8	9.7	4.4	1.8	4.3[b]
Rep. of Korea								
1980	-22.0	-1.0	-1.1	6.0	-0.8	3.4	-1.8	17.1
1981	23.0	6.8	6.8	9.0	-5.6	8.3	6.2	2.9
Singapore								
1980	2.4	7.7	11.7	7.5	12.3	12.6	7.3	18.8
1981	-2.2	28.2	9.9	7.2	22.0	13.0	6.0	16.7
Thailand								
1980	1.9	5.5	4.8	7.4	13.9	6.5	6.0	11.8
1981	4.7	3.4	8.0	9.9	5.2	7.9	8.8	14.6
1982	3.2	1.0	8.2	12.4	4.6	7.2	6.8	12.5

Sources: National sources.

Notes: [a] Excluding public administration, defence and tourism, ownership of dwellings and certain other services. [b] Including public administration and other services.

parison with the same period in 1981, in contrast to the negative investment growth rates recorded for both 1980 and 1981.

Malaysia, as an important exporter of primary products, was affected by the depressing impact of the world recession from the outset. The growth of real GDP was expected to be only 3.9 per cent in 1982 against a 6.9 per cent increase in 1981, with output in all production sectors, except mining and quarrying, growing more slowly than in 1981. The adverse effects of the decline in commodity exports were especially severe for rubber and tin and caused a large balance of payments deficit. As public sector expenditure was constrained by falling government revenue, the private sector became the main, though rather weak, supporter of growth. Gross domestic capital formation increased in 1982 by 9.5 per cent, much of it occurring in the private sector, especially in the continued development of offshore oil fields and petroleum processing facilities and in public and private housing construction. Public capital formation was estimated at only 1.4 per cent higher than in 1981, while public consumption declined by 2.8 per cent. Private consumption growth was only 1.4 per cent higher in 1982 than in 1981. The effects of lower export earnings were also evident in the decline of gross national savings from 23.7 per cent of GNP in 1981 to 21.7 per cent in 1982.

The economic situation in Thailand in 1981 showed improvement over that in 1980, mainly due to domestic factors. Real GDP grew by 7.6 per cent, against 5.8 per cent in 1980. Despite serious floods, output growth was supported by a good harvest, and as a result export capacity and earnings were enhanced. Energy-saving measures and the coming on stream of indigenous natural gas supplies, together with moderation in the rate of increase in oil prices, helped to contain the country's oil import bill. The investment climate was relatively good because of various policy initiatives, including upward adjustment in the prices of controlled commodities. Economic growth faltered in 1982, however, with falling prices of rice and other major primary commodities in the first half of the year. Agricultural output showed little increase both because of unfavourable weather and the disincentive effects of low prices on farmers. Depressed farm incomes had adverse repercussions on the manufacturing sector through weak demand for consumer goods. Domestic private investment was affected not only by these conditions but also by high interest rates and the uncertainty of exchange rates. The net effect was that growth of GNP in 1982 is estimated to have reached only 4.5 per cent, well below that recorded in 1981.

The Indonesian economy continued to show strong growth momentum in 1981 with an increase in total output of 7.6 per cent, compared with 7.0 per cent for the previous year. One important reason was the excellent performance of the agricultural sector in increasing output of food crops, mainly rice, by over 8 per cent. Another stimulus came from the increase in government expenditure of 19 per cent and the continued strength of private investment activity. Substantial growth was also recorded in 1981 by the manufacturing, public utilities and construction sectors. Petroleum and mining output showed small but positive growth after having declined in 1979-1980. The 1981 growth performance would probably have been even better had it not been for depressed prices of some traditional export products such as coffee, rubber and tin. Those external circumstances began to bite more deeply in 1982, and with lower export receipts but continuing strong growth in imports during the first six months of the year a substantial trade deficit seemed in store for 1982 as a whole. Output growth in the agricultural sector as well as manufacturing, mining and petroleum all slowed down, though the construction sector continued to be a major growth area. Overall, the prospect was for an increase in real GDP of about 5 per cent for 1982 as a whole.

The Philippine economy grew more slowly in 1981 at a real GDP rate of 4 per cent, with all sectors, except construction, registering lower real growth rates compared with those of 1980. Government expenditure was counter-cyclical; government consumption rose in real terms at the same rate of 4 per cent as private consumption, but government construction expenditure grew by 8 per cent against a 1 per cent increase in private capital formation. Indirect government support was also given to the construction sector in the form of subsidized interest rates for home-building. The Government undertook a programme to enhance exports and efficient resource allocation with tax reforms, elimination of the ceiling on interest rates, development of multi-purpose banks and promotion of energy conservation and development. Rice output, which had declined in 1981, was expected to increase in 1982 because of higher support prices. A smaller trade deficit was predicted in view of the run-down of oil inventories, but the balance of payments deficit was nevertheless expected to widen because of higher interest payments on foreign debt. It was anticipated that the inflation rate would not decelerate much, one of the causes being a depreciating peso. Real GDP growth in 1982 therefore was not expected to rise above 2.6-2.8 per

cent, lower than the rates achieved in 1980 and 1981.

3. South Pacific

The performance of the Fijian economy is largely dictated by the sugar sector. Real GDP increased by 6 per cent in 1981 mainly due to significant output expansion in sugarcane, which in turn stimulated the sugar processing industry. Although sugar output was expected to increase further in 1982, prices remained low. Furthermore, a real output decline of about 15 per cent in the construction sector was in prospect following the completion of two major infrastructural projects and depressed private sector construction activities. Though earnings from tourism rose, virtually no growth in GDP seemed likely, a marked change from the increase of 6 per cent in 1981.

The Papua New Guinea economy, like many others in the region, was in 1981-1982 severely affected by reduced commodity export prices, especially for coffee, cocoa, copra and copper concentrate. The decline in these prices had a depressing impact on government revenue, and thus forced a cutback in public expenditure as well as in consumer spending in real terms. At the same time, tightened monetary policy led to a decline in private sector investment. Large construction projects in the mining sector proceeded with the aid of foreign capital, but the exceedingly high capital-labour ratio in these projects resulted in little employment generation. Under these generally depressed conditions, imports failed to decline sufficiently in 1982 to prevent a large balance of payments deficit. Foreign loans, direct budgetary support from Australia

Box I.3 The unrecorded component of gross output

The United Nations system of national accounts includes in gross domestic product (GDP) the value added in marketed goods and services, the imputed value added in home ownership and the imputed value added of subsistence activities in the primary sector (agriculture, fishing, forestry, mining and quarrying) and in fixed capital formation (building and improving capital assets and property). Excluded are the value added in all other subsistence activities undertaken by households for own consumption, such as repairing of appliances, dressmaking and home maintenance and improvement.

There is no logical reason why certain subsistence activities should be excluded and others included; such decisions are based on practical considerations of measurement. Measurement problems are rather more tractable in the case of subsistence production of food and other products in predominantly rural economies, but even then the problem of valuation of production is not easy to solve and many countries for that reason ignore subsistence activities in calculations of gross domestic product. Estimates of subsistence output have, however, been made for a number of countries, including some in the South Pacific. In Solomon Islands, for example, the subsistence sector was estimated at approximately 36 per cent of GDP in 1979 and in Papua New Guinea 15 per cent in 1980.

More generally, however, a number of activities are in practice left out of GDP calculations because of non-reporting. These form what has been described as the "parallel" economy, otherwise termed the hidden, unobserved, underground or black economy. These activities, which should be covered by GDP as defined in the SNA but are often omitted, can be classified into three groups. The first, consisting of undeclared legal production, is by far the largest; production for own use by peasant farmers, unreported informal personal services and employment of unregistered workers are three common examples of legal activities which are particularly difficult to estimate and that are sometimes concealed to avoid taxation or other payments. The second comprises activities considered as illegal and may include gambling, prostitution and production and distribution of alcohol, drugs and other prohibited goods. The third includes concealed income in kind, such as non *bona fide* business expenditure, employee theft and other private consumption of goods and services originally destined for production purposes (i.e., intermediate uses instead of final consumption). Included in the parallel economy but excluded in conventional GDP estimates are, apart from household production for own consumption, unproductive activities such as burglary, extortion and other illegal activities that redistribute income and wealth but do not increase it.

Thus, a large part of the parallel economy belongs to GDP but remains unrecorded. This component of GDP is underestimated to the extent that the concealed activities cannot be accurately evaluated or are omitted for other reasons. In the United States, for instance, the hidden portion of GDP has been estimated to be equivalent to 4.2 per cent of recorded GDP in 1976, with undeclared legal production accounting for 2.2 per cent of GDP, illegal production for 1.5 per cent and employee theft for 0.5 per cent.[a] Countries with relatively more self-employed (including peasant farmers) would have larger parallel economies. Also, the greater the number of legislative controls, the more extensive are hidden GDP activities likely to be. The parallel economy is likely also to be larger in recessionary periods due to the entry of unemployed persons into informal activities (including the return of wage-earners back to agricultural subsistence activities), the hiring of proportionately more unregistered lower-paid workers, more do-it-yourself activities and greater demand for cheaper goods and services offered in the hidden sectors.

[a] Derek Blades, "The hidden economy and the national accounts", *Occasional Studies* (Paris, OECD, 1982), p. 29.

and the drawing down of reserves were used to finance the payments gap. Real GDP growth was therefore expected to decline further in 1982, following a decline of 4 per cent in 1981.

Other smaller South Pacific island countries such as Tonga and Vanuatu were also adversely affected by declining commodity prices, especially for copra and coconut products, which accounted for 70 per cent of their total commodity export values. They continued to be faced with the chronic problems of a narrow production base and a high level of dependence on imports for food supplies and fuel, which together accounted for about 40 per cent of imports in both countries. They also remained very dependent on external assistance to finance development expenditures, with about 90 per cent of such expenditure dependent on assistance in Tonga. Both countries have endeavoured to overcome these problems in a variety of ways. Tonga has attempted to cope with the problem of trade instability through the establishment of a marketing board for copra and endeavoured in its development planning to encourage tourism, diversification of agricultural output, mobilization of domestic savings to finance a greater share of development expenditure and encouragement of private and foreign investment.

Vanuatu produced its first development plan for the period 1982-1986. This formed part of a longer-term 15-year programme, the aim of which was to achieve self-reliance in terms of financing its current and development expenditures from its own resources. A major objective therefore was to increase the level of domestic savings and attract foreign investment, but the need to support its current status as a tax haven presented difficulties in the use of fiscal instruments to mobilize tax revenue.

Solomon Islands, facing increasing financial difficulties with deteriorating terms of trade from 1980 on, nevertheless aimed to achieve financial self-reliance in its 1981-1985 development plan. Other major objectives of the plan included higher levels of employment, investment and food production and the distribution of the benefits of growth to rural areas. A target GDP growth rate of 5-6 per cent per annum was set, with an investment-GDP ratio of 25 per cent. A majority of the investment would come from the public sector, which had in the past initiated joint ventures with foreign private investors, providing the stimulus for growth, structural change and export diversification. The main constraints on development continued to be shortages of skilled manpower and limited domestic resources. The country performed relatively well in terms of economic growth in the late 1970s compared with other countries in the South Pacific, but thereafter, in the presence of more difficult external circumstances, growth performance declined.

4. Centrally planned economies

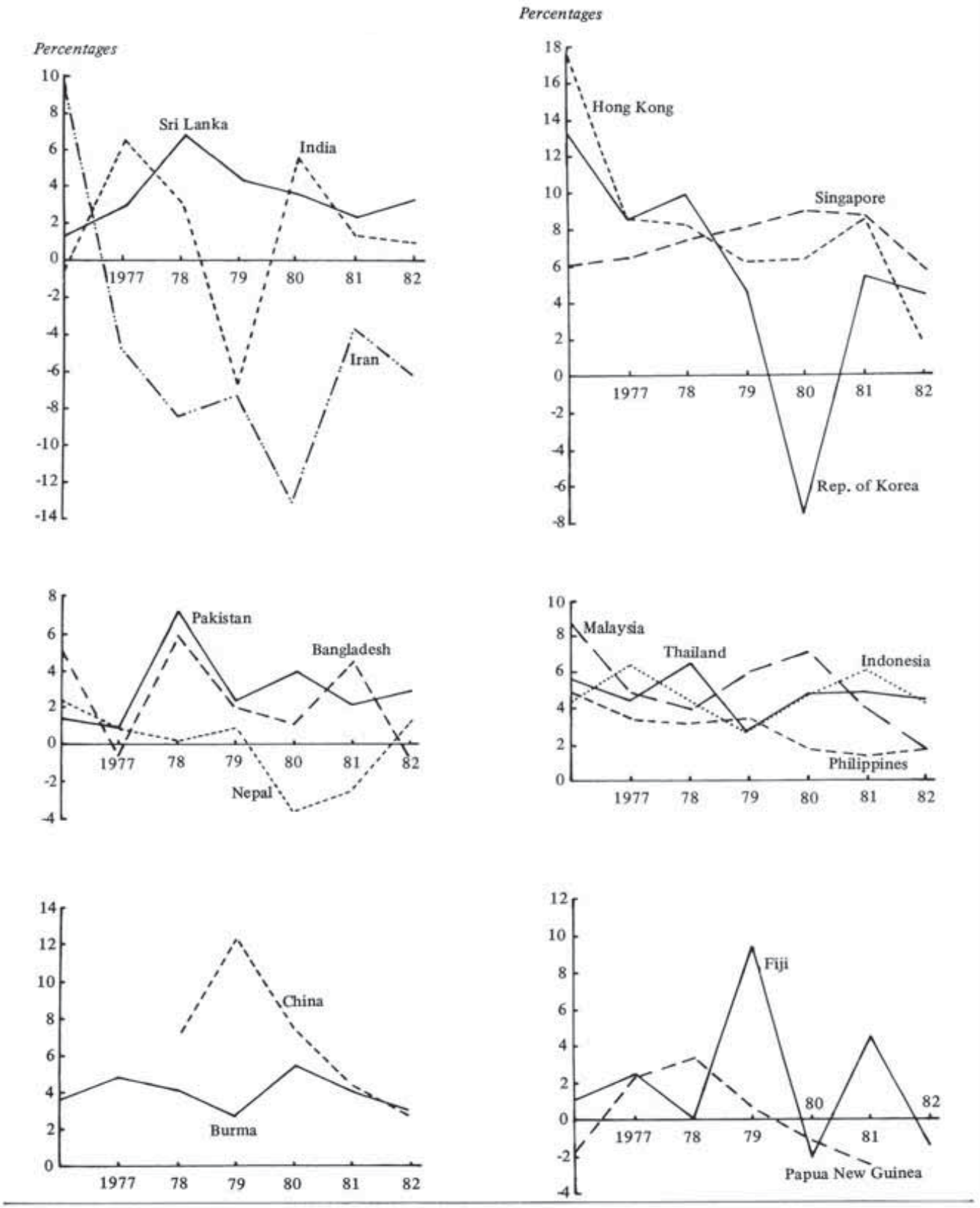
The centrally planned economies of the developing ESCAP region displayed marked differences in real growth rates in 1981, ranging from a decline of about 5 per cent in the Lao People's Democratic Republic to an increase of over 7 per cent in Mongolia.

China's gross output expanded more slowly in 1981-1982 than it had in 1980. Net material product grew in real terms by 3 per cent in 1981 and the target rate for 1982 was set at 4 per cent. 1981 was the first year of the sixth five-year plan and the third year of the economic adjustment programme. The latter emphasized the restructuring of the economy, an important objective of which is to direct more resources to consumption while reducing the share of investment in national output. As a consequence of that policy change, the proportion of net material product allocated to accumulation declined from 37 per cent in 1978 to 30 per cent in 1981, and a 26 per cent share was planned for 1982. Another aim was to reduce the emphasis on heavy industry and increase output of light industry. Agriculture was also accorded priority treatment in the readjustment policy. Despite floods and drought in 1981, agricultural output is officially recorded to have expanded by 5.3 per cent. A planned growth rate of 4 per cent was set for 1982.

In Afghanistan, where economic activity is dominated by agriculture and animal husbandry, a real GDP growth rate of 1.5 per cent was recorded in 1981/82. Larger aid and credit commitments for financing imports were expected in 1982/83, and the growth in total output was therefore planned at 6.3 per cent. Consumption and saving growth rates were each set at 7.3 per cent, with government investment planned to rise by 13 per cent. Some 38 per cent of the total investment fund was to be allocated to the mines and energy sector, 27 per cent to transport and communications, 25 per cent to social services and 10 per cent to agriculture. Foreign grants and project loans are expected to finance 55 per cent of the total investment.

In Mongolia, the target increase of real national income for 1982 was 8.2 per cent, slightly greater than the rate of 7.2 per cent achieved in 1981. The industrial sector was the largest contributor to national income growth in 1981, with an increase in output of almost 11 per cent. The agricultural sector, which accounted for 11 per cent of national income in 1980 as compared with 38 per cent for

Figure I.5 Developing ESCAP economies. Annual percentage change in real per capita GDP or GNP, 1976-1982



industry, grew at the lower rate of 6 per cent in 1981. The 1982 plan, however, targeted an increase in gross output from the agricultural sector of 14 per cent, whereas gross industrial output was planned to grow at almost 9 per cent. The share accounted for by the trade sector was expected to decline slightly in 1982, as the volume of retail trade was estimated to have increased by only 4.7 per cent during the year. Investment in 1982 was planned to increase by 11 per cent, somewhat lower than in 1980 and 1981.

A real GDP growth rate of nearly 3 per cent was recorded by Viet Nam in 1981. Contributing to this recovery from a decline in output of 3.7 per cent in 1980 were a good harvest and better performance in the industrial sector, which had been impeded by shortages of material inputs, spare parts and managerial personnel. Agricultural output expanded because of favourable weather and an effective contract system that provided incentives to farmers to increase their production. Incentives to industrial workers through the introduction of a piece-work payment system were an important factor in the more rapid expansion in light industry output of about 7 per cent in 1981.

In the Lao People's Democratic Republic, GNP declined in 1981 by an estimated 5 per cent because of bad weather and shortages of imported materials. The largest sector is agriculture, which accounts for about two thirds of GNP. Paddy production in 1981 was adequate to maintain national self-sufficiency in rice. In 1982, the target was to increase the output of all crops, including an increase of about 6 per cent in rice production, through extending irrigation areas, more intensive use of fertilizers and agricultural mechanization. Apart from a few small plants producing a limited range of consumer goods and supplies for agriculture, the main industrial activities continue to be electricity generation, wood processing and cement products. The industrial sector has been beset by problems of low capacity utilization because of material and manpower shortages. Electricity output has increased substantially since 1979 with the completion of the second phase of the Nam Ngum dam. Over 90 per cent of output was expected to be sold to Thailand, and total sales were expected to reach $US 8-10 million in 1982.

B. AGRICULTURE AND FOOD

Agriculture in the developing ESCAP region performed reasonably well in 1981 by comparison with 1980, when production on the whole did not exceed that of 1979. The growth in total agricultural output of 4.5 per cent was, however, unevenly distributed among the countries of the region, partly

Box I.4 Growth targets and performance under the SNPA

Noting the exceedingly low levels of living in the least developed countries (LDCs) and their very poor growth performance in the 1970s, the International Development Strategy (IDS) for the Third United Nations Development Decade recommended a special development programme for the 1980s for these developing countries. This programme, the Substantial New Programme of Action for the 1980s for the Least Developed Countries (SNPA),[a] has as its main objective the transformation of the least developed economies toward self-sustained development, whereby internationally accepted minimum standards of living could be attained. A target 7.2 per cent average annual growth rate for GDP was set in SNPA as being necessary to achieve those objectives by the end of the Decade. The performance of the LDCs in the ESCAP region in 1980-1981 seemed to have fallen well short of this target in most cases.[b]

Since over 80 per cent of the people in these countries depend on agriculture and since this sector contributes an average of about 50 per cent to GDP, SNPA emphasized continued highest priority to agricultural development to increase food production and thus to obtain greater food self-sufficiency, with the object of eliminating hunger and malnutrition by 1990. A target 4 per cent average annual growth in agricultural output, similar to the IDS target for all developing countries, was proposed so that food production would increase faster than population growth.

Only Afghanistan among the ESCAP LDCs reached this target in 1981; with an increase in food production of nearly 5 per cent, per capita production rose by 1 per cent. For Bhutan, Maldives and Samoa, growth in food production was matched by population growth, resulting in no increase in per capita food output. Nepal registered only 0.9 per cent increase in food output; as this was considerably less than population growth, food production per capita declined by about 2.3 per cent. The position was even worse in Bangladesh, where food production per capita declined by over 5 per cent in 1981. Furthermore, the share of food products in total imports increased in Bangladesh, Nepal, Maldives and Samoa, suggesting that in 1981 little progress was made towards greater food self-sufficiency.

In manufacturing, the SNPA's recommended target of 9 per cent average annual growth appeared to have been reached in 1980-1981 only by Nepal and Maldives.

[a] Report of the United Nations Conference on the Least Developed Countries (A/Conf.104/22), 2 October 1981, Part I.

[b] UNCTAD, "Basic data on the least developed countries" (TD/B/AC.21/10), 2 September 1981.

because of climatic factors and also because of the differential impact of changing external demand conditions for specific commodities and the effects of changes in domestic policies, such as those governing procurement prices and agricultural input supplies.

Agricultural production in Bangladesh declined by 2.5 per cent due mainly to adverse weather conditions, which affected particularly foodgrain output. Moreover, agriculture in Bangladesh continued to suffer from insufficient technical progress. Only 16 per cent of total cultivated area had come under irrigation, consumption of chemical fertilizers still represented only 15 per cent of the requirement, although its application had increased rapidly in recent years, and cultivation of high-yielding varieties remained largely confined to foodgrains and jute. By contrast, the Republic of Korea achieved an impressive 14 per cent increase in its agricultural production, largely attributable to a strong recovery in rice output after a disastrous 1980 season. Agricultural production in India also showed a strong recovery, especially in the output of wheat, sugarcane and oilseeds. In Pakistan, agriculture continued its sustained expansion despite unfavourable weather conditions. Measures adopted to improve utilization of land and water resources and to expand the co-operative movement enabled Afghanistan to achieve a 5 per cent increase in its agricultural production, with a substantial rise in the volume of wheat, cotton, beets, vegetables and fruit on the previous year's low base.

Table I.13 Developing ESCAP region. Changes in agricultural production, 1981
(Percentages)

	Agricultural production	*Agricultural production per capita*	*Cereals production*	*Food production*	
				Total	*Per capita*
Afghanistan	5.0	2.1	8.0	4.9	1.0
Bangladesh	-2.5	-5.3	-2.6	-2.4	-5.2
Bhutan	2.3	–	1.9	2.3	–
Burma	8.5	5.9	11.5	9.2	6.9
China	3.7	1.7	2.5	2.9	1.7
Fiji	8.3	7.1	20.0	8.5	7.2
India	6.3	5.0	6.8	7.1	5.9
Indonesia	5.0	3.4	9.4	4.9	3.4
Malaysia	3.8	0.8	-1.2	5.0	2.2
Maldives	2.4	–	–	2.4	–
Nepal	0.0	-3.4	-0.8	0.9	-2.3
Pakistan	5.2	2.0	6.5	5.8	1.9
Papua New Guinea	2.3	-1.0	–	1.6	-1.0
Philippines	3.8	0.8	-0.6	4.5	1.7
Rep. of Korea	14.0	11.5	25.6	15.4	13.3
Samoa	0.9	–	–	0.9	–
Singapore	-0.5	-1.2	–	-0.5	-1.8
Sri Lanka	0.7	-0.8	-5.1	–	-2.0
Thailand	11.2	8.8	10.6	12.7	10.2
Developing ESCAP region	4.5	3.7	4.7	5.2	2.7

Source: Food and Agriculture Organization of the United Nations.

Note: Production data are allocated to the calendar year during which the major part of the crop is harvested. For this and other reasons, the figures do not always match those published in national sources. In addition, population growth estimates cannot be directly derived from the per capita food production data because the data are based on index numbers.

Output in Sri Lanka increased only marginally mainly because of the continued declining trend in rubber production, though tea production increased by 9.9 per cent.

In south-east Asia, Thailand stood out by achieving an increase of 11.2 per cent in agricultural production in 1981, a strong recovery from a drought-induced slump in 1980, aided by more remunerative producer support prices and the effects of favourable weather. Indonesia also recorded a satisfactory 5 per cent increase in its agricultural output in 1981. The impetus of this performance came from a significant increase in production of rice, coffee and palm oil, though rubber output declined in response to lower prices. In Malaysia, palm oil provided the only significant growth in commodity output, but total agricultural production rose at the same rate of 3.8 per cent as recorded in 1980. Similarly, agricultural output in the Philippines increased by only 3.8 per cent in 1981 compared with 4.6 per cent in 1980 due to depressed demand and unfavourable weather conditions.

Among the South Pacific island countries for which data are available, Fiji in 1981 achieved the highest increase (8.3 per cent) in agricultural production as the result of a sharp rise in sugar output. During 1981, Papua New Guinea coffee growers suffered both a price drop and a quota imposed by the International Coffee Organization (ICO), cocoa output declined and copra production showed only a marginal increase, but agricultural output as a whole nevertheless rose by 2.3 per cent.

Agricultural production in China recovered from a zero increase in 1980 to 3.7 per cent during 1981, despite serious drought and flooding.

High population growth, however, surpassed the gains in agricultural production in many countries

particularly in south Asia and the South Pacific. This worsened the impact of Bangladesh's already negative growth of aggregate agricultural output and caused negative per capita growth in agricultural production in Nepal, Mongolia, Papua New Guinea, Solomon Islands, Sri Lanka and Vanuatu. In Malaysia and the Philippines among other countries, the per capita increase in agricultural output was less than 1 per cent.

1. Cereals

As a result of favourable weather conditions throughout most of the region, production of cereals in the developing ESCAP region during 1981 increased by 4.7 per cent, totalling an output of 606 million metric tons. Of this total wheat and rice (paddy), the region's major cereal crops, contributed 19.1 and 59.1 per cent, respectively. Rice production increased by only 4.2 per cent, a slight deceleration compared with the 6 per cent increase in the previous year.

With more favourable climatic conditions, rice production in China, Pakistan and the Republic of Korea recovered from their 1980 setbacks, while Burma, Indonesia and Thailand achieved significant increases. Following a record crop in 1980, rice production in Nepal increased moderately by 3.9 per cent during 1981. Similarly, rice production in India grew by only 2.6 per cent compared with 25.9 per cent the previous year, and its output remained close to the average level of recent years. Owing to adverse weather conditions, rice production in Bangladesh and the Philippines declined by 3.9 and 1.5 per cent, respectively. For 1982, widespread drought in Bangladesh, India and Indonesia and typhoons in the Philippines and Viet Nam reduced chances for higher production gains. In Thailand also, rice production was expected to decline in 1982 by about 3.4 per cent because of the effect of intermittent rainfall on the duration of the crop season.

Following a sharp fall of 9.1 per cent in 1980, wheat production in the developing ESCAP region in 1981 increased by 8.1 per cent, raising its total output to 116 million metric tons but still short of the 1979 peak level. Particularly important was India's recovery, which achieved a 14.5 per cent output increase. But a decline of wheat production in India seemed inevitable in 1982 due to the delayed arrival of the monsoon and its subsequent erratic behaviour. Despite bad weather in the early half of 1982, the summer wheat harvest in China was better than expected and output reached a record level. Similarly, Afghanistan and Nepal enjoyed record harvests in 1981 and further increases were expected in 1982. Though the growth of wheat production in Pakistan in 1981 was at a lower rate than that achieved in 1980, the country nevertheless succeeded in reaching self-sufficiency in wheat with further output gains likely in 1982.

Table I.14 Developing ESCAP region. Rice[a] and wheat production, 1979-1981[b]

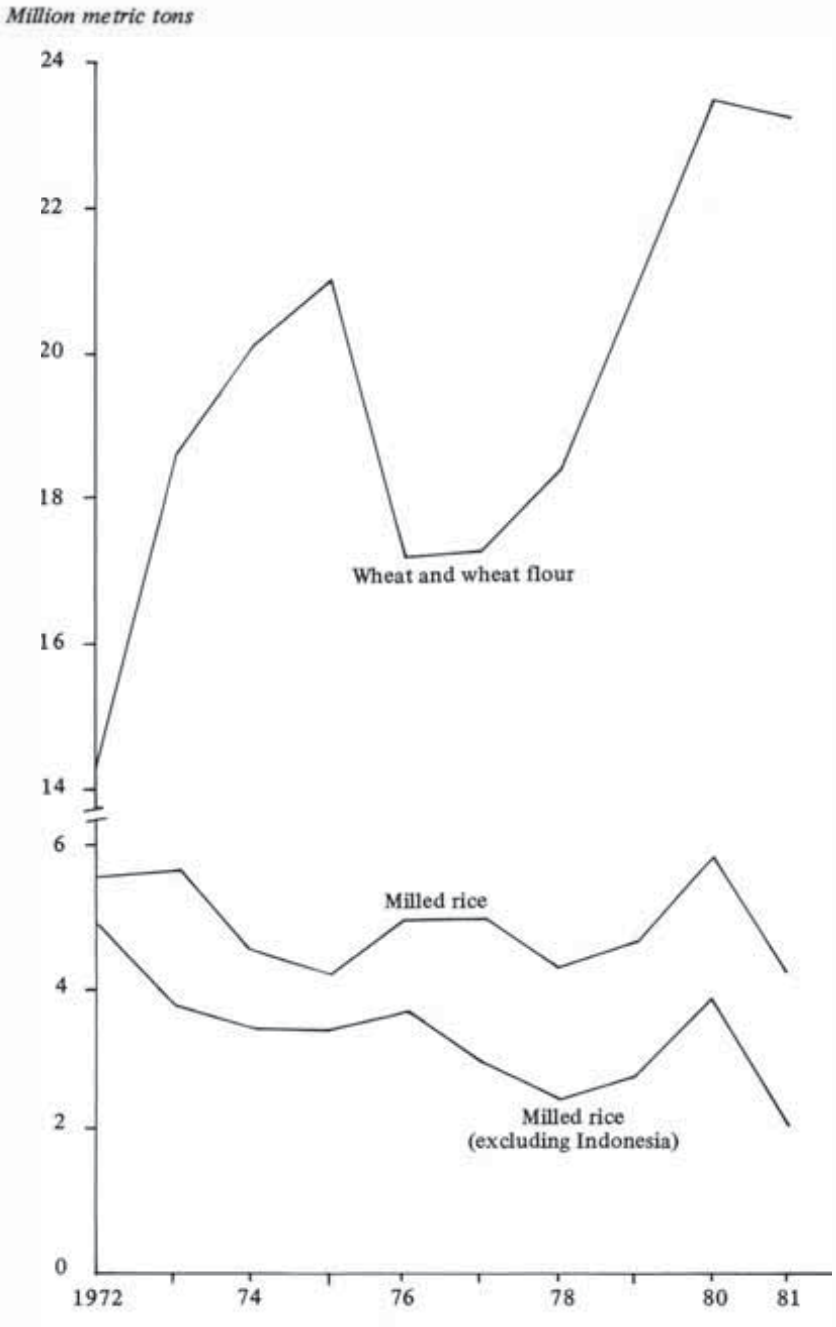
	Production (thousand metric tons)			*Growth rates (percentages)*		
	1979	*1980*	*1981*	*1979*	*1980*	*1981*
			Rice			
Bangladesh	13 131	13 951	13 400	0.1	6.2	-3.9
Burma	6 896	8 651	9 660	-0.5	25.4	11.7
China	102 871	99 637	102 261	4.9	-3.1	2.6
India	42 529	53 553	54 940	-21.3	25.9	2.6
Indonesia	17 872	20 246	22 440	1.9	13.3	10.8
Nepal	1 339	1 602	1 664	-11.9	19.6	3.9
Pakistan	3 232	3 135	3 412	-1.7	-3.0	8.8
Philippines	4 953	5 174	5 095	4.3	4.5	-1.5
Rep. of Korea	5 674	3 824	5 063	-7.6	-32.6	32.4
Thailand	10 400	11 462	12 540	-9.8	10.2	9.4
Viet Nam	7 208	7 825	8 422	7.7	8.6	7.6
Others	4 501	4 745	4 849	4.0	5.4	2.2
Developing ESCAP region	220 606	233 805	243 546	-3.2	6.0	4.2
Percentage of world total	85.6	86.4	86.5			
			Wheat			
Afghanistan	2 663	2 700	3 000	-5.3	1.4	11.1
China	62 733	54 158	57 003	16.5	-13.7	5.2
India	35 508	31 830	36 460	11.8	-10.4	14.5
Iran	5 500	5 700	5 800	-3.5	3.6	1.8
Nepal	454	440	477	10.5	-3.1	8.4
Pakistan	9 950	10 805	11 340	18.9	8.6	5.0
Others	798	1 216	1 491	3.0	52.4	22.6
Developing ESCAP region	117 606	106 849	115 571	13.5	-9.1	8.1
Percentage of world total	27.4	24.0	25.2			

Source: Food and Agriculture Organization of the United Nations.

Notes: [a] Milled rice equivalent. [b] Production data are allocated to the calendar year in which the major part of the crop was harvested. Figures thus do not always match those published in national sources.

Although the average increase in cereal production in the region was reasonably high in 1981, in many countries it lagged behind population growth, thus widening the gap between cereal production and requirements. This was especially true in the least developed and land-locked, low-income countries of the region, where cereals constitute by far the major component of the people's diet. It thus remained necessary for some countries to import cereals, though at lower volumes than usual in the past.

Figure I.6 Developing ESCAP countries. Imports of rice and wheat, 1972-1981



2. Selected agricultural export commodities

Production of agricultural export commodities other than foodgrains in the developing ESCAP region continued to be affected by the adverse economic environment prevailing in the industrial countries. Production of natural rubber in the region barely grew in 1981. Modest increases in output of China, India, Malaysia and Thailand were offset by a substantial output decline in Indonesia in response to lower prices. Prospects

Box I.5

The wide variety of influences which bear on the growth of agricultural output and its variations from one year to another are neither simple to identify nor to quantify. Economic factors such as output prices and relative profitability are obviously important. Moreover, institutional factors such as the structure of land tenure have long been recognized as important elements in producer motivation. However, the supply responses of producers to changes in such factors are not easy to predict.

Many technical and environmental factors can have major output effects. Among these, climatic variations and the availability of adequate water supplies are of particular importance. Climatic conditions, for example, play a pivotal role. The sharp decline of over 7 per cent in 1979 of agricultural production in Nepal as well as the failure of output to rise in Bangladesh in that year were associated with severe drought conditions. More favourable weather in 1980 permitted an increase in output of over 4 per cent in Bangladesh and 11 per cent in Nepal. The following year, however, bad weather again resulted in reduced output in Bangladesh (by 2.5 per cent) while no growth in production occurred in Nepal. In Fiji, hurricanes in 1980

for 1982 were mixed. In Thailand, production was expected to be nearly 6 per cent higher, while in Malaysia it was expected to decline by 7.7 per cent. Preliminary estimates in Indonesia suggested that measures to rehabilitate rubber plantations could lead to some recovery in 1982.[2]

Though raw sugar output levels continued below those achieved in 1978 and 1979, production recovered strongly in 1981, with

[2] Food and Agriculture Organization of the United Nations, *Commodity Review and Outlook, 1981-82* (Rome, 1982), p. 75.

Table I.15 Developing ESCAP region. Production of selected agricultural export commodities, 1979-1981[a]

	Production (thousand metric tons)			*Output growth rates (percentages)*		
	1979	*1980*	*1981*	*1979*	*1980*	*1981*
Natural rubber	3 629	3 562	3 574	4.3	-1.8	0.3
Sugarcane	285 748	256 472	291 461	-7.4	-10.2	13.6
Centrifugal raw sugar	17 626	14 406	17 303	-0.6	-18.3	20.1
Tea	1 251	1 284	1 321	0.6	2.6	2.9
Jute and kenaf	4 107	3 909	3 811	-4.2	-4.8	-2.5
Cassava	41 694	43 058	47 802	-9.8	3.3	11.0
Cotton lint	4 462	4 909	5 347	5.8	10.1	8.9
Coffee, green	569	637	643	1.6	12.0	0.9
Palm oil	3 046	3 512	3 811	20.0	15.3	8.5

Source: Food and Agriculture Organization of the United Nations.

Note: [a] Production data are allocated to the calendar year in which the major part of the crop is harvested. Figures thus do not always match those published in national sources.

Climatic influences on agricultural production

were mainly responsible for a decline of 17 per cent in the production of sugarcane, while copra production has been steadily declining over several years due to the effects of intermittent hurricanes and droughts, though the increasing age of trees has also been partly responsible. Favourable weather contributed to a rise in agricultural production throughout most of the region during 1981. In Thailand, for instance, the 9.4 per cent increase in rice production in that year was mainly attributable to abundant rainfall, which raised the water level in reservoirs sufficiently to ensure a bumper second crop. Yet not all countries were fortunate. The growth performance of the agricultural sector in Pakistan would have been better during 1981/82 but for the drought at the time of wheat sowing and untimely heavy rains during the harvesting period.

The availability of adequate water supplies is a key requirement for agricultural prosperity in the ESCAP region, especially if effective use is to be made of the new high-yielding varieties of cereals. Irrigation projects involving the construction of new irrigation systems, the rehabilitation of existing systems and the provision of adequate terminal facilities, have therefore been a major element in the agricultural infrastructure programmes of many developing ESCAP countries. In China, 48 million ha were under irrigation in 1978. As of the end of 1980 the potential irrigation area of India was 55 million ha, having increased by 4.5 per cent over that of the previous year. Irrigated areas in Pakistan in 1981 totalled 14.3 million ha.

The extent to which irrigation facilities can be provided depends not only upon the annual amount of rainfall but also on the availability of good reservoir sites. In most countries of the region, the latter is the principal limiting factor, as a result of which much of the annual rainfall cannot be used for irrigation purposes. Thus, increasing emphasis is being placed on the rehabilitation of existing systems and the improvement of terminal facilities to supply water directly to individual fields and smaller areas.

Too much water rather than too little is a problem faced perennially by many ESCAP countries. The traditional approach in almost all countries of the region to mitigate flood damage is the construction of dams, levees and improved channels. As of 1980, for example, nearly 12,000 km of dikes had been constructed in India, over 6,000 km in the Republic of Korea, nearly 5,000 km in Bangladesh and over 4,000 km in Pakistan.

It is increasingly realized, however, that the provision of advance, timely and effective warning of impending floods could also be useful in minimizing flood losses. Consequently, a number of countries in the region have installed flood warning systems. There is a growing appreciation that a comprehensive approach to flood loss prevention and management is necessary, comprising not only structural systems such as those mentioned above, but also appropriate watershed management. This would include not only longer-run programmes such as afforestation to reduce erosion and the rate of run-off but also palliative measures to mitigate the consequences of flooding, such as flood-proofing of houses, contingency plans for the movement of affected populations from endangered areas and their involvement in flood fighting. Such a comprehensive approach, however, would require a far wider range of data than is yet collected by developing ESCAP countries on a systematic basis, including assessments of direct and indirect flood damage which would be needed for flood risk evaluation.

much of the increase occurring in China, India and Thailand due to favourable weather conditions and the extension of sugar area under cultivation. Other regional producers, including Fiji, Indonesia, Pakistan and the Philippines, also achieved output increases in 1981, although continued low prices of raw sugar in the world market were likely to exert a restrictive effect on further growth.

Cassava production increased sharply in the region in 1981. In Thailand, where it nearly doubled between 1979 and 1981, it was expected to decline by about 4.5 per cent in 1982 partly because of inadequate rainfall but also because of reduced demand from member countries of the European Economic Community. Nor was any improvement in cassava output expected in 1982 in such other major producing countries as China, India and Indonesia after the preceding high-growth years.

Tea production in 1981 increased modestly by just under 3 per cent largely because output increases of nearly 10 per cent in Sri Lanka and of about 13 per cent in China were accompanied by little change in output levels of the other main tea producers in the region, India and Indonesia. Sri Lankan output was, however, likely to fall by 5 per cent in 1982 because of drought conditions and continuing problems such as poor management in the state-owned plantations and low profit margins for smallholders. An increase in the guaranteed price to smallholders, fertilizer credits and greater factory capacity for smallholder production were among various steps taken by the Government of Sri Lanka to

Box I.6 Problems of food security[a]

Although the production of food, particularly foodgrains, increased in the developing ESCAP countries during 1981, many countries in the region did not attain self-sufficiency and thus continued to resort to imports. All told, about $US9,679 million worth of cereals were imported into the region during 1981, an increase of 11.8 per cent over the previous year. Despite this increase in expenditure on cereals imports, the quantity of cereals imported into the region was 11.1 per cent below the level of 1980. The reduction in the quantity imported was not simply a reflection of reduced requirements but was also a result of severe balance of payments constraints arising out of the terms of trade deterioration, which centred on price movements of major agricultural commodities imported into and exported out of the region. While prices of most agricultural export commodities declined during 1981 by between 10 and 40 per cent, prices of major cereals imports increased by 3-11 per cent.[b]

Some developing ESCAP countries succeeded in 1981 in achieving self-sufficiency in the production of specific foodgrains. Indonesia, the Philippines and the Republic of Korea reached near self-sufficiency in rice, while Pakistan accomplished the same objective with respect to wheat. Rice output in Malaysia in 1981 met 78.5 per cent of domestic requirements, and this self-sufficiency ratio was expected to reach 79.7 per cent in 1982. Despite these achievements pockets of food deficits remain in some countries, with levels of consumption, especially in terms of nutrition, much lower than the minima recommended by the Food and Agriculture Organization of the United Nations and the World Health Organization. Also, self-sufficiency in foodgrains, among other crops, remained heavily dependent on the vagaries of the weather in nearly all countries of the region.

Though some countries of the region reduced substantially their import dependence on cereals, other countries became more import-dependent. India increased its wheat imports from 52,000 to 780,000 metric tons in 1981 to build up its buffer grain stock, which had run down sharply during 1980-1981. Thailand, the region's major rice-exporting country, increased its imports of other cereals by 8.7 per cent in 1981. Modest percentage increases in cereals imports were also recorded by Fiji, Malaysia, Papua New Guinea, the Philippines, the Republic of Korea and Viet Nam.

The carry-over of cereals stocks in many developing ESCAP countries declined rapidly during 1981.[c] Stocks declined by 11.4 per cent in China, 32.2 per cent in India, 14.3 per cent in the Philippines and 20 per cent in Thailand. Government stocks in Bangladesh were maintained at the 1980 level of 1.2 million metric tons. In Indonesia, government stocks increased by 36.3 per cent to reach an estimated 1.5 million metric tons. Stocks in the Republic of Korea, which had run down by 34.4 per cent during 1980, were fully restored in 1981, reaching 2.3 million metric tons.

Cereals play a dominant role in supplying calories in the diet of most people in the ESCAP region. According to FAO estimates,[d] the supply of calories, protein and fat per capita was higher by 10.4, 10.8 and 24 per cent, respectively, in the ASEAN countries during 1978-1980 relative to 1969-1971. The corresponding figures for countries in south Asia were -2.8, -2.8 and -5.9 per cent, respectively. The per capita supply increased during that period, though by lesser amounts than in south-east Asia, in China, Iran, Kiribati, Papua New Guinea, the Republic of Korea, Samoa and Tonga.

[a] For further details see "Food supply and distribution in Asia and the Pacific: Medium-term outlook and regional co-operation" (E/ESCAP/246), 1 February 1982.

[b] World Bank, *World Bank Annual Report 1982* (Washington, D.C., 1982), p. 29.

[c] Food and Agriculture Organization of the United Nations, *Monthly Bulletin of Statistics*, vol. 5, No. 6 (June 1982).

[d] Based on *FAO Production Yearbook, 1981*, vol. 35 (Rome, 1982), pp. 247-252.

check the expected decline in output.

The developing ESCAP region produced 3.8 million metric tons, 95 per cent of world output, of jute and kenaf in 1981, most of it coming from Bangladesh, China, India and Nepal. Total output fell by 2.5 per cent in 1981 after a fall of 4.8 per cent in 1980. The main reason was continuing depressed world prices which, together with lower procurement prices in Bangladesh and Nepal, encouraged producers to switch to more profitable crops.

Output of oil crops in the region, on the other hand, increased by over 11 per cent in comparison with an increase in world production of about 6 per cent. Much of this increase was due to the sustained growth of output of palm oil in Indonesia and Malaysia, which together account for about two thirds of world production. Palm oil is also important to Papua New Guinea and Solomon Islands, and with the extensive programme of planting undertaken in recent years in Malaysia and elsewhere further increases in palm oil output were expected in 1982.

The output of forestry products in developing ESCAP countries continued to decline in 1981. Poor export demand because of depressed conditions in the housing sector in industrial countries was one reason. Another was the effect of the depletion of forestry resources and the adoption of conservation policies in such countries as the Lao People's Democratic Republic, Malaysia and Thailand. Increased local processing of wood, which was being more widely adopted, continued to shift the export product from the primary sector to the furniture and other wood products manufacturing subsectors.

Developing ESCAP countries account for about 27 per cent of world fisheries output. Performance in 1981 was very uneven. Output in Thailand declined by about 5 per cent because of higher production costs, especially diesel oil, and weak domestic and export demand. In Sri Lanka, however, output continued to expand as a result of measures taken in recent years to build up the fishing industry. In Malaysia also, landings of marine fish increased substantially in 1981 and further improvement was expected in 1982. Canned tunafish exports from Fiji were in 1981 more than double the 1980 output, but falling export prices and the withdrawal of foreign fishing vessels because of lower profit margins seemed likely to result in a much lower catch and export level in 1982. Burma's fish production reached a record 45,000 tons in 1981-1982, of which 25 per cent came from fresh-water fisheries and the balance from marine sources. Fresh-water fisheries are also important to China; output continued to expand during the early 1980s and this helped to offset a decline in marine fish production due to conservation measures introduced to protect the offshore natural resource.

Table I.16 Selected developing ESCAP economies. Average annual rates of growth in industrial output, 1976-1981

(Percentages)

	Gross product (value added)					
	GDP	*Total industry*	*Manufacturing*	*Mining and quarrying*	*Electricity, gas and water*	*Construction*
Bangladesh	5.1	6.7	5.6	–	22.2	6.7
Burma	6.4	8.2	6.5	10.4	17.1	15.8
Fiji	4.0	5.2	7.5	9.5	4.6	1.7
India	3.7	5.3[a]	5.6[a]	2.2[a]	4.9[a]	2.2[a]
Indonesia[a]	6.9	8.6	11.0	4.7	14.1	10.8
Malaysia	8.2	10.9	11.8	6.5	10.5	12.8
Pakistan	5.3	8.0	6.0	8.0	10.2	8.0
Philippines[a]	3.7	8.0	6.5	8.9	9.9	10.6
Rep. of Korea	7.8	11.5	12.2	3.7	13.7	9.7
Singapore	11.6	10.2	11.1	7.3	10.7	7.1
Sri Lanka	5.6	5.9	3.8	11.6	12.4	8.8
Thailand	7.6	10.8	10.0	12.3	11.6	12.8

Sources: National sources.

Note: [a] 1976-1980.

C. INDUSTRY

Industrial output in all developing ESCAP countries has in recent years continued to expand at faster rates than gross domestic product (GDP). Manufacturing has displayed considerable dynamism, especially in east and south-east Asia but also recently in south Asia. Particularly high rates of output growth have been characteristic of the utilities subsector, a trend which reflects the emphasis that Governments throughout the region have given in their development programmes to the provision of industrial infrastructure. Construction too has shown sustained growth in most economies.

Manufacturing, however, remains the dominant element of industrial activity, contributing more than a quarter of GDP in the Philippines, the Republic of Korea and Singapore, about one fifth in Malaysia and Thailand and more than 10 per cent in Burma, Fiji, Pakistan and Sri Lanka. In most of the developing ESCAP countries, construction's share in GDP accounts for more than 5 per cent, while utilities' share is unevenly

Table I.17 Selected developing ESCAP countries. Growth of volume of industrial production, 1976-1982

(Percentages)

	1976-1979	1980	1981	1982[a] First quarter	1982[a] First half
Bangladesh					
Total industry	8.1	0.4	8.3	-3.1	...
Manufacturing	7.9	–	8.1	-3.2	-5.8
Mining	22.7	9.7	6.5	47.6	...
Utilities	12.6	10.9	13.1	–	...
India					
Total industry	5.8	0.8	9.5	6.4	6.3
Manufacturing	5.8	0.8	7.9	5.8	5.6
Mining	3.8	-2.6	17.7	10.3	11.1
Utilities	8.7	2.2	12.0	6.5	5.8
Indonesia					
Total industry	...	...	...	...	...
Manufacturing	12.2	22.8	9.5	4.4	...
Mining	5.2	–	1.7	-9.0	...
Malaysia					
Total industry	10.5	6.4	3.2	-3.9	-0.9
Manufacturing	12.2	6.3	3.0	-5.4	-1.8
Mining	-0.4	-2.0	-2.1	-3.3	-2.2
Utilities	10.9	9.9	6.6	4.2	3.8
Pakistan					
Total industry	...	...	...	...	...
Manufacturing	5.6	11.3	11.5	13.6	...
Philippines					
Total industry	6.4	4.7	4.7	...	...
Manufacturing	6.2	3.1	3.4	...	...
Mining	8.8	10.1	1.8	...	...
Utilities	9.0	9.9	5.8	...	...
Rep. of Korea					
Total industry	21.1	-1.9	10.5	5.2	3.8
Manufacturing	22.0	-1.8	10.6	5.0	4.1
Mining	2.9	-0.9	7.2	-0.9	-6.0
Utilities	15.8	4.4	8.0	4.2	5.1
Singapore					
Total industry	...	11.9	10.0	...	...
Manufacturing	12.0	12.7	9.6	2.7	-1.4
Mining	...	7.4	27.9	...	11.8
Utilities	...	7.7	7.4	...	5.6
Sri Lanka					
Total industry	...	2.1	5.4	...	...
Manufacturing	...	0.8	5.2	...	...
Mining		4.9	4.2	...	...
Utilities	9.1	11.0	-3.0	...	...
Thailand					
Total industry	...	5.0	9.0	...	...
Manufacturing	...	4.8	8.7	...	...
Mining	...	5.4	-3.8	...	...
Utilities	...	7.4	7.9	...	...

Sources: United Nations, *Monthly Bulletin of Statistics*, November 1982, and national sources.

Note: [a] Compared to the corresponding period in 1981.

distributed – about 3 per cent in Pakistan, the Republic of Korea and Singapore, 2 per cent in Thailand and less than 1 per cent in most of the other countries. Mining and quarrying contributes almost 10 per cent of GDP in Indonesia, and around 3 per cent in Malaysia, the Philippines and Sri Lanka.

Industrial performance in 1980 and 1981 was erratic with considerable differences in rates of growth among subsectors and countries. A major disturbing factor was the substantial decline in output of the extractive sector in 1980 and 1981 because of the disruption of oil production in Iran and the levelling off of output in Burma and Indonesia. Moreover, output of tin in Malaysia and Thailand, two of the major world producers, declined in response to depressed world market conditions, though a small increase in output was recorded in Indonesia in 1981 and a further increase of about 3 per cent was estimated for 1982. Weak international demand and depressed prices led to a substantial cut in copper production in the Philippines in 1981. Meanwhile, copper production in Papua New Guinea recovered from the 1980 depressed level mainly because of a temporary rise in the ore grade at Panguna Mine.

Continued strong growth was experienced in the utilities sector in 1980 and 1981 in the production of gas, electricity and water supplies. However, the small share of this component in the industrial sector as a whole meant that its influence in shaping the overall regional industrial growth trend was weak.

After a poor performance in 1980, partly attributable to the stagnation of output in India and the Republic of Korea, manufacturing output in the region recovered to a strong growth rate in 1981. The recovery of Indian manufacturing production in 1981

was due to improved energy supplies and transport, constraints on which had been a serious impediment to industrial output in 1980 and the early part of 1981. Higher rates of manufacturing output later in 1981 and into 1982 were fairly general with the exception of the textile industry, in which industrial troubles persisted. This problem, as well as reduced demand for the output of the capital goods and automotive industries and hence steel, was expected to have a restraining impact on manufacturing output in 1982.

The manufacturing sector in Pakistan continued to enjoy sustained growth during 1981/82, with large-scale manufacturing growing at 14 per cent and small units at 7.3 per cent. These trends were associated with substantial increases in output of cotton yarn and cloth, jute goods, sugar and import substitution items such as steel, fertilizer and cement.

Bangladesh and Sri Lanka also attained appreciable acceleration in their industrial growth in 1981. Preliminary estimates suggest that in Sri Lanka industrial production will increase at an even faster pace in 1982. Availability of power was a major factor behind the improved performance in these years, with the output of textiles, wearing apparel and leather products being most prominent. Exports of garments almost doubled in value in the first half of 1982 compared with the same period in 1981. Higher output levels were also recorded for petroleum products (which accounted for half the value of public sector industrial production), chemicals, coal, rubber and plastic products. However, declines were registered in the output of cement, timber, steel, oils and fats, ceramics and fertilizer.

Industrial output in Bangladesh increased by 8.3 per cent in 1980/81 but the rate of growth was expected to fall to less than 5 per cent in 1981/82, and further deceleration is expected in 1982/83. A number of industries (including steel and engineering, paper and newsprint and edible oil) continued to suffer from low capacity utilization, while many agro-processing industries (including jute goods, sugar and cigarettes) were handicapped by unstable raw material supplies. Furthermore, the pattern of industrial investment in both the public and private sectors continued to be oriented towards the domestic market, despite the fact that domestic demand persisted in growing at a slow pace. Continued recession in the global economy depressed demand for Bangladesh's limited range of export products and sharply reduced earnings. Generally, the import substitution bias in industrial investment as well as lack of adequate incentives for exports reduced the prospects for industrial growth based on external markets.

The capacity utilization ratio improved in Burma from 67 per cent in 1977/78 to 74 per cent in 1981/82, leading to substantial increases in output of such major industrial branches as processed food and beverages, clothing, personal goods, household goods, electrical goods and miscellaneous industrial goods. As a consequence of the general improvement in industrial efficiency, net output of the processing and manufacturing sector increased by 9 per cent in 1981/82. The annual plan target for 1982/83 was set at 7.2 per cent.

Singapore and Thailand retained very rapid industrial output growth rates in 1981, but that trend faltered towards the end of the year and through the first half of 1982 under the impact of weakened external demand. The main growth industries of 1981 in Singapore were ship repairing and oil rig construction, petroleum refining and industrial and metals engineering, but growth in the electrical and electronics industry was adversely affected in the second half of the year by the intensified global recession. The textiles, garments and sawn timber industries also remained depressed and suffered further production declines in the face of sluggish export demand and growing import restrictions imposed by major industrial countries. Indeed, manufacturing activity declined in the second quarter of 1982 by 5 per cent, the first negative quarterly growth rate for the sector in six years, and this development was accompanied by sharp falls in textiles, garments, sawn timber and electrical and electronics production.

Manufacturing production in Thailand registered an increase of nearly 9 per cent in 1981 associated with high rates of growth in agricultural and food processing industries, such as canned fruit and canned seafood. Among these products, sugar output alone rose by over 50 per cent but with lower sugar prices in 1982 a fall in output was expected to ensue. The automobile assembly and tyre industries also recorded fairly high growth due to continued expansion in the transportation sector. Other industries which recorded high growth comprised petroleum products, paper products, gems and jewellery, cloth and garments, furniture and wood, leather and plastic ware. However, for 1982, a deceleration to 6.5 per cent growth in manufacturing output was foreseen.

Malaysia and the Philippines, however, registered a considerable slowing down in manufacturing activity in 1981. In the Philippines favourable growth in output of electrical machinery, footwear and wearing apparel and miscellaneous manufacture in 1981 was offset by substantial falls in petroleum products, basic metals and metal

and non-metallic mineral products. Manufacturing production in Malaysia increased by 3.6 per cent in 1981 compared with a growth rate of 6.3 per cent in 1980. Preliminary estimates indicate that manufacturing production declined by 1.8 per cent in the first half of 1982, though for the year as a whole it was expected to show an increase of about 2 per cent. The slow-down in the growth of manufacturing was largely attributed to the decline in production of textiles resulting from weak demand and increased protectionism in the major industrial economies and stiff competition from such other textile producers as Hong Kong and the Republic of Korea. Industries producing agricultural products, construction materials, electrical machinery and electronic products were expected to be the main contributors to the growth of production in the manufacturing sector in 1982.

The Republic of Korea achieved an estimated rate of growth of around 10 per cent for both industry as a whole and in the manufacturing subsector in 1981. The impetus to growth in manufacturing came largely from textile exports. Yet, as in the other export-led countries of east and south-east Asia, the prospects of the textile industry for 1982 seemed gloomy due to international market difficulties. The growth of other manufacturing industries in 1982 was also projected to decline in the

Box I.7 Mining and minerals production

The decline in world demand and prices for metals and mineral ores during 1981-1982 had, with a few exceptions, less significance for the developing ESCAP countries than for those in other regions. This is because metals and mineral ores do not constitute a large share of total industrial production or exports in most of the region. Papua New Guinea is the only country in which metals constitute a significant share – ordinarily 45 to 50 per cent – of total exports. Though tin is important to Indonesia, Malaysia and Thailand, its contribution to these countries' export earnings is much less, standing at under 10 per cent.

By far the most important producers of iron ore among the developing ESCAP countries are China and India; minor producers include Indonesia, Malaysia, the Philippines and the Republic of Korea. China's output in 1981 is estimated to have been 70 million tons and that of India 41 million tons, with the smaller producers accounting for a total of about 1 million tons.[a] Much of China's and India's output was used in domestic iron and steel production, though for India exports of iron ore are of significance.

As with iron ore, China and India are the principal producers of manganese ore, with production reaching 1.7 and 1.8 million tons in these countries, respectively, in 1981. India's exports of manganese have fallen sharply in recent years mainly because of an embargo on the export of high-grade ore and export ceilings on other grades imposed to ensure adequate supplies for the domestic iron and steel using industries.

Among the non-ferrous ores and metals the most important is tin, with three countries of the region, Indonesia, Malaysia and Thailand, responsible for over two thirds of world supplies. Production of tin concentrates by Malaysia, the world's leading producer, fell to 60,000 tons in 1981 from 61,000 tons in 1980 and 63,000 tons in 1979. At the same time, the number of operating mines decreased by 24 per cent from 936 at the end of 1978 to 710 at the end of 1981, mainly because of the closing of small, uneconomic enterprises in the gravel pump sector. In Thailand, output of tin concentrates fell by about 6 per cent, from 46,000 to 43,000 tons, during 1979-1981. Production of tin concentrates by Indonesia, to the contrary, rose by 9 per cent over the same period to a record level of 35,200 tons, with the offshore sector making an increasingly important contribution to total output. China is also a producer of tin, though exports of the metal, estimated at 5,000 tons in 1981, are much lower than those from the major producing countries of south-east Asia.

The principal producers of copper among the developing ESCAP countries are Papua New Guinea and the Philippines, with China, India, Indonesia and Malaysia making smaller contributions. In the Philippines, which is responsible for nearly half of total concentrate production in the region, although output increased in 1981 to 305,000 tons of contained metal, the value of production declined due to the drastic fall in world copper prices. In Papua New Guinea, output of concentrates containing 165,000 tons of metal was recorded in 1981, an increase of 12 per cent over that produced in 1980. Sales revenue, however, declined by about the same percentage because of lower world prices. New ball mills were planned to commence operation in 1982 and 1983 with the aim of increasing production in the face of falling ore grade. Development work also continued in 1981 and 1982 on the Ok Tedi mine, but copper production there was not expected to commence until 1984.

The developing ESCAP region is the most important source of world supplies of tungsten, with total tungsten-in-concentrates production of about 28,000 tons annually. China accounts for about half of this output in the form of wolframite. Other main producers in the region are the Republic of Korea, with production of 2,500 tons in 1981, and Thailand. In the latter country, however, output declined sharply from 6,200 tons of wolframite and scheelite in 1978 to only 2,300 tons in 1981. World prices for tungsten, which are affected not only by industrial demand but also by United States stockpile operations, remained fairly steady through most of 1981, but fell sharply at the end of the year to about 13 per cent below the average for 1980 because of poor demand.

The main bauxite producers among the developing countries of the

[a] *Mining Annual Review* (London, Mining Journal, 1982), p. 61.

depressed export environment.

Exports of textiles and clothing from Hong Kong were 5 per cent lower in real terms during the first half of 1982 as compared with the same period of the previous year. Textile production declined by 13 per cent, and no sign of improvement was to be expected for the remainder of 1982. Moreover, exports of other products especially electronic components and computer parts continued to decline. Overall, the indications were that manufacturing production would be depressed throughout 1982 after having remained more or less static in 1981.

In China, the increased emphasis given to light industries became apparent in 1981. While output of heavy industry decreased by 4.7 per cent compared with 1980, light industry recorded an increase of 14 per cent, with substantial output increases occurring in consumer durables such as household appliances, including television sets, refrigerators and electric fans. In the first half of 1982 light industry continued to grow strongly, rising to 10.7 per cent higher than the level recorded for the same period in 1981. Heavy industry also began to pick up in late 1981, and an increase of 9.5 per cent was achieved in the first half of 1982 compared to the same period of 1981. Marked increases were registered in power generating, mining and metallurgical equipment and other machinery industries.

Mongolia continued its vigorous policy of industrialization during 1981 and 1982. Industry constituted about 45 per cent of GNP as of 1981. In the same year, gross industrial output grew by 10.5 per cent, over-fulfilling the annual plan target by 2.5 per cent. The planned increase for 1982 was 8.9 per cent.

The Lao People's Democratic Republic and Viet Nam continued their policy of laying the foundation for more vigorous industrializations in the future. In the Lao People's Democratic Republic, industry remained at a low level of development and was oriented almost completely to servicing the needs of agriculture. The main activities in the industrial sector were electricity generation and wood processing. The five-year plan (1981-1985) placed strong emphasis on the expansion of the wood-processing industry, which was seen as one of the most promising sectors with respect to growth, employment and foreign exchange earnings.

In sum, prospects for the industrial sectors of the developing ESCAP countries in 1983 are mixed. In those economies where industry is geared primarily to domestic markets, the important factors in sustaining industrial growth will be internal demand conditions, the avoidance of disruption to supplies of essential inputs such as energy and transport, and sustained supplies of agricultural raw materials for processing. Government expenditure policies will also be important not only from their general effects on domestic demand but also in the direct effects of capital expenditure on the rate of growth of the construction sector and in turn the manufacturing industries that supply it. A curtailment of capital development expenditure brought about by the need to reduce budgetary deficits would thus be reflected in a slower rate of growth of industrial output. Growth of those industries processing agricultural products will obviously depend upon the performance of the agricultural sector. Apart from the vagaries of weather conditions, an important influence will be the state of demand and prices in international markets, at least in the case of those primary processing industries the bulk of whose output is exported.

For those economies which over the years have oriented their industrial development strategies towards export markets, the resumption of the high rates of industrial growth of the order enjoyed during the 1970s and 1980-1981 will be critically dependent on economic recovery in the industrialized countries. That also applies to particular industries in other developing ESCAP economies. For many of these industries it is not merely the reversing of the global recession that matters

region are China, India, Indonesia and Malaysia, with China and India also the main producers of primary aluminium. Bauxite production in China is estimated to have been 1.5 million tons in 1979 and to have remained at that level subsequently. In India, production recovered slightly to 1.8 million tons in 1981. But in Indonesia, after a period of rapid output expansion, production declined by about 4 per cent in 1981. Malaysian output fell by nearly 24 per cent in 1981 to just over 700,000 tons, though this was still 80 per cent above the level recorded in 1979.

The ESCAP region is also an important producer of antimony, with China producing an estimated 10,500 tons, or 17 per cent of world output, in 1981. The other main producer in the region is Thailand, where output fell drastically in 1981 to 2,820 tons, less than half the level achieved in 1980. Small quantities of antimony are also produced in Burma and Malaysia.

Other non-ferrous metals of importance include lead and zinc. For both commodities, the bulk of the ore and metal output is produced in China, though Burma, India, the Philippines and the Republic of Korea are also producers of lead. For 1981, annual mine production of zinc in China was estimated at 120,000 tons and in the Republic of Korea at 113,000 tons. For the latter country, this represented an output level some 10 per cent lower than in 1979 as a result of the closure of a number of lead/zinc mines during 1979-1981.

Table I.18 Selected developing ESCAP countries. Growth and GDP share of transport sector, 1975-1982

(Percentages)

	Annual change in real value added				Share in GDP
	1975-1979 (average)	1980	1981	1982[a]	1982[b]
Afghanistan[c]	5.2	...	-6.2	8.9	3.7
Bangladesh[c]	5.5	2.2	1.6	-1.0	6.9
Burma[c]	5.0	9.8	6.2	8.9	5.4
China	...	...	...	...	4.0[d]
Fiji	6.3	-0.2	5.8	6.9	10.6
India[c]	5.9	5.8	...	...	5.9
Indonesia	13.6	10.0	...	...	5.5
Malaysia	11.8	16.4	7.6	6.0	6.4
Nepal[c]	13.5	-5.1	...	...	6.4
Pakistan[c]	5.9	6.7	8.3	6.4	7.1
Philippines	9.7	5.4	4.4	...	5.2
Rep. of Korea	15.9	3.4	8.3	...	8.6
Singapore	13.7	12.6	13.0	...	18.5
Sri Lanka	3.4	7.1	6.5	6.2	9.5
Thailand	7.9	6.5	7.9	7.2	6.5

Sources: National sources.

Notes: [a] Forecast. [b] In some cases 1980 or 1981. [c] Fiscal year. [d] Share of net material product.

but the extent to which the forces of protectionism can be held in check, especially as regards products such as textiles in which the developing countries of the region have demonstrated their comparative advantage.

D. TRANSPORT

The transport sector is relatively small in most developing ESCAP countries, normally contributing between 5 and 10 per cent of gross domestic product and with a growth rate in recent years tending to be slightly more rapid than the growth of output generally.

1. Shipping

As a result of the stagnation in world trade, the volume of world seaborne trade declined by 3 per cent in 1980 and by a further nearly 5 per cent in 1981. One consequence has been an increase in the number of ships laid up or scrapped. About 11 per cent of the world merchant fleet, a total of some 1,300 ships of 76 million deadweight tons (dwt), was laid up as of November 1982, an increase over 1981 of more than 2.5 times in terms of number of vessels and 3.5 times in terms of tonnage. Furthermore, in 1981 alone, vessels totalling 15.6 million dwt were broken up or lost, the majority comprising tankers and combined carriers. One beneficial side-effect of this for some developing ESCAP countries was an increase in shipbreaking business. In 1981, a majority of some 40 VLCCs (very large crude carriers), amounting to about 9 million dwt scheduled for scrapping, went to Asian shipbreakers.

Though world seaborne trade has declined in recent years, the developing ESCAP countries have increased their share of seaborne cargo transport, especially in the dry cargo trade. Their share of world cargo handled is currently about 10 per cent of the dry cargo trade and 6 per cent of the oil trade, while their shares of the respective world fleets are around 9 and 4 per cent. The fleets of developing ESCAP countries increased by 6 per cent in 1979/80 and by 9 per cent in 1980/81, the aggregate tonnage increase being nearly 5 million gross registered tons (grt) over the two-year period. China, the Republic of Korea, Hong Kong and the Philippines, in descending order, had the largest fleet expansion rates. Many national fleets were increased specifically to carry a larger proportion of their countries' cargo. Despite this rapid growth, the developing countries in the region remain large net importers of shipping services.

The depressed shipping market during 1980-1982 hit tramp and tanker owners in the region hardest. Despite lower operating costs, many owners encountered great difficulties in maintaining their operations, particularly as charters expired. The freight tariff structure was also weakened through keener competition arising from overcapacity.

The weakening financial status of shipping companies reduced their ability to renew and develop their fleets, and consequently their competitive power. Some Governments in the region therefore introduced or were considering assistance measures to the shipping industry. Thailand, for instance, launched a five-year promotional plan for its merchant marine industry, while easier access to soft-loan facilities for fleet modernization and expansion was proposed by the Indian National Shipowners' Association.

2. Port developments

High interest rates and continuing world-wide recessionary conditions in the early 1980s hindered essential port expansion and construction in some of the main regional ports following years of rapid growth in vessel calls and cargo volume. Based on capital development plans of 27 regional ports, it was estimated that the

financial requirement for port developments over the next five years would be some $US2.5 billion. India planned to spend during 1981-1985 an estimated $US700 million for this purpose. Singapore in 1981 committed $US406 million for short-term improvements of the Port of Singapore, of which $US288 million was earmarked for port development and the balance for the purchase of mechanical equipment. Faced with an upsurge in container traffic, the Government of Sri Lanka approved a $US130 million port expansion project aided by a Japanese loan. Indonesia planned to invest an estimated $US100 million in improving the ports of Surabaya, Belawan and Tunjung Priok.

International funding was made available in the early 1980s for a number of port development projects. Thailand, for instance, received a $US47 million World Bank loan for improvements of the Bangkok and Sattahip ports and a $US71.4 million Asian Development Bank loan for developing the Songkhla and Phuket ports. Fiji received a $US11 million Asian Development Bank loan for upgrading the port of Suva, while Papua New Guinea was to receive $US20 million from the same source for the foreign exchange component of the port of Lae's planned expansion.

Continued development and expansion of container facilities was expected to feature significantly in port development plans in the region. Containerized transport continued to hold large potential for growth, as indicated in the widespread increase in container traffic in terms of numbers of boxes and cargo volume. Of particular significance was the fact that China opened its first container port in late 1981, with three additional berths in process of construction.

3. Road and rail transport

Railways and roads together account for the bulk of internal transportation of goods and people in most of the developing ESCAP region. Of the two modes, road transport predominates except in a few countries (for instance, China and India) where rail transport accounts for over half of total freight and passenger traffic on land. Construction, surfacing and other road improvements have absorbed a majority of public investment in the transport sector. During 1970-1980, road networks expanded at annual rates of up to 10 per cent and paved roads up to 15 per cent. Road facilities, though, remain inadequate with less than 2 metres of paved road per person and a road density one tenth of that in European countries. Furthermore, only about half the rural population in developing ESCAP countries have access to motorized transport.

Rail transport is becoming more important in several countries, including Bangladesh, Burma, Indonesia, Malaysia and Thailand. Because past development efforts focused on road systems and railways were neglected, investments in the railway networks of the region have in the 1980s concentrated on rehabilitating and modernizing existing systems. Pakistan, for example, included in its annual development plan of 1982/83 an accelerated programme for rehabilitation of railway track and signalling systems and for improvements in the locomotive fleet. The development of road infrastructure was mainly concerned with the construction of rural roads as part of more general programmes of rural development and the associated need to improve market access for agricultural products.

Traffic growth in the railway system has in recent years been mainly in the passenger sector. As a result, efforts have been directed to raising freight volume. In India, for instance, goods traffic by rail increased by 13 per cent in 1981/82

Table I.19 Developing ESCAP region. Maritime fleets, 1979-1981[a]

	1979		*1980*		*1981*		*Share of world tonnage*		
	Number of vessels	*Tonnage (million grt)*	*Number of vessels*	*Tonnage (million grt)*	*Number of vessels*	*Tonnage (million grt)*	*1979*	*1980*	*1981* (percentages)
Oil and other tankers	659	7.79	708	7.88	748	8.12	4.5	4.5	4.7
Bulk/oil carriers	33	1.82	35	1.81	36	1.81	6.9	6.9	7.0
Ore and bulk carriers	403	7.42	430	8.03	500	9.90	9.1	9.6	11.4
Fully cellular vessels	68	0.60	84	1.06	97	1.23	6.0	9.4	10.0
Other general cargo vessels	2 936	11.71	3 032	12.30	3 195	12.85	14.6	15.1	16.2
Total (including other types)	6 847	31.90	7 360	33.73	7 866	36.71	7.7	8.0	8.7

Source: "Review of developments in shipping, 1980-1982" (E/ESCAP/STC.6/1), 13 October 1982, p. 14, table 6.

Note: [a] As of 1 July.

after declining for three consecutive years. The high price elasticity of demand for railway traffic has compelled railways administrations constantly to seek to control costs and keep prices low. Hence, electrification has been undertaken to substitute for petroleum-based fuel and to raise the cost efficiency of rail transport. Exemplifying this development has been China's first electrified double-track line linking Taiyuan and Shijiazhuang, which came into operation in September 1981 to transport coal out of Shanxi province. The existing electrified track length of railways is quite low, ranging from 2 per cent of total route length in Indonesia to 14 per cent in the Republic of Korea. Burma has sought to improve its rail transport by better utilization of new diesel locomotives, carriages and wagons. These efforts succeeded in increasing freight ton miles by rail by 11 per cent in 1981/82. By contrast, as a result of keen competition from private road hauliers and a preference for lorry and van services,

Box I.8 Inland waterways

Inland waterways are an especially appropriate transport mode for bulk commodities such as ores, coal, fertilizer, grain and timber. In some countries of the region, inland waterways systems account for a large portion of goods and passenger transportation. In China, for instance, one fifth of total cargo is transported via inland waterways. In Bangladesh, inland waterways transport accounts for about 65 per cent of total cargo and 40 per cent of passenger traffic. It is also important in Thailand, which has initiated with the assistance of the World Bank a $US53 million three-year programme to improve its main inland waterways system.

In many other countries of the region, however, there has been a decline in the utilization of inland waterways transport both because of competition from more flexible road transport and because of development of rivers for power and irrigation. The use of Pakistan's Indus River as a waterway, for example, has declined dramatically because dams and barrages constructed across the river for agricultural purposes have redirected traffic to alternative transport modes. With the introduction of lorries, Sri Lanka's inland waterways system has hardly been used for transport purposes since the early 1950s. In the Philippines, while most of the coastal towns and cities, including Manila, developed in river deltas, reflecting the former dominant role of river transport, inland waterways are now only used in areas lacking roads. The available information indicates that more attention could be given to exploiting the potential of inland waterways as an alternative mode of transportation in countries where the geographical terrain permits its development; such revived attention would assist in taking the pressure off road use and would reduce transport costs for bulk goods.

Box I.9 Tourism

Over the course of the 1970s the developing ESCAP region continued to be the world's most rapidly growing travel destination for tourism. Active promotion of tourism by a number of countries in the region, greater interest in the cultures of Asia and the Pacific and improved air travel facilities were among the factors that contributed to the increase in the flow of tourists. By 1981, tourists to developing ESCAP countries numbered 16.2 million per year, accounting for 5.5 per cent of the world total, while the region's tourism receipts of $US7.4 billion accounted for 6.9 per cent of total world tourist expenditure. Reflecting the growth in tourist travel in developing ESCAP countries since 1971 was the fivefold increase in passenger air transport, which reached nearly 70 billion passenger-kilometres in 1980.

Intraregional tourism made up roughly half the visitor arrivals to developing ESCAP countries. Particularly impressive growth rates in tourism were recorded by some south-east Asian countries which had pursued a more active promotion programme to diversify their economies, whereas the south Asia subregion with its vast area and tourism resources maintained its 12 per cent share in the region's total number of tourists. A few south Asian countries attempted to stimulate growth in the tourism sector by reducing the cost of air travel and encouraging package tour arrangements through liberalization of civil aviation policies.

The main factors influencing international tourist flows have been identified as international travel costs, disposable income of tourists and inter-currency exchange rates. In comparison with other economic and social sectors, resource allocation by Governments to tourism-related activities has generally been meagre. While the tourist industry is largely left to the private sector in south-east and east Asia, Governments play a more decisive role in a number of south Asian countries in taking over the responsibility for tourist accommodation and transportation.

For many developing countries of the region, acquisition of foreign exchange is a predominant reason for the conscious effort to promote tourism. The ratio of travel credits to total merchandise exports in 1980 was outstanding in Nepal (70 per cent) and Fiji (40.9 per cent) and substantial in a number of countries such as India (10.6 per cent), Thailand (10.2 per cent), Sri Lanka (9.3 per cent) and Singapore (7.3 per cent). However, very few countries have attempted to quantify the net foreign exchange earnings of tourism, taking into account the importation of necessary tourism components, or to assess the net economic and social benefits accruing from this industry. The impact of tourism upon the traditional social fabric and the physical environment of the host communities has caused concern in many countries, but several have attempted to control such effects rather than restrict the flow of tourists. An important ambiguity, therefore, remains as to whether or to what extent tourism yields net benefits to the host country. the developing ESCAP countries must resolve this issue as its importance grows with the increasing infiltration of tourism into their domestic economic and social life.

Sri Lanka's rail transport recorded declines in both goods and passenger traffic during the first half of 1982. To meet this competition, containerized rail transport was introduced in 1982.

Almost all developing ESCAP countries encounter three major problems in transport development. First, there is the general problem of shortages of finance required for upgrading and maintaining transport capital in the face of other demands on resources. Secondly, there is a dearth of skilled and experienced personnel for management and planning of integrated transport systems. The Philippines and the Republic of Korea are among the few which have attempted to prepare master plans for the transport sector which not only cover all modes of transportation but also their interaction with other sectors in the economy. Thirdly, there is a need for greater knowledge of the comparative costs (including the relative energy-efficiency) of alternative modes of transport and multimodal commodity transport chains. Such knowledge is required to guide the formulation of comprehensive modal restructuring programmes, to secure adjustments in pricing policies of public transport to reflect relative resource costs of different modes of transportation, and to generate the financial resources needed for modernization of the developing ESCAP region's transport systems.

E. PUBLIC FINANCE

The high rates of growth in public revenue and expenditure which most developing ESCAP countries achieved in 1980 were not generally sustained in 1981. Both tax and non-tax revenue growth were affected by the downturn in domestic economic activity in the wake of the fall-off in world demand for the region's exports, and many countries were obliged to employ the full range of fiscal and monetary policies to reduce budget deficits and inflation, and to check external reserves losses. In particular, many developing ESCAP countries were forced to introduce steep increases in bank lending rates plus other restrictive credit measures.

1. Government revenue

Declining rates of growth in government receipts were experienced by most developing ESCAP countries in 1981 and also in 1982, despite the imposition of a variety of new revenue-raising measures. The magnitudes of such declines were substantial in the large majority of cases, particularly for 1981.

Table I.20 Selected developing ESCAP economies. Annual growth rate of public revenue and expenditure, 1979-1982
(Percentages)

	Total revenue				*Total expenditure*			
	1979	*1980*	*1981[a]*	*1982[b]*	*1979*	*1980*	*1981[a]*	*1982[b]*
Bangladesh[c]	21.1	17.2	28.1	24.1	21.3	35.8	5.0	21.1
Burma[d e]	14.7	15.0	12.4	...	14.0	17.7	13.4	...
China	-1.6	-1.6	-1.9	3.8	14.7	-4.8	-10.1	4.1
Fiji	22.8	17.2	11.5	7.6	11.9	16.3	12.6	2.7
Hong Kong	35.0	79.7	15.2	8.8	26.1	42.4	37.8	30.9
India[f]	-8.9	23.8	14.4	12.8	0.8	26.0	9.8	10.0
Indonesia	57.0	52.7	19.4	12.6	52.4	45.1	18.8	12.1
Lao People's Dem. Rep.	153.5	179.2	30.3	...	11.1	179.4	4.2	...
Maldives[f]	54.7	153.0	46.1	4.8	6.7	110.1	0.2	21.9
Malaysia[f]	18.8	32.6	12.6	4.8	20.9	47.6	21.4	4.7
Nepal	14.5	3.7	28.7	20.7	12.9	14.9	17.9	41.3
Pakistan	18.3	34.7	19.2	13.9	25.7	21.6	11.5	14.2
Papua New Guinea[f]	3.6	21.3	12.2	10.3	13.6	14.0	10.2	8.1
Philippines[f]	22.9	17.6	2.9	14.0	13.7	27.8	24.9	7.6
Rep. of Korea	33.9	24.7	30.3	23.6	34.5	27.8	33.6	12.8
Singapore[e]	20.3	29.7	25.1	...	17.0	31.1	23.4	...
Solomon Islands[f]	47.4	20.5	-0.7	...	21.9	20.9	6.4	...
Sri Lanka	8.9	10.5	15.3	19.0	15.0	41.8	2.3	32.6
Thailand[g]	20.7	21.5	17.2	7.9	17.8	32.0	10.0	20.8

Sources: National sources.

Notes: [a] Revised estimate. [b] Estimate. [c] Total revenue including net capital receipts and excluding transfers from food account; total expenditure excluding food account transfers and including net lending. [d] Including public enterprises. [e] Expenditure including development fund and sinking fund accounts. [f] Expenditure including net lending. [g] Including certain non-budgetary accounts and time-lag items.

Several common causal factors behind this revenue trend can be enumerated, although their relative importance necessarily varied from one country to another. These factors include more subdued levels of domestic economic activity, reduced or stagnant merchandise export earnings and import demand, lower growth in local consumption of goods subject to excise duties and poorer performance of public enterprises and other statutory bodies.

In Indonesia and Malaysia, the stabilization of nominal oil prices and a marginal decline in crude oil production, plus reduced earnings from agricultural export commodities, significantly reduced profits tax revenues. The rate of growth of direct taxation in Indonesia fell from 60 per cent in 1980 to 23 per cent in 1981 and to 10 per cent in 1982. For Malaysia the corresponding figures were 46 and 8 per cent, respectively. The persistence of unfavourable external and domestic conditions was expected to lower government revenue growth further in these two countries in 1982. Although production in several sectors, including timber and copra, was less than impressive in Fiji, the impact of adverse external conditions on government revenue and aggregate income growth was partially cushioned by a significant expansion in sugarcane and sugar output and in commercial fisheries.

In Hong Kong, steep increases in government receipts, notably premia from land transactions, helped raise the share of non-tax revenue in total revenue to 54 per cent in 1980 from 40 per cent a year earlier. However, a much softer property market during 1981-1982, together with an appreciable profit squeeze on private and public sector enterprises due to poorer trading conditions as well as a decline in tourism, caused revenue growth to decline substantially to 15 per cent in 1981 and further to an estimated 9 per cent in 1982.

Poorer trading conditions also contributed to the decline in rates of growth of public revenue in India and Pakistan in 1981 and 1982 compared with the high rates of 24 and 35 per cent achieved in 1980. In the latter year, however, revenue received a special boost from determined efforts to widen and deepen the tax base. These included increases in indirect levies, particularly customs and excise/sales duties, adjustments in personal income taxes, improved tax administration and reduction in tax evasion. Another important revenue boost in 1980 was the significant rise in profit and interest transfers from public enterprises following higher prices and charges for their output.

In contrast, considerable revenue growth was recorded in 1981 in certain other developing ESCAP countries, notably Bangladesh, Nepal, the Republic of Korea and Sri Lanka. Revenue mobilization in Bangladesh proceeded at a comparatively rapid pace, averaging almost 19 per cent per year over 1979-1980. The rate jumped to 28 per cent in 1981 principally as a result of large increases in indirect tax revenue (2.9 billion taka) and non-tax receipts (1.6 billion taka). These were, in turn, attributable to increases in excise levies, particularly on cigarettes and natural gas, and customs duties, plus larger receipts of interest and profit transfers from public enterprises.

Nepal was able to restore much of the revenue momentum which had been lost in 1980, when government receipts had risen by less than 4 per cent, compared with 15 per cent in 1979. The revenue shortfall of 1980 was the result of discretionary tax cuts and concessions designed to render the tax structure simpler, more equitable and more logical. These measures resulted in a net revenue loss of NRs 16 million, or 1 per cent of the estimated tax receipts for 1980. In addition, the tax base was eroded by drought-related economic stagnation and special tax relief granted to affected areas. Revenue growth averaged 25 per cent per annum during 1981-1982. The principal measures responsible for this revived fiscal mobilization included higher tax rates, substantial collections of tax arrears, increased land valuation for tax purposes and higher receipts from fees and other charges of public utilities.

Vigorous efforts to raise government revenue in Sri Lanka caused receipts to climb at an average annual rate of just under 10 per cent during 1979-1980. Indirect taxes and non-tax sources accounted for the bulk of an aggregate revenue growth of over 15 per cent in 1981. Increases in excises and customs duties, and charges of public sector enterprises, a doubling of the business turnover tax, and an income tax surcharge more than offset export duty shortfalls arising out of lower commodity prices. These measures were expected to provide further revenue growth in 1982 to compensate for, among other things, stagnant receipts from non-tax sources.

The pace of revenue growth in the Republic of Korea, which had averaged 33 per cent per year over 1976-1979, dipped to 25 per cent in 1980 on account of the recession and the repercussions of a bad harvest. Revenue expansion recovered to 30 per cent in 1981. Higher indirect tax rates as well as more buoyant household demand and steep rises in the retail prices of petroleum products permitted this tax component to provide almost 60 per cent of the total increase in revenue. Increased public enterprise prices and charges permitted non-tax receipts to provide another quarter of the increase.

This revenue source was expected to grow more slowly in 1982. Indirect taxation, the main revenue source, was also expected to grow more slowly in 1982 so that, despite sustained improvements in direct taxation, total revenue growth in 1982 was likely to be about 24 per cent.

2. Government expenditure and deficit financing

Rates of growth of public expenditure declined significantly in most developing ESCAP countries and areas in 1981. Nepal and the Republic of Korea were exceptions to this development. Official outlays in Hong Kong, the Philippines and Singapore were sustained at high, although declining, levels in the same year. Leaving aside the Maldives and Nepal, the increase in government expenditure in south Asia averaged almost 29 per cent in 1980 but less than 9 per cent in 1981. The corresponding figures for south-east and east Asia – excluding the Lao People's Democratic Republic, the Republic of Korea and Singapore. – for the two years were 30 and 17 per cent, respectively. For the developing countries of the South Pacific, the average rates of expenditure growth reached 17 per cent in 1980 but fell to less than 10 per cent in the following year.

In relative terms, and adjusted for inflation, government expenditure in the large majority of developing ESCAP countries can be said to have contributed to the deceleration in the pace of growth in 1981-1982. This restrictive policy stance, necessitated by revenue constraints, was generally achieved at the expense of development spending which, with few exceptions, suffered greater growth rate declines than did current expenditure, which is usually much more difficult to restrain. A qualification must, however, be noted in this connection. Development spending had been rising at very high rates in several countries of the region, averaging approximately 42 per cent per year over 1979-1980 for the group comprising Bangladesh, Burma, Hong Kong, the Republic of Korea, Sri Lanka and the ASEAN countries. Given the various structural and resource constraints on the developing ESCAP economies, such a high rate of public capital formation was financially unsustainable, and thus a retrenchment was to be anticipated irrespective of the recession.

Although cutbacks in the rate of growth of expenditure in 1981 were generally designed to exert a restraining economic influence throughout most of the developing ESCAP region, some notable differences appeared in overall policy emphasis. By and large, the restrictive stance adopted in a number of south Asian and South Pacific economies and, to some extent China, was intended primarily to sustain or restore fiscal balance. Budget deficits, which had expanded in most of these countries during the late 1970s, grew even more rapidly in 1980. Deficit spending in south Asia, for example, rose on average by 23 per cent in 1979 and by a further 48 per cent in 1980. This growing imbalance between revenue and expenditure was substantially reduced in 1981 as a result of the restrictive measures invoked on the expenditure side, associated in some cases with substantial revenue improvements.

Table I.21 Selected developing ESCAP economies. Annual growth rates of development expenditure, 1978-1982

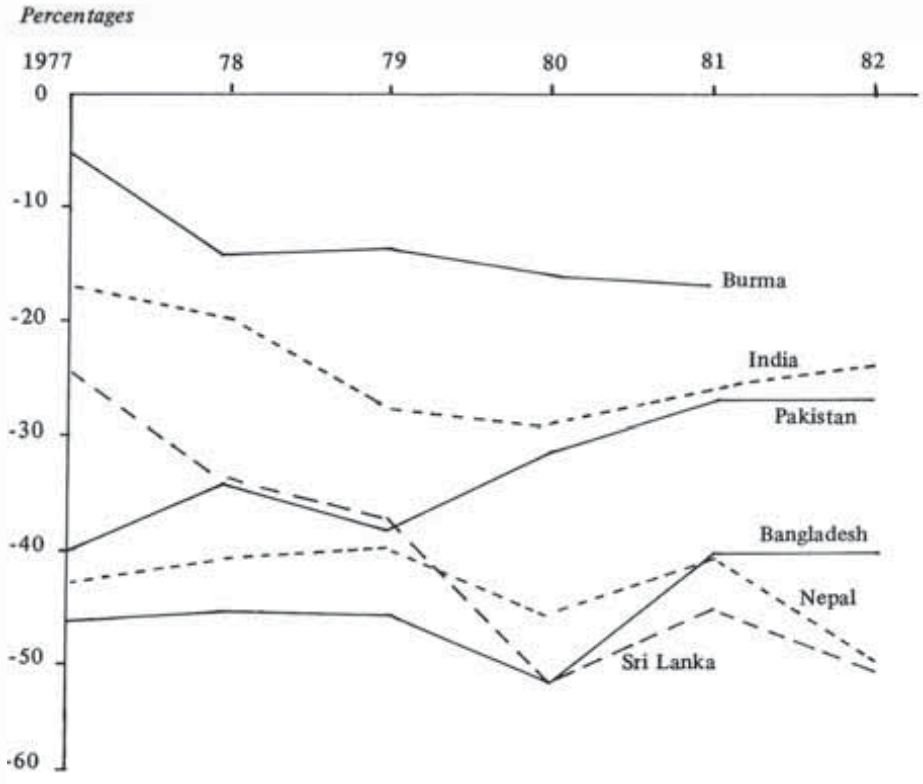
(Percentages)

	1978	*1979*	*1980*	*1981*	*1982*
Bangladesh	20.9	31.5	47.4	1.9	26.4
Burma	50.9	39.8	18.2	1.4	...
China	50.2	-1.8	-21.9	-27.7	18.6
Fiji	0.2	14.9	10.7	39.7	-16.1
Hong Kong	88.1	35.9	56.5	34.3	53.9
India	14.0	12.2	19.0	21.3	9.4
Indonesia	18.5	57.1	47.4	17.3	24.0
Lao People's Dem. Rep.	...	28.4	209.3	13.5	...
Maldives	...	-6.2	146.4	-4.3	...
Malaysia	17.8	12.2	76.6	45.6	26.2
Nepal	20.7	9.5	16.7	18.3	49.2
Pakistan	10.1	18.7	2.9	18.5	7.5
Papua New Guinea	6.6	-8.9	61.1	1.0	61.0
Philippines	40.0	31.4	47.8	55.1	-1.4
Rep. of Korea	26.9	37.2	90.7	19.0	27.0
Singapore	12.7	19.8	56.5	29.2	...
Solomon Islands	74.0	12.7	17.9	12.9	...
Sri Lanka	143.8	43.3	58.2	-3.8	51.6
Thailand	11.8	1.6	37.8	6.0	29.8

Sources: National sources.

By comparison, the developing economies in south-east and east Asia, with the possible exception of Thailand, attempted to generate counter-cyclical momentum within the overall restrictive fiscal position. Public spending in Indonesia, Malaysia, the Philippines and the Republic of Korea grew at relatively high rates during 1980-1981. As a result, government deficits for this group as a whole averaged 20 per cent of total expenditure for this period, compared with about 13 per cent in 1979. Singapore

Figure I.7 Selected developing ESCAP economies. Overall budget balance as a percentage of total expenditure, 1977-1982



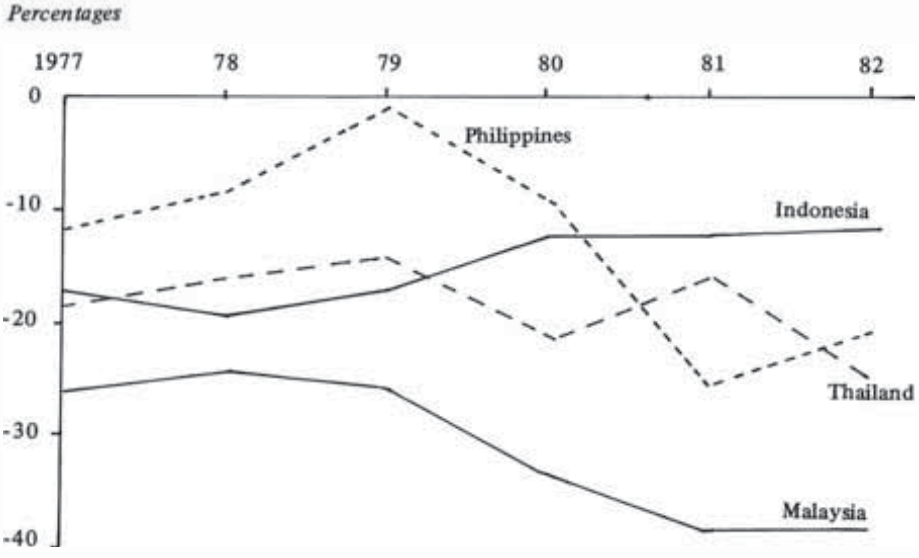
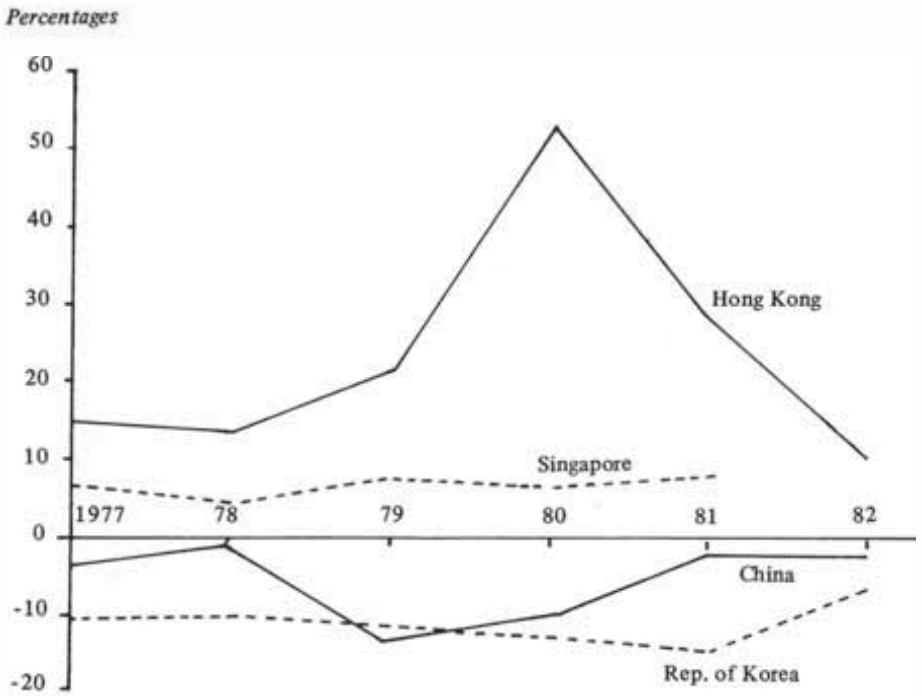
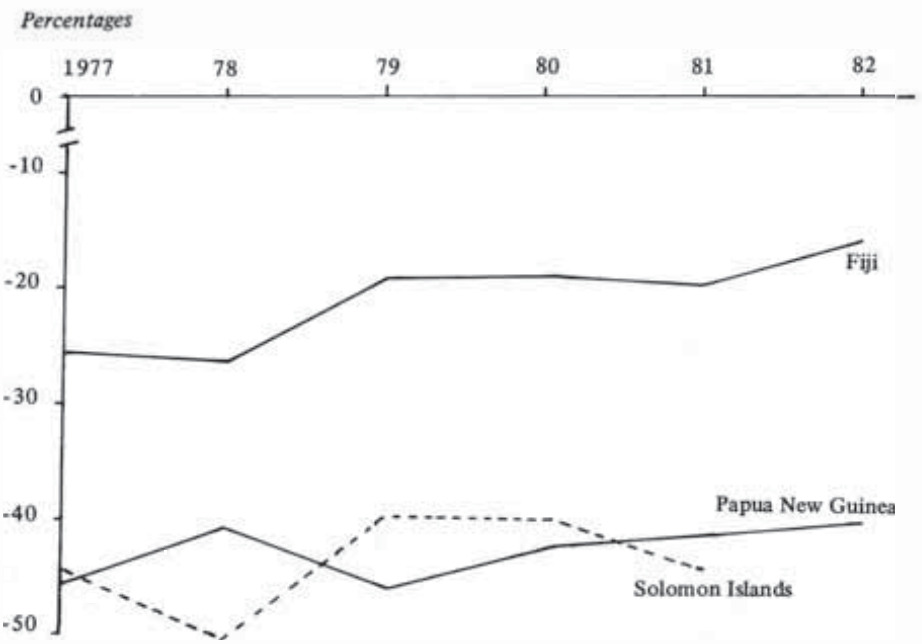


Figure I.7 *(continued)*





Box I.10 Austerity budgets

The largely external origins of the slow-down experienced by the developing ESCAP region in 1981-1982 led to growing awareness, especially in those countries that are highly dependent on export markets, that increased rates of government spending cannot be a sustainable policy response to recession where the causes are of exogenous origin. The alternative response of austerity budgeting was therefore increasingly resorted to.

The switch to austerity budgeting is exemplified by the case of Malaysia. Adverse external economic conditions necessitated major accommodating adjustments in Malaysia's public finances from the middle of the 1982 fiscal year. Reduced export demand had serious adverse effects on both direct and indirect tax revenue. This factor, in conjunction with the provision of new indirect tax concessions for various consumer items and machinery under the 1982 budget, contributed to a rise in total revenue of only about 4 per cent in 1982. This represented a substantial fall from the revenue growth rate of around 13 per cent in 1981 and almost 33 per cent in 1980.

As a result of this poor revenue performance, appropriated government expenditure was revised downward by about 9 per cent from July 1982; and disbursed development spending was expected to be 19 per cent lower than budget estimates after allowing for a shortfall in project implementation. Although current spending was reduced by 7 per cent from the original budget allocation, the revised level still represented an expansion of 18 per cent over the actual 1981 level. In particular, expenditure of direct benefit to lower-income groups – such as petroleum, food and agricultural subsidies – or earmarked for priority projects remained largely unaffected by the austerity measures.

The budget for fiscal year 1983 provides for a revenue growth of 5 per cent, with most of the increment coming from indirect taxation. The overall deficit, at 36 per cent of total expenditure including net lending, is budgeted at about 5 per cent lower than the 1982 level. However, current spending is expected to rise by about 5.5 per cent, or $M894 million. As a result of increased borrowing, debt service charges are projected to grow by $M1,135 million or 41 per cent. Total development spending for 1983 is planned to decline by about 9 per cent on an appropriated basis. Public investment, which accounts for about 70 per cent of the expected level of development expenditure, is to be reduced by 11 per cent in nominal terms or 15 per cent in real terms. Development appropriations for the economic sector have been set 10 per cent lower than the allocation for 1982, while those for social services will fall by 28 per cent.

In a somewhat different situation, Papua New Guinea had been pursuing a counter-cyclical fiscal strategy within a medium-term planning framework since 1978. This policy stance called for a steady growth rate of 3 per cent in government expenditure in real terms over future export cycles. Such a rate was judged to be sustainable from projected internal revenue expansion, Australian aid flows and other foreign capital receipts. However, the inflation of 1980, attributable largely to the impact of the second oil price shock and local food supply problems, was worse than had been projected for the four-year rolling National Public Expenditure Plan (1980-1983). This necessitated the introduction of a mini-budget to cover, among other expenses, inflated costs of public administration and investment. In addition, the export depression since 1981 was more severe and prolonged than expected. Increasing budget deficits, on the one hand, and serious reserve losses, on the other, resulted in a modification and reassessment of the Government's fiscal strategy.

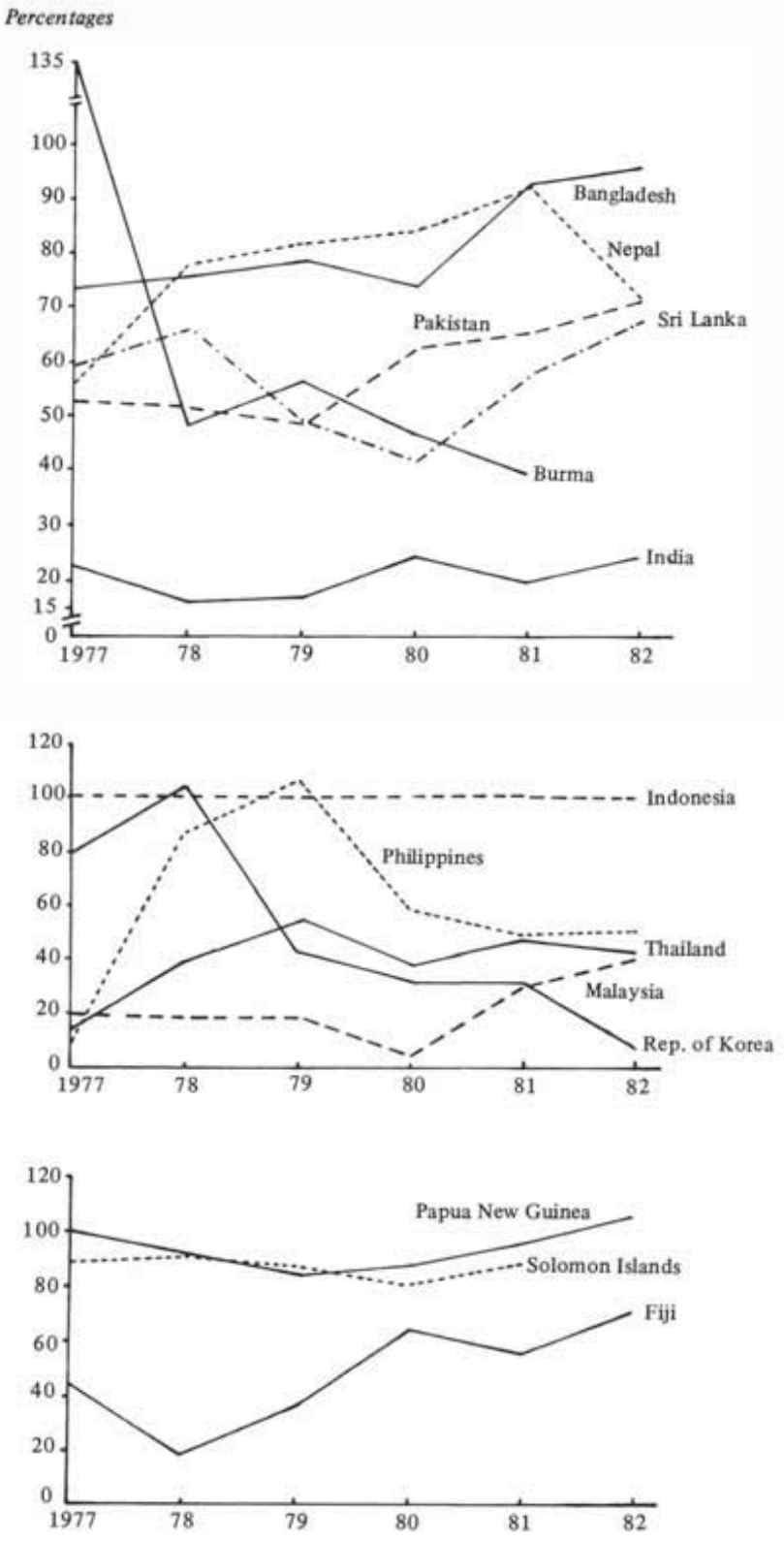
The required adjustments, which were originally expected to extend over two years, were implemented in the 1982 budget. Expenditure, at 712 million kina, represented a reduction of 3.4 per cent in 1982; it was anticipated to fall by another 4 per cent in 1983 (all in mid-1982 prices). It became clear from the second half of 1982, however, that revenue would actually be about 5 per cent lower than budgeted. Planned expenditure was subsequently reduced by a further 4 per cent so as not to enlarge significantly the overall budget deficit.

Most of the revised cutbacks related to capital spending, whose disbursed total, at 16 million kina as at June 1982, had been far below the appropriation of almost 60 million kina. As a matter of fact, public expenditure on capital works and their maintenance remained largely constant in nominal terms over 1980-1982, implying a significant fall in real terms given the rate of inflation of around 9 per cent during 1980 and 1981. However, the budgetary share of such expenditure fell from 15.3 per cent to 12.5 per cent over the same period. The ratio for 1982 was expected to be considerably lower after full implementation of the downward expenditure revisions noted above.

The 1983 budget provides for a fall in internal receipts by 5 per cent in current value and over 11 per cent in real terms. Yields from new revenue measures, at 10.6 million kina, will be equivalent to less than 3 per cent of internal receipts and about 1.3 per cent of appropriated spending. The overall deficit (net of Australian aid), is expected to rise by 16.5 per cent to become equivalent to about 10 per cent of 1983 GDP. Capital spending for 1983 will be 11 per cent lower than the 1982 appropriation; it will thus have fallen by more than 30 per cent in real terms by the end of 1983. Expenditure on both capital and maintenance works will be nominally about 5 per cent lower than the 1982 level. At the same time, an increasing proportion of current outlays is being absorbed by the rising burden of debt services; for instance, interest payments overseas, made more burdensome by the appreciation of the United States dollar, doubled between 1980 and 1982.

The steady erosion in the value of available resources for current expenditure necessitates, among other departmental cuts, an expected retrenchment of some 3,000 public servants during 1983. Total spending is expected to fall by 5 per cent in real terms during 1983. Furthermore, real government expenditure for 1984 would be reduced by another 3 per cent. Thereafter, a public expenditure growth rate of only 1 per cent per year has been judged sustainable in the mid-1980s.

Figure I.8 Selected developing ESCAP economies. Share of external financing in overall deficit, 1977-1982



maintained public expenditure growth at an annual average rate of almost 24 per cent over 1980-1981, much higher than the regional average, even more so when matched with Singapore's low inflation rate; nevertheless, Singapore was able to maintain a budget surplus. Similarly, Hong Kong maintained its budget surplus, though the surplus eroded steadily from 53 per cent of public expenditure during 1980 to about 7 per cent two years later.

Increasingly unfavourable conditions on both the international and domestic fronts impinged significantly on the ability of the south-east and east Asian economies to maintain their counter-cyclical fiscal policy positions in 1982. Revenue constraints and the dangers posed by continued deficit finance forced these countries, except for Hong Kong and Singapore, to reduce the rate of expenditure growth. Government spending thus grew in 1982 by an average of 11.6 per cent, about half the rate of 1981. The ratio of budget deficit to total expenditure in Malaysia was expected to stabilize in 1982, while the ratios in Indonesia, the Philippines and the Republic of Korea fell from an average of 17 per cent in 1981 to 13 per cent.

In a number of countries, including Bangladesh, Indonesia, the Lao People's Democratic Republic, Maldives, Nepal, Papua New Guinea, Samoa, Solomon Islands and Tonga, among others, external sources of finance in the form of loans or grants have for some years covered a large part of the overall budget deficit. In others, such as Fiji, Malaysia, Pakistan and Sri Lanka, external financing has become more prominent since 1980. As the international recession has persisted and deepened, making the acquisition of foreign financing increasingly problematical, these countries' budgetary prospects have become especially clouded.

Though deficit financing by means of foreign grants and loans is generally less inflationary than reliance on domestic debt, it may carry heavy longer-term implications. The high cost of international capital in recent years is, in fact, one reason for the efforts that were made throughout the region in 1982 and the immediately preceding years to slow down the rate of increase in government deficits. Interest payments, for example, tripled in the Republic of Korea and Sri Lanka, and doubled in Burma, Malaysia, Pakistan, Papua New Guinea, the Philippines and Thailand, among other countries, between 1979 and 1982.

A related cause for concern was that the volume of available foreign resources would decline in 1983, especially on concessional terms. This would measurably complicate short-term stabilization efforts as well as long-run structural adjustments in many countries of the region. Furthermore, prospects for substantially higher levels of domestic resource mobilization, through either fiscal or monetary instruments, were by no means promising, especially if the past experience of the majority of developing ESCAP countries was to serve as a guide. Such a concern appeared to be one of the principal reasons behind the 1982 modification of policy stances favouring deficit spending for stabilization in several countries of the region.

Table I.22 Selected developing ESCAP economies. Quarterly changes in consumer prices, 1981-1982

(Percentage change over same quarter of previous year)

	1981				1982	
	Q1	Q2	Q3	Q4	Q1	Q2
Afghanistan	-11.1	11.3	14.7	11.8	...	...
Bangladesh	11.1	14.3	13.2	14.2	15.5	8.9
Burma	-0.3	-3.1	-0.1	4.8	2.9	4.8
Fiji	14.1	10.5	10.6	9.9	8.0	7.7
Hong Kong	12.7	14.6	14.1	15.5	13.1	11.3
India	12.2	13.6	13.6	12.9	10.0	7.0
Indonesia	16.9	13.6	11.0	8.1	10.6	9.1
Iran	25.6	27.7	22.7	21.1	20.4	15.2
Malaysia	8.4	10.9	10.1	9.1	7.5	5.6
Nepal	12.9	12.8	12.3	11.6	9.0	9.6
Pakistan	15.1	14.5	13.5	12.4	10.9	9.6
Papua New Guinea	11.0	8.9	7.1	5.5	4.7	4.5
Philippines	13.8	10.4	12.4	11.8	13.6	14.3
Rep. of Korea	28.6	24.9	24.8	14.9	9.6	6.6
Samoa	32.8	25.8	24.0	20.3	...	...
Singapore	5.6	7.7	9.5	9.8	9.1	4.4
Solomon Islands	16.4	19.8	16.5	13.4	15.1	12.7
Sri Lanka	20.6	17.4	16.3	17.9	15.0	11.8
Thailand	14.9	12.4	11.8	11.6	8.4	5.2
Tonga	21.5	17.3	11.4	10.7	...	...

Sources: International Monetary Fund, *International Financial Statistics*, various issues, and United Nations, *Monthly Bulletin of Statistics*, various issues.

F. PRICES, WAGES AND MONEY SUPPLY

With few exceptions, the rate of increase of consumer prices in the developing ESCAP region accelerated significantly during 1980, remained at a high level into the

first half of 1981, and thereafter abated in many countries. Although the principal causes of this inflationary spurt varied from country to country, several factors of widespread influence can be identified. These include the impact of the second oil price shock and the commodity price boom of 1979-1980; the resurgence of inflation in the major industrialized countries, followed by price increases for imports from these countries; shortfalls of varying magnitudes in foodgrain production in some south Asian economies; the removal or loosening of price controls in certain developing ESCAP countries; and high rates of monetary expansion in many countries of the region.

The pattern of inflation in the region during the early 1980s differed from that of the earlier serious inflationary bout of 1973-1974 in several respects. First, rates of increase in consumer prices were generally much lower than during the earlier crisis. Secondly, differences among countries of the region were much less pronounced, particularly because food shortages played a less important role in 1980-1981. Third, the inflationary spurt over this period extended generally for less than two years as compared with between three and four years for the earlier inflation. These factors imply not only the lesser magnitude of the inflation-generating forces of the early 1980s but also indicate both the improved capacity of policy makers in the region on the basis of their earlier experience to control inflationary pressures and their increased readiness to use the available array of instruments.

The resurgence of inflation throughout much of the developing ESCAP region in 1979 and 1980 called forth a variety of fiscal and monetary responses. These policy measures appear to have been reasonably successful in contributing to lower rates of price increase over much of the region in the second half of 1981 and in 1982. At the same time, however, they also had a restraining impact on domestic economic activity and hence on labour demand and aggregate income growth, particularly in those countries pursuing export-oriented growth strategies.

With some exceptions, inflation rates tended to peak during the second or third quarters of 1981. From then on, though still high in a few ESCAP countries, they receded rapidly. For much of the region a reasonable degree of price stability had been achieved by mid-1982, with annual inflation rates of between 5 and 9 per cent being typical for many countries, including Bangladesh, Burma, Fiji, India, Indonesia, Malaysia, Papua New Guinea, the Republic of Korea, Singapore and Thailand. Improved food supplies, more stable oil and import prices, reduced wage pressures and monetary and fiscal restraint all contributed to this result. One factor that did not contribute to the stabilization process was import prices, as the price inflation in the industrialized countries had barely started to abate.

In a few developing ESCAP countries, however, the rate of price increases remained in the double-digit range at mid-1982. These economies included Hong Kong, Iran, the Philippines, Solomon Islands and Sri Lanka. In Burma, which had been experiencing very mild price change, inflation tended to increase in mid-1982, but the annual rate nevertheless remained low in comparison with that of most other regional countries.

Supply disruptions due to the continuing conflict with Iraq lay behind the persistence of severe inflation in Iran in 1982 at rates much higher than experienced elsewhere in the region. In Sri Lanka, though price increases had fallen well below the rate of around 20 per cent reached in early 1981, inflation threatened to resurge in the latter part of 1982 as a result of increases in prices of basic food and other consumer items. In Indonesia, the rate of consumer price expansion, which had fallen steadily since the third quarter of 1980, rose by over 2 percentage points in the first quarter of 1982, but this was largely due to a rise of 60 per cent in retail prices for petroleum because of the reduction of subsidies to reduce the drain on the public budget. Similar changes in subsidies, charges for public services and centrally administered prices in a number of other countries, including Pakistan, the Philippines and the Republic of Korea, lay behind sharp though once-for-all upward price movements in those countries in 1981 and early 1982.

In the South Pacific economies of Fiji, Papua New Guinea, Samoa, Solomon Islands and Tonga, higher import and food prices were the major force behind the upsurge in inflation experienced in early 1980, but Fiji, Papua New Guinea and Tonga were successful in bringing price increases under control during 1981 and 1982. Samoa also had some success, but its annual rate of inflation, though well below that of 1980, remained one of the highest among the developing ESCAP countries in 1981. In Solomon Islands, the inflation rate was also relatively high. The Solomon Islands dollar was devalued by 10 per cent in August 1982; thus domestic prices were expected to rise even more rapidly in late 1982 and early 1983.

For the developing ESCAP region as a whole the general picture that emerges is one of considerable counter-inflationary success through 1981 and 1982, an achievement which stands in marked contrast to that of most of the rest of the developing – and developed – world.

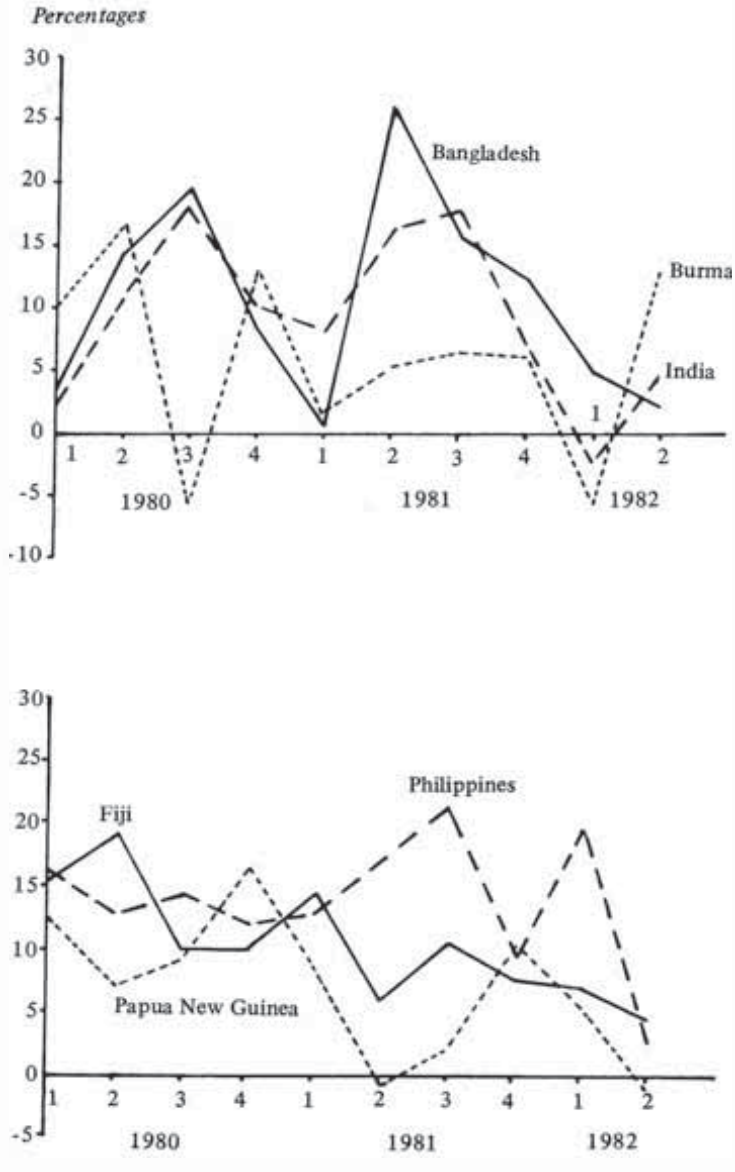
There were reasons to believe, however, that inflation in several regional economies might pick up again in late 1982 and early 1983. One reason was the likely failure of increases in taxes, rates and charges in those countries to have much impact where fiscal adjustments are usually introduced in the second half of the year. Moreover, foodgrain output in several countries was affected by adverse weather conditions in 1982, creating upward pressure on prices. There were concerns, too, that possible adverse exchange rate movements in some countries would also generate upward adjustments of domestic prices.

The policy responses of the monetary and fiscal authorities in the developing ESCAP economies contributed significantly to the observed slow-down in consumer prices throughout much of the region starting in the second half of 1981. Generally, 1981 witnessed two contrasting patterns of behaviour of the monetary variables. Rates of growth of money supply (defined narrowly as issued currency held by the non-bank public plus demand deposits at commercial banks, otherwise known as M_1) slowed down markedly in most economies of the region. The slowdowns were greatest in Hong Kong, Papua New Guinea, the Philippines, the Republic of Korea and Thailand. In fact, the money supply fell in absolute terms in Papua New Guinea and expanded by less than 5 per cent in the other four.

This relatively more restrained behaviour in 1981 contrasted sharply with the very high monetary growth rates that had marked 1977-1979. During that period, money supply had generally grown by between 14 and 20 per cent per year in the developing ESCAP countries, with a regional mean of about 17 per cent.

The second pattern of monetary behaviour observable in the majority of the region's developing economies relates to the increasing rates and, in some cases, the sustained high pace of accumulation of time and saving deposits in 1981. This is largely attributable to the series of upward adjustments in domestic interest rates which were induced by substantial increases in overseas interest rates in the same year. Such a development represents policy decisions in favour of a tight monetary stance both to contain internal inflation, which had become a major issue by 1980, and to limit the current and overall payments deficit arising out of low commodity export prices and import inflation. As a matter of fact, the restrictive impact of high interest rates was supplemented by restraints on the

Figure I.9 Selected developing ESCAP countries. Quarterly changes in consumer prices, 1980-1982 (annualized rates)



aggregate quantity and sectoral allocation of consumer and business credit through other tightened monetary measures, and also through austerity budgets in several regional economies.

Levels of domestic liquidity in Malaysia, Papua New Guinea, the Philippines and the Republic of Korea during 1981 would have been considerably lower but for the expansionary effect of the government budgets. Monetary expansion from government fiscal activities partly offset the steep fall in net external assets encountered by these countries as a result of reduced export earnings. Private sector credit rose during 1981 by between 4 and 5 per cent in the Philippines and the Republic of Korea. Private credit extension fell, however, in both Malaysia and Papua New Guinea in 1981, with the depressed demand for credit continuing into 1982.

In Fiji, India, Indonesia and Pakistan, bank loans to the private sector registered significant increases in 1981. The main factors responsible in India and Pakistan included improved foodgrain as well as cash crop production and higher industrial output, which involved increased financing requirements for procurement, stocking, and internal and foreign trading purposes. A significant upturn in primary production, particularly sugar and commercial fisheries, and increased lending to the services sector motivated the private sector credit upswing in Fiji during 1981. Indonesia saw a rapid increase in loans to small indigenous enterprises. Bank lending to the private sector in Singapore, although one fifth higher than that of 1980, showed a marked deceleration compared with earlier years. The reduced rate of growth of private demand for bank accommodation, however, was more than offset by a massive expansion in government sector borrowing requirements.

In sum, a relatively restrictive monetary stance, including high interest rates, contributed significantly to a noticeable moderation of domestic inflation in many developing ESCAP economies during 1981 and 1982. This positive achievement, however, must be assessed in the light of the adverse impact of high interest rates on investment demand and employment growth. Furthermore, the maintenance of high interest rates was heavily influenced by international financial conditions. The scope for independent monetary intervention geared exclusively to national economic considerations would have been quite limited in the face of different external financial conditions. In fact, the possibility of serious conflicts between domestic policy

Figure I.9 *(continued)*

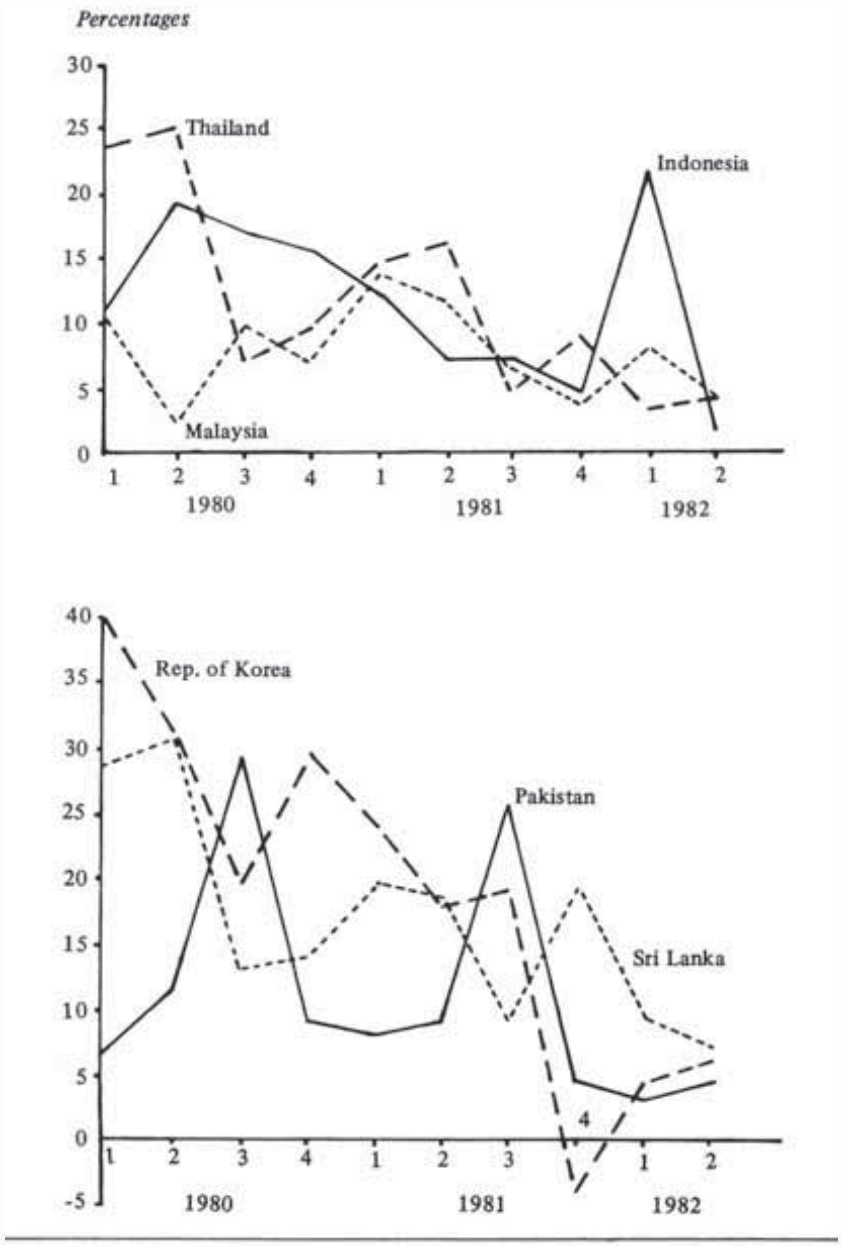


Table I.23 Selected developing ESCAP economies. Changes in the supply of money,[a] 1977-1982

(Percentages)

	End of year (change from end of previous year)					*End of period (change from end of previous December)*	
	1977	*1978*	*1979*	*1980*	*1981*	*June 1981*	*June 1982*
Afghanistan	29.6	20.5	19.4	16.4	15.2	6.0	...
Bangladesh	26.6	25.4	25.4	9.0	10.1	6.6	-4.2
Burma	3.6	12.2	11.1	12.8	15.3	10.5	...
China	...	–	26.9	24.8	16.4	-5.5	-8.8
Fiji	-1.7	18.0	13.0	-9.7	19.3	9.4	-3.9
Hong Kong	28.7	11.2	3.7	15.7	4.1	-1.2	3.2
India	16.8	-11.7	12.2	15.7	13.8	11.4	...
Indonesia	25.2	24.0	33.3	51.1	29.2	11.7	8.1[b]
Malaysia	16.5	18.2	17.2	15.0	12.9	7.7	4.6
Nepal	18.1	13.9	15.2	13.0	11.9	15.1	...
Pakistan	17.4	18.1	20.4	17.3	8.4	9.1	10.2
Papua New Guinea	25.5	5.7	9.2	3.2	-3.0	-7.2	-3.0
Philippines	23.7	13.4	11.2	19.6	4.3	-2.4	-4.5
Rep. of Korea	40.7	24.9	20.7	16.3	4.7	-2.5	5.8
Samoa	22.1	16.2	26.7	35.9	16.2	...	...
Singapore	10.3	11.6	15.8	7.5	18.0	8.1	2.3
Sri Lanka	29.0	10.6	29.6	22.1	6.6	-3.7	11.1[b]
Thailand	9.3	19.4	15.7	13.9	1.7	-3.7	0.7

Sources: International Monetary Fund, *International Financial Statistics*, various issues and national sources.

Notes: [a] Currency in circulation plus demand deposits (M_1) as of end of period.
[b] May 1982.

Box I.12 The structure

Time and savings deposits (quasi-money, or M_2) accumulated at very high rates in many developing ESCAP countries during 1980 and in the relatively depressed year of 1981. Expansion rates for 1980 and 1981, respectively, averaged 26 and 28 per cent in south Asia, and 34 and 27 per cent in south-east and east Asia. A number of economies in both sub-regions recorded significantly higher rates of growth in quasi-money than these averages. In marked contrast, the rates of growth of money supply (M_1) for these two years amounted to 15 and 12 per cent in south Asia and 20 and 11 per cent in south-east and east Asia.

It would thus appear that increases in time and savings deposits took place at the expense of the growth in demand deposits and currency in circulation. In the Philippines, the Republic of Korea, Singapore and Sri Lanka, for example, the average ratio of quasi-money to total money stock grew steadily from 58 per cent in 1979 to 61 per cent in 1980 and 65 per cent in 1981.

Box I.11 Reduced wage pressures

With the experience of virtually continuous inflation since the early 1970s, Governments of many developing ESCAP countries, characteristically the largest single employers of labour in their economies, have tended to assume greater leadership in determining wage levels.

Under this growing influence, the rate of upward adjustments to nominal wages and salaries moderated in developing ESCAP economies during 1981. Reduced rates of growth of nominal wages and salaries were in many cases equivalent to constancy or, more frequently, a fall of varying magnitude in the real earnings of workers. This development complemented the increasingly restrictive fiscal and monetary policy stance by Governments throughout the region.

For example, the real value of average wage rates in the manufacturing and agricultural sectors declined marginally during 1981 in Bangladesh.[a] An appreciable increase in government sector basic wages and salaries, averaging between 20 and 30 per cent, was instituted in July 1981; this was intended, however, to compensate for the substantial loss in real earnings, as public servants in Bangladesh had not had any salary adjustment since July 1977. In Sri Lanka, real remuneration of agricultural and Wages Board Trades workers fell by 10 to 12 per cent in 1981. Those of employees in industry and commerce, however, showed a 9 per cent improvement; this was attributable largely to rising labour demand associated with investment expansion in those sectors.[b]

In August 1981, minimum wage rates in Thailand were raised by 11-18 per cent, and a wage and salary rise of 16-17 per cent in the government sector was instituted in January 1982. These nominal increases were, however, hardly sufficient to compensate for the sharp increase in the cost of living that had occurred during 1980-1981. Malaysia was able to avoid any increase in the wages and salaries of government employees and in private sector remuneration during 1981.[c] In the Philippines, following the rise of nominal average monthly earnings of workers by about 25 per cent in 1979, wage moderation became evident in 1980, with adjustments averaging less than 20 per cent, with further moderation in 1981.[d] Several allowances were integrated into basic pay schedules to reduce the erosion of labour earnings, but the official minimum wage in urban areas, for example, increased by only 10 per cent, while salaries were adjusted at the reduced rates of between 10 and 15 per cent for government employees, including teachers.[e]

Nominal monthly earnings of

[a] Bangladesh, Bangladesh Bureau of Statistics, *Monthly Statistical Bulletin of Bangladesh*, vol. XI, No.2 (February 1982), p. 14.

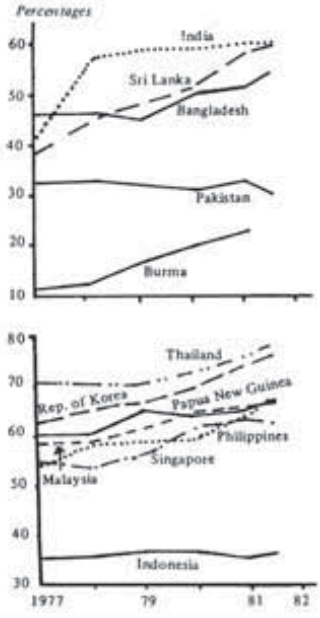
[b] Sri Lanka, Central Bank of Ceylon, *Central Bank of Ceylon Bulletin*, vol. 32, No. 8 (August 1982), table 45.

[c] Malaysia, Ministry of Finance, *Economic Report 1981/82* (1981), p. 131.

[d] Philippines, Central Bank, *Thirty Second Statistical Bulletin 1980* (1981), pp. 266-267.

of financial assets

Ratio of quasi-money to total money stock,[a] 1977-1982



Note: [a] Total money stock = $M_1 + M_2$.

The most important factor behind the rapid accumulation of time and savings deposits was apparently the series of upward adjustments in interest rates during 1980-1981. For example, the London inter-bank offer rate on United States dollar 3-month deposits averaged 16.34 per cent per year during this period but reached 18 per cent between April and September 1981.[a] This external financial development was followed by significant movements in lending rates and the structure of financial assets in many developing ESCAP economies. Interest rate adjustments were necessary, on the one hand, to reduce capital outflows and sustain capital inflows and, on the other, to contain local credit demand, particularly from domestic borrowers with access to external money markets. For example, bank lending and deposit rates, including returns on postal deposit accounts and inter-bank offer rates, were raised by between 1.5-2 percentage points (India and Malaysia) and 7 percentage points (Sri Lanka) during late 1979 and early 1982. For the most part, however, the increase in the developing ESCAP region was 3-5.5 percentage points.

These adjustments were, by past standards, exceptionally steep; indeed, the gap between deposit and inflation rates (i.e., the real rate of interest) became positive or widened substantially in many economies of the region in 1981 and the first half of 1982. Domestic propensities to save were thus stimulated, implying a compensating decline in consumption demand. The very high interest rates charged on bank loans and advances also affected investment demand adversely. The total level of domestic credit was depressed or rose only marginally in many countries of the region during 1981, and in several cases also in early 1982.

[a] By comparison, the corresponding rates for 1978 and 1979 were 8.85 and 12.09 per cent, respectively. International Monetary Fund, *International Financial Statistics*, various issues.

mining and manufacturing workers in the Republic of Korea were increased by an average of 35 and 29 per cent in 1978 and 1979, respectively. The average rate of wage increase, however, slowed down to 23 per cent in 1980, a year of reduced economic activity, and to 20 per cent in 1981.[f] Nominal average daily wages (including fringe benefits) of workers in various manufacturing industries, public utilities, warehousing and motor vehicle repairing services in Hong Kong expanded by 17.1 per cent in 1979 and slowed down marginally to 16.2 per cent in 1980 and 16.3 per cent in 1981.[g] Given the relevant rates of inflation in these economies, labour earnings in real terms fell considerably in the Republic of Korea during both 1980 and 1981, while those of Hong Kong improved by about 1.5 per cent in each of these two years.[h]

In 1981, the Government of Singapore accepted a recommendation of the National Wages Council for a marginal two-tier increase in monthly wages. This consisted of $S32 per month plus an additional amount of between 6 and 10 per cent; a further additional amount equivalent to 2 per cent of the group monthly wage bill of June 1981 was to be distributed among meritorious performers. For the fiscal year 1982/83, a more modest wage increase was set, amounting to $S18.50 plus an extra 2.5 to 6.5 per cent depending upon merit.[i]

[e] Philippines, National Economic and Development Authority, *1980 Philippine Development Report* (1981), p. 28, and *1981 Philippine Development Report* (1982), p. 25.

[f] Republic of Korea, Bank of Korea, *Economic Statistics Yearbook of 1982* (1982), p. 276.

[g] Hong Kong, Census and Statistics Department, *Hong Kong Social and Economic Trends 1970-1980*, p. 22 and *Hong Kong Monthly Digest of Statistics* (June 1982).

[h] *Ibid.*

[i] Singapore, Singapore International Chamber of Commerce, *Investor's Guide to the Economic Climate of Singapore* (July 1981), p. 38, and (July 1982), p. 44.

needs and those necessitated by international economic factors could rise to the fore in some regional economies as financial adjustments are undertaken in 1983 in the industrialized economies. This possibility should become an increasing cause for concern to policy makers in the region as the global recession continues.

G. EXTERNAL TRADE AND PAYMENTS

The continuing recession in the industrial countries and the consequent weak international demand for exports and falling commodity prices had severe repercussions on the trade and payments positions of virtually all the developing ESCAP economies in 1981 and 1982. These problems were compounded by continuing inflation and high interest rates in the industrial coun-

tries as well as by exchange rate movements, all of which contributed to a worsening of the terms of trade for the developing ESCAP region. These developments also played an important role in increasing the developing ESCAP countries' external debt servicing problems. For oil-importing developing countries, these adverse effects were mitigated somewhat in 1982 by a fall of 9 per cent in the real price of petroleum after the substantial increases of 1979-1981. However, this was not sufficient in most cases to offset the losses suffered on account of depressed export prices of other commodities. Furthermore, falling petroleum prices had adverse effects on the trade balances of Malaysia and particularly the major petroleum exporters in the region, Indonesia and Iran.

1. Merchandise exports

Most oil-importing developing countries of the ESCAP region shared in the expansion of world trade during the late 1970s as the recovery from the 1974-1975 recession proceeded, with export growth rates for most of them exceeding the world average during this period. Though many countries in the region maintained high rates of increase in 1980, the momentum had begun to weaken, and under the impact of depressed commodity prices the rate of increase in the value of exports of the developing ESCAP countries with few exceptions declined markedly in 1981. Indeed, for a number of countries (Fiji, Malaysia and Papua New Guinea in particular) the absolute value of exports actually fell in that year. That was also true of Iran, though in that case the decline represented a continuation of a trend that had been in evidence since 1978. Mainly because of reductions in the volume of oil production, the value of exports from Iran in 1981 was barely 38 per cent of what it had been in 1977.

Table I.24 Selected developing ESCAP economies. Changes in value of exports (f.o.b.), 1977-1982

(Percentages)

	1977	*1978*	*1979*	*1980*	*1981*	*1982[a]*	
						Q1	*Q2*
Afghanistan	5.4	2.2	51.9	49.0	16.4	...	...
Bangladesh	4.4	22.4	13.6	21.2	4.1	-16.2	...
Burma	17.1	32.2	29.1	20.3	-2.2	17.6	...
China	...	...	40.1	33.7	27.4	28.7	...
Fiji	41.7	10.5	29.1	46.7	-17.5	-15.3	-8.2
Hong Kong	12.9	19.4	31.8	30.1	10.3	-1.0	-0.5
India	15.0	4.4	18.1	6.4	-7.7	11.5	...
Indonesia	27.0	7.3	33.9	40.5	1.6	-5.1	-7.4
Iran	3.2	-8.5	-10.5	-28.3	-26.1	-24.6	...
Malaysia	16.6	23.0	49.4	19.4	-10.2	-8.1	...
Pakistan	0.9	25.6	39.4	25.9	11.3	-33.7	-9.3
Papua New Guinea	25.7	4.5	23.6	17.0	-17.6	-23.1	...
Philippines	22.4	8.7	34.3	25.8	-1.2	-19.3	...
Rep. of Korea	30.2	26.5	18.4	16.3	21.4	5.4	0.9
Singapore	25.1	23.0	40.4	38.6	6.2	-0.4	7.4
Sri Lanka	34.6	10.9	16.0	-5.8	12.1	-8.3	...
Thailand	16.8	17.0	29.8	23.0	8.2	7.1	...

Sources: United Nations, *Monthly Bulletin of Statistics*, vol. XXXVI, No. 11 (November 1982), and International Monetary Fund, *International Financial Statistics*, various issues.

Note: [a] Change over the corresponding quarter of 1981.

Fiji experienced the most dramatic turnabout, with export values declining by 17 per cent in 1981 after a rise of 47 per cent in 1980. This highlights the problem facing small economies dependent upon one or two primary commodities (in this case sugar), the export prices of which can be very unstable and highly sensitive to changes in world supply. Sugar prices reached record levels late in 1980 but declined rapidly during 1981 and by mid-1982 were less than 25 per cent of what they had been at the peak. The decline in commodity prices during 1981 was, however, fairly general and thus even those economies with more broadly based primary commodity export structures than that of Fiji also encountered serious declines in export earnings. A leading example is Malaysia, the value of the exports of which fell by over 10 per cent in 1981 compared with an increase of more than 19 per cent in 1980, largely because of lower returns from most of its major exports, including logs and sawn timber, rubber and tin.

Export receipts of Papua New Guinea fell by nearly 18 per cent in 1981, with all major exports, including copper concentrate, copra, cocoa and coffee, showing lower returns. Thailand, however, fared better than most. Reduced earnings from rubber and tin exports were in part offset by higher rice prices and higher export volumes of rice, maize, tapioca and sugar.

Rice was virtually the only primary commodity with higher prices on average during 1981 by comparison with those prevailing in 1980, though even in this case prices began to fall in the middle of the year and continued to do so into the first half of 1982. Jute, wheat and palm oil prices showed little change from 1980 levels, but prices of a number of other commodities, such as cocoa, coffee, rubber, coconut oil, copra, copper

and tin, fell significantly, with the declines ranging from 15 to 25 per cent. For some, the fall continued a declining trend that had already become manifest in 1980. For most commodities the slide continued into 1982, though for a number, such as some foodstuffs, fibres and lumber, it appeared by the second quarter of the year that the rate of decline had moderated.

Overall, commodity prices fell by more than 12 per cent on average in 1981. This was the steepest annual fall in more than three decades, except for 1975, when prices dropped by 18 per cent. The appreciation of the United States dollar in 1981 to some extent overstated the extent of the decline in prices expressed in that currency. According to estimates by the International Monetary Fund, the decline in real terms was of the order of 10 per cent. Real prices in 1981 were lower by 6 per cent than in 1975 and were probably the lowest for any year during the period since the Second World War.[3]

The decline in prices affected virtually all developing ESCAP economies, the extent of the impact depending upon the composition of commodity production and the relative importance of different commodities in exports as a whole. In addition, for those developing ESCAP countries that had succeeded in building a solid export-oriented industrial base, weak export demand for manufactures and increased import barriers against such goods in industrial countries seriously impeded export growth in 1981 and 1982. Information on export performance of the developing ESCAP economies in 1982 remained fragmentary at year-end, but available data suggested that, given the continuing depressed levels of commodity prices and the stagnation of world trade, the value of exports for most countries would be lower than it had been in 1981.

2. Imports

A partially redeeming feature of the otherwise difficult external trade situation created by the slow-down in export growth in the developing ESCAP region was the slow-down in import growth. The growth of imports for most of the region in 1981 was well below the rates of increase recorded in 1979 and 1980. One major reason is that import values had been profoundly affected by increases in oil prices in 1979 and 1980, whereas this inflationary influence declined to a much more modest level in 1981.

For the non-oil developing countries of the region, oil imports constituted about one fifth of total import value in 1981, the ratio ranging from 10 per cent in Malaysia and Nepal to about 45 per cent in India.[4] The rate of growth of oil import volume into the developing ESCAP region is estimated to have fallen from 4 per cent in 1979 and 1980 to only 1 per cent in 1981, reflecting the slow-down in industrial activity in some countries and intensified efforts at energy

[3] International Monetary Fund, *World Economic Outlook* (Washington, D.C., April 1982), p. 137.

[4] *Ibid.*, p. 90.

Table 1.25 Changes in world export prices of primary commodities, 1978-1982

(Percentages)

	1978	1979	1980	1981	1982[a]	
					Q1	Q2
Primary commodities excluding petroleum	-7.6	12.0	15.4	-12.2	-13.4	-12.4
Foodstuffs	-16.4	7.2	18.9	-17.0	-16.1	-15.4
Wheat	18.8	25.0	11.6	0.9	-10.6	-10.1
Rice	25.6	-6.1	29.3	13.4	-34.5	-41.8
Maize	28.3	21.4	19.3	-7.6	-12.7	-7.1
Coffee	-34.9	6.1	-1.2	-19.7	-6.8	-8.5
Cocoa	-15.9	-6.2	-21.0	-20.8	0.6	-13.0
Tea	-20.5	-0.6	1.9	-8.1	-5.1	-5.4
Pepper	-9.4	-8.0	-7.0	-21.5	-9.6	-7.1
Sugar	-2.5	23.1	189.6	-39.6	-50.0	-50.0
Agricultural non-food	10.6	19.9	6.3	-10.8	-19.2	-14.7
Copra	16.4	42.9	-32.7	-16.9	-17.7	-11.5
Coconut oil	21.6	40.8	-33.2	-17.6	-11.9	-12.3
Palm oil	14.0	13.0	-13.5	-0.7	-18.1	-18.6
Lumber	10.1	19.0	–	-16.6	-20.1	-17.5
Logs	13.4	32.8	26.7	-12.5	-8.4	-6.5
Cotton	-1.6	6.4	17.3	-7.7	-26.1	-19.5
Jute	23.6	0.9	-2.7	–	-0.9	1.8
Natural rubber	21.2	28.2	11.4	-24.5	-35.8	-26.8
Tobacco	6.3	10.2	5.4	13.1	17.7	17.7
Non-ferrous metals	8.5	35.4	9.9	-17.0	-9.4	-13.6
Copper	4.7	45.0	9.9	-20.3	-14.2	-17.6
Nickel	-1.7	30.1	25.8	0.5	-7.5	-7.5
Tin	18.2	18.6	10.3	-14.6	3.9	-3.7
Crude petroleum	–	45.3	73.5	10.2	-3.4	-5.2

Source: United Nations, *Monthly Bulletin of Statistics*, vol. XXXVI, No. 10 (October 1982).

Note: [a] Change over the corresponding quarter of 1981.

Table I.26 Selected developing ESCAP economies. Changes in value of imports (c.i.f.), 1977-1982

(Percentages)

	1977	1978	1979	1980	1981	1982[a] Q1	1982[a] Q2
Afghanistan	48.4	37.2	0.7	34.5	-52.3	1.3	...
Bangladesh	50.1	14.1	13.3	71.0	-0.8	18.4	...
Burma	59.3	52.8	-29.7	6.0	5.9	26.5	...
China	...	...	43.9	24.6	5.7	-25.2	...
Fiji	16.7	15.6	32.4	19.6	12.4	-21.3	-21.3
Hong Kong	17.7	28.6	27.4	30.8	10.1	-3.2	16.0
India	15.7	18.9	29.1	38.9	5.5	4.3	...
Indonesia	9.8	7.4	7.6	50.4	22.5	32.1	33.5
Iran	13.6	-7.5	-28.1	25.8	-7.0	-20.8	...
Malaysia	17.3	30.3	33.6	40.2	8.2	1.8	...
Pakistan	12.9	33.9	23.5	31.9	-	-7.1	-7.3
Papua New Guinea	31.9	19.2	16.6	29.8	9.2	3.7	...
Philippines	8.0	20.4	28.6	16.8	2.8	8.6	...
Rep. of Korea	23.2	38.5	35.8	9.6	17.2	-4.7	-9.7
Singapore	15.4	24.6	35.2	36.0	14.9	8.9	2.8
Sri Lanka	28.5	33.6	54.2	40.1	-11.1	-20.7	...
Thailand	29.9	16.0	33.6	28.2	8.1	-18.8	...

Sources: United Nations, *Monthly Bulletin of Statistics*, vol. XXXVI, No. 11 (November 1982), and International Monetary Fund, *International Financial Statistics*, various issues.

Note: [a] Change over the corresponding quarter.

conservation and development of indigenous energy sources in many.[5] Furthermore, oil prices in 1982 were expected to be slightly lower than in 1981; this should help to ease further the burden of oil imports in developing ESCAP economies.

Changes in the value of imports in developing ESCAP countries in 1981 followed varying patterns. Imports into Bangladesh fell slightly in nominal terms but, given the rise in import prices of about 12 per cent, the real value of imports was much lower. The brunt of the decline was borne by imports of capital and intermediate goods rather than food and petroleum, so that the adverse effects were most sharply felt on the country's development programme. Import values declined also in Sri Lanka by about 11 per cent from $US 2,029 million in 1980 to $US1,803 million in 1981. Import volumes of rice, wheat, flour and fertilizer were all down. In India, the sharp fall in import growth in 1981 came largely as a consequence of improved domestic production of basic raw materials such as petroleum, fertilizers, steel, non-ferrous metals and edible oils. The decline in import growth was also particulary strong in Malaysia, Pakistan and Thailand. The Republic of Korea, however, went against the general trend with an increase in the rate of import growth from nearly 10 per cent in 1980 to over 17 per cent in 1981. To an important extent, this reflected the general recovery of the economy of the Republic of Korea from the depressed economic conditions that had prevailed in that country in 1980.

The behaviour of imports in 1982 was difficult to determine on the basis of the limited data available at end-year. Lower rates of growth for Fiji, Hong Kong, Pakistan, Papua New Guinea, the Republic of Korea, Singapore and Sri Lanka seemed to be indicated, especially for consumer goods imports, while for Indonesia a higher rate of import growth appeared likely, especially for capital goods, as that country pressed ahead with a number of large-scale development projects.

As a result of the sharp break in import growth trends, the general fall-off in growth rates of exports did not for the most part lead to substantial increases in trade deficits in the region in 1981. Marginal increases were recorded by Bangladesh, Pakistan and Thailand, while decreases appeared for India, Indonesia, Nepal, the Republic of Korea and Sri Lanka. The deterioration in Malaysia's trade balance in 1981 was particularly severe, moving from a surplus of $US2,255 million in 1980 to a deficit of $US 330 million. Fiji, Papua New Guinea and Singapore also recorded significant increases in their trade deficits.

For the Philippines, the increase in the deficit for the first half of 1982 suggested that for the year as a whole the situation would be more serious than had been the case in 1981. Data for the first few months of 1982 also point to a worsening of trade deficits for the year as a whole for other economies, including Hong Kong, Pakistan, Singapore and especially Malaysia. However, Thailand's trade deficit seemed likely to fall well below that of 1981. For the first half of 1982 exports were over 5 per cent higher and imports 20 per cent lower than in 1981. Data for the first quarter for Indonesia, the Republic of Korea and Sri Lanka showed reduced trade deficits for those countries as well.

3. Terms of trade

As a result of generally lower commodity prices and higher import prices, especially for oil, the barter terms of trade began to move against a number of developing ESCAP countries in 1980. This

[5] *Ibid.*, p. 90.

trend continued in 1981 and into 1982, and at the same time it spread to include most developing countries of the region. Malaysia was one of the most seriously affected with a decline of 31 per cent in its barter terms of trade in 1981 following a decline of 8 per cent in 1980. Further deterioration occurred in the first quarter of 1982. Sri Lanka also was seriously affected with a decline of over 21 per cent in 1981 following earlier declines of 19 and 28 per cent, respectively, in 1980 and 1979. Burma also was hit badly with a decline of nearly 28 per cent in 1981.

Bangladesh, Indonesia, Pakistan and the Philippines suffered a barter terms of trade decline of about 13 per cent on average in 1981. This came on top of declines in 1980 of 17 and 16 per cent in Pakistan and the Philippines, respectively. Other economies such as Hong Kong, the Republic of Korea and Singapore, which are less reliant on primary commodity exports, fared better.

A number of countries and areas, however, were able in some measure to counter the adverse movements in the barter terms of trade by increasing their export volumes; thus, the changes in their income terms of trade were less severe. This occurred in Hong Kong, Pakistan, the Republic of Korea and Thailand in particular but also to some extent in Malaysia.

In the absence of adequate data on movements in the terms of trade for 1982, it could nevertheless be predicted at year-end that, with the exception of the Republic of Korea and a few other countries, further deterioration seemed likely as import prices continued to move up (though at a slower pace as the year proceeded) with no sign of a general recovery in commodity export prices.

4. Balance of payments and external financial flows

A deficit in the balance of payments on current account is normally to be expected by most developing ESCAP countries, as net long-term capital inflows constitute a major element of their development efforts. These deficits generally increased substantially after 1978 in the wake of the oil price increases of 1979-1980; though remaining at historically high levels, there was no general tendency in 1981 for the deficits to become larger. Indeed, the Republic of Korea substantially reduced its payments deficit in 1981, and that improvement continued into 1982 largely because of the recovery in exports. Sri Lanka also managed to reduce its external deficit, again because of an improved trade balance. For several countries, however, payments deficits worsened considerably in 1982. This was particularly true of Indonesia; with a substantial fall in its trade surplus and an increase of more than 16

Table I.27 Selected developing ESCAP economies. Changes in terms of trade, 1979-1982

(Percentages)

	Units[a]	*1979*	*1980*	*1981*	*1982*[b]	
					Q1	*Q2*
Bangladesh	A	20.5	-14.8	-15.6[c]	...	...
Burma	A	6.4	17.2	-28.4	...	...
	B	62.0	30.2	...	...	...
Fiji	A	8.8	...	...	...	...
	B	10.1	...	...	...	...
Hong Kong	A	–	1.0	-2.9	-3.0	2.0
	B	18.3	11.9	6.4	-3.6	-3.0
India	A	-7.6	-20.9	...	...	...
	B	13.4	-5.2	...	...	...
Indonesia	A	38.5	29.8	-12.2	-11.7	...
	B	35.3	22.2	18.5	-10.4	...
Rep. of Korea	A	-2.1	-17.1	-2.2	7.7	3.4
	B	-3.0	-8.2	15.7	12.4	8.6
Malaysia	A	7.8	-7.9	-30.7	-11.7	...
	B	30.4	1.3	-27.6	...	...
Pakistan	A	6.4	-16.5	-13.5	-4.3	...
	B	12.9	-2.5	-5.8	-30.0	...
Philippines	A	4.5	-16.1	-11.5	...	...
	B	14.2	1.3	-10.6	...	...
Singapore	A	–	-2.9	...	...	...
	B	19.6	13.2	...	...	...
Sri Lanka	A	-28.4	-19.0	-21.4	...	...
	B	-27.4	-20.2	-19.8	...	...
Thailand	A	3.4	-5.5	-9.3	-18.8	...
	B	12.6	-1.2	2.4	5.8	...

Sources: United Nations, *Monthly Bulletin of Statistics*, various issues and national sources.

Notes: [a] A = Barter terms of trade. B = Income terms of trade. [b] Change over the corresponding quarter of 1981. [c] Change for the first three quarters of 1981 over the whole year of 1980.

per cent in the deficit on services account, the current account balance shifted from a surplus of nearly $US2.8 billion in 1980 to a deficit of over $US1.2 billion in 1981. For 1982, prospects were for a substantial increase in that deficit. Malaysia, too, experienced a large increase in its external deficit in 1981 mainly because of the disappearance of its normally large trade surplus. Fiji and Papua New Guinea also encountered sharply increased deficits on current account in 1981, again because of poor trade performance and with indications that continued low commodity prices would cause even larger deficits in 1982. The Philippines also increased its external deficit in 1981, with an even larger deficit looming for 1982.

Most developing ESCAP countries rely mainly on long-term borrowing as well as grants to finance their external deficits, though there are noticeable differences among countries in sources of finance. Private capital flows, for example, are of much greater significance to Malaysia, the Philippines and Singapore than they are to most of the countries of south Asia, though Pakistan and Sri Lanka have witnessed some increase in recent years. For a number, especially

Box I.13 Terms of trade

The concept of terms of trade is used to assess the impact on an economy of the changing mix of prices in the international market. A basic formulation frequently used for the purpose of quantifying the concept is the ratio of the indexes of an economy's export and import prices, $\frac{Px}{Pm}$, commonly known as the "barter" or "commodity" terms of trade. A rise in this ratio (i.e., an improvement in a country's barter terms of trade) is generally regarded as a favourable development and deterioration as an unfavourable development.

An improvement in the barter terms of trade indicates that a greater quantity of imports can be obtained for a given volume of exports on the basis of price relationships alone. This results in a gain in real income for the country. A deterioration in the terms of trade, by the same token, results in a loss of real income.

However, a change in the barter terms of trade is not a sufficient indication of the gains or losses to a country. For example, if the barter terms of trade improve but the quantity of exports decreases either independently or because of the reduced competitiveness of the country in international markets as a result of the price shift, the country will end up with impaired import capacity despite the improvement in the barter terms of trade. Conversely, if the barter terms of trade decline but the volume of exports increases sufficiently to offset the fall in export prices, enhanced import capacity will result despite a worsening of the barter terms of trade.

A country would thus benefit if the improvement in the barter terms were associated with unchanged or increased quantity of exports or if the increased quantity of exports were associated with unchanged or improved barter terms. For this reason a quantity correction is usually applied to the barter terms of trade to indicate the "import capacity" of a country's exports. The formulation for incorporating the quantity correction is defined as $\frac{Px}{Pm}$. Qx, where Qx is the export quantity index. This version of the concept is referred to as the "income" terms of trade. Changes in the income terms of trade provide a measure of changes in a country's import capacity in terms of its own exports.

If the income terms move favourably, the quantum rise in exports offsetting the unfavourable movement of the barter terms, its real income effect will depend on how the increased volume of exports is produced. If the increased quantum is the result of productivity increase in the export sector at a rate faster than the fall in export prices in terms of import prices (i.e., faster than the rate of decline in the barter terms) the country's real income rises despite the deterioration in the barter terms of trade. If the prices of exports in terms of imports fall by a smaller percentage than the percentage rise in productivity, the country benefits from its ability to obtain a greater quantity of imports per unit of factors embodied in its exports. To bring out the real significance of the change in terms of trade resulting from both price and quantity changes, a productivity correction is sometimes made to the barter terms of trade. The formulation is $\frac{Px}{Pm}$. Zx, where Zx is a productivity index of export, and this variant is referred to as the "factoral" terms of trade.

The developing ESCAP countries suffered a sharp deterioration in their barter terms of trade during 1978-1982. Several countries of the region, however, sought to maintain their export earnings and hence their import capacity by increasing the volume of exports. Some of them succeeded, and this was reflected in a favourable movement in their income terms of trade. The quantity increase almost certainly involved higher resource cost in terms of sacrifices of output elsewhere in the economy, since productivity increases in the export industries were unlikely to have been considerable in the short term.

It is possible, however, that part of the increased export volume may have been produced by mobilizing resources which would have remained otherwise unutilized or under-utilized. To that extent, the increased quantum export was a gain in real income for the exporting countries. It is through their efforts to offset the losses indicated by the deteriorating barter terms of trade through increases in export volume that many of the export-oriented economies of the region were able to sustain their dynamism and resilience in the face of adverse external developments during the early 1980s. Other countries were not so successful in this effort and suffered stagnation or decline. Yet others were cushioned against the adverse turn of international market conditions by virtue of the small share of trade in their GNP.

Table I.28 Selected developing ESCAP countries. Balance of payments, 1979-1982

($US million)

		Trade balance	*Other goods and services*	*Private transfers*	*Current account balance*	*Official capital and transfers*	*Private long-term capital*	*Basic balance*	*Short-term capital*	*Errors and omissions*[a]	*Overall balance*	*Change in reserves (– = increase)*
Afghanistan[b]	1980	-126	----	-15	---- -141	333	–	192	–	–	–	–
	1981	-312	----	22	---- -290	234	–	-56	–	–	–	–
	1982	-235		25	-210	139	–	-71	–	–	–	–
Bangladesh	1979	-1 070.2	-241.1	167.1	-1 144.2	1 196.2	–	52.0	-37.5	122.4	136.9	-137.0
	1980	-1 559.6	-263.1	300.8	-1 521.9	1 243.5	–	-278.4	-24.0	174.6	-127.8	127.9
	1981	-1 643.8	-310.3	400.5	-1 553.6	1 069.7	–	-483.9	154.3	69.2	-260.4	260.3
	1982[c]	-427.8	-86.4	97.0	-417.2	464.3	–	47.1	-65.3	40.8	22.6	-22.7
Burma	1979	-369.3	-46.3	9.4	-406.2	471.3	–	65.1	6.1	43.9	115.1	-115.1
	1980	-357.9	-67.9	7.4	-418.4	442.5	–	24.1	-0.3	67.4	91.2	-91.0
	1981	-329.3	-67.7	4.9	-392.1	391.9	–	-0.2	3.7	-54.7	-51.2	51.1
Fiji	1979	-170.0	99.1	-8.5	-79.4	58.5	10.2	-10.7	0.9	11.8	2.0	-2.0
	1980	-164.8	91.9	-2.3	-75.2	75.1	31.3	31.2	-0.9	11.1	41.4	-41.3
	1981	-280.7	82.1	-8.8	-207.4	130.8	35.1	-41.5	-1.1	8.4	-34.2	34.2
	1982[c]	-89.0	25.9	-1.2	-64.3	53.1	9.1	-2.1	0.9	-9.7	-10.9	11.0
India[b]	1979	-2 222	226	1 424	-572	971	–	399	135	651	1 185	-1 187
	1980	-7 330	----3 783	-----	-3 547	2 020[d]	–	-1 527	–	1 026	-501	501
	1981	-6 351	----2 857	-----	-3 494	1 534	–	-1 960	–	271	-1 689	1 688
	1982	-6 239	----2 498	-----	-3 531	1 633	–	-1 898	–	1 898	–	–
Indonesia	1979	5 909	-4 959	–	950	1 064	286	2 300	-454	-410	1 436	-1 436
	1980	9 154	-6 358	–	2 796	1 978	230	5 004	-821	-2 854	1 329	-1 330
	1981	6 197	-7 409	–	-1 212	2 193	200	1 181	192	-1 751	-378	378
Malaysia	1979	3 017	-1 965	-93	959	186	767	1 912	-724	-531	657	-658
	1980	2 255	-2 508	-132	-385	120	865	600	416	-539	477	-477
	1981	-330	-2 433	-171	-2 934	194	2 448	-292	190	-412	-514	515
Nepal	1979	-141.1	48.5	26.1	-66.5	85.5	–	19.0	3.8	-7.3	15.5	-15.5
	1980	-225.9	78.9	33.6	-113.4	115.9	–	2.5	-19.2	27.2	10.5	-10.6
	1981	-222.2	71.6	38.3	-112.3	143.8	–	31.5	12.4	-21.9	22.0	-22.1
Pakistan	1979	-2 341	-518	1 578	-1 281	629	62	590	271	216	103	103
	1980	-2 876	-500	2 218	-1 158	852	59	247	-4	682	431	-433
	1981	-2 930	-545	2 195	-1 280	835	107	-338	183	-35	-190	190
Papua New Guinea	1979	227.3	-304.7	-95.6	-173.0	261.6	38.1	126.7	-9.1	-10.2	107.4	-107.4
	1980	-35.0	-436.9	-105.5	-577.4	307.2	60.0	-210.2	-4.4	143.8	-70.8	70.7
	1981	-175.6	-421.9	-128.7	-726.2	532.3	88.1	-105.8	15.2	76.7	-13.9	13.8
	1982[c]	-93.2	-85.3	-25.1	-203.6	105.9	30.6	-67.1	2.3	-47.8	-112.6	112.7
Philippines	1979	-1 539	-379	230	-1 688	1 245	88	-355	909	-115	439	-439
	1980	-1 937	-542	299	-2 180	1 070	44	-1 066	2 290	-88	1 136	-1 135
	1981	-2 224	-541	324	-2 441	1 455	407	-579	659	99	179	-177
	1982[e]	-1 350	-442	156	-1 636	666	140	-830	830	-59	-59	58
Rep. of Korea	1979	-4 395	-195	399	-4 191	3 087	24	-1 080	2 282	-306	896	-896
	1980	-4 384	-1 386	399	-5 371	2 004	33	-3 334	3 983	-300	349	-350
	1981	-3 418	-1 519	422	-4 515	3 598	120	-797	1 090	-537	-244	244
	1982[e]	-789	-74	209	-654	617	-	-37	401	-924	-560	560
Singapore	1979	-3 117	2 149	-31	-999	249	929	179	-183	521	517	-516
	1980	-4 339	2 798	-46	-1 587	-111	1 656	-42	136	655	749	-748
	1981	-6 290	4 595	-48	-1 743	119	1 785	161	615	207	983	-982
Sri Lanka	1979	-323.2	-97.2	48.4	-372.0	268.3	46.9	-56.8	11.7	98.8	53.7	-53.6
	1980	-783.5	-152.3	136.2	-799.6	301.4	43.0	-455.2	116.2	107.2	-231.8	231.8
	1981	-631.9	-174.9	202.9	-603.9	484.8	49.3	-69.8	7.1	10.1	-52.6	52.6

Table I.28 *(continued)*

		Trade balance	*Other goods and services*	*Private transfers*	*Current account balance*	*Official capital and transfers*	*Private long-term capital*	*Basic balance*	*Short-term capital*	*Errors and omissions*[a]	*Overall balance*	*Change in reserves (– = increase)*
Thailand	1979	-1 551	-783	210	-2 124	1 283	231	-610	499	86	-25	22
	1980	-1 903	-760	451	-2 212	1 958	283	29	-63	-135	-169	170
	1981	-2 032	-1 160	526	-2 666	2 139	332	-195	125	37	-33	33
	1982[e]	71	-465	298	-96	285	80	269	-170	-329	-230	231

Sources: International Monetary Fund, *International Financial Statistics,* vol. XXXV, No. 12 (December 1982); *Balance of Payments Statistics Yearbook 1981,* vol. 32, Part I; and national sources.

Notes: [a] Including counterpart to SDR allocations, valuation changes and balance of payments loans. [b] The year 1980 refers to the fiscal year 1980/81, and so forth. Figures for 1981 are estimates and for 1982 are forecasts. [c] First quarter. [d] Including International Monetary Fund Trust Fund facilities. [e] First half.

Bangladesh, Pakistan, Sri Lanka and some South Pacific countries, private transfers consisting mainly of remittances from migrant workers are an important element.

Private short-term capital in the form of suppliers credit and borrowing from foreign capital and/or money markets has been an important source of finance for many countries, especially the Philippines and the Republic of Korea and to a lesser extent Singapore and Thailand, in recent years. Other countries, such as India, Pakistan and Sri Lanka, also have relied on these sources, though to a much lesser degree.

A component of private flows which is of some significance, especially to the newly industrializing and the middle-income countries of the region, is direct private investment. During the period 1976-1980 the five ASEAN countries accounted for two thirds of the cumulative total of private investment flows to the developing ESCAP region. By 1980, with the exception of Iran, Singapore emerged as the biggest recipient of private investment, followed by Indonesia, the Philippines, Malaysia and Thailand. By source, Japan is the largest investor in the region followed by the United States.

Several countries in the region have considerably liberalized their investment policies in recent years by providing a number of incentives for foreign private investment. Yet the limits to which foreign private investment can contribute to the region's economic development have to be recognized. First, the resource-poor low-income countries of the region do not easily attract private investment motivated by profit considerations. The seven least developed countries of the ESCAP region, for example, received only about $US15 million of direct private investment out of a total flow to developing ESCAP countries of $US5,860 million from DAC countries during 1977-1980.[6]

Secondly, more than half of the foreign direct investment in the developing countries is financed by the reinvestment of the earnings on earlier investments. Fifty four per cent of the United States direct foreign investment during 1978-1980 and 64 per cent of the United Kingdom's during 1978-1979 were reported to be financed in this way. Thus, the scope for wider geographical dispersal of the total investment flows is limited because part is already "locked in" to existing destinations.

[6] OECD, *Geographical Distribution of Financial Flows to Developing Countries, 1977/80,* individual country tables.

Thirdly, part of new foreign direct investment is in the form of loans rather than equity capital and to that extent create fixed charges which may be difficult to meet in the early stages of promoting a new enterprise in a developing country.

Official development assistance (ODA) remains an important source of external capital to many of the developing ESCAP countries, especially for the least developed among them. The total net flow of external resources to the developing ESCAP countries rose by nearly 27 per cent in 1981 to $US18.5 billion out of a total flow of about $US 88 billion to all developing countries. In 1981, ODA constituted about 46 per cent of total resource flows to the developing ESCAP region as compared with 29 per cent for the developing countries as a whole. The developing countries of the ESCAP region as a whole thus continue to be more dependent on ODA flows than developing countries elsewhere. This is particularly true of the least developed countries in the region, which rely almost entirely on ODA as a source of external funds.

Between 1977 and 1981 the nominal value of ODA flows to the least developed countries of the region increased by about 35 per

cent. During the same period the unit value index of world manufactured goods exports increased by 45 per cent. If that index is applied as a deflator of ODA flows to the least developed countries of the region, there was a fall in real terms of nearly 2 per cent over the four years from 1977. This was a most discouraging development in the light of the targets set in the Substantial New Programme of Action of the 1980s for the Least Developed Countries.

Though ODA from OECD's Development Assistance Committee (DAC) countries and from multilateral agencies to the developing ESCAP region increased by 10 and 8 per cent, respectively, assistance from OPEC countries fell dramatically, so that the total increase in ODA in 1981 was less than 2 per cent. More than half of ODA to the region in 1981 was absorbed by four countries – Bangladesh, India, Indonesia and Pakistan. Generally,

Box I.14 Remittances to labour-exporting ESCAP countries

Remittances from nationals working abroad are an important positive item in the balance of payments on current account for several developing ESCAP countries, including Bangladesh, India, Nepal, Pakistan, the Philippines, the Republic of Korea, Sri Lanka, Thailand and Tonga.

These remittances grew quite rapidly from 1978-1979, especially because of work opportunities offered by large construction projects in the oil-producing countries of the Middle East. In the case of several developing ESCAP countries they helped significantly to moderate balance of payments deficits. The extent of the contribution of such remittances to the concerned countries' balance of payments is indicated in the accompanying table in terms of remittances as percentages of merchandise exports and also as percentages of merchandise trade deficits (the largest deficit element in the current account), which the remittances helped to reduce.

Pakistan has been the largest recipient of remittances in the region. The flow to that country has not risen much since 1980, largely because of the slowdown in construction activities as a result of the Iran-Iraq conflict. For Bangladesh also, remittances did not increase much in 1981/82, though they increased as a proportion of merchandise exports and grew to cover more than a fifth of the trade deficit. During the two years for which data are available for India, remittances were equivalent to about 19 per cent of exports. Though the flows are relatively small in Sri Lanka and Thailand, they have been growing fast both in absolute value and as proportions of exports. Remittance flows, mainly from migrants to New Zealand and the United States, are also very significant for a number of small Pacific countries, especially Cook Islands, Samoa and Tonga, with well over half the trade deficit of Tonga covered by these financial flows.

Major labour-exporting ESCAP countries, remittances from migrant workers, 1978-1982

		Remittances		
		Amount (million $US)	*As percentage of*	
			Merchandise exports	*Trade deficit*
Bangladesh [a]	1978	115	21.0	14.6
	1979	153	23.3	14.3
	1980	286	36.1	18.4
	1981	377	53.0	20.8
	1982 [b]	384	61.3	22.1
India [c]	1978	1 147	17.6	129.8
	1979	1 424	18.7	64.1
Nepal [c]	1978	20	22.0	15.0
	1979	26	23.7	18.5
	1980	34	32.9	14.9
	1981	38	27.4	17.2
Pakistan [a]	1978	1 303	93.2	71.7
	1979	1 495	76.7	63.8
	1980	2 048	79.6	71.1
	1981	2 097	74.9	75.8
	1982 [b]	2 155	92.9	62.6
Philippines	1979	191	4.2	12.4
	1980	206	3.6	10.6
Rep. of Korea	1978	105	0.8	6.0
	1979	101	0.7	2.3
	1980	102	0.6	2.3
Sri Lanka [c]	1978	39	4.6	74.5
	1979	60	6.1	18.6
	1980	152	14.3	19.4
	1981	229	25.0	27.2
Thailand	1978	104	2.6	12.0
	1979	187	3.6	11.8
	1980	376	5.8	19.7
	1981	478	6.9	15.8
Tonga	1978	9	145.5	56.0
	1979	12	165.2	69.6

Sources: International Monetary Fund, *Balance of Payments Statistics Yearbook 1981*, vol. 32, Part I; *International Financial Statistics*, vol. XXXV, No. 11 (November 1982); and national sources.

Notes: [a] 1981 and 1982 data are for fiscal years. [b] Estimate. [c] Total private transfers.

the countries of south Asia and the South Pacific (the main exception being Fiji) continued to rely primarily on ODA as a source of external assistance. By contrast, 70 to 99 per cent of resource flows going to China and the countries of east and south-east Asia in 1981 came from private or non-ODA official sources.

H. REGIONAL AND SUB-REGIONAL CO-OPERATION

Economic co-operation among developing countries in the ESCAP region increased considerably during the 1970s and continued to be strengthened and broadened in the range of activities covered, especially at the subregional level, during 1981-1982.

In south-east Asia, the ASEAN group (comprising Indonesia, Malaysia, the Philippines, Singapore and Thailand) made further progress in 1981-1982 in a number of fields of co-operation previously agreed upon. These include trade liberalization, industrial collaboration, food security, energy and transport. Co-operation in industrial development was being sought through two main programmes, the ASEAN Industrial Project Scheme (AIP) and the ASEAN Industrial Complementation Programme (AIC).

Under AIP, government-to-government industrial collaboration projects were being undertaken, with the products of these undertakings to be accorded preferential access by the member countries. The projects under way included two urea plants, one to be located in Indonesia and the other in Malaysia; a copper fabrication project in the Philippines; and a rock salt-soda ash project in Thailand. A further project for the manufacture of diesel engines in Singapore had been proposed, but it was decided in 1982 that this would not now proceed. Progress in the construction of Indonesia's urea plant stood at mid-point as of April 1982, with completion scheduled for April 1984. Financial arrangements for the Malaysian urea project, including a loan package of 48 billion yen (70 per cent of the capital

Table I.29 Developing ESCAP region. Net flow of external resources, 1977-1981
($US million)

		Total net flows	*Net official flows (ODA)*				*Other flows*
			Total	*DAC countries*	*OPEC*	*Multilateral agencies*	
				Current prices			
Developing ESCAP countries	1977	9 633.5	4 853.9	2 991.6	447.2	1 415.1	4 779.6
	1978	13 457.3	6 305.0	4 088.6	417.3	1 799.1	7 152.3
	1979	12 236.0	6 891.7	4 725.4	123.5	2 042.8	5 344.3
	1980	14 631.3	8 445.2	4 886.4	649.0	2 909.8	6 186.1
	1981	18 542.0	8 585.8	5 377.1	55.3	3 153.4	9 956.2
Least developed ESCAP countries	1977	1 011.9	1 003.6	488.2	191.2	324.2	8.3
	1978	1 279.9	1 264.4	796.2	49.9	418.3	15.5
	1979	1 565.2	1 501.6	953.1	33.6	514.9	63.6
	1980	1 497.8	1 505.1	979.5	73.3	452.3	-7.3
	1981	1 366.5	1 382.2	789.3	83.0	509.9	-15.7
				Constant prices[a]			
Developing ESCAP countries	1977	8 838	4 453	2 744	410	1 298	4 385
	1978	10 766	5 044	3 290	334	1 439	5 722
	1979	8 557	4 819	3 304	86	1 428	3 737
	1980	9 260	5 345	3 093	411	1 842	3 915
	1981	12 361	5 724	3 585	37	2 102	6 637
Least developed ESCAP countries	1977	928	921	448	175	297	8
	1978	1 024	1 011	637	40	335	12
	1979	1 094	1 051	667	23	360	44
	1980	948	952	620	46	286	-5
	1981	911	921	526	55	340	-10

Sources: OECD, *Development Co-operation, 1981 Review* (Paris, 1981), Statistical Annex Tables D.1-D.3 and G.7, and computer printouts 1982 (30 December 1982); and United Nations, *Monthly Bulletin of Statistics*, vol. XXXVI, No. 11 (November 1982).

Note: [a] Deflated by unit value index of world exports of manufactured goods, 1975 = 100.

Table I.30 ASEAN countries. Matrix of intra-ASEAN import/export coefficients, 1970-1981

(Percentage of total world imports/exports per country)

		Indonesia		*Malaysia*		*Philippines*		*Singapore*		*Thailand*	
		Imports from	*Exports to*	*Imports from*	*Exports to*	*Imports from*	*Exports to*	*Imports from*	*Exports to*	*Imports from*	*Exports to*
Indonesia	1970			4.9	0.6	2.5	0.2	...	...	1.5	2.2
	1976			1.1	0.4	3.0	0.5	...	...	0.1	5.2
	1981			0.6	0.5	–	–	...	...	–	–
Malaysia	1970	0.6	3.2			2.3	–	18.6	21.9	0.5	5.6
	1976	0.3	0.3			2.3	0.2	14.3	15.2	0.5	4.2
	1981	0.5	0.3			2.2	1.8	12.4	15.6	2.4	4.9
Philippines	1970	0.2	2.3	0.1	1.7			0.4	0.3	0.2	–
	1976	0.3	1.0	0.3	1.5			0.4	0.8	0.2	1.0
	1981	1.9	1.8	0.8	1.5			0.4	1.3	–	–
Singapore	1970	5.7	15.5	7.5	21.6	0.4	0.7			1.0	6.9
	1976	9.7	7.5	8.7	18.3	0.6	2.2			2.5	6.7
	1981	9.4	9.8	12.7	21.9	1.6	2.2			8.3	7.0
Thailand	1970	1.1	–	3.6	0.9	–	0.3	2.0	3.3		
	1976	3.7	–	4.2	1.3	0.7	0.3	2.3	3.0		
	1981	1.1	0.2	3.3	1.6	–	–	1.7	4.2		
ASEAN	1970	7.6	21.1	16.1	24.8	5.2	1.2	21.1	25.4	3.2	14.8
	1976	14.0	8.9	14.3	21.5	6.5	3.1	17.0	19.0	3.4	17.1
	1981	12.8	12.0	17.4	25.5	3.8	4.0	14.5	21.1	10.8	11.9

Sources: Malaysia, Ministry of Finance, *Economic Reports 1981/82* (1981) and *1982/83* (1982).

Note: Figures based on $US value of exports and imports as reported by national sources.

cost), were finalized with Japan in 1982 and the target date for completion was set at April 1985. Further private investment from Japan was expected to become available to complement domestic public and private capital contributions for Thailand's rock salt-soda ash project. At their fourteenth meeting in November 1982 the ASEAN Economic Ministers approved an agreement that opened the way for the Philippines to proceed with the establishment of its copper fabrication plant, again with Japanese financial participation.

Under the AIC programme, specific industries were identified for complementary development in the private sector and on a subregional basis and preferential tariffs were to be accorded to their products. Two specific packages in the field of automotive products had been approved, and a 50 per cent preferential tariff margin came into effect from 1 June 1982. It had been agreed that other arrangements for industrial development by joint ventures among ASEAN private investors would also qualify for a 50 per cent tariff reduction when traded between the participating ASEAN countries.

Recognizing the vital importance of food security on a regional basis for the nearly 250 million people of the ASEAN subregion, the ASEAN Food Security Reserve (AFSR) was instituted in July 1980. The Reserve as of 1982 contained 50,000 tons of emergency rice stocks. The ASEAN Food Security Reserve Board was fully operationalized to review the functioning of the AFSR scheme. The ASEAN Economic Ministers on Agriculture and Forestry considered the possibilities of bringing basic food commodities other than rice under the scope of the AFSR scheme. The fourteenth ASEAN Economic Ministers meeting reported that "considerable progress [was] achieved in ASEAN cooperation in forestry crops, livestock and fisheries, particularly in regard to the Food Security Reserve, the ASEAN Quarantine Ring and ASEAN Food Handling".[7]

In the area of transport the ASEAN countries agreed in January 1982 to expedite a feasibility study concerning establishment of a liner service and also decided to take a firm stand against any discriminatory attempts in civil aviation to harass or undermine ASEAN airlines.

As the oldest and most fully formed of the subregional groupings in the ESCAP region, ASEAN has achieved some success in forging collective views and strategies on major economic issues of common concern. In particular, the ASEAN members agreed to take

[7] ASEAN, "Fourteenth Meeting of the ASEAN Economic Ministers, Singapore, 11-13 November 1982" (1982), para. 20.

a common stand on issues facing the 1982 GATT Ministerial Meeting and the sixth session of UNCTAD scheduled for 1983. There is no doubt that this unity of action has permitted the whole to have a much stronger international voice than the sum of the parts. ASEAN has thus served as a persuasive example to the formation of other subregional groups in the ESCAP region.

The South Pacific Bureau for Economic Co-operation (SPEC) plays a leading role in promoting economic co-operation in the South Pacific subregion. It operates under the sponsorship of the South Pacific Forum, which is a political body composed of the leaders of Governments of the South Pacific countries. The South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA), covering trade and tariff matters, came into operation in July 1981, and further studies for closer economic co-operation among the members of SPEC were completed in May 1982. In July

Box I.15 Regional and subregional trade and tariff agreements

Intraregional trade expansion remains an important form of regional economic co-operation. The provision of adequate payments arrangements is, however, crucial to the success of trade liberalization efforts. At the regional level, the Asian Clearing Union (ACU), with membership of Bangladesh, India, Iran, Nepal, Pakistan and Sri Lanka, aims at facilitating multilateral payments, economizing on the use of the convertible foreign exchange reserves by encouraging the use of participating countries' currencies in regional transactions and thus supporting intraregional trade expansion. All payments for current transactions except payments arising out of the oil trade can be channelled through the clearing mechanism of ACU. The ACU's unit of account, the Asian Monetary Unit (AMU), is valued at 1 SDR, but the value can be changed by the unanimous vote of the Board of Directors. Payments channelled through ACU rose from 22.3 million AMUs in 1976, when ACU came into operation, to 228.4 million AMUs in 1981. Participation in ACU is open to all central banks or monetary authorities of regional members and associate members of ESCAP.

Under the Bangkok Agreement of 1975, the parties to which are Bangladesh, India, the Lao People's Democratic Republic, the Republic of Korea and Sri Lanka, the signatory countries agreed to provide tariff concessions on a number of items of trade among them. An evaluation report in 1981 indicated that intra-imports of the participating countries of products eligible for concessions increased by roughly 200 per cent from $US15 million in 1978 to $US45 million in 1979 as against a 70 per cent increase during the same period in the global imports of the products enjoying preferences under the Agreement. The twelfth meeting of the Standing Committee of the Agreement in December 1982 expressed some dissatisfaction at the erosion of tariff concessions resulting from tariff revisions by some signatory countries. However, all the countries expressed their keen interest in generating further trade expansion under the Agreement and in expanding its membership. In this regard they authorized ESCAP to approach other developing countries of the region in an attempt to persuade them to join the Agreement. The Committee also agreed to proceed with the second round of tariff negotiation, for which preliminary preparations regarding modalities and procedures had already been undertaken.

The major instrument for the expansion of intraregional trade in ASEAN continues to be the Preferential Trading Arrangements (PTA). The fourteenth meeting of the ASEAN Economic Ministers in November 1982 agreed on across-the-board 20-25 per cent tariff cuts for goods the import value of which for any member country totals less than $US10 million. Under the PTA, tariff reductions had previously been 20-25 per cent for goods whose annual import value did not exceed $US2.5 million. Under the new agreement, an additional 2,000 items were expected to receive preferential tariffs in addition to about 10,000 items which received benefits under the old rates and value ceilings. The fourteenth meeting of the ASEAN Economic Ministers also agreed to deepen the tariff cuts on non-food items already included in PTA and on future exchanges up to a maximum of 50 per cent. This was the latest in a series of steps to apply across-the-board tariff cuts on the basis of value of trade in place of ASEAN's earlier practice under PTA of offering products on an item-by-item, country-by-country basis. The new agreement was expected to significantly boost intra-ASEAN trade, which in 1982 represented about 15 per cent of ASEAN's total trade.

In the South Pacific the establishment in July 1980 and the coming into operation in July 1981 of the South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA) was a major step forward in regard to subregional co-operation. Under the Agreement, New Zealand granted duty-free and unrestricted access to its market on a non-reciprocal basis for almost all products exported by member island countries. Australia offered similar concessions, but these were made on a narrower, "positive list" basis.

In addition to market access as a means of development and diversification of island exports, SPARTECA recognizes the need for closer economic co-operation and development assistance aimed at enhancing the export capabilities of the South Pacific island countries. Australia and New Zealand have indicated their willingness to assist in the development and diversification of South Pacific island exports by providing market access as well as practical assistance and experience in the area of trade promotion and marketing techniques. Both countries have given their assurances that their implementation of the Agreement to establish a free trade area between them from the beginning of 1983 would not adversely affect their trading relations with the small island countries of the South Pacific or, for that matter, with other third countries.

1982, a number of proposals for strengthening the export trade of the member countries were agreed upon. These concentrated on limited bilateral agreements between countries covering products of mutual interest as well as multilateral product-specific agreements relevant to all countries of the subregion, especially in food products where a degree of complementarity exists between manufacturing capacity and raw materials supply.

A tangible form of subregional co-operation in the South Pacific is the Pacific Forum Line, which was established in 1977 to meet the special requirements of shipping services between Australia, New Zealand and various Pacific island countries. At the thirteenth meeting of the South Pacific Forum in August 1982, agreement was reached to expand the Pacific Forum Line's capital base to $US25 million, with major contributions from Australia, Fiji, New Zealand, Papua New Guinea, Samoa, Solomon Islands and Tonga. The Pacific Forum Line had been running at a loss since it started operation, but with the expansion envisaged these losses were expected to be substantially reduced. In view of the need to develop an effective and competitive air transport system to improve contact among the South Pacific island countries and between these isolated countries and the rest of the world, agreement was also reached on the need for a study of regional civil aviation. Other areas of co-operation include the Forum Fisheries Agency, established in 1979 to enable the South Pacific countries to adopt a collective approach to their fisheries resources, which are exploited not only by the island countries but also, and principally, by fleets from distant nations. The setting up of the Agency has enabled the island States to exploit more effectively the opportunities arising from the principle of the 200-mile exclusive economic zone.

The increasing interest in subregional economic co-operation based on the successes achieved by ASEAN is also reflected in the initiatives that emerged in south Asia in the early 1980s. Senior government officials of seven south Asian countries (Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) met together on several occasions during 1981 and 1982 to consider subregional co-operation in a variety of areas: agriculture, rural development, telecommunications, meteorology, health and population problems, transport, postal services, and scientific and technological co-operation. Specific programmes of action in each of these areas were being drawn up for consideration at a proposed meeting at foreign ministerial level scheduled for 1983. While moving forward cautiously, there was considerable enthusiasm and high hopes that substantial progress would be achieved for the collective benefit of the south Asian economies.

Despite the progress achieved through these attempts at intra-regional trade expansion at various levels, especially among developing ESCAP countries in subregional forums, considerable scope remains for further expansion judging by the continuing low volume of intra-regional trade. Thus, inter-developing ESCAP countries' trade, measured in terms of export value, accounted for only 21.4 per cent of total trade in 1980, an insignificant change from the 19.7 per cent recorded in 1970. Measured in terms of import value, these percentages were 14.2 and 19.8, respectively, in 1970 and 1980.

III. DEVELOPMENTS IN THE ENERGY SECTOR

Though a few developing ESCAP countries including Afghanistan, Brunei, Burma, China, Indonesia, Iran and Malaysia are comparatively self-sufficient in their primary energy requirements, for the developing ESCAP region as a whole commercial imports of petroleum products continue to provide about three quarters of commercial energy supplies.[1] The modern and modernizing sectors in the region are particularly dependent on petroleum imports. If these sectors are to continue to progress satisfactorily, their overwhelming reliance on imported petroleum must be reduced.

The region's commercial energy problem can be viewed in terms of the time span required for the countries to adjust their economic structures to accommodate higher energy prices and/or reduced supplies. In the short term, concerted efforts need to be made to conserve both mineral fuels and other currently available sources of energy. This can be attained through appropriate measures affecting both supply and demand to encourage more efficient utilization of an increasingly scarce resource. Longer-term transformation would necessitate, as quickly as possible but within economic bounds, the development of alternative and/or renewable forms of primary energy.

The immediate issues and the short-term policy responses to the energy crisis have been examined in detail elsewhere.[2] The longer-term issues in the region's energy equation have not received the same amount of attention since the first round of oil price increases beginning in late 1973. For this reason, this chapter will focus on regional trends in the development of conventional as well as new and renewable, commercial and traditional sources of energy.

Patterns of regional production and consumption of primary energy, particularly after the second wave of oil price increases in 1979-1980, reflect closely the negative impact on consumer demand of the oil price increases. They also reveal the positive effects of vigorous policy responses in inducing liquid energy conservation and substitution. The stabilization of oil prices during 1981 and 1982 was for the most part perceived as a transient condition. It apparently led to no drastic revision of national energy policies based on the long-term need to achieve structural transformation of energy sources. For example, local prices for petroleum products were increased in many countries of the region during 1981-1982 in order to reflect more fully the economic cost of hydrocarbons. These increases were also designed to encourage continued domestic exploration and production of both liquid and non-liquid energy as well as to promote greater conservation of imported hydrocarbons and substitution by alternatives.

A. CONVENTIONAL ENERGY PRODUCTION

Output of primary energy, including electricity, increased by about 13 per cent in the developing ESCAP region between 1973 and 1979 and then fell by 12 per cent during the subsequent two years. The sudden decline was largely attributable to the drastic cutback in oil and gas output in Iran. If Iran's production is excluded from the regional total, the output of primary energy in the region rose by nearly 1.5 per cent over 1979-1981 as against an average annual growth rate of almost 9 per cent per annum between 1973 and 1979.

The most notable development over this period was the changing structure of conventional energy sources. Solid forms of primary energy provided 59.3 and 35.3 per cent of total commercial fuel output of the developed and developing ESCAP countries, respectively, in 1973. The corresponding ratios fell marginally to 54.6 per cent in the three developed economies (Australia, Japan and New Zealand) but rose substantially to 51.3 per cent for the rest of the

[1] *Economic and Social Survey of Asia and the Pacific, 1980* (United Nations publication, Sales No. E.81.II.F.1), p.112.

[2] See, for example, "Short-term economic policy aspects of the energy situation in the ESCAP region", *Economic and Social Survey of Asia and the Pacific, 1980, op. cit.*, pp. 60-143; and Part II, Chapter V of the present *Survey*.

region in 1981. In terms of growth rates, solids production increased by 22 and 44 per cent, respectively, in the developed and developing ESCAP countries between 1973 and 1981. The oil price increases of the 1970s accelerated the policy-induced development of solid energy sources as alternatives, particularly in those less developed countries relatively well endowed with energy resources.

In large measure, this increased output of solid forms of energy during 1973-1981 was due to a 41 per cent increase in output by China, the region's largest producer, and a 59 per cent increase in India. Much of the increase occurred in the five years after 1973, total output rising by only 1 per cent between 1979 and 1981 mainly because of a fall-off of 2.6 per cent in China's output of solids over the period.

Solids production was, however, expected to increase more rapidly after 1981. In China, a large number of coal mines, with a total annual capacity of about 100 million tons, were under development in the early 1980s. Several major new mines were expected to come into production by 1985. In India, infrastructural constraints, including in the power sector, had been responsible for the slow growth of only 6 million tons of coal output during 1973-1980; elimination of some of these bottlenecks resulted in an impressive production expansion of over 10 million tons in 1981 alone. In 1980-1982, mining capacity was rapidly augmented, as half of the total coal supply under the sixth plan was scheduled to come from new mines. Funds were being concentrated on projects nearing completion, especially on open pit mines, in order to bring new mines into operation more rapidly.

Production of liquid fuels in the developing ESCAP region declined steeply during 1973-1981. Aggregate output was reduced by about one third, falling by 25 per cent during 1979-1981 alone. As a result, liquids constituted only about 40 per cent of regional primary energy production in 1981, compared with 59 per cent in 1973. If Iran is excluded from the total, then liquids output registered a rise of almost 58 per cent between 1973 and 1981; for 1979-1981, however, it declined by almost 1 per cent.

China, the region's largest producer of liquid energy for domestic use since the early 1980s, has expanded hydrocarbon output substantially; two other countries in the category are India and Malaysia. Over 1973-1981, production doubled in China and India and more than tripled in Malaysia. Following the start of the second round of oil price increases in 1979, however, output of liquid fuels generally stagnated. Production fell by almost 5 per cent in China, and was more or less unchanged in Indonesia and Malaysia during 1979-1981. By contrast, India experienced an increase of 16 per cent over the same period.

In China, efforts to counter declining liquids production were intensified after the 1979-1980 price rise, especially through the exploration and development of offshore areas. However, because of

Box I.16 Basic energy terms

Energy in its natural form or not transformed before use is normally termed primary energy. The distinction between primary and secondary forms of energy is of greatest significance in relation to power generation. Geothermal or hydropower forms are regarded as primary energy while thermal-generated power is secondary energy. Nuclear fission power is conventionally referred to as primary energy, although this does not conform strictly with the above definition, as the primary energy equivalent of nuclear power would be the energy contained in the uranium fuel used to generate the power itself. By analogy, such biomass fuels as charcoal, methanol and ethanol and dung are strictly secondary forms of energy, particularly if they are produced from wood or fodder, as the case may be.

Commercial energy generally denotes fuel sold in private trade or provided by a public utility. It is thus virtually synonymous with conventional energy, although, again, wood and certain other traditional fuels which are widely traded are normally not included in this category. Traditional energy, by contrast, relates to fuels generally utilized in pre-industrial societies. It is largely synonymous with biomass fuels,, although this ordinarily excludes hydrocarbons and hydropower despite the fact that coal and water wheels, for instance, have been in use for many centuries.

Renewable energy refers to fuels the supply of which is partly or totally regenerated over time; such fuels can be either primary or secondary in nature. It covers commercial or conventional energy such as hydropower, traditional energy sources such as wood and vegetables and their fuel derivatives and newly rediscovered energy sources such as wave and tide movements, wind and sunlight. Combustible and/or fermentable materials of vegetable origin, denoted as biomass fuels, are largely renewable, and some of their derivatives include methanol (methyl alcohol), ethanol (ethyl alcohol), biogas and wood gas.

A variety of units in the metric and imperial systems have been used to measure energy quanta. One of the standard measurements adopted by the United Nations for comparison of energy volumes obtainable from different fuels is the metric ton of coal equivalent, which is based on the heat energy which may be obtained under ideal conditions.[a] Electrical energy is additionally expressed in terms of the watt-hour and its multiples: the kilowatt-hour (kWh), megawatt-hour (MWh) and gigawatt-hour (GWh), the last standing for billion watt-hours.

[a] United Nations, *Yearbook of World Energy Statistics*, various issues.

Box I.17 World oil prices

The world oil market has reflected significant structural changes in the aftermath of the second oil price shock of 1979-1980. A considerable fall in world oil demand was brought about by the persistent recession in the industrialized economies, on the one hand, and notable liquid energy savings through conservation and substitution measures, on the other. OPEC crude oil production, for example, fell by about 12 per cent (to 111.7 million metric tons) in 1980 and by a further 16 per cent (to 93.5 million metric tons) during 1981. Preliminary data indicate a further decline in OPEC crude oil output in the first half of 1982, when the amount extracted was 24 per cent less than during the same period of 1981.[a]

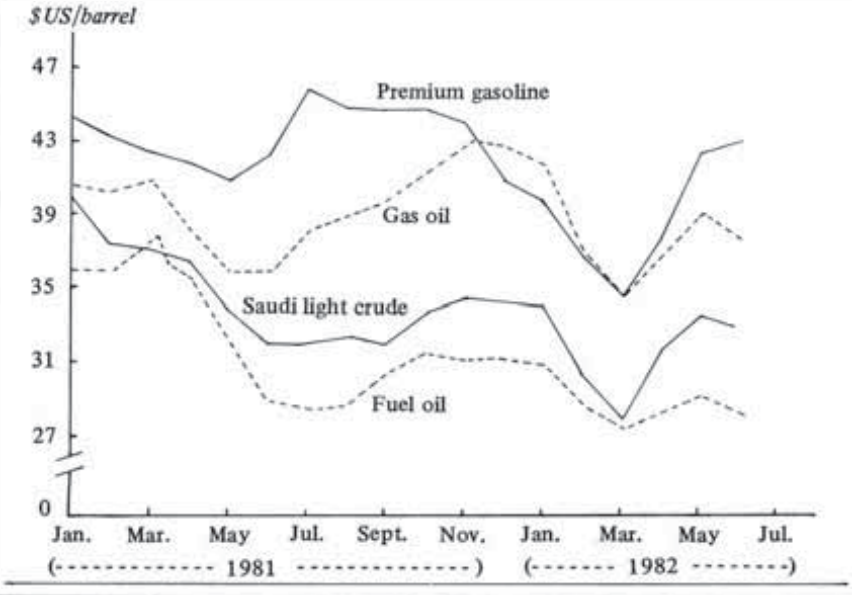
Weaker world demand and the emergence of surplus production capacity are illustrated by the behaviour of spot prices for crude oil and petroleum products. Spot prices for Saudi Arabia light crude, for example, fell from an average of about $US38 per barrel during the first quarter of 1981 to $US34 per barrel during the last quarter. The first half of 1982 witnessed further declines; average spot prices fell to as low as $US28.90 per barrel in March but recovered to an average of $US32.75 per barrel during the second quarter. Further decline was indicated during the second half of 1982.

Spot prices for refined petroleum products, by and large, exhibited a similar downward trend in 1981 and 1982. Rates of decline, however, tended to vary considerably among these products; premium gasoline appears to have commanded a comparatively firmer market than other products. The favourable financial impact of changes in spot prices would, however, be limited for countries relying on long-term oil contracts at predetermined official prices as a means of securing supplies. However, it could be expected that these fixed-price contracts and other government-to-government deals would lose much attraction at the time of their renewal or renegotiation, especially if easier supply conditions were to persist.

The abundant supply on the world market in 1981 and 1982 helped stabilize nominal official oil prices, thus ensuring a fall in real terms in the cost of liquid energy. Over the short term, the net impact of this relatively favourable development on the trade balance of non-oil developing ESCAP countries necessarily depended on internal demand reactions. All told, however, the stabilization in nominal prices and effective decline in real costs for petroleum products provided much-needed relief for the oil-importing developing ESCAP economies.

[a] United Nations, *Monthly Bulletin of Statistics*, vol. XXXVI, No. 10 (October 1982), pp. 37-39.

Spot market prices for crude oil and refined petroleum products, January 1981-June 1982



the relatively long gestation period of oil projects, significant growth in oil output was not expected until the mid-1980s. Emphasis therefore returned to solids. As a result, energy development programmes, including coal mining projects, absorbed about one fifth of spending on capital construction between 1979 and the first half of 1982.

India's oil output showed a substantial recovery in 1981 after a serious decline in the preceding year. Prospects for substitution of domestic crude for imports were good, as domestic production was expected to grow almost twice as fast as consumption. As a result, the share of consumption to be met by domestic crude by 1985 was expected to be about 62 per cent, as against 44 per cent in 1982.

Iran used to be the largest oil producer in the developing ESCAP region. However, oil output fell very rapidly, by over 289 million tons of coal equivalent or 75 per cent between 1978 and 1981. Gas production declined by nearly 15 million tons of coal equivalent or 65 per cent over the same period. These declines in output reflected, among other factors, a change in policy by Iran having the objective of a long-term reduction in dependence on income from oil exports.

Crude oil production in Indonesia increased strongly during the first half of 1981, although weakening external demand led to a production fall-off in the second

half. Total hydrocarbon output rose by just 1.3 per cent for 1981 as a whole. The oil glut in the international market and domestic policies to prolong the life of oil reserves combined to slow down Malaysia's liquids production considerably after its very rapid growth between 1973 and 1979. Total crude oil output remained virtually unchanged from 1979 on.

Gas production (excluding Iran) almost tripled in the developing ESCAP region during 1973-1981. However, the share of gas in total primary energy output remained small, averaging about 7 per cent in the early 1980s. Most of the increase in gas production was centred in Brunei and Indonesia, the combined output of which reached 35.6 million tons of coal equivalent in 1981 compared with 4.8 million in 1973. As in the case of liquid energy, gas production slowed down markedly after 1979. Increases in non-Iranian output, mostly in Indonesia, averaged 6.2 per cent per annum over 1979-1981, while the corresponding annual growth rate for 1973-1979 was 27 per cent.

Table I.31 Developing ESCAP region. Primary energy production, 1973-1981

(Million tons of coal equivalent)

	1973	*1979*	*1980*	*1981*
Solids	379.5	542.5	537.1	548.4
of which:				
China	307.1	445.4	434.3	434.0
India	56.7	75.0	79.4	89.9
Rep. of Korea	9.5	12.1	12.2	13.1
Liquids	635.2	563.6	431.8	422.8
of which:				
Brunei	16.4	18.4	19.0	19.7
China	74.5	154.3	154.1	147.2
India	10.5	18.7	13.7	21.7
Indonesia	97.4	113.5	112.9	114.4
Iran	428.1	234.6	109.1	96.1
Malaysia	6.3	19.6	19.1	19.8
Gas	48.3	87.8	79.0	79.7
of which:				
Brunei	2.6	12.9	13.6	13.3
China	9.4	19.3	19.0	16.9
Indonesia	2.2	16.4	20.7	22.3
Iran	24.1	23.9	9.5	8.0
Electricity	10.9	16.3	17.4	18.5
of which:				
China	4.7	6.2	6.8	7.4
India	3.9	5.9	6.1	6.4
Pakistan	0.6	1.0	1.1	1.1
Rep. of Korea	0.2	0.7	0.7	0.7
Total developing ESCAP region	1 073.9	1 210.2	1 065.3	1 069.4
Total excluding Iran	621.7	951.7	946.7	965.3

Source: United Nations, *1981 Yearbook of World Energy Statistics* (forthcoming).

Box I.18 Technologies for improved coal utilization

Considerable interfuel substitution in favour of coal, particularly for electricity generation, took place in many countries in the ESCAP region in the wake of the oil shocks of the 1970s. This substitution trend, which is expected to become more pronounced, has stimulated considerable research on technologies to improve the efficient use of solid fuels and minimize environmental pollution.

One such technology is the "integrated gasification combined cycle" (IGCC) process, which converts coal into a producer gas of low heat value that can be purified with relative ease. The clean gas is then burnt in a combustion turbine at a temperature of at least 1,100 degrees Celsius, and the exhaust gases are channelled through heat-recovery steam generators to power steam turbines. Electricity production on this thermal basis would be about 10 per cent less expensive than that from conventional United States steam power plants with stack gas scrubbers to remove impurities. Advances in water-cooling systems would make it economically feasible to operate such plants at considerably higher inlet temperatures, as generation costs tend to drop by about 5 per cent for every increase of about 65 degrees Celsius.

Another nascent technology which has aroused interest in the region is the principle of "pressurized fluidized bed combustion" (PFBC), which uses coal together with sand or other inert materials. Fluidization is achieved by forcing a stream of hot air, at rising velocity, upward through a coal bed. Solid particles are thus increasingly disturbed, eventually producing a bubbling mass similar to a boiling liquid. Efficiency is greatly enhanced by placing the combustor inside a pressure cell. Low operating temperatures prevent the formation of clinkers by ash, thus inhibiting emission of objectionable levels of nitrogen oxides. By adding limestone or dolomite to the fuel charge, sulphur is retained in the firebed. Boilers based on this principle have already entered industrial use, and PFBC may even be adapted to use in households. PFBC in power stations could achieve particularly high conversion efficiencies, probably higher than 40 per cent, through the use of hot pressurized exhaust gases to drive additional gas turbines in a combined system.

Primary electricity constitutes a very small part of primary energy production in the developing ESCAP region. The relevant shares were 1 per cent in 1973 and 1.7 per cent in 1981. Aggregate primary electricity generation almost doubled between 1973 and 1981, although, again, the rate of increase fell off in the later years. Between 1979 and 1981, primary electricity output expanded at an average annual rate of 6.5 per cent; this was similar to that of gas production in the region (excluding Iran). Despite its small share in total primary energy production, power generation presented generally the greatest opportunity for interfuel substitution in most countries of the region.

Table I.32 Developing ESCAP region. Primary energy consumption, 1973-1981

(Million tons of coal equivalent)

	1973	*1979*	*1980*	*1981*
Solids	381.1	547.1	545.4	553.5
of which:				
China	306.6	444.0	432.7	432.6
India	57.4	75.3	82.1	88.0
Mongolia	0.8	1.6	1.7	1.8
Pakistan	0.9	0.9	1.4	1.3
Philippines	–	0.4	0.5	0.6
Rep. of Korea	10.6	17.9	18.7	20.6
Thailand	0.1	0.5	0.5	0.6
Viet Nam	2.8	4.8	5.8	6.2
Liquids	205.6	318.8	319.4	319.0
of which:				
Bangladesh	1.1	1.8	2.1	2.1
Brunei	0.3	1.0	0.9	1.0
Burma	1.1	1.4	1.4	1.5
China	68.9	123.9	121.9	114.2
Hong Kong	4.2	7.1	7.2	7.6
India	26.3	35.8	36.5	39.5
Indonesia	15.7	25.8	27.6	29.1
Iran	19.3	27.7	27.1	25.6
Malaysia	6.4	8.7	11.0	10.4
Mongolia	0.5	0.8	0.9	0.9
Pakistan	4.6	6.4	6.4	6.3
Papua New Guinea	0.6	0.8	0.9	0.8
Philippines	12.6	16.3	16.3	16.2
Rep. of Korea	18.0	32.5	32.7	33.6
Singapore	4.6	9.5	7.6	11.0
Sri Lanka	1.5	1.3	1.3	1.4
Thailand	10.5	15.2	14.4	14.6
Viet Nam	8.2	1.5	1.7	1.8
Gas	32.5	55.2	51.2	52.8
of which:				
Bangladesh	0.8	1.5	1.5	1.9
Brunei	0.6	2.3	2.8	2.9
China	9.4	19.3	19.0	16.9
India	0.8	2.1	1.7	2.3
Indonesia	2.2	5.3	5.4	6.6
Iran	13.3	14.8	9.2	7.7
Malaysia	0.5	2.3	2.5	3.5
Pakistan	4.6	7.0	8.4	10.0
Electricity	10.9	16.4	17.5	18.6
of which:				
China	4.7	6.2	6.9	7.4
India	3.9	5.9	6.1	6.4
Pakistan	0.6	1.0	1.1	1.1
Philippines	0.3	0.4	0.7	0.7
Rep. of Korea	0.2	0.7	0.7	0.7
Thailand	0.3	0.5	0.5	0.6
Total developing ESCAP region	630.1	937.5	933.5	943.9

Source: United Nations, *1981 Yearbook of World Energy Statistics* (forthcoming).

To sum up, a definite shift occurred in favour of solid forms of energy exploitation in the developing ESCAP region following the first oil price shock. However, a definite slow-down appeared in the rates of growth of various kinds of primary energy output following the second round of oil price increases. Solids production grew by about 1 per cent during 1979-1981, offsetting a decline of about the same percentage in liquids output in the region (excluding Iran). Non-Iranian gas and electricity production each increased at the faster annual rates of about 6.1 and 6.7 per cent, respectively, in the same period, compared with average annual growth rates of 27 and 8.3 per cent, respectively, over 1973-1979.

B. CONVENTIONAL ENERGY CONSUMPTION

Recent developments in regional consumption of different forms of primary energy have followed broadly the above-mentioned production patterns and trends. Prodded by concerted policies for output conservation and demand restraint, aggregate energy consumption in the developing ESCAP economies rose by only 0.7 per cent between 1979 and 1981. This small increase in consumption contrasted sharply with an overall increase during 1973-1979 of 48.8 per cent.

1. Solid fuels

These types of primary energy provided 60.5 per cent of aggregate energy consumption in the developing ESCAP region in 1973 and 58.6 per cent in 1981. In terms of annual rates of expansion, regional demand for solids rose by 7.3 per cent between 1973 and 1979 but, in line with the slow-down in aggregate energy consumption, by only 0.6 per cent per year over 1979-1981. It appears, therefore, that the developing ESCAP economies in general achieved some success in their efforts to restrain energy use or substitute solid fuels for other energy sources following the first oil price shock.

This regional pattern of solids consumption, however, masks significant variations at the individual country level. To begin with, several economies with better solid energy resource endowments were able more easily to meet increased domestic demands. These included China, India, Mongolia and Viet Nam, the solids consumption of which accounted for almost 96 per cent of the regional total in 1981. Their combined demand for solid fuels increased by 42.9 per cent, or 7.1 per cent annually, during 1973-1979 but slowed down to just 0.6 per cent per year over 1980-1981.

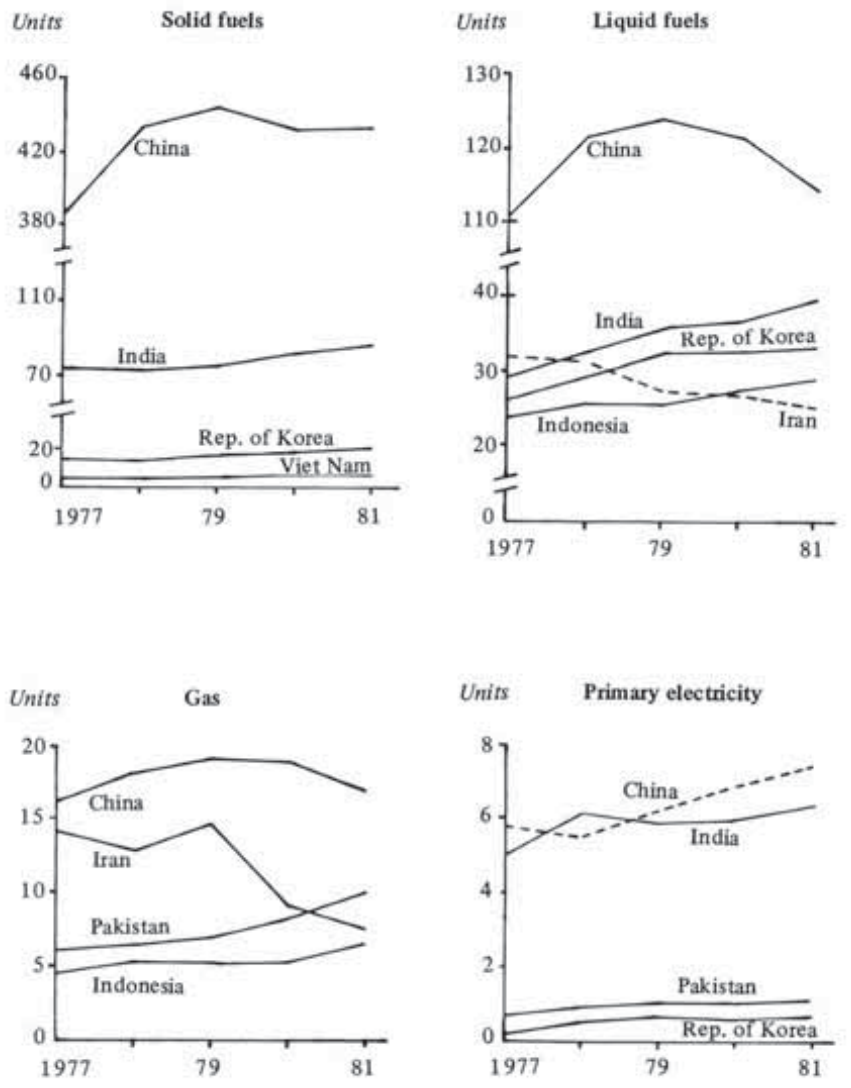
As a percentage of total primary energy needs, the relative share of solids remained by and large unchanged in India and Mongolia but declined marginally to 76 per cent in China during 1981. China implemented a vigorous conservation programme in response to declining solids output; this was expected to lead to a yearly saving of upwards of 20 million tons of standard coal. As a preliminary result, the energy efficiency of industrial production was reported to have improved by 6 per cent in 1981.

Viet Nam was able to derive one quarter of its primary energy consumption from locally produced solids in 1973, and over three quarters eight years later. This rising interfuel substitution trend, however, was partly due to the fact that over the same period the country's total energy requirements were reduced by almost 27 per cent to 8.1 million tons of coal equivalent in 1981 from 11.1 million in 1973.

Solid fuel demand in the rest of the developing ESCAP region rose more strongly, totalling 61 per cent between 1973 and 1979 and a further 16 per cent over 1979-1981. These increases were equivalent to annual growth rates of 10 and 8 per cent, respectively. The Philippines, the Republic of Korea and Thailand exhibited perhaps the fastest rates of growth in solids consumption, although admittedly from very low initial bases in the Philippines and Thailand. Most of this growth related to interfuel substitution in electricity generating plants.

Demand for solid fuels in the Philippines rose from 35,000 tons

Figure 1.10 Selected ESCAP countries. Consumption of primary commercial energy, 1977-1981
(Million tons of coal equivalent)



of coal equivalent in 1973 to 590,000 tons, or 3.4 per cent of total energy needs, in 1981. Imports provided one quarter of domestic solids requirements in 1973 and almost three fifths in 1981. The sector which exhibited the greatest expansion in the use of solids was electricity generation. Under a five-year energy programme, the share of oil in electricity production was planned to fall to 30 per cent by 1986 from about 70 per cent in 1980. The interfuel and interfactor substitutes included coal, hydro and geothermal resources.

Consumption of solid forms of primary energy in the Republic of Korea almost doubled between 1973 and 1981, rising from 10.6 to 20.6 million tons of coal equivalent. These amounts were equivalent to about 37 per cent of total energy requirements in the same years. Imports satisfied 36 per cent of solid fuel needs in 1981, compared to just under 6 per cent in 1973. Policies to reduce oil dependence through the substitution of solids concentrated largely on electricity generation. No new oil-fired power plants were to be constructed during the fifth plan period; some existing systems were to be converted to coal or gas and others were to be retired or used for reserve capacity. The proportion of oil-based generation was scheduled to decline to 22 per cent in 1986 from 79 per cent in 1980. Nuclear power generation, however, was planned to reach 39 per cent in 1986 as against 9 per cent of total electricity output during 1980.

Demand for solids accelerated from 136,000 to 608,000 tons of coal equivalent in Thailand over 1973-1981. This demand, however, was relatively insignificant as it accounted for less than 4 per cent of total energy needs in 1981. Power generation in Thailand relied increasingly on lignite (brown coal) after 1979 and on natural gas from 1981. Under the fifth five-year plan, the proportion of electricity output based on coal and hydro sources was expected to double, while gas-fired capacity was planned to rise by 150 per cent.

Regional consumption of solids, paralleling the trend in production, slowed down appreciably in the early 1980s. Demand for solid fuels in the developing ESCAP countries expanded by a total of only 1.2 per cent over 1979-1981. This fall-off was attributable largely to a reduction of 2.4 per cent in China, by far the biggest producer and consumer with a share of about 78.5 per cent of solids output and demand within the region. However, most other economies – particularly India, the Republic of Korea and Viet Nam – registered increases of various magnitudes in their solid fuel requirements. These rose by 17.2 per cent for those three countries as a group during 1979-1981. Consequently, the share of solids in total primary energy demand, excluding that of China, rose from 33 to 35.7 per cent in the same period.

Efforts of developing ESCAP countries to increase their solids consumption and/or raise the solids contribution to their total energy requirements in general brought relatively modest results. Among other reasons, limited opportunities appeared for substitution of non-solid energy sources. This was, in turn, attributable to the nature of existing capital stocks as well as industrial technologies. These factors will be discussed later in the context of regional demand for liquid forms of primary energy.

It is instructive to note by way of comparison that consumption of solid fuels rose at a much slower pace in the three developed ESCAP countries. The growth in consumption in these countries totalled 17 per cent over 1973-1981, compared to 45 per cent for the developing ESCAP region. Solids provided 24 per cent of primary energy needs of these economies in 1981, up from 22 per cent during 1973. Environmental considerations appear to have exerted some influence over the choice of substitutes for liquid energy in these countries, with other important factors being relative prices and the availability of domestic supplies. Consumption of gaseous fuels, for example, expanded by about fourfold in these countries; these primary energy sources provided 2.5 per cent of total requirements in 1973 but 9.4 per cent eight years later.

2. Liquid fuels

Regional demand for liquids in the developing ESCAP region peaked in 1979, the beginning of the second oil price shock. Between 1973 and 1979, consumption of petroleum products increased by 55 per cent, implying an average annual growth rate of 9.2 per cent. For 1979-1981, however, demand remained by and large unchanged at around 319 million tons of coal equivalent. This static total consumption level was, again, primarily due to a reduction during 1979-1981 of almost 8 per cent in liquid energy consumption in China, by far the biggest regional consumer, offset by increases in India, Indonesia, Malaysia and Singapore.

The decline in liquid energy consumption in China during 1979-1981 was largely due to vigorous conservation measures made imperative by the fall-off in oil production in recent years. Liquid energy consumption in other relatively important oil producers among the developing countries of the region consisting of (apart from China) Brunei, Burma, India, Indonesia, Iran and Malaysia grew by 7.5 per cent per year during

1973-1979 and 3.5 per cent per year during 1979-1981. By contrast, the consumption of liquid energy in the other developing ESCAP countries (excluding China) grew by 6.6 and 1.7 per cent per annum during the same two periods, respectively.

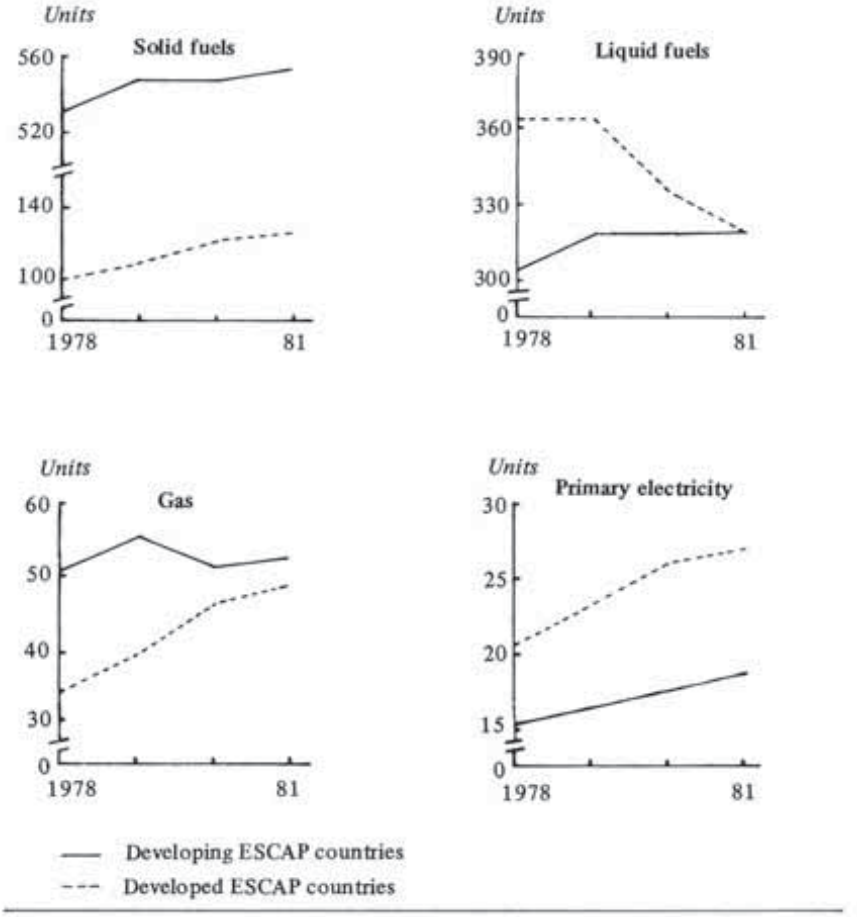
It would thus appear that differences in the nature and urgency of energy substitution in countries with different energy resource endowments contributed significantly to energy consumption growth rates in the region. This is corroborated by the fact that domestic demand for petroleum in two of the region's net oil exporters, Indonesia and Malaysia, exhibited high elasticities with respect to real income and industrial growth. In fact, given existing consumption rates and assuming no major oil discoveries, the gap between domestic demand and supply in Malaysia was expected to widen toward the end of the 1980s. However, only about one fifth of the territories with hydrocarbon potential had been explored and drill-tested.

Policy measures to induce energy conservation in Malaysia included several increases in petroleum product prices in response to higher world prices for liquid fuels. On social welfare grounds and to promote industrial and transport growth, however, the Government also increased subsidies on such items as kerosene and diesel fuel amounting to up to one half of market prices. Energy pricing policy in Indonesia was also designed to keep widely used liquid fuels at affordable levels. In the early 1980s, however, efforts were made to reduce the fiscal drain of subsidies, which had grown to over 1,500 billion rupiah in 1981/82 from less than 200 billion rupiah in 1978/79. Petroleum product prices, for example, were raised by an average of about 60 per cent in January 1982. The subsidy to domestic consumption of hydrocarbons was thus expected to be reduced to 3-4 per cent of GDP in 1982, compared with 5-6 per cent in 1981.

Viet Nam encountered perhaps the largest reduction in consumption of liquid energy of all the developing ESCAP countries. In 1981, hydrocarbon consumption fell to 1.8 million tons of coal equivalent, or 22.5 per cent of the primary energy total, from 8.3 million tons, or 74.5 per cent, in 1973. As a result of a variety of policy measures, Sri Lanka managed to reduce its liquids requirements marginally from 1.5 to 1.4 million tons of coal equivalent over the same period. These quantities accounted for 94 and 87 per cent of its total energy demand in 1973 and 1981, respectively. China and Iran each experienced an overall reduction in its liquids consumption of about 8 per cent between 1979 and 1981. This contributed to declines of 4 and 12 per cent in total primary energy consumption in China and Iran, respectively, over the same period. There was a fall of 5 per cent in liquids consumption in Malaysia during 1981. However, a 40 per cent increase in gas demand in that year contributed to a rise of almost 4 per cent in Malaysia's primary energy requirements.

Several other ESCAP countries, including Bangladesh, Brunei,

Figure I.11 Developing and developed ESCAP countries. Consumption of primary commercial energy, 1978-1981
(Million tons of coal equivalent)



Burma, Pakistan, Papua New Guinea, the Philippines, the Republic of Korea, Sri Lanka and Thailand, were able to limit liquids demand growth to 2.3 per cent between 1979 and 1981 despite an increase of almost 7 per cent in total energy usage. This was the net result of various conservation and substitution measures. Increases in imported oil prices were to an important extent passed on to domestic consumers in most of these countries. In a few cases, however, considerable time lags intervened before full domestic price adjustments were made. In addition, some price differentials between different fossil fuels were maintained, implying an element of subsidy. As in Malaysia, such policies were designed generally to lighten the burden on lower-income groups or to promote industrial and commercial growth.

In addition to these measures, concerted policy measures were initiated to encourage interfuel or interfactor substitution, particularly in favour of electric power generation, in the Philippines, the Republic of Korea and Thailand. Natural gas was expected to provide about 62 per cent of hydrocarbon consumption in Bangladesh in 1985, up from 45 per cent five years earlier. Gaseous fuels and hydroelectricity provided almost one half and one third, respectively, of the increase in commercial energy supplies in Pakistan over 1979-1981; increased reliance on domestic natural gas to reduce hydrocarbon imports received considerable attention from the Government.

In contrast to the developing ESCAP region, the three developed ESCAP countries were able to slow down the growth of their liquids consumption appreciably following the first oil price shock. Consumption in these countries grew by only 3.1 per cent between 1973 and 1979, compared with 55 per cent for the developing ESCAP countries; it then fell by 12.5 per cent in 1980-1981, compared with unchanged liquids requirements in the remainder of the ESCAP region. As a result, the share of liquids in total energy use in the developed ESCAP countries fell steadily from 72.5 per cent in 1973 to 68 per cent in 1979 and 61 per cent two years later. The resulting gap was filled largely by a considerable rise in gas consumption in these three economies.

The reasons for the continuing importance of liquid fuels in total energy consumption in the ESCAP region are several. The transport and industrial sectors in most of these countries rely heavily on imported hydrocarbons. The transport sector depends almost exclusively on liquids and is estimated to consume about one half of the supply of petroleum products. Direct industrial use accounts for between 20 and 30 per cent of liquids demand. However, natural gas provides substantial industrial power in Pakistan and, to a lesser but increasing extent, in Bangladesh and Indonesia.[3]

The particular type of capital stock within the transport sector provides the major opportunity for substitution of fuel sources between the different mineral hydrocarbon by-products. Such interfuel substitution must necessarily be regarded as a medium- to long-run process because existing capital stock cannot simply be written off. Several countries, including Bangladesh and Thailand, are exploring the possibilities of a higher level of gaseous fuels usage in their transport sector, while others, such as Fiji, Papua New Guinea and the Philippines, are developing biomass sources. The possibilities for large-scale substitution of the latter energy form in transport, however, appear to be limited in the immediate future owing to technical and financial constraints.

As for the industrial sector, there appears to be far less scope for fuel substitution than had earlier been expected. A detailed analysis of 11 major industries and examination of a plethora of different processes and activities have found few substitution possibilities feasible over the short term.[4] The few exceptions relate to cases where indigenous sources of primary energy have already been developed so that interfuel substitution or alternative energy exploitation becomes both technically feasible and economically viable.

The brightest prospects for greater fuel efficiency in the industrial sector can be found in such large-scale and energy-intensive activities as aluminium and cement production, paper making, and the smelting of metals and refining of petroleum. These industries are, however, important in only a few developing ESCAP countries. In addition, the necessary improvements and conversion of capital equipment are a medium- to long-term proposition and are often practicable and economically worthwhile only when capital equipment is being replaced. Thus, the potential for significant savings in energy use through these means in the immediate future is rather limited.

Comparatively greater scope seems to exist, however, for improving energy utilization and conservation in transport and industry. Pricing policies for commercial energy, such as the reduction of subsidies or the permitting of full flow-on of increased import prices, have been widely relied on in most developing ESCAP

[3] *Economic and Social Survey of Asia and the Pacific, 1981* (United Nations publication, Sales No. E.82.II.F.1), pp. 72-73.

[4] *Ibid.*, p. 102.

countries for this purpose. In addition, discriminatory measures have also been imposed against specific energy-consuming subsectors, for example private motor transport and equipment such as air-conditioners and large-volume engines. Nevertheless, the restraining impact on energy use of these policy measures, particularly with respect to private transport, has been neither uniform nor clear-cut among countries of the region and thus does not permit ready generalization.[5] It has been increasingly recognized that final demand for liquid energy, especially in private transport and households, depends to a considerable extent on several other variables, including income distribution, standard of living, primary and secondary costs of substitutable energy sources and availability and convenience of alternative means of transport.

These factors account in no small part for the fact that overall reliance on liquids increased only slightly between 1973 and 1981, while the relative importance of solids decreased only marginally. In terms of total energy consumption, liquid fuels provided 32.6 per cent of the developing ESCAP region's requirements in 1973 and around 34 per cent in 1980-1981. The respective ratios for the major oil-producing countries in the region were 25.6 and about 28 per cent. The non-oil producing economies, however, exhibited a slightly different pattern. Hydrocarbons provided almost 75 per cent of their total energy needs in 1973, about 71 per cent in 1979 and approximately 68 per cent in 1981. Thus, with few exceptions, the relative importance of liquid fuels did not change appreciably between 1973 and 1981.

Reliance on the price mechanism to induce interfuel substitution is likely in practice to be of limited effectiveness in achieving any substantial degree of substitution from liquids to solids in the immediate future. Furthermore, it could prove to be counter-productive in its impact on output and employment, and on export competitiveness in the medium term.[6] This suggests the need for a better understanding of the influence on energy factor substitution of policy-induced variations in the prices of non-fuel inputs. Further analyses of the complex sectoral and factor substitution relationships at the country level are thus essential. This is all the more important if specific policy packages to encourage liquids substitution are to be devised to suit the varying conditions and requirements of the developing ESCAP economies.

3. Gas and electricity

Similar to the behaviour of demand for liquids and solids, regional gas consumption peaked in 1979 after increasing by about 70 per cent from 1973. Between 1979 and 1981, however, gas consumption fell by 4.4 per cent. Most of this decline was attributable to reduced consumption in China and Iran, though this was partially offset by increases in Indonesia, Malaysia and Pakistan.

Apart from their much slower consumption growth, gaseous resources constitute only a small proportion of energy consumption in the developing ESCAP region. They accounted for 5.2 per cent of energy use in 1973, 5.9 per cent in 1979 and 5.6 per cent two years later. The potential of gas as an interfuel substitute in the region thus appears limited. This pattern of the developing ESCAP countries' gas demand differed significantly from the increasing (relative) importance of gas fuels in the three developed countries of the region. Gaseous resources consumption in these countries accounted for 9.4 per cent of total energy usage in 1981, compared to just 2.5 per cent eight years earlier.

Primary electricity is the only form of conventional energy which was subject to steady increases in demand on a region-wide basis throughout 1973-1981. Consumption of power from this source expanded by 50 per cent during 1973-1979 and by another 13 per cent over 1979-1981. Together, these trends imply an average annual growth rate of 8.8 per cent from 1973 on. Primary electricity usage in the Republic of Korea, and to a lesser extent in the Philippines and Thailand, rose from a very low initial base, and thus faster than the regional average. On the whole, however, primary electricity, mostly from hydro sources, constituted only a tiny fraction of total energy usage of the developing ESCAP region, accounting for only 1.7 per cent of the total in 1973 and 2 per cent eight years later.

Taking into account the usage of coal, oil or gas in thermal power stations, however, total (primary plus secondary) electricity production was much greater. Electricity production increased by a total of 77 per cent between 1973 and the peak year of 1979 and rose by a further 11 per cent during 1979-1981. Thermal stations provided an increasing share of electricity output, reaching 75.6 per cent in 1979 as against 71.2 per cent eight years earlier. In 1979-1981, production from coal- and oil-based plants stabilized at around 75 per cent of regional electrical generation. Expansion of thermal power generation in the 1970s took place at the expense of hydropower, the relative importance of which fell from almost 28 per cent in 1973 to 23 per cent in 1981. Nuclear power provided approximately 1 per cent

[5] See Part II, Chapter V of this *Survey*.

[6] *Economic and Social Survey of Asia and the Pacific, 1981, op. cit.*, p. 102.

Table I.33 Selected developing ESCAP countries. Electricity generation by fuel types, 1973, 1979 and 1981

(Billion kilowatt hours)

		Total	Thermal	Hydro	Nuclear	Geothermal
Bangladesh	1973	1.4	1.0	0.4	–	–
	1979	2.4	1.8	0.6	–	–
	1981	2.9	2.3	0.6	–	–
China	1973	149.5	111.5	38.0	–	–
	1979	281.9	231.8	50.1	–	–
	1981	309.3	249.0	60.3	–	–
India	1973	72.8	41.4	29.0	2.4	–
	1979	112.8	64.4	45.5	2.9	–
	1981	125.9	73.6	49.2	3.2	–
Indonesia	1973	3.1	1.6	1.5	–	–
	1979	6.5	4.0	2.5	–	–
	1981	7.7	4.9	2.8	–	–
Iran	1973	12.1	9.3	2.8	–	–
	1979	18.5	14.5	4.0	–	–
	1981	16.9	13.9	3.0	–	–
Malaysia	1973	4.8	3.7	1.1	–	–
	1979	8.8	7.6	1.2	–	–
	1981	9.5	8.2	1.3	–	–
Mongolia	1973	0.7	0.7	–	–	–
	1979	1.3	1.3	–	–	–
	1981	1.7	1.7	–	–	–
Pakistan	1973	9.3	4.4	4.4	0.5	–
	1979	13.0	4.5	8.4	0.1	–
	1981	16.1	6.9	9.1	0.1	–
Philippines	1973	13.2	10.8	2.4	–	–
	1979	17.0	13.5	2.9	–	0.6
	1981	19.0	13.1	3.8	–	2.2
Rep. of Korea	1973	15.2	13.9	1.3	–	–
	1979	37.8	32.3	2.3	3.2	–
	1981	43.7	38.1	2.7	2.9	–
Singapore	1973	3.7	3.7	–	–	–
	1979	6.4	6.4	–	–	–
	1981	7.4	7.4	–	–	–
Sri Lanka	1973	1.0	0.3	0.7	–	–
	1979	1.6	–	1.5	–	–
	1981	1.9	0.2	1.7	–	–
Thailand	1973	7.3	5.4	1.9	–	–
	1979	14.1	10.8	3.3	–	–
	1981	16.0	12.0	4.0	–	–
Viet Nam	1973	2.3	1.9	0.4	–	–
	1979	3.9	3.2	0.7	–	–
	1981	4.0	3.3	0.7	–	–

Source: United Nations, *1981 Yearbook of World Energy Statistics* (forthcoming).

of electricity output during the period.

The rapid growth of electricity demand and the overwhelming share of oil- and coal-fired plants in total power output suggests considerable scope for interfuel substitution. By and large, gas can replace other mineral fuels in thermal plants without substantial modification costs.[7] Despite such proven technical feasibility and commercial viability, the substitution of indigenous gas for liquids in electricity generation in particular, and as a primary energy source generally, has not proceeded as fast as might have been expected. Trends in gas utilization in the developing ESCAP region indicate that gas usage has expanded at a much slower pace than that exhibited by overall power generation. In addition, gas fuels have provided a falling share in the region's primary energy consumption, amounting to less than 6 per cent in 1981.

The replacement of liquids by solids as an electricity-generating fuel is another obvious and frequently suggested option. In fact, considerable interfuel substitution has taken place in several countries of the region, as already noted. Nevertheless, a number of constraints inhibit such substitution; in particular, conversion of boilers is likely to be uneconomical if equipment has to be installed to remove sulphur and other pollutants. Other constraints relate to the need for additional infrastructure for coal handling and storage. Furthermore, the economic threshold for steam units is estimated to be about 30 MW; smaller power systems will thus continue to require imported hydrocarbons for their diesel plants.[8] New technologies being

[7] World Bank, *Energy in the Developing Countries* (Washington, D.C., August 1980), p. 64.

[8] *Ibid.*, p. 64.

developed to improve the efficiency and minimize the pollution caused by coal utilization could greatly improve the prospects of more widespread and larger-scale adoption of coal as a primary power source, not only in electricity generation but also in other industrial uses.

Nuclear reactors are not a feasible mode of liquids substitution in power generation for the large majority of developing ESCAP countries, for both technical and economic reasons. India, Pakistan and the Republic of Korea produce nuclear-based electricity, but this energy source contributes a small fraction of these countries' total power output. In 1981, the share was 2.5 per cent in India, 1 per cent in Pakistan and 6.5 per cent in the Republic of Korea. The only ESCAP country with a rising trend in nuclear power generation, primarily as a means of reducing dependence on imported oil feedstocks, is Japan. Electricity obtained from nuclear reaction increased from 9.7 GWh in 1973 to 87.8 GWh in 1981. These levels were equivalent to 2.1 and 15 per cent of Japan's total power output in 1973 and 1981, respectively.

Water resources are generally regarded as having significant potential as a substitute for liquid fuels in electricity generation within the developing ESCAP region in the long run. It is of great importance that such resources are more or less renewable. A related resource is geothermal energy. However, few countries in the region are significantly endowed with this type of energy. The Philippines exploited geothermal power to produce about 11.6 per cent of its electricity output in 1981, up from 3.5 per cent two years earlier. This power source is also utilized in Japan and New Zealand, but its contribution to total electricity output in these two countries remains relatively insignificant.

C. NEW AND RENEWABLE ENERGY SOURCES

1. Water resources

Barring climatic uncertainties, hydropower is potentially the most readily available renewable form of energy throughout much of the developing ESCAP region. Hydroelectricity provides over four fifths of electricity output in Bhutan, the Lao People's Democratic Republic, Nepal and Sri Lanka, and over half in Afghanistan, Burma and Pakistan. The volume of hydropower generated in these countries has generally expanded more rapidly than elsewhere and more rapidly also than other primary energy sources, the average annual growth rate being 15.8 per cent over 1973-1979 and 4.3 per cent in 1979-1981.

Several other developing ESCAP countries, including Bangladesh, China, India, Indonesia, Papua New Guinea, the Philippines, the Republic of Korea, Thailand and Viet Nam, achieved increases in hydroelectricity output of over 50 per cent between 1973 and 1981. Similar to the trend elsewhere in the region, the level of hydropower generation in this group of countries stabilized in the late 1970s and early 1980s.

Possibilities for substantial further development of hydropower in the developing ESCAP region re-

Table I.34 Developing ESCAP countries. Estimated water resource potential and installed hydropower capacity, 1981 or latest estimate available

	Estimated potential	*Installed capacity (net)*	*Ratio of installed capacity to estimated potential*[a]
	(gigawatts)		*(percentages)*
West and south Asia			
Afghanistan	5.0–18.0+[b]	0.3	5.6
Bangladesh	0.4	0.1	21.6
Bhutan	2.0	–	...
Burma	2.0	0.2	9.2
India	100.0	12.2	12.2
Iran	14.0	0.8	6.1
Nepal	83.0	0.1	...
Pakistan	20.0–30.0	1.8	9.2
Sri Lanka	1.5	0.3	21.5
South-east and east Asia			
China	680.0	23.0	3.4
Indonesia	31.5	0.4	1.3
Lao People's Dem. Rep.	13.2[c]	0.2	1.2
Malaysia	22.2	0.5	2.3
Philippines	8.0	1.0	12.2
Rep. of Korea	2.3	1.2	52.2
Thailand	8.0–14.0+	0.9	11.4
Viet Nam	2.9	0.3	9.5
Pacific			
Fiji	0.3	...	...
Papua New Guinea	14.2	0.1	0.7

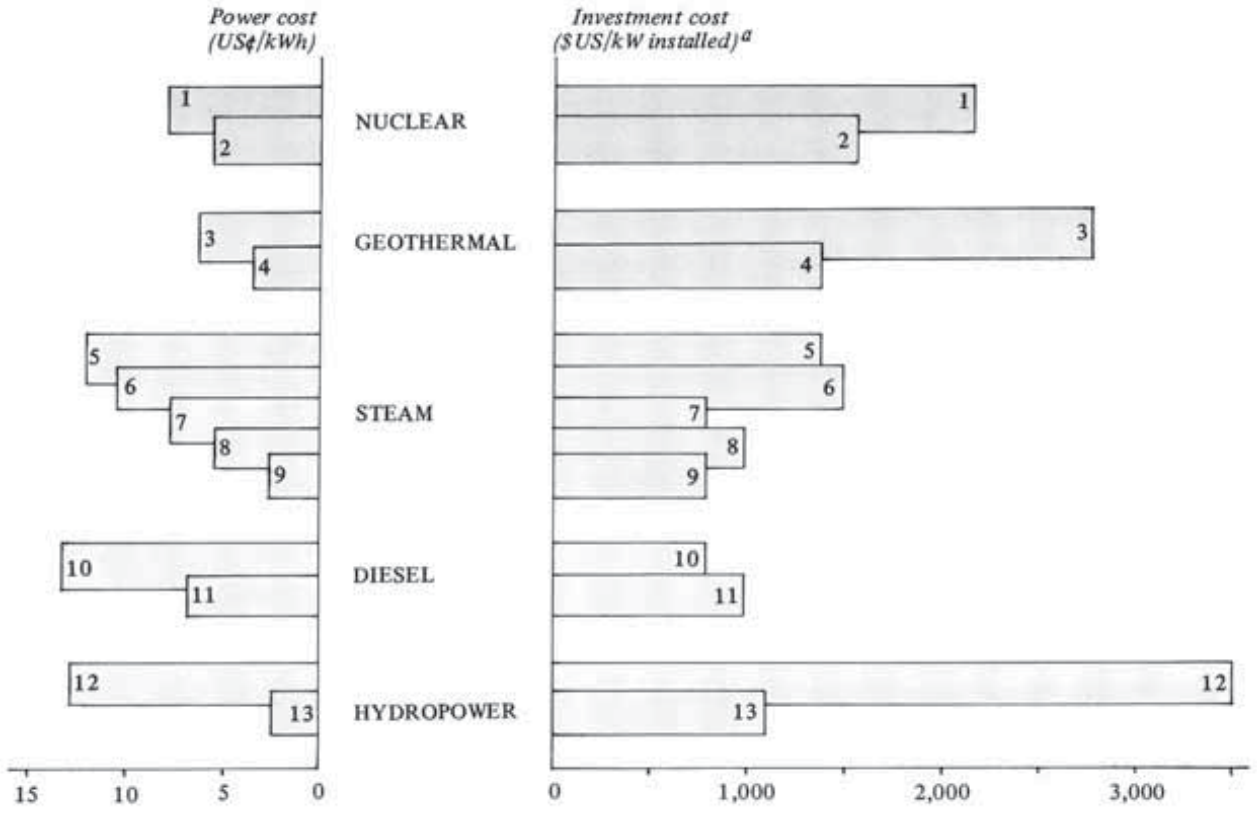
Sources: United Nations, *1981 Yearbook of World Energy Statistics* (forthcoming); and secretariat estimates.

Notes: [a] Based on unrounded figures. [b] Potential of international rivers common to neighbouring countries. [c] Potential of major tributaries of the lower Mekong River basin.

main considerable. On the supply side, estimates indicate that the region possesses the world's greatest hydro potential, which, for all practical purposes, remains largely untapped. Installed hydro capacity absorbs less than 11 per cent of the lower estimate of possible hydropower. Within the region, the Republic of Korea and, to a much lesser extent, Bangladesh, India, the Philippines, Sri Lanka, Thailand and Viet Nam have realized the largest proportions of their water resource potential, but even here great scope for improvement remains.

The substantial oil price increases of the 1970s rendered many hydro sites, previously deemed uneconomical, financially viable. At oil prices in the range of $US20-30 per barrel, mini or small-scale power systems (costing around

Figure 1.12 Comparative costs of power generation based on various types of fuel, 1980



Nuclear: 1. Single small units; 2. Large multiple units.

Geothermal: 3. Wet steam/hot water field; 4. Dry steam field.

Steam: 5. Small, heavy oil-fired, inland location; 6. Small, wood-fired; 7. Large, oil-fired, imported oil; 8. Large, coal-fired; 9. Large, gas-fired.

Diesel: 10. Small, light oil-fired, inland location; 11. Large, heavy oil-fired, coastal location.

Hydropower: 12. Low head mini-hydro; 13. Large, high head.

Note: [a] Including costs of transmission and distribution.

$US2,500-3,000 per kilowatt of installed capacity) are competitive with large diesel or oil-fueled steam units at production costs of about 7 cents per kWh. However, large, high-head hydro projects retain a decisive advantage with costs around 2.4 cents per kWh.[9]

Unfortunately, hydroelectric systems, particularly large-scale projects, tend to take a considerable lead time before becoming fully operational. Though running costs are low, they are also very capital-intensive. Several countries, including Papua New Guinea and Sri Lanka, have decided to increase oil-based thermal generation as a stop-gap measure to meet the increasing demand for electricity. Even with much intensified efforts to exploit hydroelectric potential, thermal power generation is likely to remain the dominant production mode for electrical energy in the developing ESCAP region in the 1980s, although the fuel source may be shifted increasingly in favour of coal and gas.

Another possible constraint on the development of large-scale hydro projects relates to the uneven distribution of water resources and energy needs. Projects designed to exploit the possibilities of sub-regional trade in electrical energy would be helpful. In fact, a significant volume of such trade already occurs, for example, between the Lao People's Democratic Republic and Thailand, Thailand and Malaysia, Singapore and Malaysia, and India and Nepal. Further expansion of such trade would depend on political as well as technical considerations. It can be expected to play a larger role in decades to come, especially if joint development schemes for the exploitation of river basins such as the lower Mekong River basin, the Salween River basin and the Ganges-Brahmaputra River basin are successfully negotiated and activated.

[9] Only large-scale gas-fired steam systems are competitive with hydropower at this level of production cost. See World Bank, *op. cit.*, p. 43.

2. Other new and renewable sources of energy

Potential for the development and use of new and renewable sources of energy (NRSE) technologies exist in both developed and developing ESCAP countries. Those technologies have inherent technical, socio-economic and political advantages, and can be of great benefit to rural populations throughout the region. Evaluation of the potential of NRSE technologies, however, should go much further than conventional financial cost-benefit analysis; it should also include a comprehensive appraisal of social costs and benefits, despite the methodological problems involved in such an assessment. Moreover, account must be taken of the cultural and social implications of the adoption of and reliance on NRSE technologies, particularly from the point of view of end-users.

In their simplest form, biomass energy sources such as wood, animal waste and scrub vegetation are burnt in stoves for heating and cooking purposes. Generally, the relative heat value per unit volume of biomass fuels, with the exception of ethanol (or ethyl alcohol), is around one third of that obtainable from fossil fuels. Nevertheless, fuelwood and charcoal provide one of the primary sources of energy for the rural sector, in which the bulk of the population of the developing ESCAP region still lives. These energy resources, together with animal power, are estimated to account for about 10 per cent of total regional energy consumption.

Limited efforts have been made to improve the efficiency in production of such renewable fuel sources as wood, agricultural and animal residues, and animal and human muscle power. Increased energy demand, difficulties of shifting to commercial energy sources and low income levels have resulted in the rapid degradation and depletion of "common property" natural resources such as forest vegetation for fuelwood requirements, with serious environmental consequences. Adequate measures thus need to be devised to identify and develop new and renewable

Box I.19 Solar energy

The simplest use for the most abundant energy source, solar power, is for the drying of agricultural and industrial output. By retaining traditional "curing" techniques in such industries as, for instance, tobacco and latex rubber, developing ESCAP countries are conserving on energy costs by relying on solar power. Sunlight can also meet most domestic hot water needs economically in the region; passive solar equipment can be manufactured inexpensively and without much difficulty since the technology is relatively simple. The average payback period for a passive wall heating system, for instance, is around 18 months.

Solar-power irrigation pumps can substitute efficiently for pumps operated by animals (such as the Persian wheel), fossil fuels or man. Among other countries, Pakistan has undertaken national field trials on such pumps. The vast potential market for such pumps, estimated to be upwards of half a million units in Pakistan alone, would facilitate large-scale production and hence significant savings. Prices for each individual array under large-scale production are expected to drop from $US5,000 to $US1,500.

The harnessing of solar power by photovoltaic processes is not economically viable at present costs, some $US0.33 per kilowatt hour. It is noteworthy that the price of photovoltaic cells, initially about $US1,000, has fallen to around $US10 per peak watt. Nevertheless, the capital cost of photovoltaic conversion is still upwards of 10 times higher than that associated with large conventional generators. Photovoltaic cells would thus be restricted for such specialist uses as telecommunications and navigational buoys in the medium term.

sources of energy, especially those that employ relatively simple technology or draw on natural resources readily available even in poor countries.

The use of biogas is one such possibility. Biogas is more convenient to use than the basic biomass energy forms and can be produced from the decomposition of animal, human and plant wastes. Animal dung, which otherwise would be used as fertilizer, is the usual feedstock, though vegetable matter is also used. Reliance on this gaseous fuel source, which contains 55-65 per cent methane, is much more widespread in China than in other countries of the region. China has more than 7 million generating pits/digesters, of which some 5 million operate on a regular basis. Total gas production exceeds 2 billion cubic metres per year. The standard size unit meets the cooking and lighting needs of a household of five persons.

India also has a sizeable number of biogas units, about 80,000 by unofficial estimates; the animal population, at some 239 million head by the 1966 livestock census, provides an important source of input. The conversion of three quarters of the country's animal waste would provide usable energy equivalent to 100 million tons of coal per year. In addition, the slurry from biogas plants could be utilized as organic fertilizer. Installation costs for biogas systems in India suggest that these plants would be suitable as multi-family or community-size projects.

The conversion of biomass to liquid fuel also holds promise for the developing ESCAP countries. Ethanol can be distilled from fermented carbohydrate materials such as sugarcane, sugar beet or molasses. Methanol (methyl alcohol) is also obtainable from wood. The relevant technologies are well established commercially. Ethanol can be used to power vehicles either by itself or in a blend with at least 80 per cent gasoline; methanol-gasoline blends are much more difficult to use as vehicle fuels.

Most countries with a large sugar industry can produce ethanol without a heavy capital investment, although the economics of such production necessarily depend on the cost of biomass materials. Under existing cost and technology relationships, various types of circumstances would justify large-scale production of ethanol for substitution purposes – for instance, where large amounts of feedstock are already being produced at low economic cost, or where surplus molasses is being processed by sugar mills located in more isolated areas.

Box I.20 Hydropower

The movement of water is a renewable energy source which has been harvested for hundreds of years. Despite such awareness and proven application, hydropower resources remain largely under-utilized in the developing ESCAP region.

Waterwheels are still widely used in a number of developing ESCAP countries, especially in Afghanistan and Nepal, which are especially rich in fast-flowing rivers. However, turbines spin faster and are thus more suitable for electricity generation. In fact, small-scale hydrosystems with an average capacity of less than 50 kilowatts number upwards of 100,000 in China and other developing countries in the region, with the greatest number being in China. The costs of a 40-kilowatt unit, based on a system in use in Nepal, are estimated at $US0.18 per kilowatt hour at a 20 per cent load factor and just below $US0.10 with a 55 per cent load factor. At this level, mini-hydro projects are more than competitive with small-scale light- or heavy-oil fired inland generators.

Tides and waves are other hydro energy sources; the energy density of a single, slow-moving current, such as the Kurile current around Japan, is estimated at more than 1 billion kilowatts. The world's first tidal power plant, with a generating capacity of 300 megawatts of power under good conditions, was opened in Brittany in 1966, with another system in the Barents Sea of about 400 megawatts constructed in 1968. By and large, wave and tidal power systems are still in the research and experimental stage. But the long-term potential for the developing ESCAP region, especially the island countries and those with extensive sea-coasts, cannot be overlooked.

Another form of ocean power arises from the heat differentials at different depths of water. As in the case of tidal and wave systems, ocean thermal energy conversion (OTEC) processes remain in the research and development phase. The world's first land-based OTEC plant, designed and built by Japanese companies, was opened in Nauru in late 1981. At 100 kilowatts, the pilot system is also the biggest yet constructed; it is twice as large as a 50-kilowatt mini-OTEC barge that the United States tested off Hawaii in late 1979.

The project is not intended to produce commercial energy, although the net power gain is fed into the 13-kilowatt Nauru grid. The Nauru plant takes in 1,400 tons each of hot and cold water per hour. Pumping the hotter surface water, at around 30 degrees Celsius, consumes 27 kilowatts of power while drawing up the cooler (8 degrees Celsius) water from a depth of 500 metres, at 1,000 metres offshore, requires another 40 kilowatts. The surplus power from the 100-kilowatt output is about 10 kilowatts, an efficiency level similar to that obtained by the mini-OTEC unit. The total cost of the Nauru plant is $US40 million

The main factor in favour of OTEC systems is their low running costs. These systems appear to be particularly suitable for small non-oil island countries because energy is proportionally more expensive there; Guam and Saipan are thus actively pursuing OTEC commercialization programmes. Thus, smaller OTEC units could make useful aid packages to, among others, developing countries of the South Pacific subregion.

Several developing ESCAP nations, including Fiji, Papua New Guinea and the Philippines, have encountered these two types of situation and have adapted their sugar industries accordingly. Contributions from fuel blends such as cocodiesel and alcogas are expected to provide the equivalent of 3 million barrels of oil, or over 2 per cent of total primary energy demand, in the Philippines in 1986. Under the alcogas programme, production reached an estimated 8 million litres, displacing about 0.6 per cent of gasoline demand, in 1981. The planned target was 14 per cent in 1986.

Sugar/molasses-based alcohol production began in Fiji in 1980. The ethanol plant was expected to reach an annual capacity output of 21 million litres by 1983. This amount of fuel, together with an 80 MW hydroelectric scheme to be completed in 1984, would reduce imported hydrocarbons by about one fifth. In Papua New Guinea, ethanol derived from molasses produced at the Ramu sugar complex was expected to reach up to 12 million litres per year shortly. Work on this project had already been started prior to 1982, with total cost set at 4.3 million kina.

The need for close integration of policies and planning for the development and use of NRSE deserve re-emphasis.[10] This is because the rate and character of development are strongly influenced by the availability, forms and costs of energy. In this regard, several types of new and renewable fuels are especially well suited for the decentralized growth of less developed countries, particularly in areas where provision of other energy forms may be difficult and/or expensive. Technological and institutional measures to improve the access of rural areas to energy might well focus on improving the end-use efficiency of conventional sources, greater efficiency in the use of traditional energy and increased use of new and renewable sources of energy.

[10] *Economic and Social Survey of Asia and the Pacific, 1981, op. cit.*, pp. 119-121.

Box I.21 Windpower

One of the decisive advantages of windpower, compared with many other alternative sources of energy, is that the basic technologies with regard to mechanical and electrical applications are well established. New efforts are thus essentially concerned with technological and design improvements.

Sailing ships, one of the oldest forms of windpower application, have never been abandoned in ocean-going transport in the developing world. Interest in the feasibility of wind propulsion in modern commercial ships revived strongly in the mid-1970s. The relevant research has been conducted in several leading maritime countries, notably Japan, where a small experimental sea-going tanker driven by wind propulsion has been launched.

Windmills, often regarded as a relic of the past, may well make a useful contribution to the world's energy equation in the medium term. Air movements are sufficiently strong and persistent to be suitable for commercial exploitation in many parts of the ESCAP region, except some areas such as east Asia which lack good trade winds. Their irregularity and unpredictability in many areas constitute the most serious limitation on the usefulness of windpower.

Research and development of experimental large-scale windpower projects have been going on in a number of industrial countries since the mid-1970s. Several pilot projects, with generating capacity upwards of 3 MW, have already started producing electricity. In addition, small wind turbines and pumps, amounting to over a million in number, are currently in use, mostly in the United States but also in Australia, Japan and New Zealand, among other countries.

Large-scale windpower systems for industrial use tend to impose significant environmental problems. For example, a 100 MW wind farm, necessarily consisting of clusters of machines with wide spaces between them to minimize mutual interference, would require some 4 to 5 square miles of land, compared with an estimated 1 square mile for a solar plant of similar generating capacity. In addition, the most suitable sites are often on or near hilltops or in areas of scenic beauty. However, the simultaneous use of some of the land for agricultural, residential or even industrial purposes is by no means excluded. The noise problem, formerly a matter of concern, has been brought under control. The risk of intolerable interference with television transmission has been minimized by the adoption of wind blades made from fibre.

Several modest-load windmill prototypes have been devised for use in developing countries. A wind pump programme to develop a low-cost, small-volume production design for less developed countries was launched in 1975. This programme has attracted significant interest in India and Pakistan, among other developing countries.

IV. SOCIAL CONDITIONS

This discussion of social conditions in the developing ESCAP region reviews the effects of development policies and processes upon the quality of human life. The quality of life can only be assessed, however, in terms of the desires and aspirations of the people themselves. Among the poor no less than among the rich in the developing ESCAP region, people's desires and aspirations are not concerned simply with the requisites for physiological maintenance but also with less immediately material needs such as the opportunities to have a family life, ensure good health, engage in recreation, participate in social and cultural life, obtain self-fulfilment through education and enjoy the dignity of personal freedom and security. The extent to which these needs can be met by the individual depends to a large extent on the resources available to the community and on the distribution of these resources among its members. Social development in the region thus remains in large measure dependent on economic development.

An overriding constraint on the capacity of many developing countries in the region to effect improvements in the quality of life has been their failure to raise the per capita availability of goods and services. This is largely attributable to continued rapid population growth. Even though gross output has continued to increase in virtually all developing ESCAP countries, population growth has absorbed such a large part of the gains that little improvement in per capita real incomes has resulted. Moreover, inequalities in the distribution of wealth and income and disparities in relative growth rates of population and income in different sectors have combined to ensure that, even with growth in average per capita incomes, the real incomes for those crowded into slow-growth sectors such as agriculture, where the problem of rapid population growth is often most acute, have in many cases stagnated or even declined.

The effects of population growth on the quality of life are also felt in other ways. The unemployment problem has intensified in those economies which have not been growing fast enough to absorb an expanding labour force, or those in which the structure of production has increasingly emphasized relatively capital-intensive rather than labour-intensive processes. More important perhaps, at least in the short term, has been the problem of providing employment for young people, whose skills are often not well suited to the requirements of a modernizing agriculture sector or the urban industry or services sectors.

Population growth also makes more difficult the task of providing for other basic determinants of the quality of life such as access to education, health and shelter. The education problem in most developing ESCAP countries has several dimensions. There is a need to extend access to basic primary education to all children, to upgrade the general quality of the existing educational system, and to reformulate educational processes into closer accord with the peoples' specific requirements. The satisfaction of these needs is made more difficult by population growth, which, if it is very rapid, effectively reduces the per capita availability of resources.

Similar problems arise in the provision of access to good health. Nutritional deficiencies, for example, remain widespread among the poor in developing ESCAP countries, and communicable diseases such as malaria remain endemic in many of them. The technologies for dealing with these diseases are known, but the capacity to deliver the necessary services has been hindered not only by resource scarcity but by other factors, such as illiteracy and the apathy generated by intense poverty. Again, excessive population growth, itself partly an outcome of the health care services provided in recent decades, makes more difficult the extension of services to those regions or sections of the population not well served and limits the extent to which resources can be invested in upgrading standards of health care services.

Adequate housing and associated utilities form another critical ingredient in the quality of life that

continues to be in short supply over much of the region. On the one hand, there are the benefits provided by physical structures as protection from the environment and as means of access to simple necessities such as sanitation facilities, energy and clean water for cooking, drinking and personal hygiene. On the other, there is the important role of housing as a focal point of close family life, the core of social organization, and as a source of privacy and personal freedom and security. Adequate housing, however, remains the exception rather than the rule in most developing ESCAP countries. Rapid population growth has hindered attempts to improve housing standards especially because of the increased rate of urbanization in developing ESCAP countries during the past decade or more.

The translation of the economic developments taking place in the ESCAP region into positive improvements in social conditions requires the active participation of the intended beneficiaries of the development process. Only through truly participatory processes can improvement of the quality of human life for the entire community, including the masses of the poor, be effectively pursued. In the absence of popular participation, the benefits of development will continue to be skewed in favour of the region's élites rather than toward the fulfilment of the desires and aspirations of the masses. A number of efforts to promote popular participation in the developing ESCAP region have demonstrated its potential.

A. POPULATION AND EMPLOYMENT

The population of the countries and territories constituting the ESCAP region was estimated at 2.5 billion in 1980, as compared with 2.3 billion in 1975 and 2.0 billion in 1970. Although the annual growth rate between 1975 and 1980 at 1.8 per cent was some 0.3 percentage points below that of the previous quinquennium, the growth in absolute numbers, 212 million, was only slightly less than in the preceding quinquennium.

The substantial and sustained growth in the size of the population of the ESCAP region is a function of the decline in mortality levels and continuing relatively high levels of fertility. These developments have been closely associated with a persistent increase in the number of women entering the childbearing ages. Moreover, despite considerable reductions in fertility rates during recent years in several countries, and with further declines highly probable, it can be expected that the population of the region will continue to grow at a fairly rapid pace in the foreseeable future because of its relatively young age structure and the continuation of fertility significantly above replacement level.

There are extreme variations in population size among the countries and territories of the ESCAP region, ranging from Niue, with about 3,300 persons, to China, with around a billion. The two largest countries, China with 995 million persons[1] and India with 676 million, together accounted for slightly more than two thirds of the region's total population in 1980. The regional figures therefore largely reflect demographic trends in China and India and conceal the diverse developments elsewhere.

China's population grew at a significantly lower annual rate between 1975 and 1980 (1.4 per cent) than that of west and south Asia (2.2 per cent), and despite having by far the largest population base in 1975 added fewer people over the quinquennium (67 million)[2] than did west and south Asia (95 million). The latter subregion, which includes many of the poorest and least developed countries of the entire ESCAP region, had the fastest rate of population growth.

Among the smaller developing ESCAP countries, the annual increments in numbers, though not large from a regional perspective, were by no means insignificant from the national perspective, bearing in mind the size of their populations. Continuing high rates of population growth in most of the region's least developed economies were a particularly disturbing phenomenon, as these countries had the lowest capacity for absorbing these growing numbers at reasonable standards of living.

Falls in the crude death rate between the quinquennia 1965-1970 and 1975-1980 were experienced throughout the ESCAP region, but there were marked variations between countries. In the latter period, only Afghanistan, Bhutan, the Lao People's Democratic Republic and Nepal, all among the region's least developed countries, had a crude death rate of 20 or more per 1,000 population, compared with seven countries 10 years earlier. Reductions in infant and childhood mortality led to significant gains in life expectancy. Nevertheless, average life expectancy at birth for persons born in south-east Asia and south Asia, at 52 and 49 years, respectively, indicates that there remained considerable scope for further reductions in mortality rates for the majority of countries in these subregions. The relatively high life expectancy in a few of the developing countries – such as China, where it has tenta-

[1] 1,032 million at the 1982 census.

[2] The results of the 1982 population census, however, suggest that the actual growth rate since 1970 was rather higher than that implied by the estimates for the two quinquennial periods in Table I.35.

tively been estimated at 67 years between 1975 and 1980 – was the exception rather than the rule. Indeed, the figure for China contrasts markedly with an estimated life expectancy at birth of less than 50 years in many of the less developed countries of the region. It appears to be the case that life expectancy at birth has improved most where there have been significant reductions in infant and child mortality associated with large improvements in primary health care and education, as for example, in China, Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, Thailand and Viet

Table I.35 World and ESCAP region. Population estimates, change and growth, 1970-1981

	Population (millions)				*Change (millions)*		*Compound annual growth rate[a] (percentages)*	
	1970	*1975*	*1980*	*1981*	*1970-1975*	*1975-1980*	*1970-1975*	*1975-1980*
World	3 696[b]	4 062[b]	4 432	4 508	375	370	1.9	1.8
ESCAP region	2 029.5	2 248.9	2 451.1	2 493.6	219.4	202.2	2.1	1.7
West and south Asia	732.0	823.3	918.0	938.6	91.3	94.7	2.4	2.2
Afghanistan	12.6[b]	14.1	16.0	16.4	1.5	1.9	2.3	2.6
Bangladesh	68.1	79.0	88.7	90.6	10.9	9.7	3.0	2.3
Bhutan	1.0	1.2	1.3	1.3	0.2	0.1	2.0	2.1
India	539.1	600.8	663.6	676.2	61.7	62.8	2.2	2.0
Iran	28.7	33.4	37.4	39.3	4.7	4.0	3.1	2.3
Maldives	0.1	0.1	0.2	0.2	–	0.1	1.6	2.9
Nepal	11.4	12.6	14.0	15.0	1.2	1.4	2.0	2.2
Pakistan	60.6	70.9	82.1	84.6	10.3	11.2	3.1	3.0
Sri Lanka	12.5	13.5	14.7	15.0	1.0	1.2	1.5	1.8
East Asia	996.4	1 084.4	1 156.5	1 171.0	88.0	72.1	1.7	1.3
China	855.6[b]	927.7	994.9	1 007.8	72.1	67.2	1.6	1.4
Hong Kong	4.0	4.4	5.0	5.2	0.4	0.6	2.1	2.8
Japan	103.4	111.6	116.8	117.6	8.2	5.2	1.5	0.9
Mongolia	1.2	1.4	1.7	1.7	0.2	0.3	3.0	2.7
Rep. of Korea	32.2	35.3	38.1	38.7	3.1	2.8	1.8	1.6
South-east Asia	284.6	322.8	357.4	364.5	38.2	34.6	2.6	2.0
Brunei	0.1	0.2	0.2	0.2	0.1	–	4.2	3.5
Burma	27.0	30.2	33.6	34.4[c]	3.2	3.4	2.2	2.2
Democratic Kampuchea	6.2[b]	7.1	6.8	6.8	0.9	-0.3	2.7	-1.0
Indonesia	119.5	135.7	148.0	150.5	16.2	12.3	2.6	1.8
Lao People's Dem. Rep.	3.0	3.3	3.7	3.8[c]	0.3	0.4	2.2	2.4
Malaysia	10.4	11.9	13.4	13.8[c]	1.5	1.5	2.8	2.5
Philippines	36.8	42.3	48.4	49.5	5.5	6.1	2.8	2.7
Singapore	2.1	2.3	2.4	2.4	0.2	0.1	1.8	1.3
Thailand	36.4	41.9	47.2	48.1	5.5	5.3	2.8	2.4
Viet Nam	43.1[b]	47.9	53.7	55.0	4.8	5.8	2.1	2.3
Pacific	19.0	21.1	22.2	22.5	2.1	1.1	2.4	1.2
Australia	12.5	13.8	14.6	14.9	1.3	0.8	1.9	1.2
Fiji	0.5	0.6	0.6	0.6	0.1	–	2.0	1.8
New Zealand	2.8	3.1	3.1	3.1	0.3	–	1.8	0.2
Papua New Guinea	2.5	2.7	3.0	3.0	0.2	0.3	2.2	2.1
Samoa	0.1	0.2	0.2	0.2	0.1	–	1.1	0.8
Solomon Islands	0.2	0.2	0.2	0.2	-	–	3.4	3.1
Other Pacific[d]	0.4	0.5	0.5	0.5	0.1	–	3.1	1.6

Sources: United Nations, *Monthly Bulletin of Statistics*, January and July 1976, July 1979, September 1980 and November 1982, and *Statistical Yearbook of Asia and the Pacific 1980* (United Nations publication, Sales No. E/F.81.II.F.7) and *1981* (forthcoming).

Notes: [a] Computed on unrounded figures. [b] Extrapolated backward from 1980 population by applying United Nations growth rate estimates. [c] Estimated from growth rate available in national sources. [d] Comprising Cook Islands, Guam, Kiribati, Tonga, Trust Territory of Pacific Islands and Vanuatu.

Nam. The importance of these causal factors is borne out by Sri Lanka, which has long been a leader in the mass education and health fields and as a result has a high life expectancy level.

Between 1965-1970 and 1975-1980 practically every country and area in the ESCAP region experienced declines in the birth rate. The fall in the crude rate was most spectacular in east Asia, where it fell from 31 live births per 1,000 population in 1965-1970 to 21 in 1975-1980, representing a decline of almost one third; this decline was largely attributable to the big apparent reduction in fertility in China. There were also declines in the crude birth rate in south-east Asia and south Asia, though eight developing ESCAP countries in these two subregions continued to record rates of 40 or more births per 1,000 population in 1975-1980.

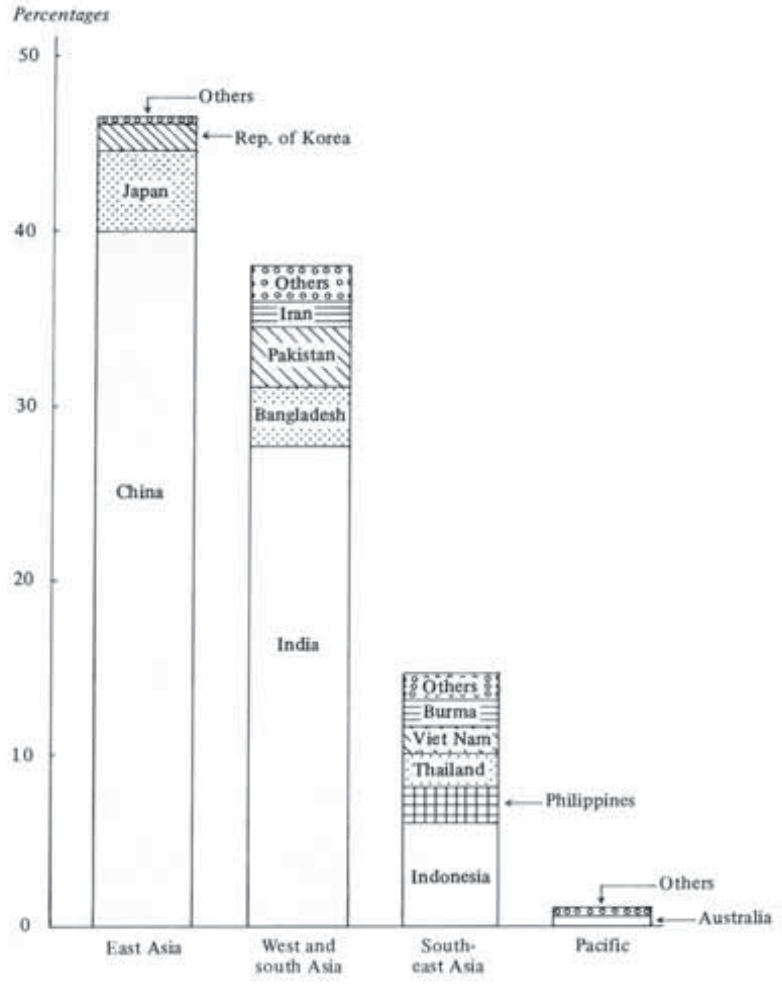
Several countries, particularly among those in south Asia, have an estimated total fertility rate (TFR)[3] which is not far short of natural fertility. Thus, TFR in Afghanistan and Bangladesh for the quinquennium 1975-1980 was of the order of 7 children per woman and that in Iran, Nepal and Pakistan was around 6.5 children per woman. However, conspicuous and sustained reductions in fertility have been recorded in many of the developing countries of east Asia and south-east Asia. For example, Indonesia, Malaysia, the Philippines and Thailand experienced rapid declines during 1970-1980, so that by the quinquennium 1975-1980 their TFR was around 4.5 children per woman. There was also a very big fall in TFR in China, which by the quinquennium 1975-1980 was at 3.1, some two children less than 10 years earlier. Generally, the rate of fertility decline accelerated during the quinquennium 1970-1975 for most parts of the developing ESCAP region, especially in the higher-income economies such as those of Hong Kong and Singapore.

An important contributory demographic factor to the decline in total fertility rate has been the marked change in marriage patterns associated with a dramatic rise in the age of first marriage that has taken place in many countries within the ESCAP region. Other factors include the strengthening of government policies towards population growth, the spread of education and the increased availability of contraception through the extension of organized family planning services.

The decline in population growth to rates of under 3 per cent per annum in most developing ESCAP countries, especially in the two largest, must be regarded as a major step towards the more general objective of raising per capita levels of income, and hence of the consumption of food and other basic necessities which constitute the core of improvements

[3] Total fertility rate, defined as the sum of the age-specific fertility rates for a given period, represents the average number of children that a woman would bear if she were subjected throughout her reproductive age to the age-specific fertility rate prevailing in that period.

Figure I.13 ESCAP region. Percentage distribution of the population by subregions and principal countries, 1981



Box I.22 China's third population census

The Government of the People's Republic of China conducted its Third National Population Census in 1982. Everyone who held Chinese citizenship and resided in the country at 00.00 hours on 1 July 1982 was enumerated. The purpose of the census was "to acquire an accurate knowledge of the country's population, its geographical distribution and various structures so that the socialist modernization, planning of the people's material and cultural life and drafting of population policy and plan [could] be done in the light of the country's actual conditions".[a] There had been two previous censuses in 1953 and in 1964.

It was subsequently reported that as of 1 July 1982 the population of China was 1,031,882,511. The population of the 29 provinces, municipalities and autonomous regions, including members of the armed forces, was 1,008,175,288, of whom 519,433,369 were males and 488,741,919 females. The average annual increase in the population since the 1964 census is reported as 2.1 per cent.

Compared with the previous two censuses, the 1982 census was more comprehensive. First, the census questionnaire contained 19 questions, 13 of which were for individuals and 6 for households, compared with a total of 6 topics covered in 1953 and 9 covered in 1964. Secondly, because computers were being used for the first time for processing census data, a far more detailed range of tabulations became possible.

The vastness of China in terms both of geography and population meant that the census was a very complex operation. To conduct the field work, an enumerator and supervisor force of about 6 million persons was employed. The major part of data processing was decentralized and carried out on provincial or municipal computers. To speed up the release of census results, certain census items, such as number of households and the size, sex, ethnicity and education of respondents, were tabulated manually within months of the completion of field work. Detailed results were expected to become available relatively speedily from the tabulation of a sample of schedules, while the full tabulations based on all schedules was to take somewhat longer.

[a] China, Office of the Population Census Leading Group under the State Council, *A Brief Account of the Preparations for the Third Population Census of the People's Republic of China* (Beijing, 1982).

in the quality of life. At the same time, however, the gains which the decline in population growth makes possible can only be realized if the growth of total output proceeds at a faster pace, preferably by a margin sufficient to generate perceptible improvements in levels of living in a relatively short time span.

Among the developing ESCAP countries some have been able to achieve marked progress in this respect, notably several in the east and south-east Asian subregions which have maintained consistently high rates of economic growth during at least the past decade while at the same time having also been among the more successful in cutting back population growth. For others, such as Bangladesh and Nepal where population growth rates increased or hardly changed over the 1970s while economic growth was erratic and even negative in some years, improvements in per capita incomes have been at best quite meagre.

Apart from the implications of increasing population for growth in per capita incomes, an important question is that of providing adequate employment opportunities for larger numbers, especially given the fact that in many developing ESCAP countries the extent of unemployment and underemployment in both rural and urban areas is already serious. According to World Bank estimates,[4] the rate of labour force growth will exceed that of population growth in at least 13 developing ESCAP countries over the period 1980-2000 as compared with only five during 1970-1980 and one in the previous decade.

Between 1970 and 1980 the number of persons of working age (15 to 64) in the countries of the ESCAP region rose from 1.1 billion to 1.5 billion, and it is expected to reach 1.9 billion by 1990.[5] A contributing factor is the change in population age structure brought about by the decline in birth rates and mortality rates, especially infant and child mortality, with the result that the proportion of the population in younger age groups has been growing at a faster rate than that of the population as a whole. Providing jobs for increasing numbers of young people reaching working age has for this reason become a significant aspect of the general employment problem in many developing ESCAP countries.

As of the late 1970s, for example, nearly 50 per cent of the unemployed in Hong Kong, India and the Republic of Korea, 55 per cent in the Philippines and 74 per cent in Thailand were under 24 years of age.[6]

A further dimension is that in some countries employment opportunities for young women are significantly less than they are for young men. Female youth participation in the labour force is, for example, very much lower in Afghanistan, Bangladesh and Pakistan (with participation rates of

[4] World Bank, *World Development Report 1982* (Washington, D.C., 1982), tables 17 and 19.

[5] *World Population Prospects as Assessed in 1980*, Population Studies No. 78 (United Nations publication, Sales No. E.81.XIII.8), and *Demographic Indicators of Countries: Estimates and Projections as Assessed in 1980* (forthcoming).

[6] International Labour Organisation, *Yearbook of Labour Statistics 1981* (Geneva, 1981).

Box I.23 Rural-urban migration

Spatial shifts in the location of population are an important dimension of the population problem for many developed as well as developing countries. Urbanization is an inseparable element of the general process of economic and social development. In the developing ESCAP region with few exceptions most of the national populations continue to live in rural areas. Urban population growth rates, however, have for at least the past three decades exceeded rural rates of growth in most of these countries largely because of rural-urban migration, and the disparity in growth rates has continued to widen. As a result, the region's total rural population is expected to increase by only 21 per cent between 1980 and 2000.

The region's urban population increased from 24 per cent a decade ago to about 28 per cent at the present time. Furthermore, it has been estimated that by the end of the century the urban population in Asia and the Pacific would be about 1,380 million or more than twice that in 1980.[a] Nearly half of that growth would be due to rural-urban migration. Furthermore, in many countries serious imbalances exist in the distribution of population among urban areas. The condition of "primacy", where the largest city is at least twice the size of the second largest city, exists, for example, in Bangladesh, Pakistan, the Philippines, the Republic of Korea and Thailand. The trend towards primacy is also apparent in Indonesia, Malaysia and Sri Lanka. A few large cities in these countries tend to demand a disproportionate share of resources for social and economic development. The drift to the big cities often aggravates the difficulties of matching urban population growth with expansion of employment opportunities, housing and other social services. This in turn can have the effect of increasing unemployment, generating squatter settlements, increasing crime, poverty, pollution and congestion and generally lowering the quality of life in urban areas, which already often demand a disproportionate share of national resources to cope with urban development and renewal.

ESCAP region. Average annual growth rate of urban and rural population by major subregion, 1970-2000

		1970-1980	*1980-1990*	*1990-2000*
South Asia	Urban	4.0	4.5	4.3
	Rural	2.1	1.8	1.0
East Asia				
China	Urban	3.3	3.3	3.3
	Rural	1.1	0.5	0.1
Japan	Urban	2.1	1.3	0.9
	Rural	-1.6	-1.7	-1.4
Other	Urban	4.3	3.3	2.4
	Rural	-0.3	-0.4	-0.3
South-east Asia	Urban	4.2	4.5	4.3
	Rural	2.3	1.9	1.1
Pacific	Urban	2.7	2.4	1.8
	Rural	-0.1	-0.2	-0.1

Source: *Patterns of Urban and Rural Population Growth* (United Nations publication, Sales No. E.79.XIII.9), p. 13.

[a] *Patterns of Urban and Rural Population Growth* (United Nations publication, Sales No. E.79.XIII.9).

Table I.36 Selected developing ESCAP economies. Economically active youth[a] male, female and total, latest year available

Country	*Year*	*Male youth*			*Female youth*			*Total youth*			
		Total (Thousands)	*Economically active* (Thousands)	*Participation rate* (Per cent)	*Total* (Thousands)	*Economically active* (Thousands)	*Participation rate* (Per cent)	*Total* (Thousands)	*Total economically active* (Thousands)	*Participation rate* (Per cent)	*Economically active youth in total active population* (Per cent)
Afghanistan	1979	1 300.0	987.1	75.9	1 236.7	115.2	9.3	2 536.7	1 102.3	43.5	32.5
Bangladesh	1979	5 569.9	4 169.3	74.9	5 260.1	204.2	3.9	10 830.0	4 373.5	40.4	25.8
Hong Kong	1980	595.0	391.4	65.8	556.0	337.1	60.6	1 150.9	728.5	63.3	31.6
Indonesia	1977	11 111.0	7 183.1	64.6	11 551.4	3 870.2	33.5	22 662.3	11 053.2	48.8	24.2
Malaysia (Peninsular)	1977	1 222.5	856.2	70.0	1 194.9	534.7	44.7	2 417.4	1 390.9	57.5	35.7
Pakistan	1981	6 764.0	5 063.0	74.9	6 004.0	362.0	6.0	12 768.0	5 425.0	42.5	25.6
Singapore	1980	309.0	213.8	69.2	291.6	185.2	63.5	600.5	399.1	66.5	36.9
Thailand	1978	4 213.6	3 302.3	78.4	4 253.9	3 178.8	74.7	8 467.5	6 471.1	76.5	31.6

Source: International Labour Organisation, *Yearbook of Labour Statistics 1981* (Geneva, 1981).

Note: [a] "Youth" is defined here as 15-24 years of age.

9, 4 and 6 per cent, respectively) than it is in Indonesia and Malaysia (at 34 and 45 per cent, respectively). In Hong Kong and Singapore, over 60 per cent of young women are economically active, while in Thailand the figure in 1978 was nearly 75 per cent. Obviously, there are important cultural differences behind these large variations in female labour force participation, such as attitudes towards the role of women in society, but in addition differences in educational and literacy attainments as well as differences in economic structure play an important part.

Female labour force participation generally is very low in some south Asian countries such as Pakistan (at under 7 per cent), whereas in Indonesia, the Philippines, the Republic of Korea and Singapore it averaged around 37 per cent in 1976-1979. For Thailand over 46 per cent of the labour force in 1979 were women. For almost all countries there are significant variations in female employment among the different categories of economic activity. Women predominate or form nearly 50 per cent of the labour force in the service sectors, commerce, tourism, finance and banking and community services of the Philippines, the Republic of Korea and Thailand. Manufacturing in these countries as well as in Indonesia, Malaysia and Singapore also has a high proportion of women workers.

B. EDUCATION

The overwhelming problem of education in the developing ESCAP countries remains the widespread prevalence of illiteracy. Illiteracy is, of course, universally recognized as a barrier to the realization of the individual's capacity for adequate participation in social and cultural life. It is in addition a major obstacle to the general economic development which is essential if substantial inroads are to be made into the high incidence of mass poverty in the region. From that point of view, education is an investment in human capital and as such contributes to productivity in the long run. For some countries with limited natural resources, investment in human capital has been a fundamental imperative in development. Hong Kong and Singapore have had educational policies emphasizing the critical role of education in the transformation of their economies from trading communities to ones centred on manufacturing and service industries. Transformation of their economies to an industrial base has meant that a sizeable part of the working population has had to be absorbed in the industrial and commercial sectors. That would not have been possible without a well-educated and literate population.

The multiple deleterious effects of illiteracy and inadequacy of education have been recognized by all Governments in the region, prompting most of them to set ambitious educational goals at the start of the First United Nations Development Decade in 1961, such as the speedy eradication of illiteracy, achievement of universal education at the primary level, and provision of secondary and tertiary education oriented towards meeting manpower needs.[7]

Though many countries in the region have established formal programmes for dealing with the problem of adult literacy, the main line of attack has been the attempt to achieve universal education at the primary level (the age range of approximately 6-11 years) with emphasis on the acquisition of basic literacy skills. Only a few, principally the Republic of Korea and Singapore, appear to have achieved that goal, though Hong Kong and

Table I.37 Selected developing ESCAP countries. Net enrolment ratios, percentage increase of school-age population and child dependency ratios, 1960-1980

(Percentages)

Country	*Net enrolment ratio (6-11 years)*		*Increase of population (6-11 years) in 1980 over 1960*	*Child dependency ratio, 1980*[a]
	1960	*1980*		
Afghanistan	5.4	18.5	74.2	84.9
Bangladesh	29.9	54.5	69.0	88.5
Burma	44.3	59.5	73.8	74.5
India	50.1	63.8	71.6	70.2
Indonesia	50.4	67.0	87.1	67.2
Iran	31.9	75.5	115.4	86.5
Malaysia	86.0	94.0	69.7	71.4
Mongolia	47.9	71.7	117.0	79.6
Nepal	10.0	39.9	81.8	79.6
Pakistan	27.2	47.0	93.5	86.5
Philippines	71.7	80.6	100.5	76.3
Rep. of Korea	84.6	100.0	32.8	54.8
Singapore	84.9	100.0	10.2	39.7
Thailand	75.7	77.8	95.6	73.2

Sources: UNESCO, *Development of Education in Asia and Oceania: Statistical Trends and Projections 1965-1985* (Paris, 1978); and *World Population Prospects as Assessed in 1980*, Population Studies No. 78 (United Nations publication, Sales No. E.81.XIII.8).

Note: [a] Child population (ages 0-14) as percentage of working-age population (ages 15-64).

[7] J.E. Jayasuriya, "Population change and educational development", in UNESCO, *Population Education in Asia and the Pacific*, No. 23 (June 1982), p. 3.

Malaysia, with over 90 per cent net enrolment ratios in 1980,[8] were very close to the target. But all of these countries had already reached high enrolment ratios by 1960. More interest attaches to the achievement of those countries, such as Bangladesh, India, Indonesia, Nepal and Pakistan, which started from low levels in 1960 and have since then pushed up enrolment significantly, especially when their growth in population is taken into account. Although data on net enrolment ratios are not available for China and Viet Nam, other evidence suggests that these countries have made good progress over recent years towards that goal. Nevertheless, with the apparent exception of Indonesia and Malaysia, which seem to have made especially good progress in raising enrolment during the past two or three years, many countries in the region, especially the least developed, are unlikely to reach the goal of universal primary education during the present decade.

The eradication of illiteracy has also not proceeded as fast as had been expected. Only Hong Kong, the Republic of Korea and Samoa had by 1977 attained adult literacy rates of 90 per cent or more though others, including Sri Lanka, Thailand and Viet Nam, were close to that mark. In addition to Papua New Guinea, with a rate of 32 per cent, Afghanistan, Bangladesh, India, Pakistan and Nepal continued to have extremely low literacy rates from 12 to 36 per cent in 1977, showing very little improvement on those of 1960. Given the rates of population growth in these countries since 1960 and the fact that they contain a substantial proportion of the population of the developing ESCAP countries, it is evident that the absolute number of illiterates in the region has increased over that time span.

There are some bright spots to relieve the gloom. Indonesia lifted its adult literacy rate from 39 per cent to 62 per cent over the 1960-1977 period while Iran managed an even greater increase from a meagre 16 per cent to 50 per cent over the same period. Thailand and the Lao People's Democratic Republic also made notable improvements, although in the latter case the rate is still low at 41 per cent.

It should not be overlooked, however, that even in those countries with relatively high literacy rates there are significant differences in levels of literacy not only as between males and females but also as between rural and urban dwellers. Data on rural-urban differences are available only for the early 1970s, but as changes take place only slowly it is unlikely that more recent figures would show a much different picture.

The differences between rural and urban populations are less pronounced in those countries where the general level of literacy is relatively high, namely Malaysia, the Philippines, the Republic of Korea, Sri Lanka and Thailand. That is also true of Afghanistan, where the general literacy level is still the lowest among the developing ESCAP countries. The most marked differences are to be found in Bangladesh, India, Indonesia and Pakistan, a possible explanation being that the populous urban centres have been able to attract a much greater share of educational expenditure than have the various countries' widely dispersed rural communities and have tended to attract the rural literate in search of greater and more rewarding employment opportunities.

Overall, the evidence suggests that while some progress has been made in the provision of primary education, substantial needs remain to be met, especially in a number of countries of south Asia. As for the problem of illiteracy, there has also been progress, but again the picture is much less favourable in south

Table I.38 Selected developing ESCAP economies. Adult literacy rates, 1960-1977
(Percentages)

	1960	*1977*
Afghanistan	8	12
Bangladesh	22	26
Burma	60	70
China	...	66
Fiji	...	75
Hong Kong	70	90
India	28	36
Indonesia	39	62
Iran	16	50
Lao People's Dem. Rep.	28	41
Malaysia	53	60
Nepal	9	19
Pakistan	15	24
Papua New Guinea	29	32
Philippines	72	75
Rep. of Korea	71	93
Samoa	97	98
Singapore	...	75
Sri Lanka	75	85
Thailand	68	84
Viet Nam	...	87

Sources: World Bank, *World Development Report 1982* (Washington, D.C., 1982), table 23, and *World Tables 1980* (Washington, D.C. 1980), table 4.

Table I.39 Selected developing ESCAP countries. Rural and urban literacy rates, various years, 1970-1975
(Percentages)

	Rural	*Urban*
Afghanistan	9.5	16.8
Bangladesh	23.5	48.1
India	26.4	59.9
Indonesia	52.2	76.7
Malaysia	54.4	67.8
Pakistan	13.7	40.7
Philippines	78.7	92.8
Rep. of Korea	82.2	94.3
Sri Lanka	75.0	85.9
Thailand	77.1	87.7

Source: UNESCO, *Statistical Yearbook 1981* (Paris, 1981), table 1.3.

[8] Net enrolment ratio is calculated by dividing the number of persons of a given age group (enrolled in first-level education for a particular country) by the number of persons in that age group in the population as a whole.

Asia, where the number of illiterates has apparently increased since 1960 even though the proportion of the population that is literate has risen. Thus, despite the relative improvements in both primary enrolment and literacy for the developing ESCAP region as a whole, it would seem justifiable to conclude that actual progress has not met the objectives originally set by the countries at the beginning of the 1960s.

A major reason for the shortfall seems to have been the effect of declining mortality rates which, combined with sustained high fertility, has added substantially to the school-age population and thus placed heavier demands on the educational system than could be borne. The number of persons aged 5-14 years in the region is estimated to have risen from 512 million in 1970 to 610 million in 1980; and the proportion of the population in this age group is not expected to fall for at least the balance of the decade and probably beyond, especially in the countries of the south Asian subregion.[9] Population pressure of this kind makes it extremely difficult for countries with limited resources to provide primary education facilities even at a constant enrolment ratio let alone increase or otherwise upgrade and extend educational systems to cover existing needs.

The problem may be illustrated by comparing the situation of two countries, one a developing ESCAP country and the other a developed country of the region. Indonesia and Japan, the two representative countries selected, were of almost equal population in 1960. Over the last two decades Indonesia's population has grown at an average rate of more than 2 per cent a year whereas Japan's average growth rate has been of the order of slightly over 1 per cent. Indonesia's population grew by 67.1 per cent while that of Japan grew by only 24.9 per cent over 1960-1980. Meanwhile, Indonesia's school-age population (6-11 years old) increased by 87.1 per cent whereas Japan's decreased by 5.6 per cent. Indonesia had 11.7 million more 6-11 year-olds in 1980 than in 1960 whereas Japan had 0.7 million less. Thus the burden of providing primary education was much greater for Indonesia than for Japan simply because of the different demographic circumstances in the two countries.

Another aspect of this problem may be illustrated by considering the burden imposed by the child population aged 0-14 on the working-age population aged 15-64.[10] On this point, it is useful to compare Bangladesh with Singapore, a developing ESCAP country with a high population growth rate as against one with a low population growth rate. The dependency ratio for Bangladesh in 1980 was 88.5 whereas it was 39.7 for Singapore. These figures indicate that the number of children supported by a given number of working people was more than twice as high in Bangladesh as in Singapore. This suggests that the capacity of Bangladesh to provide such services for children as education and health is sharply reduced by the weight of the comparatively heavy dependency burden. Considering that the labour force participation of women in Bangladesh is much smaller than in Singapore, the impact of the dependency burden is even greater.

It is thus clear that increases in the proportionate size of the school-age population and increases in the dependency burden combine to reduce the capacity of countries such as Afghanistan, Bangladesh, Nepal and Pakistan, among others, to provide better education and other basic services to the young, and makes more difficult their task of deciding how much of the national budget should be allocated for the expansion of primary education as against other claims on the budget, such as for public services, which are also intensified through population growth and its shifting location.

The same forces which produce pressure on resources for the provision of primary education, and indeed the degree of success in meeting that first objective, eventually produce increased demands for the expansion of secondary and tertiary education as particular, though contracting, cohorts move through the educational system. Those demands, however, are likely to be less strong and also easier to resist. For one thing, primary education is where basic literacy and numerical skills are inculcated, and subsequent stages are geared more closely to other objectives either of personal interest or in relation to eventual employment. The argument for compulsory, publicly financed education to meet basic literacy objectives is thus strong; and in those countries where universal primary education has not been achieved, or where its quality judged in terms of output of literates is low, it may be justifiable to concentrate public resources at these levels rather than divert them to secondary and tertiary education.

For another thing, the pressures on young people to drop out of the system at the completion of first-level education or even earlier are often very strong. Enrolment ratios for the second level (ordinarily 12-17 years of age) are sub-

[9] "Development implications of population growth in the ESCAP region" (POP/APPC.3/BP.4).

[10] This burden is conventionally measured by the "child dependency ratio", which is defined as the percentage of child population to working population.

stantially lower in almost all developing ESCAP countries than they are for primary education.[11] Many factors contribute to this, including pressures to enter wage or casual employment because of the high opportunity costs of further education; parental opposition to education, especially where young women are concerned; the inability to afford the fees involved where private schools are an important part of the system; the non-availability of secondary institutions in rural areas; and the felt irrelevance of academic curricula to intended careers.

At the same time, however, Governments in the region are faced with a dilemma. On the one hand, elimination of illiteracy remains a major goal, and its achievement must for many countries absorb an increasing proportion of limited educational resources. On the other, the modernization of agriculture as well as the industrialization and urbanization process require a labour force that contains a proportion of workers with more than mere literacy but with the capacity to absorb and adapt scientific, technological and managerial skills to the particular needs of their societies. Between high-level manpower of this kind and the merely literate there is a wide range of skills levels that must be provided for the efficient functioning of a modern economy of increasingly diverse structure.

The dilemma for Governments is that of deciding what share of available resources should be directed to these ends as against the ever-increasing requirements for basic education. Bearing in mind that higher education absorbs much greater resources per student than does basic education, the problem is one of deciding the most cost-effective combination. The guidelines here, however, are indistinct, especially because the benefits of specific increments and fields of education are almost impossible to quantify. Moreover, in many developing ESCAP countries there exists a serious unemployment problem among those with higher educational attainments, a circumstance which might suggest that higher-level education is already over-provided. That may be true in some cases, having regard to the level of economic development of a

[11] UNESCO, *Statistical Yearbook 1981* (Paris, 1981), table 3.2.

Box I.24 Educational enrolment of women

There are noticeable differences among developing ESCAP economies in the extent to which women have access to education facilities in comparison with men. Enrolment ratios for males and females at the primary or first level of education are more or less the same[a] in Burma, China, Fiji, Hong Kong, Malaysia, Mongolia, the Republic of Korea, Singapore, Thailand and Viet Nam and probably also in the Philippines and Sri Lanka. All of these countries with the exception of Burma have high enrolment ratios for both males and females, which suggests a commitment to primary education generally as well as a view that the education of women at that level is no less important than that of men.

In other countries of the region, however, the differences are quite marked. Enrolment of females at the primary level in Afghanistan in 1979, for instance, was only 7 per cent of the 7-12 year age group, compared with 36 per cent for males. In other words, 93 per cent of young girls did not attend school. The position was similar in Bhutan, with 7 per cent of the 6-10 year group enrolled (although boys were not much better off at 15 per cent enrolment). For Pakistan, total female enrolment was 31 per cent against 81 per cent for males, while for Bangladesh and India, though with higher enrolment ratios than in the other countries mentioned, substantial differences between male and female ratios nevertheless existed.

At the secondary level (generally 12-17 years) a somewhat different pattern is observed. Generally, enrolment ratios for both males and females are much lower than they are at the primary level, and for that reason, although female ratios are for the most part lower than those of males, the relative disadvantage is less. However, in several cases, including Fiji, Hong Kong, Mongolia and Singapore, female enrolment is proportionately greater than that of males. For the rest, a common pattern is for female enrolment ratios to range around 40-60 per cent of those for males. Furthermore, in absolute terms, female secondary enrolment is negligible at 1-2 per cent in Afghanistan and Bhutan and low at 8-20 per cent in Bangladesh, India, Indonesia, the Lao People's Democratic Republic, Nepal and Pakistan. Only China, Fiji, Hong Kong, Malaysia, Mongolia, the Philippines, the Republic of Korea and Singapore among the countries surveyed have ratios of 50 per cent or more. For comparative purposes, gross enrolment ratios at the secondary level in the developed ESCAP countries range from 82 per cent for New Zealand to 89 per cent for Japan. Only Mongolia among the developing countries of the region, at 84 per cent, comes within that range.

At the tertiary level including university education, only a very small proportion of women is enrolled. In Hong Kong, Mongolia, the Republic of Korea and Singapore, the rates range from 6 to 8 per cent while for most other developing countries in the region they are much less than this. The Philippines is a major exception, with nearly 29 per cent of women aged 20-24 years enrolled in tertiary institutions as of 1979, a rate higher than that for males and higher even than the rates generally prevailing in the developed countries.

[a] UNESCO, *Statistical Yearbook 1981* (Paris, 1981), table 3.2.

Box I.25 Primary health care

The concept of primary health care as developed by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) and as embodied in the Declaration of Alma Ata of 1978 is an integrated, community-based approach to the provision of health services. This concept is perceived as a means of attaining the goal of a healthy, socially and economically productive life for all people by the year 2000. It envisages a comprehensive approach to the improvement of health that is targeted primarily on the low-income rural and peri-urban population and emphasizes easily accessible low-cost health care, community involvement in planning and organization of health services, and employment of local resources.

The approach depends largely on the adoption of appropriate technology, defined as simple and scientifically sound techniques, adaptable to local conditions, maintainable with available resources and acceptable to the intended users. In contrast to other programmes, it stresses "deprofessionalized" health services provided by auxiliary workers and paramedics. It envisages close support from other health-related sectors, especially education, and involves both preventive and curative measures covering maternal and child health care, immunization, treatment of injuries and diseases, and promotion of nutrition and sanitation.

Several less comprehensive forms of primary health care have been in practice in many developing ESCAP countries. Exemplifying the employment of community health workers in extending health care services in rural areas are China's "barefoot doctors". The importance of active community participation in effectively increasing health services coverage was demonstrated in Thailand's experiments with unpaid village health "volunteers" trained to provide simple health care and "communicators" whose task is to provide simple but vital information on hygiene and other aspects of health education. Another project designed to solve medical supply shortages through contributions – in cash or kind – from the villagers themselves, developed the public health system into a self-reliant scheme that has progressed from extension and delivery of health services to the generation of services designed specifically to meet local needs. Similar approaches are being initiated in many other countries of the region, often as key parts of rural development programmes. One important lesson is that the participation of local communities in decisions about what kinds of activities are appropriate to improved health care is essential to the success of the primary health care approach.

particular country. More generally, however, it seems to be a case of inappropriate education in relation to market demands and is not a valid argument against the expansion of education facilities at the secondary and tertiary levels.[12] It may well be an argument, however, in support of a purposive shift in educational priorities from the purely formal and academic towards technical and vocational training. Among other things, that would imply more systematic attention to educational and manpower planning as a means of managing the limited resources that can be made available to education in the developing ESCAP region.

C. HEALTH

A comprehensive evaluation of the state of health or how it has changed over time is inherently a perplexing matter. The concept of health is itself highly subjective, as is reflected in the World Health Organization definition that health is a state of complete physical, mental and social well-being. Based on such a broad-ranging vision, the existence of health cannot be judged simply by the absence of perceived disease or infirmity. Moreover, in both developed and developing countries, there is a lack of adequate data about the prevalence of particular conditions which would indicate ill health.

The level of health status or the nature of the health problem can to only a limited extent be inferred from data such as those on immediate causes of death. Moreover, mortality data indicate very little about the surrounding complex epidemiological circumstances, which have profound significance for public policy in the field of health and health care. In any case, mortality data for many developing ESCAP countries, especially those with large rural populations with very little access to health care services, are frequently too imprecise to be of much use for decisions about the specific forms of health care that are needed. As for morbidity data, these are largely absent and the extent of morbidity or the prevalence of particular debilitating conditions can at best be only roughly inferred from limited general information.

The broad features of the health problem over much of the developing ESCAP region are, however, reasonably well known. Mortality rates, especially among the young and new born, remain high in many countries. Nutritional deficiencies, along with parasitic infestations, diarrhoeal and vector-borne diseases, tuberculosis and leprosy, are common. What is also known is that most of these health problems are closely related to general conditions of poverty, illiteracy, superstition, bad housing, lack of adequate water supply and sanitation as well as low levels of education, especially of women.

[12] *Economic and Social Survey of Asia and the Pacific, 1978* (United Nations publication, Sales No. E.79.II.F.1), pp. 134-144.

The achievement of better health rests heavily on the capacity of the developing ESCAP countries substantially to improve standards in all of these areas.

Nonetheless it is clear that during the past two decades mortality rates have declined significantly in virtually all developing ESCAP countries. In recent years, however, the pace of mortality rate decline has apparently begun to slow down in some countries. The causes are not yet clear, but the suspicion is that the easier initial gains associated with improvements in the health environment have been fully exhausted and that the continued existence of widespread poverty, under-nutrition, illiteracy and the inadequacy of health services in rural areas, coupled with the demands on resources associated with increasing population, will act as a brake on further decline in the mortality rate.

The crude death rate is a weak indicator of mortality change because it is strongly influenced by the age structure of the population. A better index is life expectancy at birth. Among the developing countries of the region, high mortality (less than 50 years life expectancy at birth) was with a few exceptions characteristic of the countries of south Asia as well as Indonesia and the Lao People's Democratic Republic during 1975-1980. Medium mortality (50-60 years) applied to such countries as Iran, Pakistan, Thailand and Viet Nam and low mortality (over 60 years) to countries in east Asia as well as such other countries as Malaysia, the Philippines, Singapore and Sri Lanka.

Infant mortality rates have also declined over the past decade. The most significant decline has been in China, where the rate was reduced from 75 per thousand in 1965-1970 to 49 per thousand in 1975-1980. In general, the more developed and urbanized economies in the region, such as Hong Kong and Singapore, had much lower rates of infant mortality, at 12 and 13 per thousand, respectively, than the other developing countries. Developing countries that have realized substantial reductions in infant mortality rates include Fiji, Malaysia, the Republic of Korea and Sri Lanka. The majority of developing countries, however, have been less successful, with rates of between 100 and 160 per thousand still common in the late 1970s.

The decline in infant and child mortality rates has been a major element in the overall reduction in mortality, but other age groups have also benefited. Improvements in housing, sanitation and education have been important contributory factors along with the introduction of comparatively cheap and effective technologies for the control of disease vectors, as well as immunization and the treatment of communicable diseases. The latter continues to be a priority area for health programmes in many developing ESCAP countries, with emphasis on epidemiological surveillance, malaria control, leprosy, tuberculosis, dengue fever, acute diarrhoeal diseases and diseases preventable by routine immunization, especially of children.

Despite the overall decline in its incidence, malaria has continued to be the major public health concern in many developing ESCAP countries, including Bangladesh, Bhutan, Burma, India, Indonesia, Maldives, Nepal, Sri Lanka and Thailand. Efforts to control the disease have been impeded by the development of vector resistance to insecticides and of the malaria parasite to drugs; the migration of infected persons to previously unaffected areas has also been a growing problem. Another problem has been the increase in the price of drugs, insecticides and other essential supplies and equipment.

Table I.40 Selected developing ESCAP economies. Mortality rates, 1960-1980

	Crude death rate per 1,000 population		*Percentage change, 1960-1980*
	1960	*1980*	
Afghanistan	31	26	-16.1
Bangladesh	28	18	-35.7
Bhutan	26	19	-26.9
Burma	21	14	-33.3
China	14	8	-42.8
Hong Kong	8	5	-37.5
India	22	14	-36.4
Indonesia	23	13	-43.5
Iran	17	11	-35.3
Lao People's Dem. Rep.	19	21	10.5
Malaysia	16	7	-56.2
Mongolia	15	8	-46.7
Nepal	27	20	-25.9
Pakistan	24	16	-33.3
Papua New Guinea	23	15	-34.8
Philippines	15	7	-53.3
Rep. of Korea	13	7	-46.2
Singapore	8	5	-37.5
Sri Lanka	9	7	-22.2
Thailand	15	8	-46.7
Viet Nam	21	9	-57.1

Sources: World Bank, *World Development Report 1982* (Washington, D.C., 1982); and World Health Organization, *World Health Statistics, 1981* (Geneva, 1981).

Table I.41 ESCAP region. Expectations of life at birth by sex, 1965-1970 and 1975-1980 (*years*)

	Persons		*Males*		*Females*	
	1965-1970	*1975-1980*	*1965-1970*	*1975-1980*	*1965-1970*	*1975-1980*
ESCAP region	53	58	52	58	54	59
West and south Asia	46	49	47	50	46	49
Afghanistan	38	40	37	40	38	41
Bangladesh	43	46	44	46	43	46
Bhutan	40	43	40	44	39	42
India	46	49	47	50	46	49
Iran	49	54	48	53	49	54
Nepal	40	43	40	44	39	42
Pakistan	48	51	50	52	47	50
Sri Lanka	64	65	64	...	65	...
East Asia	60	68	58	66	62	69
China	59	67	58	...	61	...
Hong Kong	68	76	65	74	72	79
Japan	71	76	68	73	74	78
Mongolia	58	62	56	60	60	65
Rep. of Korea	58	62	56	60	59	65
South-east Asia	47	52	46	51	48	54
Burma	48	52	46	51	49	54
Indonesia	42	48	42	46	43	49
Lao People's Dem. Rep.	40	44	39	42	42	45
Malaysia	57	63	55	...	58	...
Philippines	56	61	54	59	57	62
Singapore	68	71	66	69	70	73
Thailand	56	60	53	58	58	63
Viet Nam	43	53	42	51	45	54
Pacific	64	66	62	64	67	68
Australia	72	73	69	70	75	76
Fiji	68	71	66	70	70	73
New Zealand	72	73	69	70	75	76
Papua New Guinea	45	50	45	50	45	50

Sources: *World Population Prospects as Assessed in 1980*, Population Studies No. 78 (United Nations publication, Sales No. E.81.XIII.8), and *Demographic Indicators of Countries: Estimates and Projections as Assessed in 1980* (forthcoming).

Leprosy continues to be a serious health concern for a number of countries in the region. As of 1980 more than half of the world's leprosy patients lived in developing ESCAP countries. Leprosy control has become more difficult because of the development of bacterial resistance to Dapsone drug treatment. Multi-drug therapy is now being developed. Furthermore, it is apparent that health education is an important aspect of any leprosy control intervention programme, because the social stigma attached to the disease often prevents early diagnosis and prompt treatment.

Practically all developing ESCAP countries have control programmes, though of varying extent and degree of effectiveness, for the treatment of diarrhoeal diseases, a major cause of childhood and infant mortality in developing countries. In some countries, well-developed programmes have been carried out through expanding basic health services in line with the concept of primary health care. The preferred oral rehydration treatment has, however, been impeded because supplies of the required medication have often been insufficient to cover requirements. In addition, more trained manpower is a crucial need in some countries.

Sporadic cases of plague during 1980 were reported in Burma while cholera outbreaks in 1981 were severe in India and Indonesia, with an additional minor outbreak in Sri Lanka. Small numbers of cases were reported also in Burma, Nepal and Thailand.

As regards routine immunization, most countries have been engaged in activities under the Expanded Programme on Immunization (EPI). The target age group is children under 1 year old. Full immunization coverage involving BCG, DPT and polio vaccines for children was considered rather low in 1981. Immunization against tetanus, especially for women of childbearing age, is also an important part of EPI. Tetanus infection is a major problem in India. According to a survey completed at the end of 1981, the neonatal tetanus incidence rate in

Table I.42. Leprosy in selected countries in the ESCAP region. Number of registered cases, estimated total number of cases and number of cases per thousand population, 1980

	Number registered (thousands)	*Estimated total number of cases (thousands)*	*Number of cases per thousand population*
Bangladesh	30	140	1.6
India	2 600	4 000	6.0
Indonesia	116	233	1.6
Maldives	2	2	1.0
Nepal	25	81	5.6
Sri Lanka	11	14	1.0
Thailand	111[a]	140	3.0

Source: World Health Organization Regional Office for South-east Asia.

Note: [a] Total number of registered cases, including those released from control.

rural areas ranged from 14.9 per 1,000 live births in West Bengal to 83.4 in Uttar Pradesh.

The control of communicable diseases such as those described above has continued to be a major public health problem in the developing ESCAP countries, in spite of persistent efforts by Governments, supported by international and bilateral agencies, to reduce their incidence. The major constraints to these programmes are inadequate surveillance services, shortage of trained manpower and weak infrastructures. As for non-communicable diseases, such as cardiovascular diseases, cancer, chronic liver diseases and diabetes, which have a relatively high incidence in developed countries, these are beginning to gain the attention of Governments in those developing ESCAP countries and areas which have attained higher levels of per capita income, such as Hong Kong and Singapore, although almost all countries in the region engage in various programmes aimed at the prevention and control of these diseases, as well as accidents, suicide and homicide.

Box I.26 Sanitation and safe drinking water

The proclamation of 1981-1990 as the International Drinking Water Supply and Sanitation Decade by the United Nations General Assembly has focused global attention on the necessity to accelerate the provision of reliable drinking water supply and basic sanitation facilities to all urban and rural communities. Some 2 billion people, half the world's population, are without access to safe and adequate water and an even larger number lack proper sanitation facilities. With an estimated 80 per cent of all sickness and disease due to inadequate water and sanitation facilities, immense direct and indirect costs result from this shortfall in health facilities. The opportunity costs of such ill health and deaths probably far exceed the World Bank estimate of $US300-600 billion required for new installations to attain the Decade's goal.

The greatest need for clean water and adequate sanitation is undoubtedly in the world's most populated regions. The Asia and Pacific region (excluding China) had 65 per cent of the developing world's rural population without potable water and 69 per cent without proper sanitation in 1980.[a] In particular, more than four fifths of the rural population had no easy access to safe water in Afghanistan, Burma, Indonesia, Maldives, Nepal, Pakistan, Papua New Guinea and Sri Lanka. Even more countries had larger proportions of rural population without access to latrines or a safe way of disposing of excreta. The urban population are better off in terms of coverage and direct access for both water supply and sanitation. Even in the exceptional case of Bangladesh, though a smaller proportion of urban residents has access to clean water than the rural population, urban dwellers have easier access to piped water.

Apart from overall resource constraints and the low priority usually assigned to water supply and sanitation in national plans, the success of community programmes depends on public acceptance and appropriate utilization of the new facilities. Health education programmes are needed to overcome established practice and to inculcate personal hygiene habits. Moreover, the involvement of local communities in the operation and maintenance of simple water supply schemes in rural areas is essential. Self-help schemes at the village level in the provision and management of simple but effective sanitation services, already operative in many rural areas, are essential if the targets set for the Decade are to be met.

Selected ESCAP economies. Proportion of population served by water and sanitation, c. 1980

(Percentages)

	Served by water		*Served by sanitation*	
	Urban[a]	*Rural*[b]	*Urban*[c]	*Rural*[d]
Afghanistan	20	8	...	...
Bangladesh	30	70	38	1
Burma	30	16	23	10
Fiji	96	62	...	93
Hong Kong	100	95	...	...
India	74	31	47	2
Indonesia	36	18	73	19
Iran	86	33	...	...
Rep. of Korea	100	53	...	...
Malaysia	77	53	76	63
Maldives	...	5	...	...
Nepal	83	7	18	...
Pakistan	68	17	...	2
Papua New Guinea	44	10	33	10
Philippines	73	46	32	27
Singapore	100	...	...	...
Solomon Islands	95	24	...	20
Sri Lanka	48	18	...	56
Thailand	65	64	...	30
Tonga	...	77	...	100
Viet Nam	40	20	...	...

Sources: National sources.

Notes: [a] With piped water to households. [b] With easy access to safe water. [c] With installed sanitation facilities. [d] With easy access to sanitation facilities.

[a] Bahman Kia, "International financing of water supply and sanitation in developing countries" (New York, United Nations Development Programme, Division of Information, December 1981).

Environmental health problems are also gaining increased attention in many developing ESCAP countries with a view to the identification and control of environmental hazards affecting human health. The provision of water supply and sanitation continues to be the most important component of environmental health programmes in the region. The health hazards associated with urbanization and industrialization are becoming increasing causes of concern and targets of public action. Particular concern is being generated over the adverse effects on health of the increasing use of potentially toxic insecticides and other toxic substances in agriculture, and problems of workers' health in the factory. In addition, food safety programmes have been initiated in a number of countries, including Burma, India, Indonesia, Sri Lanka and Thailand.

In the developing island countries of the Pacific, better health conditions are generally experienced than in the other developing countries of the region. For example, with the exception of Papua New Guinea, infant mortality rates are lower in these countries. However, there are some emerging problems. It has been argued that the Pacific countries' populations generally had a nutritionally adequate diet in pre-contact times. But due to changing food habits and feeding practices, especially because of the changed responsibilities of women under cash-cropping, under-nutrition has become an important factor in infant and childhood mortality and low learning capacity. The change in feeding practices and food habits stems from the tendency to rely on imported foods, such as refined wheat and flour, polished rice, sugar and canned meat and fish. Another concern in the South Pacific has been the rising prevalence of chronic degenerative diseases – such as diabetes mellitus, hypertension, obesity, heart complaints and stress-related diseases and mental disorder – as this subregion encounters the trauma of increasing contact with the rest of the world and as an increasing proportion of the population survives to old age.

D. HUMAN SETTLEMENTS

Rapid population growth and increasing urbanization are at the core of the problem faced by the developing countries of the ESCAP region in providing adequate housing. These two factors have been primarily responsible for the estimate that despite substantial investments in housing construction and improvement, only 18 per cent of dwellings in the developing ESCAP region were classified as of a satisfactory standard in 1979, the same proportion as in 1969.[13] In effect, then, over the past decade and more, little progress has been made in improving the general level of housing in the region. Given the extent of population growth, a much larger number of people must therefore be living in substandard housing today than was the case a decade ago.

In addition to population growth and the increasing rate of urbanization, another factor tending to increase the demand for housing units has been the changing average size of households as a result of a variety of social changes affecting family size. The trend towards lower household size has been most marked in developed countries, but it has also begun to become apparent in a number of developing ESCAP countries. It has been estimated that in 1980 the average number of persons per household in east Asia was 4.3, as against 5.1 in 1965; this figure is projected to fall to 3.3 by the year 2000. In south Asia, the trend has been towards a slightly increased average household size from 5.3 in 1965 to 5.4 in 1980. However, a decline to 4.5 persons per household is expected by the year 2000.[14]

The provision of housing, especially in urban areas, faces a number of constraints. For one thing, with continued urbanization and increased industrialization, urban land values have risen sharply, especially in central city areas. This problem has given rise to rapid suburbanization in many developing ESCAP countries, raising associated problems of extension of transport and service facilities.

Secondly, the procedures for acquiring land for housing purposes can be extremely complicated. For example, in Indonesia and Thailand as well as in Bangladesh and India, land acquisition, municipal authorization and other legal preliminaries to the construction of housing developments often take up to 10 years to finalize. The simplification of legal procedures concerning the acquisition and use of land for housing purposes is urgently necessary. Even in rural areas there are frequently difficulties in land acquisition because of complex land tenure arrangements. One means of overcoming the problem of efficient urban space use for housing is exemplified by the land readjustment scheme in the Republic of Korea, which covers 94 per cent of residential land in Seoul. Under this scheme, site boundaries have been readjusted in order to permit higher-density housing while at the same time

[13] *Report on the World Social Situation* (United Nations publication, Sales No. E.82.IV.2), chapter IX, p. 140. "Standard" dwellings are defined as those built of durable, conventional materials and generally equipped with piped water, sanitation facilities and electricity.

[14] *Ibid.*, p. 19.

providing adequate space for roads and other services.

The difficulties encountered in providing urban housing of adequate standard in developing ESCAP countries have been complicated by the fact that existing municipal power, water and sewage services have insufficient installed capacity to cover the spreading spatial distribution of housing sites. Thus, although new physical structures may be of an adequate standard, they are not being provided with essential supporting services.

The supply of housing, of course, also depends upon the demand for it. Sub-standard housing is in many cases attributable to the limited capacity of the consuming public to afford units of good quality. In many developing countries the cost of even the cheapest standard of housing units is such that only about 20-40 per cent of urban households have sufficient income to afford to purchase them.[15] Few Governments in the developing ESCAP region, however, have been prepared to allocate a significant part of public expenditure towards the construction of low-cost housing. The main approach has been to attempt to deal with the worst aspects of slum and squatter settlements partly by demolition and re-housing elsewhere but increasingly by way of upgrading existing slums.

In India, for example, slum improvement is estimated to have benefited some 7 million of the 33 million urban families living in slum and squatter areas. These programmes have included the provision of sealed pathways and safe water supplies as well as improved drainage and sanitation. In Pakistan, the Government in 1978 legalized squatter settlements located on State lands. A total of 350,000 families have so far been settled in this way. In the Philippines, various approaches have been attempted to deal with the urban slum problem. The Tondo Foreshore Development provided 180,000 inhabitants with urban services on that central Manila site. Another 30,000 families have been resettled under the Dagat-Dagatan Programme, while 20,000 rural persons and 1,226 urban families have been rehoused since 1979 under the Bagong Lipunan Improvement of Sites and Services (BLISS) programme. In Indonesia, a major improvement of existing low-income housing conditions was started in Jakarta in 1969 with the Kampung Improvement Programme. In the following decade around 7,380 hectares of kampung area were improved to the benefit of a population of 2.4 million. Under a public housing programme in Singapore, nearly 360,000 housing units were completed over the period 1960-1980; as at the end of March 1981 about 69 per cent of the population were living in flats built by the National Housing Board. The approach to housing in Singapore has also recognized the need to provide employment opportunities and educational facilities as well as social and recreation amenities in new housing areas. The difficulties of land acquisition have been less in Singapore because 70 per cent of the island's total land area is owned and controlled by the Government or quasi-government organizations. Hong Kong also has done much to provide the basic housing needs for its population. The number of dwelling units increased by 73 per cent over 1971-1981, including improvements in space, quality and environmental conditions.

The establishment of new institutions for providing an integrated approach to problems of human settlements has not proceeded very far. An exceptional case is the Philippines, where a Ministry of Human Settlements was set up in 1978 to supervise the activities of several agencies, such as the Human Settlements Regulatory Commission and the Human Settlements Development Corporation, together with formulation and implementation of the National Multi-Year Human Settlements Plan covering the period 1978-2000. Another departure is the attempts that have been made by a number of countries of the developing ESCAP region to improve contacts with agencies responsible for human settlements problems. Thus, a Regional Congress of Local Authorities for the Development of Human Settlements in Asia and the Pacific was held in Yokohama, Japan, in June 1982 with representatives of many cities and organizations of the region.

[15] World Bank, *Housing Sector Policy Paper* (Washington, D.C., May 1975), Annex 5.

Part Two

FISCAL POLICY FOR DEVELOPMENT IN THE ESCAP REGION

INTRODUCTION

The past three decades constitute a distinct cycle in the economic evolution of the developing ESCAP region. In terms of rough approximations, the 1950s were characterized by the emergence of concerted efforts to establish viable post-colonial economies, a process marked by the establishment of development planning as a basic tool to realize the economic aspirations of the newly independent nations of the region.

The 1960s witnessed the intensive implementation of the development themes that had emerged in the preceding decade. Aided by a buoyant global economy and in particular by a series of commodity price booms, accelerated growth through planned development was achieved in a number of countries. Other countries of the region, facing particularly serious demographic and poverty problems and following relatively inward-oriented and/or centrally planned development paths, went far towards restructuring their economies in anticipation of longer-term gains.

With the 1970s the region encountered a series of destabilizing shocks as a result of global inflation, energy shortages and recessions. Accompanying these disruptions was a widespread awakening to the fact that growth is not necessarily compatible with or instrumental in achieving other development objectives that were being given increasing prominence. The adjustment of planned development to accommodate these revised perceptions occupied economic policy makers in the region for much of the decade.

Virtually all the governments in the region have taken an increasingly active part in the management of their economies over the past three decades. In most cases, this trend is reflected in the rising share of the public sector in GDP and the rising portion of per capita income being transferred to the public sector to pay for the expanding array of government activities. Such statistical indicators of government's role are of course only partial, as they do not reflect government's indirect role in managing the economy, particularly through fiscal and other economic policies. In recognition of this important theme of the development process, the present study examines the changing economic management role of governments in the developing ESCAP region through the use of fiscal policy.

The fiscal dimension of the development process centres on the revenue-expenditure activities of government, which are traditionally referred to as public finance. The operations of the public household, however, go far beyond the question of financial management. These activities inevitably have fundamental implications for the allocation of resources, distribution of income, level and composition of employment, stability of prices and balance of payments and rate of growth. The consideration of these implications of the operation of the public household is commonly referred to as fiscal policy.

Fiscal policy may thus be defined as, and limited to, the deliberate use of taxes and other government revenue, government spending and public debt operations to influence economic activities in desired ways. As such, it is specifically concerned with the effects of fiscal operations on major economic and social variables such as employment, savings and investment, national income, the price level and the balance of payments but excludes such aspects as monetary policy, foreign exchange policy, quantitative control on international trade, direct wage and price controls and legal and administrative controls over various other aspects of economic and social life.

Fiscal policy emerged as a major instrument for public regulation of the economy during the years of depression preceding the Second World War. In the developed economies, fiscal policy has subsequently continued to be applied largely for stabilization purposes. The main focus has been on influencing aggregate economic variables such as the total volume of economic activity, general level of prices and aggregate consumer expenditure.

The application of fiscal policy in developing economies has evolved along somewhat different lines. In the first place, the imperatives of development have required the application of revenue and expenditures measures to meet longer-term objectives. In this context, stabilization has been one of a variety of objectives pursued by fiscal

policy makers, and even this objective has been pursued with longer-term development interests in mind. Secondly, the institutional constraints, inadequate internal integration and external vulnerability of developing economies warrant a great deal of selectivity in the application of fiscal measures. As a result, the application of fiscal policy for development has departed significantly from the aggregative perspective conventionally assumed in the developed world.

The ECAFE secretariat undertook in 1960 a special study surveying the role of public finance in Asia and the Far East.[1] That study devoted a single brief chapter to the question of fiscal policy and viewed it in the frame of reference traditional to the developed countries – that is, as a macro-economic stabilization instrument. The distance that policy makers in the developing ESCAP region have travelled since then can be gauged from the difference in tone and coverage between the earlier study and the one that is presented here. The nearly quarter of a century that has intervened between the two studies has permitted the developing ESCAP region to evolve a distinct development-oriented fiscal policy frame and introduce considerable sophistication into the fiscal policy-making process whereby the region can pursue its basic development objectives. The present study surveys this record and provides suggestions concerning the possibilities for further progress.

[1] "Public finance in the postwar period", *Economic Survey of Asia and the Far East, 1960* (United Nations publication, Sales No. 61.II.F.1), pp. 53-119.

I. PATTERNS OF RESOURCE MOBILIZATION AND UTILIZATION

The evolving fiscal role of government in the developing ESCAP region over the past three decades, as represented by the changing level and composition of government receipts and expenditure, forms the theme of this chapter. In recognition of the fact that economic systems inevitably vary in magnitude and composition in accordance with national circumstances, the analysis is neutral with respect to the relative size of government in the economy. As the data show, however, the expanding role of government on a region-wide basis is an empirical fact. Though the direction of change has been generally uniform, the absolute size of government in the economy remains highly variable, and as subsequent chapters shall show, its qualitative role has also contributed to the regional diversity. The empirical basis of the discussion is explained in Box II.1.

A. THE AGGREGATE PICTURE

The economic role played by the public sector in mobilizing and utilizing resources[1] may be considered broadly to consist of two interrelated dimensions. The first concerns the mobilization of resources to finance the public sector's current and capital expenditure.[2] The second pertains to the impact of public sector resource mobilization and utilization processes on investment, saving income and wealth distribution, employment, price and balance-of-payments stability, and other key economic variables. This section presents an empirical review of country experiences in the ESCAP region with regard to resource mobilization efforts and patterns of utilization. It provides the foundation for analysis, in subsequent sections, of structural changes in expenditure and revenue systems. Having thus dealt with the first dimension of the public sector's fiscal role, subsequent chapters will be devoted to the examination of the second dimension.

1. Aggregate expenditure

The primary purpose of resource mobilization by governments is obviously to finance public sector expenditure. It is thus to be expected that changes in resource mobilization patterns over time and among countries will be closely paralleled by changes in expenditure patterns. Whatever differences arise between aggregate expenditure and total receipts are accounted for by budgetary imbalances – i.e., by the accumulation or run-down of government net indebtedness, both domestic and foreign. As this aspect of the budgetary situation in the developing ESCAP region will be touched on in a later section, the question of the regional experience with respect to aggregate expenditure can be dealt with expeditiously at this point.[3]

Expenditure growth is first reviewed in terms of ratios of total, capital and current government expenditure to GDP at benchmark years during the past three decades. None of the developing ESCAP economies surveyed except Nepal experienced a consistent pattern of increases in expenditure as a share of GDP throughout the period covered. Nevertheless, virtually all

[1] In the present analysis, "resources" refers to financial resources rather than human and physical resources.

[2] The distinction here between current and capital expenditure is not identical with the distinction made elsewhere between development and non-development or plan and non-plan expenditure. The current-capital distinction is used here because comparative data (both over time and across countries) are not readily available for the alternative breakdowns.

[3] The tendency to focus on trends and cross-sectional comparisons of revenues and budgetary deficits, thereby reducing expenditure to a residual, is a common feature of studies of revenue mobilization and utilization. Though arithmetically unimpeachable, this procedure carries "causal" implications which tend to bias judgements concerning the respective responsibilities of revenue mobilization and expenditure with respect to the urgent need to minimize budgetary deficits in developing economies. The impression generated by focusing on mobilization and deficits is that mobilization should be accelerated – that revenue-generating "capacity" has not been attained. This impression is reinforced by the de-emphasis on expenditure, despite the fact that the possibilities of economizing on expenditure as a means of combating deficits may be as necessary as revenue expansion.

of them registered significant increases in the ratio of total expenditure to GDP despite fluctuations around the trend. The notable exceptions are Burma, the Philippines and the Republic of Korea. The first two countries recorded absolute declines in the ratio over the two decades leading to 1980, while the increase in the Republic of Korea was a relatively small one. The largest increases were recorded by Malaysia and Nepal, where the ratio nearly doubled and more than tripled, respectively.

Expenditure breakdowns into current and capital components are not available for all the economies surveyed. From the available data, it is evident that for most of them current expenditure has consistently claimed the higher proportion. There does not appear to exist any consistent pattern in terms of growth of either of these components. The number of economies which recorded increases in the share of current expenditure in 1980 relative to 1960 is equal to the number experiencing increases in the share of capital expenditure. Many of the economies recorded increases on both accounts.

Single-year budgetary statistics are usually subject to wide variations and are therefore inadequate for the purpose of trend analysis. Hence, decade-wide average annual growth rates are also examined. Public expenditure in terms of decade-wide average annual growth rates increased throughout the developing ESCAP region in each of the decades covered. A comparison with receipts reveals that it grew at average rates very close to those of receipts. A typical example is Pakistan, where the difference between the annual growth rates of receipts and expenditure averaged 2.5 percentage points in the 1950s and 0.2-0.5 percentage points in the 1960s and 1970s. These trend rates mask, of course, considerable year-to-year variations due to unanticipated departures from planned revenue-expenditure balances.

A few countries in the region were less successful in holding down the rate of increase in expenditure relative to receipts in the 1970s than they had been in the preceding two decades. Expenditure in Afghanistan, India, Nepal and Sri Lanka grew faster than

Box II.1 Basic definitions and data sources

The data in the present study cover 21 developing ESCAP economies, among which are two oil-exporters, three newly industrializing countries, three land-locked least developed countries and two centrally planned economies. Data on central government fiscal activities in 16 of these in the 1970s have been adjusted by the International Monetary Fund (IMF) to permit direct comparison, and these adjusted data have been relied on in the present study.[a] Data for the remaining have been collected from national sources and adapted as required. National sources have also been relied on to extend the serial data back to the 1960s, and to the 1950s where possible.

Receipts are defined in this study as consisting of total revenue plus grants to the central government. Total revenue in turn includes tax revenue, non-tax revenue and capital receipts. Expenditure consists of current expenditure, capital expenditure and net lending incurred by the central government. Standard IMF definitions and classifications have been used in determining the components of grants, tax revenue, non-tax revenue and capital receipts as well as current expenditure, capital expenditure and net lending.[b]

Multi-year averages, mostly for five-year periods, are used in the present study to eliminate short-term fluctuations. Where data are not available for the entire period to which reference is made, it has been assumed that the average of annual data covering part of the period analysed is representative of the whole period. In order to maintain consistency and comparability over time and across countries, coverage is limited to a selected sample of developing ESCAP economies. Reliable data are available for only seven economies for the 1950s and for an additional nine for the 1960s.

It should be noted that cross-country comparisons remain subject to differences in the coverage of central government activities, particularly the division of functional responsibilities between central and lower levels of government.[c] While all levels of government should, ideally, be taken into account, the relevant comparative data are available only for central governments in the region. The present study is therefore restricted to operations of the central government except where explicit exceptions are made. This procedure is justified by the fact that non-central government units in most cases account for only a small proportion of total receipts and expenditure. It should be noted, however, that the significant role of non-central government units in such countries as India and Pakistan enters a degree of cross-country and possibly also temporal distortion into the analysis; wherever possible, the data have been adjusted to reduce such distortion. Additional factors influencing the comparability of data among countries, such as different fiscal years and national classification systems, have been accommodated in the present study in accordance with conventional United Nations practice.

[a] International Monetary Fund, *Government Finance Statistics*, various issues.

[b] For details, see International Monetary Fund, *A Manual of Government Finance Statistics, 1974* (Washington, D.C., 1974).

[c] For a major recent study of this issue in one developing ESCAP country, see Christine Wallich, "State finances in India", *World Bank Staff Working Papers 523*, 2 vols. (1982).

receipts in the 1970s, whereas in the preceding decade receipts had grown more rapidly or almost commensurately with expenditure. By contrast, all the countries of south-east Asia and the South Pacific covered in the sample performed better in terms of this measure. These countries either reduced the gap inherited from the past or achieved growing surpluses.

Real growth rates of government expenditure are juxtaposed with the nominal growth rates during the two decades, 1961-1980, in Figure II.1.[4] It is evident that all the economies under review experienced positive real growth rates throughout the period, except Afghanistan, which recorded a small negative growth rate during the 1960s.

2. Aggregate receipts

National performance regarding the mobilization of resources can be assessed by relating resource mobilization to national income and comparing these ratios over time and among countries. Any analysis based on such estimates is limited by the fact that it does not account for the various qualitative roles that may be assigned to government in operating and managing the economy. In examining resource mobilization performance in terms of these ratios, the present discussion therefore restricts its scope to the empirical base. The performance data are evaluated, first, in terms of the ratios of total receipts and their major components to GDP at benchmark years over the past three decades and, secondly, in terms of the average annual growth rates of total receipts over each of the three decades.

Nearly all the countries covered achieved considerable increases in the ratio of total receipts to GDP between the years 1960 and 1980. Burma seems to be an exception, showing a decline over the period 1965-1975 in all four of the ratios examined, followed by an increase in 1975-1980 which was insufficient to restore the levels obtained in 1960 except for non-tax revenue. The only other exceptions are the Philippines and the Republic of

Table II.1 Selected developing ESCAP economies. Total, capital and current government expenditure as shares of GDP, 1960-1980[a]

(Percentages)

	1960	*1965*	*1970*	*1975*	*1980*
			Total expenditure share		
Burma	22.4[b]	20.8	19.1	15.5	19.8
Fiji	19.3	23.5	25.3	20.8	24.8
Hong Kong	15.2	16.8	13.0	16.2	21.1
India	12.8	18.6	16.2	19.0	21.8[c]
Indonesia	...	...	14.1	21.7	26.1
Iran	...	...	28.8	45.4	44.8[d]
Malaysia	17.0	29.0	27.6	31.0	33.1
Nepal	5.1[b]	6.3	7.8	9.1	15.7
Pakistan	21.1	26.3	22.4	26.8	25.8
Papua New Guinea	19.3	30.9	35.8	38.6	35.8
Philippines	13.2	16.7	15.4	15.9	12.6
Rep. of Korea	20.7	15.3	17.5	17.7	21.7
Singapore	18.7	15.0	20.7	24.5	26.3
Solomon Islands	20.0	27.7	30.0	26.3	34.4
Sri Lanka	27.3	29.0	25.7	23.7	35.4
Thailand	13.1	15.6	19.5	15.5	19.6
			Capital expenditure share		
Burma	3.0[e]	3.6	2.7	1.6	4.3
Fiji	5.9	5.8	5.4	5.0	5.0
Hong Kong	3.0	4.9	2.2	4.4	4.7
India	2.9	3.2	2.6	2.7	3.0[c]
Malaysia	2.0	6.7	5.3	5.1	7.6
Papua New Guinea	6.0	8.6	10.3	11.4	5.3
Rep. of Korea	4.7	4.5	4.2	3.4	2.6
Singapore	5.6[f]	1.4	2.7	2.6	5.9
Sri Lanka	5.7	6.3	5.8	6.5	13.7
Thailand	2.7	4.2	5.8	3.0	3.9
			Current expenditure share		
Burma	15.4[e]	16.6	15.4	13.8	14.9
Fiji	14.3	16.7	20.4	15.5	18.8
Hong Kong	9.7	8.8	8.7	11.0	8.3
India	7.0	10.9	10.1	12.2	14.5[c]
Malaysia	13.6	20.3	20.4	22.1	22.2
Papua New Guinea	13.3	21.5	25.5	24.9	30.4
Rep. of Korea	13.4	8.8	12.4	12.6	15.9
Singapore	11.2[f]	11.8	15.9	15.0	15.7
Sri Lanka	21.6	22.7	19.7	17.0	18.1
Thailand	10.4[f]	10.5	12.6	12.2	13.5

Source: See Box II.1.

Notes: [a] Capital plus current expenditure shares do not necessarily add up to total expenditure share because of the inclusion of net lending in the total. [b] 1962. [c] 1979. [d] 1978. [e] 1963. [f] 1961.

[4] Expenditure has been adjusted by rates of inflation specified in World Bank, *World Development Report, 1981* and *1982*.

Korea, both of which recorded a marginal decline in their receipts-GDP ratios. In both cases, the decline took place in spite of an increase in the tax revenue-GDP ratio.

As regards tax revenue, the ratio increased over the period 1960-1980, with minor variations during the intervening years, for nearly all the economies surveyed. The exceptions were Burma and Sri Lanka, which both recorded small declines in the tax-GDP ratio. By contrast, the ratio of non-tax revenue to GDP showed a much less consistent pattern both in terms of direction of change over the 1960-1980 period and in its behaviour during the intervening years. The importance of non-tax revenue, however, continues to be small. With the striking exception of Iran, the ratio of non-tax revenue to GDP in most countries remained below 5 per cent throughout the period.

In only a few countries did grants form a significant part of the ratio of total receipts to GDP.[5] These cases include Bangladesh, Nepal, Papua New Guinea, Solomon Islands and Sri Lanka. In all other instances, the contribution of grants was negligible. It would thus appear that while grants may be of importance to some developing countries, this source of government resources in most cases has little potential for becoming a significant contributor to public sector expenditure requirements.

The other possible contributor to total receipts is capital revenue.[6] As of 1980, in only three of the economies surveyed did the contribution of this item to total receipts exceed 1 per cent of GDP. In the case of Singapore, it was marginally higher than 1 per cent, and in Papua New Guinea it was above 3 per cent. The unusually large contribution of this item in Hong Kong during 1980, at 9.5 per cent of GDP, was due to a sudden increase in the receipts from land sales, which benefited from a property price boom.

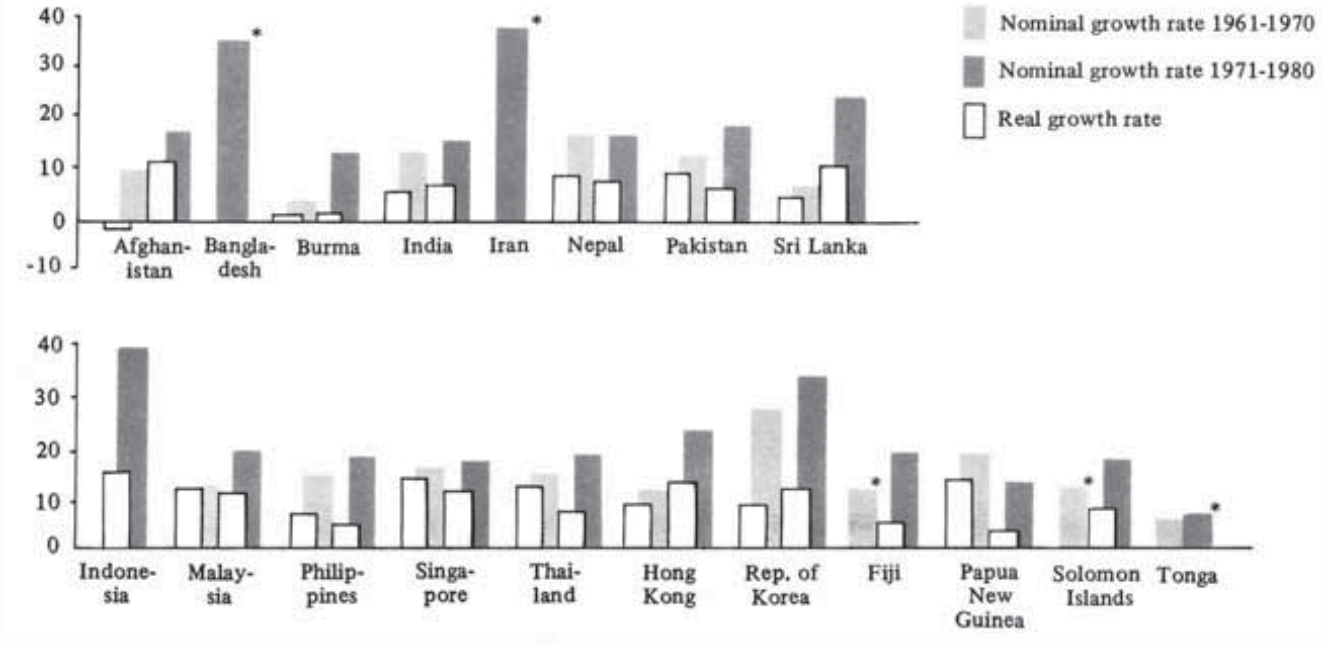
Tax revenue is by far the largest contributor to the increase in the ratio of total receipts to GDP. Only in the cases of Bangladesh, Hong Kong, Iran and the Solomon Islands was the contribution of tax revenue exceeded by that of all other sources combined. The grant component is the explanatory factor for Bangladesh, whereas capital receipts and non-tax revenue provide the explanation for Hong Kong and Iran, respectively.

Average annual growth rates of

[5] Grants are measured in this study as the difference between total receipts and total revenue and consist of unrequited, non-repayable assistance from foreign governments or international institutions.

[6] Capital revenue is measured here as the difference between total revenue and the sum of tax and non-tax revenue. This item consists of sales of assets, including fixed capital, stocks, land and intangibles.

Figure II.1 Selected developing ESCAP economies. Average annual growth rates of government expenditure per decade, 1961-1980 *(Percentages)*



* Regional growth rates are not indicated because inflation rates are not available for the period.

government receipts during each decade confirm that the economic role of the public sector has expanded enormously, at least in quantitative terms, in the developing ESCAP region over the past three decades. The most striking point is that in not one of the three decades covered did government receipts decrease in either nominal or real terms in any of the economies covered.

Average annual growth rates of government receipts (in nominal terms) during the 1970s were over 30 per cent in Bangladesh, Indonesia, Iran and the Republic of Korea. The majority of economies registered growth rates between 10 and 20 per cent per annum. The high growth rates in Indonesia and Iran were due to spiralling oil prices in the mid-1970s, which greatly augmented government funds either through tax revenue or royalty payments. Inflows of commodity aid provided large surplus funds in the food account in Bangladesh, while in the Republic of Korea, one of the fastest growing economies in the world in the 1970s, government resources expanded as a direct function of the country's output growth.

In real terms, growth rates of total receipts have shown considerable inter-country variation. In addition, there does not appear to have been any general tendency toward growth spurts in particular decades. In the 1970s, the highest average annual growth rates in real terms, 20 per cent or more, were achieved by Bangladesh, Indonesia and Iran; the lowest rate, 4 per cent, was recorded by Burma and Papua New Guinea.

3. Budget balance

Having examined in turn the behaviour of receipts and expenditure, it is useful to consider briefly their combined impact as reflected in the overall budgetary balance,

Table II.2 Selected developing ESCAP economies. Government receipts, revenue, tax revenue and non-tax revenue as shares of GDP, 1960-1980
(Percentages)

	1960	1965	1970	1975	1980
			Ratio of government receipts to GDP		
Bangladesh	...	...	...	9.4	17.0[a]
Burma	22.3[b]	27.2	16.6	12.0	18.2
Fiji	17.1	22.2	21.9	20.2	22.3
Hong Kong	15.4	15.5	15.2	15.4	28.3
India	7.4	11.9	11.3	14.2	14.4
Indonesia	...	...	11.8	18.2	25.6
Iran	...	...	22.4	45.7	39.5[c]
Malaysia	18.3	21.0	22.9	22.8	26.7
Nepal	3.4[b]	3.4	7.5	7.7	12.5
Pakistan	17.2	16.1	12.5	14.2	17.3
Papua New Guinea	19.3	28.1	31.1	32.9	32.1
Philippines	14.8	13.3	11.2	14.7	12.5
Rep. of Korea	19.8	13.2	16.8	15.7	19.3
Singapore	17.0[d]	17.2	22.8	25.1	28.3
Solomon Islands	20.5	28.7	29.2	26.4	34.8
Sri Lanka	17.6	21.6	19.5	17.8	19.3
Thailand	13.0	14.0	14.3	13.5	14.4
			Ratio of government revenue to GDP[e]		
Bangladesh	...	...	...	7.2	7.6[a]
Burma	17.4[f]	26.4	17.5	11.2	16.4
Fiji	16.6	21.5	21.9	20.2	22.3
Hong Kong	15.3	15.5	15.2	15.4	28.3
India	7.4	11.9	11.2	13.8	14.7[g]
Indonesia	...	...	10.3	18.2	23.4
Iran	...	...	23.4	45.7	39.5[c]
Malaysia	18.2	20.8	22.7	22.8	26.7
Nepal	...	...	5.2	6.0	8.8
Pakistan	12.0	13.6	11.9	13.4	16.8
Papua New Guinea	6.6	8.9	11.8	17.3	21.2
Philippines	10.0	8.4	7.4	14.5	11.8
Rep. of Korea	15.8	9.3	15.4	15.6	19.3
Singapore	17.0[d]	17.2	21.8	25.1	28.3
Solomon Islands	9.5	11.5	12.6	13.8	18.7
Sri Lanka	17.5	21.3	19.1	16.3	16.1
Thailand	12.7	13.7	14.0	13.3	14.1
			Ratio of tax revenue to GDP		
Bangladesh	...	...	...	4.3	6.5[a]
Burma	14.6[f]	23.4	14.2	9.6	10.2
Fiji	12.8	16.4	17.0	15.5	17.8
Hong Kong	10.1	10.5	9.4	10.0	13.0
India	6.5	9.4	8.8	11.6	12.0[g]
Indonesia	...	...	9.9	16.6	22.6
Iran	...	...	9.7	16.6	9.6[c]
Malaysia	15.1	16.0	18.8	20.3	24.5
Nepal	...	...	4.7	5.1	7.3
Pakistan	9.6	9.2	8.5	10.9	13.6
Papua New Guinea	4.4	6.0	8.5	13.5	14.8
Philippines	6.5	6.5	6.4	12.5	10.4
Rep. of Korea	11.1	7.3	13.8	14.1	16.7
Singapore	11.9[d]	13.0	15.3	17.0	18.8
Solomon Islands	7.4[b]	8.8	9.8	11.1	15.6
Sri Lanka	16.3	19.9	17.8	15.0	15.1
Thailand	11.2	11.8	12.1	11.4	12.3

Table II.2 *(continued)*

	1960	1965	1970	1975	1980
	Ratio of non-tax revenue to GDP				
Bangladesh	...	...	...	2.9	1.1[a]
Burma	2.8[f]	3.0	2.1	1.6	6.2
Fiji	4.6	4.2	4.4	2.7	3.2
Hong Kong	4.0	4.3	4.5	4.7	5.7
India	1.0	2.3	2.3	2.1	2.5[g]
Indonesia	...	...	0.4	...	0.7
Iran	...	...	12.7	10.4	29.9[c]
Malaysia	3.2	4.8	3.8	2.5	2.3
Nepal	...	...	0.6	0.9	1.5
Pakistan	2.4	4.4	3.5	2.5	3.2
Papua New Guinea	2.2	2.9	3.3	3.8	2.9
Philippines	3.5	1.9	1.0	2.0	1.4
Rep. of Korea	1.0	0.9	1.6	1.3	2.4
Singapore	5.0[d]	3.6	5.9	6.3	8.4
Solomon Islands	3.1[b]	2.7	2.8	2.6	3.0
Sri Lanka	1.2	1.4	1.1	1.3	1.0
Thailand	1.5	1.9	2.0	1.9	1.8

Source: See Box II.1.

Notes: [a] 1978. [b] 1962. [c] 1977. [d] 1961. [e] Including tax, non-tax and capital revenue. [f] 1963. [g] 1979.

defined as the difference between total revenue plus grants and total expenditure plus net lending. A number of propositions emerge from the budget balance data. First, the majority of developing ESCAP economies show deteriorating budgetary balance positions over the long term. Secondly, none of those in the regional sample has been able to sustain an improved budget balance over an extended period of time. Thirdly, an overwhelming majority of them have persistently encountered deficits of varying magnitudes.

These findings raise an important issue concerning the design of fiscal policy in the developing ESCAP region, an issue relating to the macro-economic consequences of alternative methods of financing

Box II.2 Tax effort and tax capacity

In the search for a more sophisticated approach to measuring national tax performance, there has been a great deal of interest in recent years in identifying national tax capacity and in ranking countries with respect to their tax "effort" relative to their "capacity" [a] Tax effort is usually defined as the difference between the actual tax-income ratio and the ratio which a country should have on the basis of its estimated tax capacity. The approach usually taken in estimating tax capacity and tax effort consists of three steps. The first involves the collection of data concerning the ratio between actual tax revenue and aggregate income. The second concerns quantitative determination of taxable capacity. The third concerns the estimation of tax effort. There are several problems with each of these three steps, as noted below.

(a) **Actual tax-income ratio**

As far as the numerator of this ratio is concerned, several issues arise concerning the definition of the "tax" component of government revenue. There is a question of whether profits or losses of public enterprises should be included in the numerator. This is because pricing policies of these enterprises, as well as procurement prices for goods and services, may include tax and subsidy elements. There is also a problem concerning the conventional tax data. Ideally, taxes at all levels of government and taxes in kind as well as those levied in money terms should be included. But the data base, especially for developing countries, does not always allow for this.

Several issues also arise with respect to the denominator of the ratio. These relate to the concept of aggregate income itself. Is it GNP or GDP, valued at market prices or factor cost, that is to be used? How should imputed income and income which is hard to tax (such as agricultural or small-scale services income) be treated? Also, what should be done about income arising in the "parallel economy", which distorts national income aggregates? Should some concept other than GDP or GNP, such as the stream of income from which tax payments are made, be used?

Thus, it would appear that the first step in the analysis of tax capacity suffers from a variety of ambiguities. This problem is compounded when a large number of dissimilar countries are included in the sample.

(b) **Quantitative determination of tax capacity**

Estimation of tax capacity conventionally involves the application of cross-sectional parameter values of the explanatory variables.[b] Some of the important variables ordinarily considered are per capita non-export GNP, export of non-mineral products, and share of mining in GNP.

Thus, per capita income is con-

[a] Much of the research work connected with tax capacity and tax effort has been done by the Fiscal Affairs Division of the International Monetary Fund. In particular, see J.R. Lotz and E.R. Morss, "Measuring tax effort in developing countries", *IMF Staff Papers*, November 1967, pp. 478-497; R.J. Chelliah, H.J. Baas and M.R. Kelley, "Tax ratios and tax effort in developing countries, 1969-1971", *IMF Staff Papers*, March 1975, pp. 187-205; Alan A. Tait, Wilfrid L.M. Gratz and Barry J. Eichengreen, "International comparisons of taxation for selected developing countries, 1972-1974", *IMF Staff Papers*, March 1979, pp. 123-155.

the budget deficit, particularly with respect to its effects on inflation. It is often argued that if the financing of the budget deficit does not lead to the creation of additional money, the deficit will not produce any demand stimulus. This belief is based on the assumption that the financing of the government deficit through non-bank borrowing (the sale of bonds) displaces an equivalent amount of private expenditure. A number of *a priori* arguments can be cited why this assumption need not necessarily hold.[7]

Though the inflationary implications of alternative ways of financing the budget deficit belong to the realm of monetary policy and therefore fall outside the scope of this study, it is, nevertheless, of interest to take note of the regional experience. In this regard, it is noteworthy that most developing ESCAP economies regularly resort to some amount of domestic borrowing. The exceptions during the period under examination were Burma, Indonesia, Singapore and Solomon Islands. The Indonesian situation was clearly due to its large oil revenue during the 1970s.

Countries with particularly significant domestic financing ratios in the late 1970s were India (25.3 per cent), Pakistan (21.9 per cent), Sri Lanka (18.1 per cent), Thailand (15 per cent), Malaysia (13.8 per cent) and Nepal (11.3 per cent). Of the countries surveyed, only Pakistan, Thailand and, to some extent, Nepal are known to have relied on borrowing from their monetary authorities, which is ordinarily termed "deficit financing" to finance expenditure. In certain other countries of the region borrowing from the monetary authorities was a significant feature of fiscal operations.

Borrowing from the non-bank public has been significant in Fiji, Malaysia, Nepal, Pakistan, and perhaps in India and Sri Lanka.[8] Borrowing from deposit money banks has been significant in Fiji, Nepal, Pakistan and Thailand. Singapore practises large negative public sector borrowing from the deposit money banks, reflecting that country's unusually strong fiscal position; the reasons underlying the even larger negative figure

[7] See OECD, *Budget Financing and Monetary Control* (Paris, 1982), pp. 31-33.

sidered to be a major determinant of tax capacity. Yet per capita income also affects demand for public goods and thereby necessitates higher tax revenue. This interaction gives rise to a serious identification problem. Critics have also questioned the justification of asymmetric treatment of the agriculture and mining sectors in the conventional studies, which include mining as a determining variable for tax capacity and exclude agriculture on the ground that willingness to tax agriculture is usually low for historical and political reasons. This raises a confusion between willingness and capacity.

If tax capacity is the presumed ability to generate taxes, then it should neither be regarded as a purely physical concept (as any income above the level necessary for basic consumption) nor as a purely economic concept (in the sense of ignoring willingness to tax and other such broad social and political factors, as is conventionally done). It should, rather, be determined by a combination of economic and socio-political factors. Thus, tax capacity depends not only on such tangible economic factors as per capita income, structure of the economy, degree of monetization, and openness of the economy, but also on such factors as political will, administrative efficiency, tax payer discipline, perceptions regarding the fairness of the fiscal system, and identification of the population with government plans and programmes. When analysing whether the limit to taxation has been reached, the neglect of political factors can create serious distortions in policy choices.

It is thus clear that the concept of taxable capacity is not readily amenable to quantification.

(c) **Tax effort**

Tax effort is measured by deriving the tax-income ratio which a country should have, based on the tax capacity equation, and then dividing the actual tax-income ratio by the derived ratio. A high tax effort is indicated if the resulting value is greater than unity and vice versa.

Since a country's tax effort is measured as the ratio between the tax capacity ratio and the actual tax-income ratio, the above-mentioned criticisms of the means whereby these ratios are calculated apply here as well. In particular, it is not clear why the "appropriate" tax effort for a particular country should be designated as an average of the presumably sub-optimum tax systems of a large number of countries with differing economic, political, and administrative conditions. Furthermore, the index of tax effort that is obtained by following the conventional method is likely to be a hybrid which confuses between differences in national performance relative to national desires, on the one hand, and inter-country differences in national desires, on the other.[c]

In conclusion, it appears that the concepts of "tax capacity" and "tax effort" are not amenable to the precise interpretation that they have been accorded. Nevertheless, the calculation of such measures can be a useful preliminary exercise in national tax policy self-assessment and can activate policy makers in efforts towards improved resource mobilization performance.

[b] For a detailed criticism of this approach, see R.M. Bird, "Assessing tax performance in developing countries: a critical review of the literature", in J.F.J. Toye, ed., *Taxation and Economic Development* (London, Frank Cass and Co.), esp. pp. 40-56; also see B.R. Bolnick, "Tax effort in developing countries: what do regression measures really measure?" in *ibid.*, pp. 62-77 and A.R. Prest, "The taxable capacity of a country" in *ibid.*, pp. 13-30.

[c] Bolnick, *loc. cit.*, p. 75.

for Burma are not so clearcut. If, as is sometimes argued, government borrowing from both banking and non-banking sources is likely in developing countries to displace private saving and investment significantly, great care should be taken in utilizing these borrowed funds.[9]

[8] A major aspect of borrowing from the non-bank public in many developing countries is through the government sector directly or indirectly availing itself of compulsory and other types of contractual saving by the general public. See P. Shome and K. Saito, "The impact of contractual savings on resource mobilization and allocation: the experience of Malaysia" *The Malayan Economic Review*, vol. 23, No. 1 (April 1978), pp. 54-72; and P. Shome and K. Saito, "Investments of social security funds in India and Sri Lanka: legislation and experience", *The Indian Journal of Economics*, vol. 60 (January 1980), pp. 349-360.

[9] The occurrence of such a displacement effect cannot be predicted with certainty on theoretical grounds. Empirical studies relating to the issue for the ESCAP region are insufficient to permit a definitive conclusion.

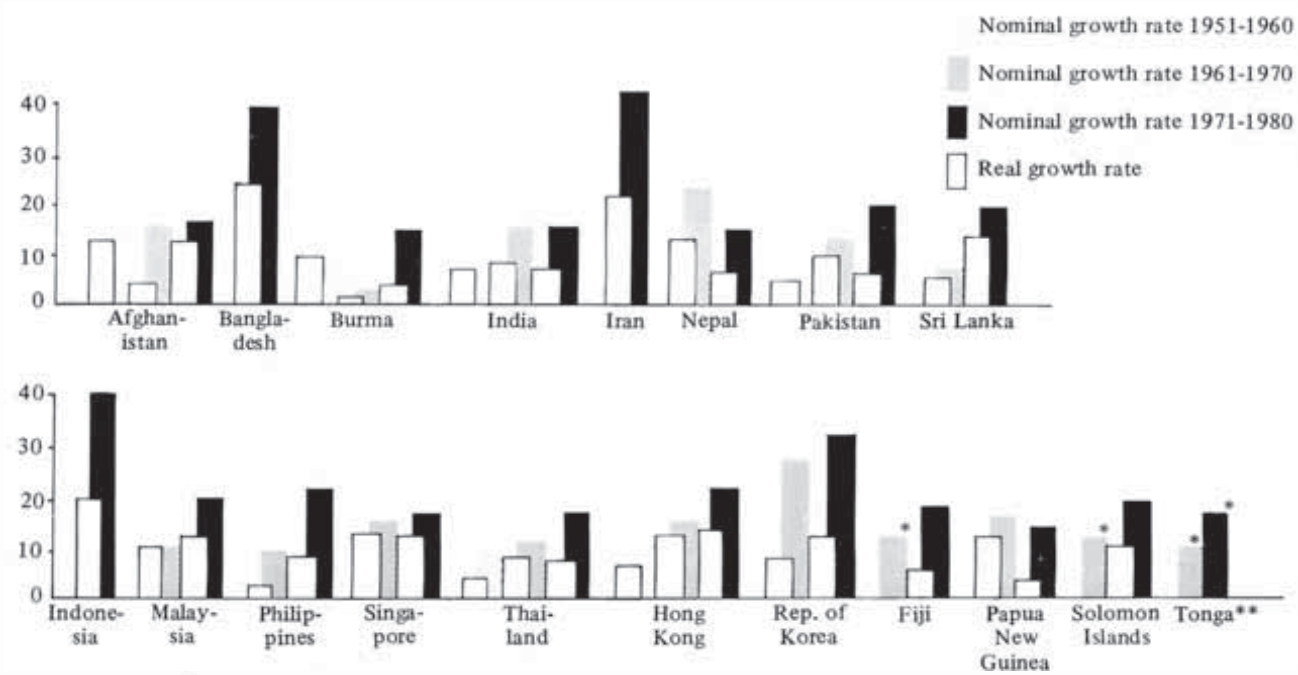
The countries which relied to a particularly significant degree on external financing to cover their expenditure during the late 1970s included Indonesia, Nepal, Pakistan and Sri Lanka.[10] This indicator, however, underrepresents the fiscal importance of external debt in the developing ESCAP economies as it speaks only of new financing and thereby ignores the previously accumulated total of outstanding foreign debt. The outstanding volume of external indebtedness carries important fiscal implications with respect to payment of interest and repayment of principal. For Burma, for instance, the ratio of long-term external debt servicing to receipts from exports of goods and services was 19.4 per cent in 1980. The corresponding debt-service ratio for the Republic of Korea was 12.3 per cent, Pakistan 10.9 per cent and India 9.2 per cent.[11]

In view of recent well-publicized debt-servicing crises in certain developing countries in other regions, and in the light of mounting difficulties in raising resources from the developed countries for multilateral development lending agencies such as the World Bank and the Asian Development Bank, an increasingly conservative attitude towards external financing might be advisable for the developing ESCAP countries.[12] Such a reconsideration should involve, among other matters, an assessment of the magnitude of planned ex-

[10] External financing consists of net financing from international development institutions, from foreign governments and through other short- and long-term bonds and other forms of credit.

[11] Asian Development Bank, *Key Indicators of Developing Member Countries*, vol. XIII, No. 1 (April 1982), table 31.

Figure II.2 Selected developing ESCAP economies. Average annual growth rates of government receipts per decade, 1951-1980
(Percentages)



* Real growth rates are not indicated because inflation rates are not available for the period.

** Late 1960s and early 1970s.

penditure, its composition, and the possibility of achieving expenditure economies. Indeed, searching reappraisals along these lines are apparently already under way in Burma, Indonesia, Malaysia, the Philippines and Sri Lanka, among other developing ESCAP countries.

Total debt financing as a percentage of expenditure during 1977-1979 in the 14 developing ESCAP economies surveyed here showed a high degree of variation. For three countries (Burma, Singapore and Solomon Islands) debt financing was negative. However, each of these countries did finance a portion of its expenditure abroad while at the same time recording negative domestic financing. Among the 11 economies with positive debt financing, the proportion ranged from 6 per cent for Papua New Guinea to 36 per cent for Pakistan. The majority of them incurred debt financing amounting to 10 per cent or above. They might well pay closer attention to the implications of such high levels of debt financing in terms of continuing interest and principal repayment liabilities, in local and foreign currency, as well as in terms of the potential displacement effect on the private sector.

[12] The tendency of the International Monetary Fund to reorient its lending priorities toward structural adjustment loans and issues raised for the developing countries by this policy shift are examined by I.S. Gulati, *IMF Conditionality and Low-income Countries* (R.R. Kale Memorial Lecture, No. 44, 1982) (Pune, Gokhale Institute of Politics and Economics, 1982).

B. THE EXPENDITURE STRUCTURE

The functional activities of

Box II.3 Revenue in a tiny country

Niue, located about 480 km east of Tonga and 930 km west of the Cook Islands, is one of the smallest ESCAP member countries, having an area of 259 sq km. The restricted quantity and variety of local resources has led many islanders to migrate to New Zealand. As a result, the population has declined more than 35 per cent during the past 15 years. The population at the time of the 1981 census was 3,296. The economy depends largely on primary production and the majority of the population is engaged in subsistence farming. Vegetables, fruits, copra and handicrafts are mainly exported to New Zealand, which in turn provides a large part of the island's imports. Gross domestic product at factor cost for the monetary sector only in 1977/78 (latest year available) was $NZ 2.65 million, or approximately $NZ 780 per capita.[a]

Niue's total tax revenue for 1982/83 has been set at $NZ 991,000, of which 80.7 per cent consists of direct taxes.[b] Revenue is raised mainly from income taxes, import and export duties, sales of postage stamps and court fines. Income tax is imposed on all types of income at a graduated rate ranging from 4.13 to 41 per cent. In the case of companies, the tax rate varies from 5 to a maximum of 30 per cent. Annual income statements are filed with the Treasurer, who assesses the tax. In this process, personal exemption, wife exemption, child and dependent relatives exemption, and superannuation and life insurance exemption are deducted from assessable income. The Treasurer enjoys special powers under the income tax law to authorize employers to deduct a flat withholding tax of 20 per cent from wages and salaries. This 20 per cent interim tax payment is credited against the tax liability calculated in the annual assessment. This provision has been extensively used as a *de facto* "pay as you earn" system.

In addition to the income tax there is a supplementary "aid to revenue" tax, which is a basic withholding tax applicable to all income including wages and salaries. The basic rate is 10 per cent and non-refundable. In the case of salary and wage earners, the tax is deducted each pay period. However, agricultural workers, primary producers and home weavers are allowed a reduced tax rate of 3 per cent, while interest payments, pension payments, donations and alimony are exempt. It has been found virtually impossible to realize "aid to revenue" tax from transactions between private parties.

Indirect taxes in Niue are levied on consumer commodities such as tobacco, beer, spirits, perfume and gasoline. These taxes take the form of import duties as all types of taxable consumer goods are imported. Moreover, the Government is the exclusive wholesaler of gasoline and alcohol as well as the major retailer of the latter. This precludes the possibility of any other forms of indirect taxes on these particular goods. With regard to motor vehicles and motorcycles, different import duty rates are applied depending on origin. For example, the rate of import duty is set at 20 per cent for British cars while it rises to 55 per cent for non-British cars. Similarly, British motorcycles carry no duty while a rate of 20 per cent is applied to non-British motorcycles.

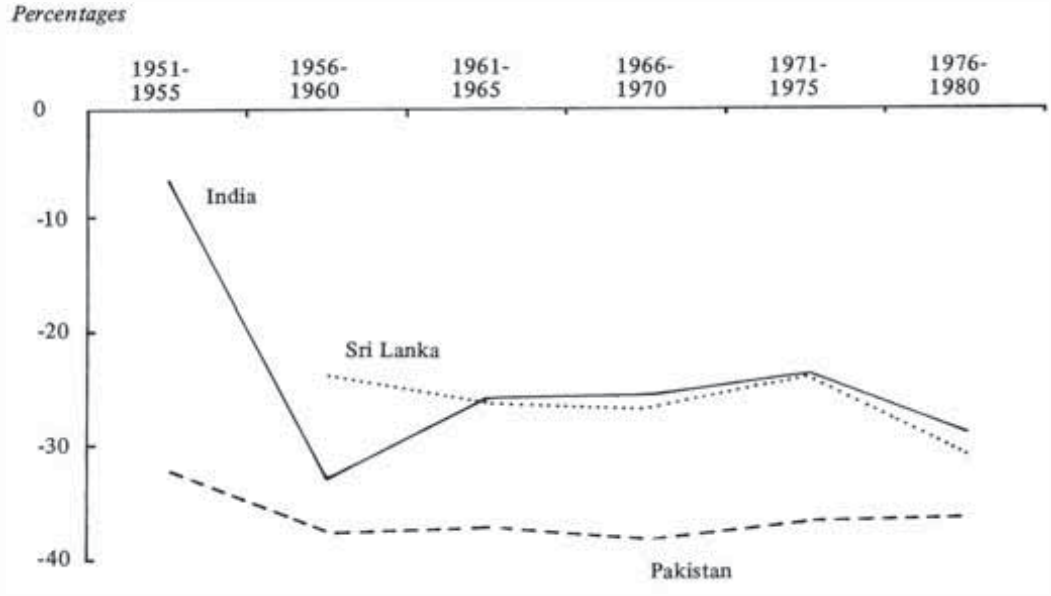
All land in Niue is owned by the State, with local people having possession through occupancy and family holdings. There are few other forms of taxable assets. As a result, there is no tax on wealth, property, or capital gains. Moreover, utilities, which include water supply, sewerage and rubbish collection, are currently provided by the Government at no cost to the user. Health and dental services are similarly provided free of charge at the local hospital. Consequently, the Government derives no non-tax revenue from the provision of these services.

[a] Niue is heavily dependent on foreign assistance from New Zealand. Budgetary assistance from New Zealand (including a special grant of $NZ 1.2 million) totalled $NZ3.3 million, or 57 per cent of Government expenditure, during 1979. (New Zealand, Department of Statistics, *New Zealand Official Yearbook 1982* (1982), p. 39; and Niue, *Niue National Development Plan 1980-1985* (1979), pp. 9 and 22.

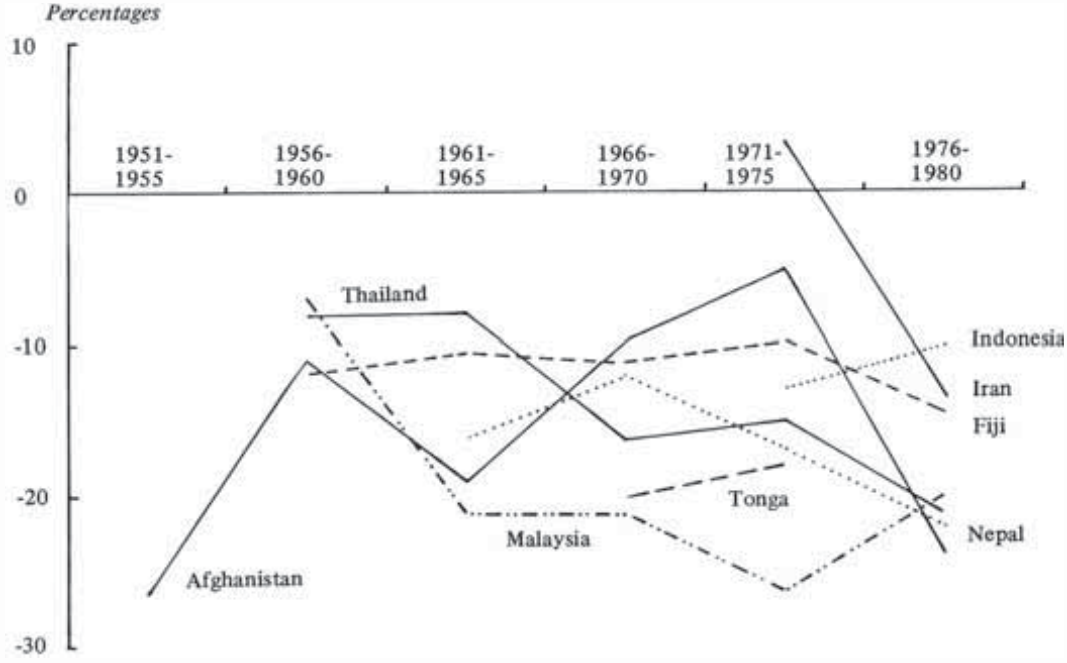
[b] Niue, *Niue National Development Plan, 1980-1985* (1979), pp. 4 and 7.

Figure II.3 Selected developing ESCAP economies. Budget balance ratios, 1951-1980[a]

Countries with average annual deficit ratios in excess of 25 per cent in 1976-1980



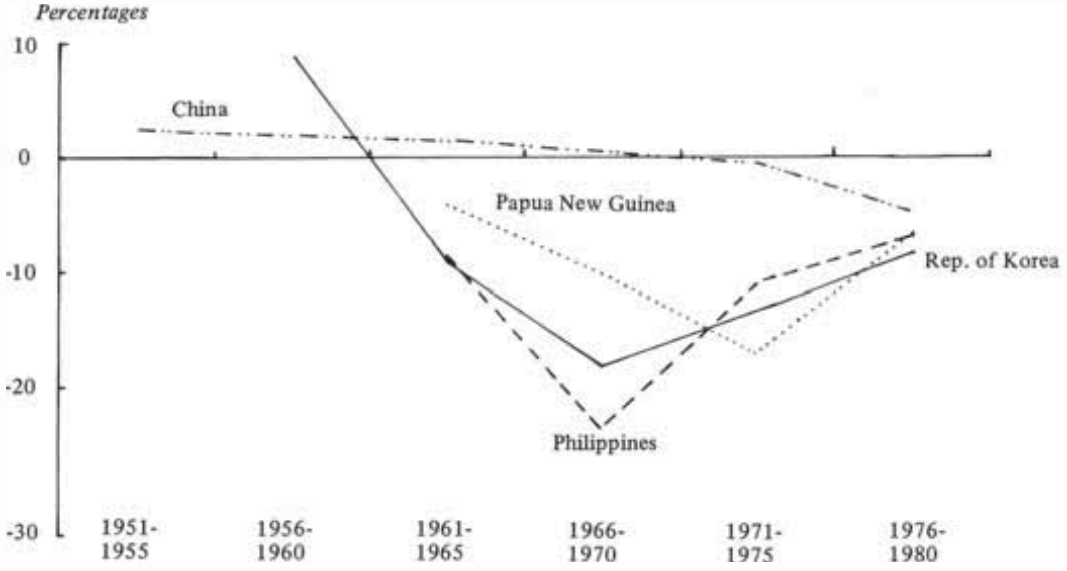
Countries with average annual deficit ratios between 10 and 25 per cent in 1976-1980



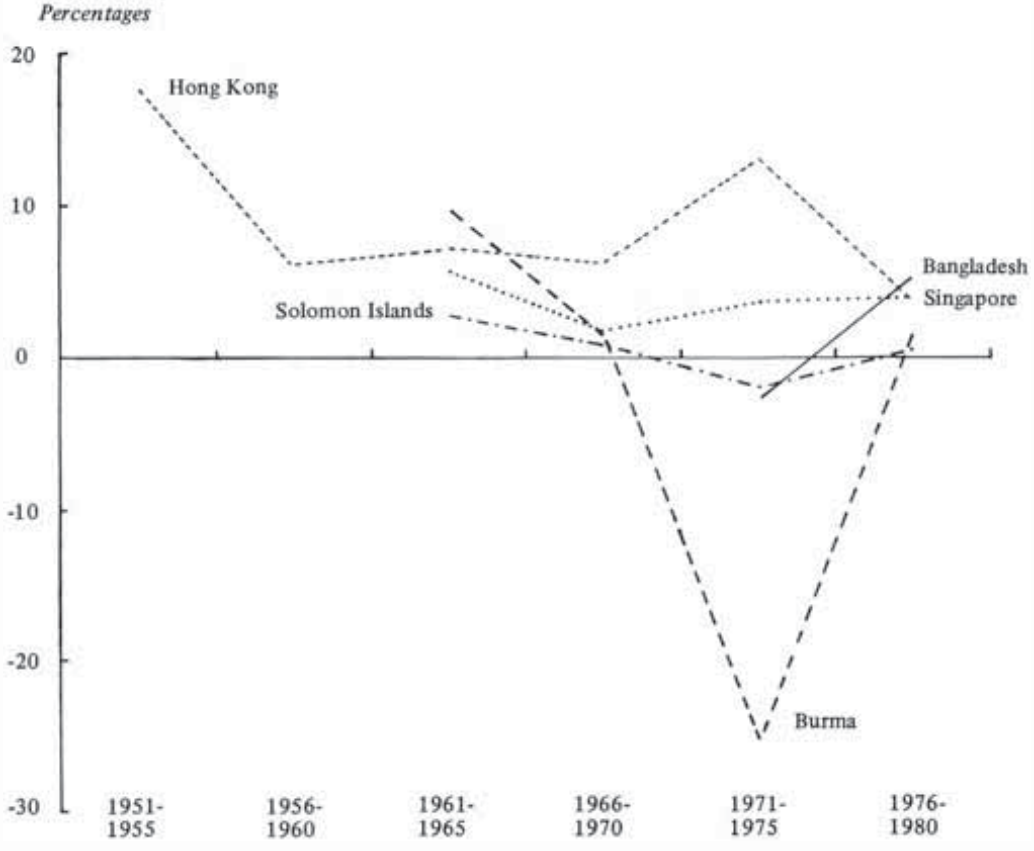
Note: [a] Budget balance ratio equals surplus/deficit as percentage of expenditure.

Figure II.3 *(continued)*

Countries with average annual deficit ratios less than 10 per cent in 1976-1980



Economies with average annual surplus ratios in 1976-1980



government may be divided into five main groups: defence, non-defence public services, social and community services, economic services and others. Non-defence public services consist of the major administrative imperatives of government, justice and police, and such general administrative functions as immigration, tax collection and other regulatory activities. Social and community services involve the improvement of community life and include, for instance, the provision of sanitation, water supply, education, health and housing. Economic services consist mainly of investment in economic sectors such as transportation and communication, promotion and extension services in such areas as tourism and agriculture and investment grants and subsidies to state and autonomous public enterprises. The "other" functional component of expenditure includes in particular interest payments and transfers to other levels of government.

Economic services traditionally account for the largest share of government expenditure in the developing ESCAP region. In addition, the proportion of expenditure going to economic services has risen in the past two decades in many countries. The sharpest increase has been in the Philippines, where the share of economic services in total expenditure rose from 16 per cent in the 1960s to 48 per cent in the late 1970s. Most of the increased expenditure took place in the non-agricultural sectors. This is typical of countries with large agricultural sectors, few of which have allocated any substantial proportion of their

Table II.3 Selected developing ESCAP economies. Overall budget balance as a share of expenditure, 1960-1980

(Percentages)

	1960	*1965*	*1970*	*1975*	*1980*
Afghanistan	-25.9	-1.4	-9.1	-15.4	-5.4
Burma	-0.4[a]	30.9	-13.1	-22.6	-7.9
China	2.0[b]	1.5	...	-0.6	-10.5
Fiji	-11.3	-5.4	-13.4	-3.1	-10.1
Hong Kong	1.7	-7.8	16.4	-4.9	34.1
India	-42.2	-36.0	-30.4	-25.3	-34.1
Indonesia	...	...	-16.0	-16.0	-5.6
Iran	...	...	-22.2	0.7	15.8[c]
Malaysia	8.3	-27.7	-16.9	-26.4	-19.1
Nepal	-52.0[a]	-45.0	-32.1	-15.6	-20.5
Pakistan	-18.8	-39.0	-44.0	-46.9	-32.9
Papua New Guinea	-0.1	-9.2	-13.3	-14.7	-10.3
Philippines	12.2	-20.0	-27.1	-7.5	-0.7
Rep. of Korea	-4.3	-13.8	-4.5	-11.4	-11.1
Singapore	-8.7[d]	14.4	5.2	2.7	7.6
Solomon Islands	2.7	3.9	-2.7	0.3	1.1
Sri Lanka	-35.5	-25.5	-24.1	-25.1	-45.4
Thailand	-0.6	-10.0	-26.3	-12.7	-26.4

Source: See Box II.1.

Notes: [a] 1962. [b] 1957. [c] 1979. [d] 1961.

Table II.4 Selected developing ESCAP countries. Patterns of financing the government deficit, 1977-1979 average

(Percentage of expenditure)

	Non-bank borrowing	*Borrowing from deposit money banks*	*Borrowing from monetary authority*	*Total domestic borrowing*	*External financing*	*Total debt financing*
Burma	-0.5	–	-16.6	-17.2	8.7	-8.4
Fiji	4.6	3.2	3.5	11.4	4.4	15.7
India	...	...	...	25.3	2.3	27.6
Indonesia	-0.6	-0.4	-1.2	-2.2	12.4	10.2
Malaysia	10.8	...	...	13.8	5.3	19.1
Nepal	3.6	3.2	4.5	11.3	11.2	22.6
Pakistan	5.3	5.2	11.5	21.9	13.8	35.8
Papua New Guinea	...	...	...	3.7	2.6	6.3
Philippines	0.2	3.0	-3.0	0.2	6.6	6.8
Rep. of Korea	0.6	2.2	-1.0	1.8	6.7	8.5
Singapore	0.7	-9.7	2.0	-6.9	2.8	-4.1
Solomon Islands[a]	-0.1	-1.2	0.1	-1.1	0.6	-0.6
Sri Lanka	...	...	...	18.1	11.1	29.2
Thailand	1.0	4.4	8.2	15.0[b]	3.9	18.9

Source: See Box II.1.

Notes: [a] 1976-1978. [b] Including other domestic financing.

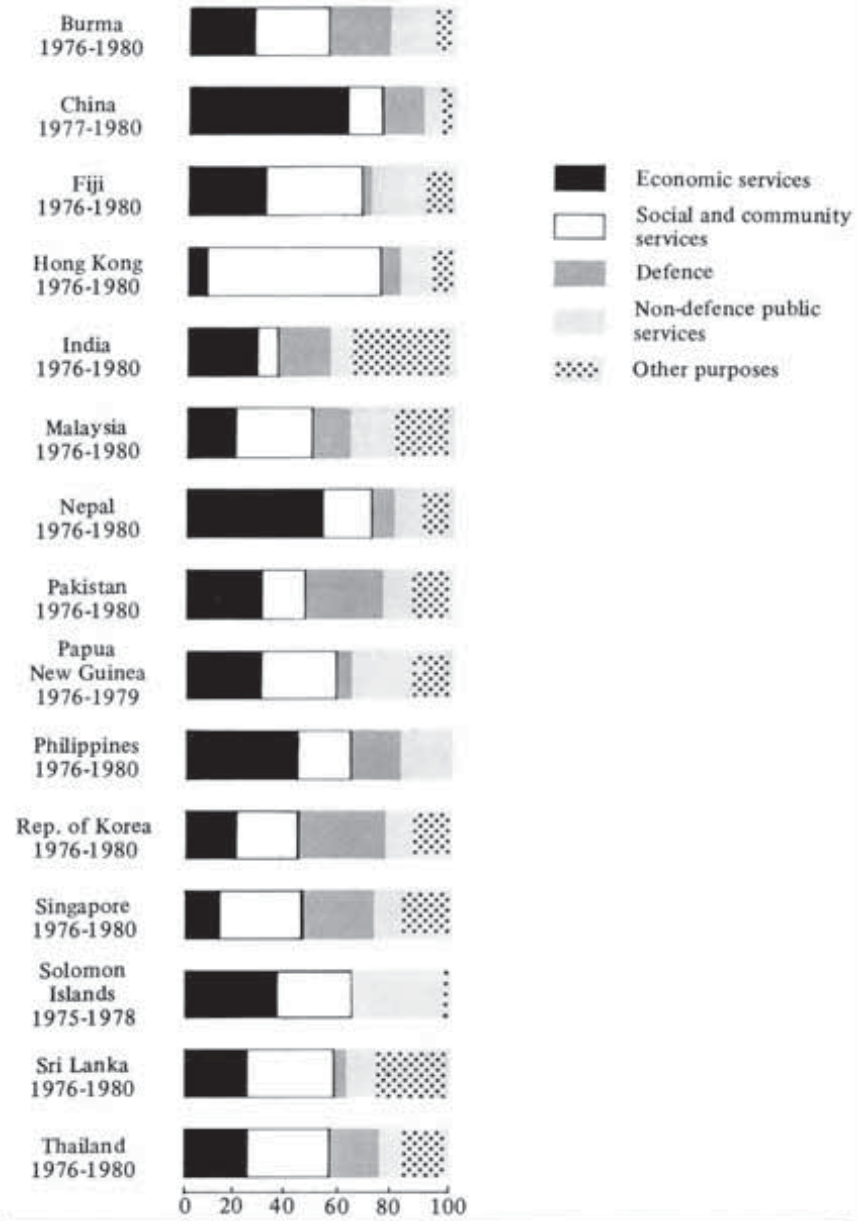
outlay on economic services to agriculture. Among the agro-based economies in the region, Burma and Nepal in the 1970s allocated a relatively large share of their expenditure to agriculture, while Pakistan, India and the Philippines spent the lowest proportion of their economic services outlay in agriculture. One reason for the low proportion of agriculture in the data for these countries is that supporting services to the agricultural sector are decentralized to the state, provincial or local levels of government.

A majority of the developing ESCAP economies increased the share of education in their total expenditure in the past two decades. By the late 1970s, education accounted for the largest proportion of expenditure on social and community services in almost all the developing economies of the region. The major exceptions were Hong Kong, where the largest share was on housing, at 42 per cent of total expenditure in the early 1980s; Sri Lanka, where social security and welfare expenditure mainly in the form of food subsidies took 20 per cent of total expenditure in the late 1970s; and India and Pakistan. In these last two countries, in which reponsibility for the provision of most educational services lies with the State Governments, the combined central and non-central governments' expenditure on education averaged 10.7 per cent of total central and non-central government expenditure in 1976-1980 in India and 5 per cent in 1975-1979 in Pakistan.

Government expenditure on education in the late 1970s was almost equal to that on economic services in Thailand and exceeded expenditure on economic services in Hong Kong, Malaysia and Singapore. The data indicate that in the late 1970s, countries in south and west Asia spent a smaller proportion of their total receipts on education than did countries in south-east and east Asia and the South Pacific. In addition to the significantly different role played by other levels of government in the educational field, a major reason lay in the differing importance attached to the private sector in providing for education in different countries.

In the past two decades, the share of health expenditure in government outlay increased in only a few cases. With the exceptions of Hong Kong and Sri Lanka, the shares of social security and housing expenditures in total government outlay were also low in the late 1970s. Among the economies where central government expenditure in these two areas formed relatively important propor-

Figure II.4 Selected developing ESCAP economies. Distribution of major functional components of expenditure excluding net lending, late 1970s
(Percentages)



tions in total outlay, Singapore led in housing expenditure with an 8 per cent share and Burma led in social security and welfare with a 6 per cent share.

Only in Pakistan and the Republic of Korea did the share of defence expenditure exceed 30 per cent of total expenditure in the late 1970s. The majority of the developing ESCAP economies allocated 15 to 30 per cent of total expenditure for defence purposes. Those which devoted less than 10 per cent to defence included Hong Kong, Fiji, Papua New Guinea, Nepal, Solomon Islands and Sri Lanka. It is noteworthy that most of the larger developing ESCAP countries devote greater shares of their scarce resources to defence than to non-defence public services. Expenditure on defence also commonly exceeds the share allocated to education or health.

It would be naive to expect that either the level or the composition of public expenditure could be based strictly on economic rationality criteria. Even if governments were to accept economic considerations as their guiding principle, they would be confronted with formidable problems in quantifying the anticipated costs and benefits of a significant proportion of total expenditure. Irrespective of this problem, the determination of the level and composition of government expenditure is inescapably affected by ideological considerations as well as by pressure groups operating within the political setting. From the perspective of resource mobilization, it would nevertheless be a worthwhile exercise for the Governments of developing ESCAP countries to explore with redoubled vigour the possibilities of containing growth of economically irrational expenditure. Expenditure on defence, which is a particularly significant drain on development resources in a number of countries in the region, is an obvious candidate for such intensified scrutiny.

Box II.4 The economics of defence expenditure

Expenditure on defence is a standard international practice. A number of developing ESCAP countries devote a sizeable proportion of government expenditure to the defence sector. It is useful to analyse the relationship between expenditure on the military and that on economic and social development. Though it may not be possible to establish the relationship in precise, quantitative terms, a number of compelling arguments suggest that a high level of defence expenditure is likely to have deleterious consequences for economic and social development.[a]

Military expenditure affects economic growth in many ways. First, it diverts scarce investible resources away from more productive civilian use. To the extent that output growth in other sectors is dependent on the investment allocated to the military sector, the growth potential in these other sectors remains unrealized. The diversion to military purposes of skilled manpower resources, the supply of which is by no means plentiful in the region, also adversely affects economic growth in other sectors. The same proposition holds in respect of the limited resources available for institutional research to adapt or improve the technologies so vitally needed in other sectors of the economy as a means of promoting long-term growth. The economic spin-off effects of expenditure devoted to military research, a widely advertised benefit provided by the military sector, are actually minimal in the developing ESCAP region due to the absence of linkages in these economies.

Expenditure on defence is also inherently inflationary. This is so not merely because it generally fails to add to either present or future consumable output but also because the politically sensitive nature of military production makes it a difficult sector in which to resist wage demands and other cost pressures. These inflationary pressures tend to be quickly transmitted to other sectors. Furthermore, governments are more likely to run into budgetary deficits to meet targeted military expenditure than for other purposes because military expenditure targets generally enjoy high priority.

It is occasionally argued that in countries with severe unemployment problems, the defence sector provides a source of relief. This argument has little validity unless it can be convincingly demonstrated that alternative uses of resources would fail to produce equivalent employment in other sectors. Alternative resource uses would in all likelihood be more productive as well as equally employment-promoting, thus providing double value per unit of expenditure. In addition, there is reason to believe that the capital-labour ratio in the defence production sector is likely to be higher than in many civilian sectors.

A significant part of defence expenditure in the region is directed towards the import of military equipment. It thus puts pressure on the balance of payments. Of the 10 largest weapons-importing countries during 1977-1980, three were from the developing ESCAP region.[b] The aid and loans provided exclusively for defence purposes create a future burden for the balance of payments. The pressure on the balance of payments is further aggravated by import needs for spares and maintenance of the high technology and energy-intensive equipment.

[a] For a more detailed analysis of some of these arguments, see United Nations, *The Relationship between Disarmament and Development, 1982* (United Nations publication, Sales No. E.82.IX.1), pp. 66-98.

[b] Stockholm International Peace Research Institute, *World Armaments and Disarmament: SIPRI Yearbook* (London, 1981), quoted in United Nations Environment Programme, *Global Environmental Issues* (1982), p. 17.

C. THE REVENUE STRUCTURE

The preceding analysis has established the fact that the developing ESCAP countries have achieved a fair measure of success in their efforts to generate government receipts. The principal receipts, as already noted, are tax and non-tax revenue. The following discussion considers the implications of the revenue structures observed in the various countries of the region for their future resource mobilization efforts.

1. Direct taxes

Taxes on income, whether personal income or business profits, are of major importance in the revenue structures of only a few developing ESCAP countries. In Indonesia and Papua New Guinea the importance of this revenue category is related to the extractive sector. The importance of income taxation is also relatively high in Fiji. Other countries in which income taxes account for a quarter or more of total revenue are Malaysia, the Republic of Korea, Singapore and the Solomon Islands. The countries of the region might well consider renewed examination of the scope for improving revenue performance from this source by plugging existing loopholes in tax laws and rationalizing the multitude of exemptions and deductions granted for the purpose of achieving various economic, social and political objectives.

The share of business income tax revenue in Fiji, Nepal, Pakistan, the Philippines, the Republic of Korea and the Solomon Islands is smaller than that of personal income tax revenue, substantially so in the case of Fiji. In some other countries, such as India and Thailand, corporation income tax has contributed approximately the same share of total revenues as personal income tax in recent years, though each accounts for less than 10 per cent of total revenue.

An examination of trends in income taxation over the past three decades shows that the number of countries which have increased their dependence on this revenue source have outnumbered those which have reduced the relative role played by this revenue category. The relative degree of reliance on income taxes in the late 1970s had a distinct geographical distribution. Countries in south-east and east Asia depended more heavily on income tax revenue than the countries of south Asia, and the island countries of the South Pacific derived proportionately more of their revenue from income taxes than the other two groups.[13] In China, income taxes appeared as a new revenue source following the adoption of tax laws on foreign enterprises, joint ventures and individual in the late 1970s and early 1980s.

In most developing ESCAP countries, trends in the share of income taxes in total revenue are inversely related to trends in the share of indirect taxes. In only a few countries do non-tax revenues or other direct taxes play enough of a role to permit the possibility of the trend relationship between the shares of income taxes and indirect taxes becoming positive. With few exceptions other direct taxes, such as the social security tax and property taxes (including taxes on

[13] While the geographical pattern is itself of no economic significance, the level of per capita income and the importance of extractive sectors explain much of the variation in the share of income taxes in total revenue.

Table II.5 Selected developing ESCAP countries. Major revenue sources as shares of total revenue, 1976-1980 average

(Percentages)

	Income taxes			*Domestic taxes on goods and services*	*Taxes on international trade and transactions*	*Non-tax revenue*
	Personal	*Business*	*Total*			
Burma	...	...	4.2	49.9	14.4	32.4
China[a]	...	...	...	46.9	2.6	48.3
Fiji	34.2	12.4	46.6	10.1	28.2	15.7
India	9.6	9.6	19.2	41.9	18.3	18.2
Indonesia	2.4	67.6	70.0	11.8	9.7	6.8
Iran[b]	0.6	8.6	9.2	2.7	7.3	73.3[c]
Malaysia	...	...	35.6	19.4	32.6	10.0
Nepal	5.0	2.6	7.6	33.7	32.3	16.4
Pakistan	6.8	5.5	12.3	34.8	33.8	18.8
Papua New Guinea	24.6	28.0	52.7	14.6	18.1	13.9
Philippines	12.6	9.1	21.7	37.2	25.0	12.1
Rep. of Korea	13.1	11.2	24.3	43.9	16.3	9.9
Singapore	...	...	31.2	15.4	7.6	27.8
Solomon Islands	14.9	13.6	28.5	5.6	46.1	18.7
Sri Lanka	...	...	13.6	30.0	47.1	8.0
Thailand	7.6	9.7	17.4	46.5	25.3	8.6

Source: See Box II.1.

Notes: [a] 1977-1979. [b] 1976-1979. [c] Oil revenue accounted for 93.6 per cent of non-tax revenue.

wealth, inheritance, gifts, and financial and capital transactions), play a minor revenue role in the developing ESCAP economies. Furthermore, with the exception of Hong Kong, capital revenue is negligible.

2. Indirect taxes

Indirect tax revenue predominates over income tax revenue in the great majority of developing ESCAP economies. In the late 1970s, it accounted for three fifths or more of total revenue in Burma, India, Nepal, Pakistan, the Philippines, the Republic of Korea, Sri Lanka and Thailand. The only economies in which the proportions of indirect tax revenue in total revenue were less than one quarter were Indonesia, Iran and Singapore.

Indirect taxes may be divided broadly into taxes on domestic trade (comprising mainly general sales taxes and excise taxes) and taxes on international trade (mainly import and export duties). In most countries in the region, taxes on domestic trade are the more important revenue source. In those countries, such as Malaysia, Sri

Box II.5 The concept of tax expenditure

All tax systems provide for a variety of deductions, allowances, concessions, exemptions, rebates and the like which reduce the amount of tax that would otherwise be payable by individuals or enterprises. The term "tax expenditure", as used to describe such reductions in tax liability, draws attention to the fact that the tax revenue thereby foregone may be regarded as equivalent to public expenditure analogous to a subsidy or cash transfer to an individual or enterprise. A tax expenditure is thus a form of government financial assistance granted through the tax system rather than through government expenditure. Viewed in this light, such tax reductions should logically be evaluated in terms of their economic effects in the same way as would apply to any expenditure item in the government budget.

Tax expenditures related to business enterprises are usually concerned with promoting investment, whether in preferred industries, activities or geographical locations. Incentives such as tax holidays, accelerated depreciation, capital subsidies or exemptions from import duties on machinery and raw materials fall under this heading. Other business concessions, such as the deduction from income of employer contributions to provident funds or contributions to charities, do not.

Tax expenditures related to persons are more commonly concerned with the equity objective. Examples include the exemption from tax of an initial slice of income vaguely related to some concept of minimum needs, or allowances and rebates related to dependents. Yet objectives other than equity may also be the aim, such as the encouragement of saving through the exemption from tax of life insurance and superannuation contributions or of income from particular kinds of investment such as government savings bonds.

Though there are numerous studies of the economic impact of certain tax expenditures, such as tax incentives for business firms, there have been few systematic investigations of the revenue impact of tax expenditures more broadly conceived. It is quite common for finance ministries, in announcing tax concessions, to indicate what they believe to be their revenue cost, but the basis for such estimates is usually not stated, nor are the anticipated benefits of such concessions ordinarily estimated in quantitative terms.

This problem is evident in the comprehensive estimate of the revenue effect of tax expenditures presented in the *Report of the Task Force on Tax Reform* to the New Zealand Government.[a] This *Report* estimates tax expenditures in 1980/81 as entailing $NZ 1,239 million of revenue foregone, of which $NZ 582 million related to personal concessions and $NZ 657 million to business and other incentives and concessions. The total revenue foregone was stated to be equivalent to about 25 per cent of personal income tax receipts in 1980/81. No information is given by the Task Force as to the basis on which these estimates were made, but the impression is that each item was calculated individually.

It is ordinarily assumed that revenue foregone through a tax expenditure is simply a function of a fixed tax base and the rate of tax. This may be an acceptable assumption in cases where the impact of the incentive is spread over a large number of tax-paying entities and where for any individual entity the amount is small. But it is not a valid procedure to aggregate the results of such partial equilibrium analyses into an estimate for the tax system as a whole.

Estimates of the overall revenue impact of tax expenditures are, however, inherently difficult to make. One difficulty is that of tracing the impact of any particular "concession" on the size of the taxable base, a problem analogous to those involved in measuring tax or expenditure incidence. A second difficulty is associated with the concept itself and the issue of determining what "concessions" should be included within the scope of "tax expenditure" to ensure analytical consistency. If the criterion for inclusion is any circumstance involving revenue foregone by not taxing what could in principle be taxed, then the issue turns into one of hypothetical taxable capacity; the tax expenditure concept does not seem to offer any significant new insight for the resolution of that problem.

These difficulties notwithstanding, the concept of tax expenditure may serve as a useful tool for practical policy makers in assessing whether the costs in revenue foregone, however imperfectly estimated, are justified by the anticipated benefits.

[a] New Zealand, *Report of the Task Force on Tax Reform, April 1982* (1982).

Figure II.5 Selected developing ESCAP economies. Share of income and profit taxes in total revenue, 1951-1980

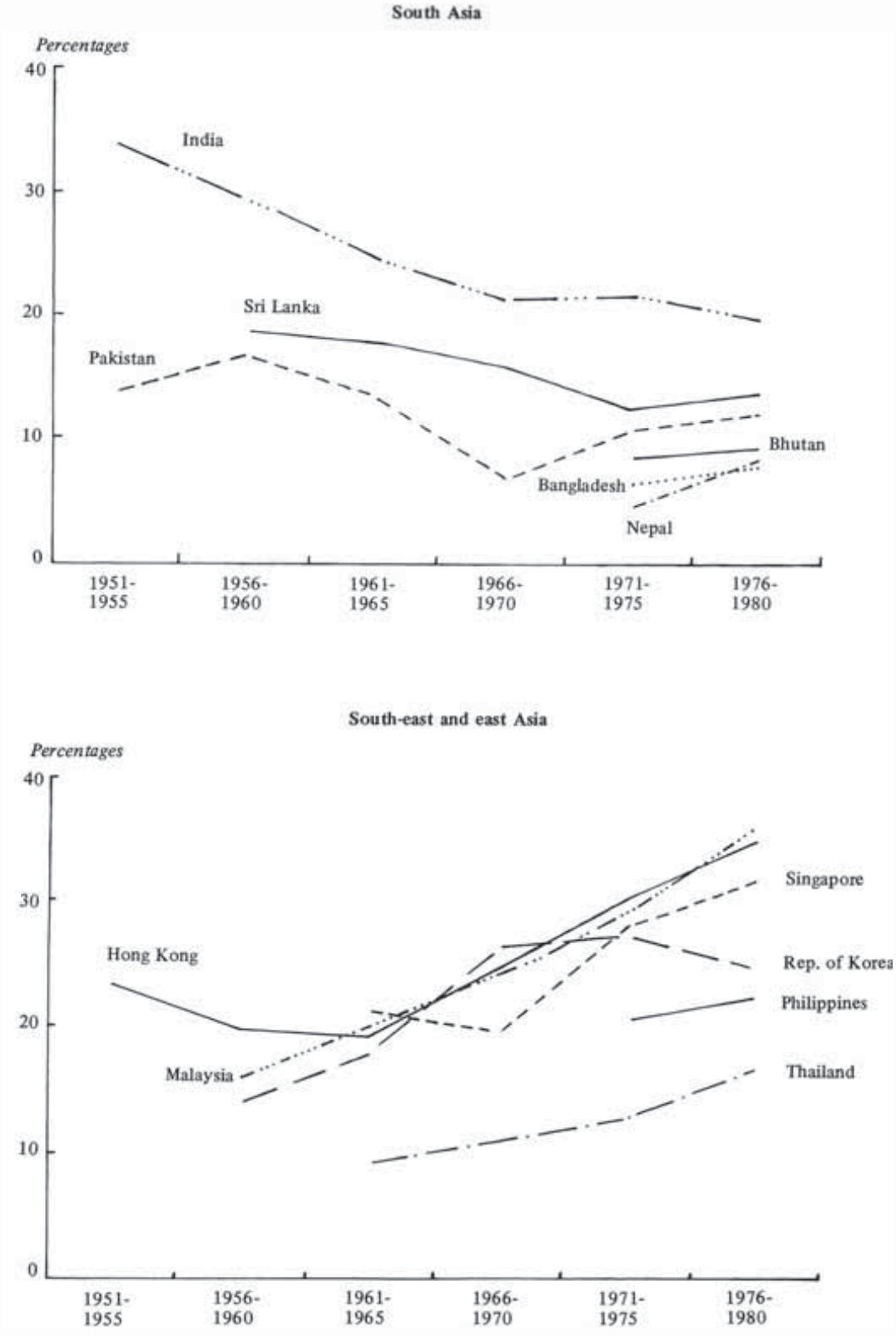
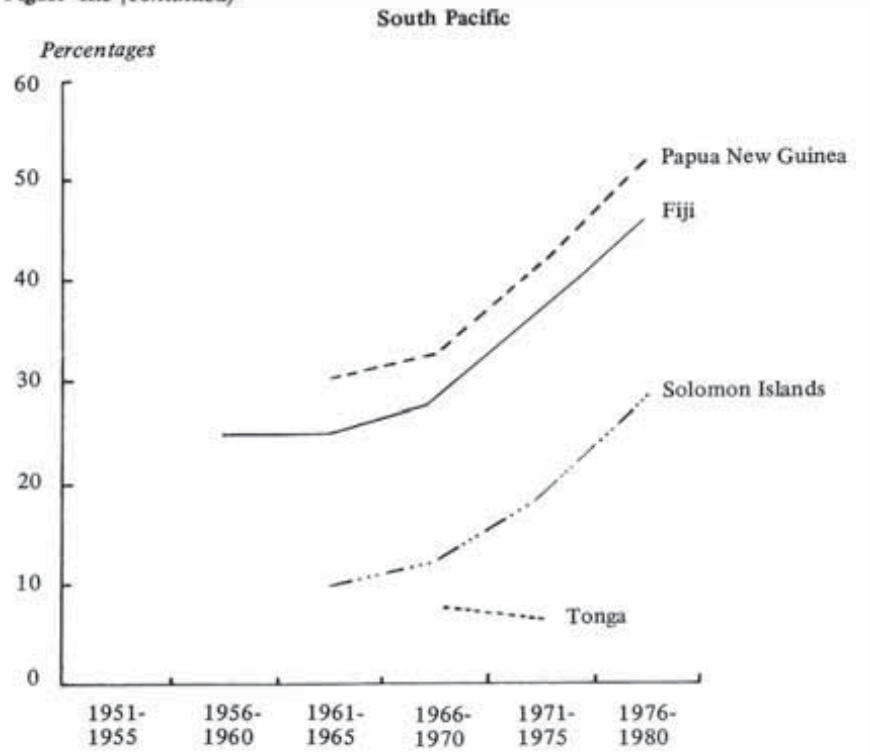


Figure II.5 *(continued)*



Lanka and the South Pacific island countries, where taxes on international trade continue to exceed taxes on domestic transactions, these taxes have shown a declining trend as a proportion of total revenue as development proceeds. In this connection it is interesting to note that revenue from taxes on international trade declined as a share of total revenue in all the member countries of ASEAN during the second half of the 1970s.

To the extent that taxes on international trade are relied on by developing ESCAP countries, resource mobilization efforts are closely linked to world trade developments, particularly with respect to the prices of the commodities which the developing ESCAP countries export, their capacity to import and their trade stabilization policies, especially the manner and efficiency with which they generate resources in years of high commodity prices. As a growing number of these countries move towards a more open economy, short-run revenue losses from import duties may be expected. Yet if moves towards trade liberalization increase output growth rates (irrespective of the ramifications on other development objectives), revenue from taxes on domestic goods and services and from other sources may be expected to increase.

Two implications of trade liberalization deserve mention here. The first concerns the problem of declining revenue yields during the transitional period. As a general proposition, it would be desirable to take into account the economic implications of the alternative approaches to offsetting such a shortfall, such as raising income tax rates or domestic sales tax rates or placing greater reliance on internal and external borrowing. Moreover, such actions toward meeting a transitional shortage should not be institutionalized as permanent measures since foreign trade tax revenues might rise again as a result of the growth of trade itself.

The second implication concerns the design of domestic sales and excise taxes in view of their present and prospective revenue importance. A move from specific to *ad valorem* rates of excise and other taxes would be an obvious positive step. However, greater attention would also have to be paid to the commodity coverage and rate structure of sales and excise taxes in these countries to ensure their adequate contribution to resource mobilization with due regard to their impact on resource allocation and administrative costs.

3. Non-tax revenue

Non-tax revenue in the developing ESCAP region consists primarily of net operating surpluses of financial and non-financial public enterprises; property income (consisting primarily of rents from state-owned land and buildings); government administration fees, charges and non-industrial sales; and fines and forfeits. In the majority of the developing ESCAP countries, non-tax revenue forms less than one fifth of total revenue. There are, however, some important exceptions. In the late 1970s, non-tax revenue constituted high shares of total revenue in Iran (around three quarters, primarily from oil revenue of public enterprises), China (almost half, consisting mainly of state enterprise profits) and Tonga (also almost half, mainly from the provision of government services). Lastly, non-tax revenue increased significantly in Burma during the 1970s to reach over three tenths of total revenues by the close of the decade, attributable largely to the contribution

from the Export Price Equalization Fund.

In the large majority of developing ESCAP countries, public sector investment has been rising. This is reflected in an increasing share of capital expenditure in GDP. Yet the beneficiaries of these investments often do not contribute commensurately in the form of either user charges or dividend and other property income.[14] The available figures for public sector saving also indicate that its contribution to total savings is substantially smaller as compared with its share in total investment. In India, public sector saving is estimated to have been only 22.4 per cent of total net domestic saving in 1980/81.[15] In Sri Lanka, public saving has been projected as negative for the years 1982-1985 followed by a positive public saving ratio of only 0.7 per cent of GDP in 1986, as compared with the corresponding 11.9 per cent for private savings.[16] An indication of the low public sector saving ratio in Pakistan may be held by noting that self-financing averaged less than 5 per cent of aggregate investment expenditure by public corporations during the period 1973-1979.

It would thus appear that an examination of the level and structure of user charges levied on the various goods and services provided by governments is an urgent necessity in the developing ESCAP region. In addition, improvements in management practices, including greater emphasis on efficient cash flow control, with a view to enhancing public sector productivity are long overdue. This need has not gone unrecognized in recent years in many countries in the region. Resolution of these twin issues is all the more urgent in view of the general tightening of resource constraints in the recessionary climate of the 1980s.

D. REVENUE PRODUCTIVITY

The revenue performance of the fiscal systems of developing ESCAP countries can be compared with the growth of these countries' current and capital expenditure as a means of determining their capability to fulfil expenditure requirements. Such evaluation is ordinarily based on estimates of revenue productivity. As tax revenue constitutes by far the most important source of receipts in most countries of the region, the present discussion confines itself to revenue productivity with respect to tax revenue only.

1. Conceptual framework

It is customary to measure the productivity of tax revenue in relation to income growth. Two such measures are buoyancy and elasticity. Buoyancy is defined as the ratio of the percentage change in tax revenue arising out of a given percentage change in income. Tax revenue may change due to autonomous changes in income and other economic variables on which taxes are based. It may also change due to deliberate revisions in the specification of tax rates and/or bases. The tax buoyancy measure does not distinguish between automatic and discretionary changes; it simply relates historical movements in tax revenue to income changes.

In order to estimate the income elasticity of the tax system or of individual taxes, tax revenue data must be adjusted to eliminate the effects on tax revenues of all discretionary changes as well as all other factors other than income. Thus, the income elasticity of a tax may be defined as the ratio of the percentage change in adjusted tax revenue to the percentage change in income.[18]

In analysing the total, capital and current government expenditure side of the picture, it is customary to regard elasticity as equivalent to buoyancy. No adjustment of the expenditure data is therefore ordinarily required.

A positive elasticity gap – a situation in which the expenditure elasticity is greater than the tax revenue elasticity – would imply that, in a growing economy, the

[14] It is recognized that non-tax revenue underestimates the contribution of public enterprises to the budget because some public enterprises pay direct and/or indirect taxes. The available data do not permit disaggregation of tax payments by private and public sources. It is strongly doubted, however, that the inclusion of tax payments by public enterprises net of subsidies received would affect the validity of the proposition that they are net beneficiaries of public investment in the developing ESCAP region.

[15] India, Reserve Bank of India, *Report on Currency and Finance, 1980/81* (1981), vol. 1, p. 6.

[16] ESCAP, "Sri Lanka", *Integration of Tax Planning into Development Planning* (forthcoming).

[17] B.J. Moore, "Domestic savings in selected developing Asian countries", *Asian Development Bank Economic Staff Paper No. 2*, 1981, p. 92.

[18] The adjustment of tax revenue to derive income elasticity estimates may be done in several ways; among these procedures are the proportional adjustment method, the constant rate structure method, and the dummy variable method. For a discussion of the proportional adjustment method, see G.S. Sahota, *Indian Tax Structure and Economic Development* (Bombay, Asia Publishing House, 1961) and A.R. Prest, "The sensitivity of the yield of personal income tax in the United Kingdom", *The Economic Journal*, vol. LXII (September 1962), pp. 576-596. For the constant rate structure method, see Robert E. Berney, *Tax Structure Variations in the State of Washington* (1970). For the dummy variable method, see N.M. Singer, "The use of dummy variables in estimating the income elasticity of state income tax revenues", *National Tax Journal*, vol. XXI (June 1968), pp. 200-204. In addition, the Fiscal Affairs Division of the International Monetary Fund has been involved in theoretical and empirical investigations on estimating elasticity and buoyancy. In particular, see R.J. Chelliah and S.K. Chand, "A note on techniques of adjusting tax revenue series for discretionary changes" (unpublished; IMF, 1974).

productivity of the tax system is insufficient to keep up with increasing expenditure requirements. In order to close a positive elasticity gap, one or a combination of the following actions would be necessary: increase the rate and/or base of existing taxes, introduce additional taxes, or increase reliance on non-tax revenues, domestic and foreign borrowing, and deficit financing.[19] A negative elasticity gap would imply that the above-mentioned measures could be reversed. A positive buoyancy gap – defined as the difference between tax revenue buoyancy and expenditure buoyancy – would indicate the failure of the tax system, in spite of past discretionary changes, to keep up with the growth of expenditure.

Government expenditure has in this study been disaggregated into current and capital expenditure. Elasticity estimates of current expenditure would allow a comparison of its growth with the corresponding growth of capital expenditure as utilizers of tax revenue. Such an estimation procedure provides a means of testing the widespread perception that current expenditure in much of the developing ESCAP region has grown too rapidly and needs to be constrained if development targets are to be achieved.

[19] These options exclude adjustments on the expenditure side, as these are precluded by the parametric values incorporated in the expenditure elasticity estimate (cf. footnote 3 supra.).

2. Buoyancy and elasticity estimates

The buoyancy of tax revenue over the past several decades has exceeded unity for most developing ESCAP countries, implying that a growing proportion of incremental income has been transferred to the government in the form of tax revenue as income has risen. This in turn accounts for the rising ratio of tax revenue to GDP, as has been observed in an earlier section of this chapter. The only two exceptions to this trend are Burma and Sri Lanka, partly because of their relatively high tax-GDP ratios in the earlier years.

The buoyancy of tax revenue was less than that of total expenditure in a number of ESCAP economies during the 1960-1980 period. These economies included Burma, Hong Kong, India, Singapore, Sri Lanka, Thailand – exactly half of those covered in the sample. Because of their revenue productivity problems, these economies had to depend relatively heavily on non-tax receipts to finance their expenditure. Relative to current expenditure, the data do not indicate that the buoyancy of tax systems has been inadequate in the region; positive buoyancy gaps exist only in Burma, India and Thailand. This implies that most developing ESCAP economies have succeeded in containing the growth of current expenditure below that of tax revenue. The fact that the buoyancy of total expenditure exceeded that of tax revenue in a larger number of countries was therefore primarily attributable to the higher growth of capital expenditure. This is substantiated by the fact that the buoyancy of capital expenditure in most countries has been greater than that of the current expenditure.

The appropriate measure for assessing the built-in ability of the tax system to generate increasing government revenue is its income elasticity. Where this value exceeds unity, increasing shares of incremental income flow to the treasury even in the absence of discretionary measures to enhance tax revenue through higher tax rates or an expanded tax base. Given the political problems often encountered with the introduction of such discretionary measures, it would be highly advantageous for tax systems in the developing ESCAP countries to be income elastic.[20]

Few studies have been undertaken to examine the degree and

Table II.6 Selected developing ESCAP economies. Buoyancy of tax revenue and of total, current and capital expenditure, various periods[a]

	Time period	*Tax revenue*	*Expenditure*		
			Total	*Current*	*Capital*
Burma	1963-1981	0.64	0.86	0.90	0.99
Fiji	1960-1980	1.10	1.04	1.05	1.08
Hong Kong	1960-1981	1.03	1.08	0.97	1.00
India	1950-1979	1.40	1.49	1.56	1.31
Malaysia	1958-1980	1.21	1.15	1.13	1.24
Pakistan	1960-1981	1.13	1.05	...	...
Papua New Guinea	1960-1981	1.65	1.19	1.28	0.81
Philippines	1960-1980	1.24	0.98	...	...
Rep. of Korea	1957-1981	1.14	1.00	1.04	0.31
Singapore	1961-1981	1.13	1.16	1.08	1.22
Sri Lanka	1957-1980	0.98	1.04	0.94	1.20
Thailand	1961-1981	1.02	1.08	1.10	1.02

Source: ESCAP secretariat estimates, based on sources indicated in Box II.1.

Note: [a] The equation used to estimate buoyancy is of the form log x = a + b log y, where x stands for tax revenue or total, current or capital expenditure, y stands for GDP and b is the measure of buoyancy.

[20] Tax revenue elasticity exceeding unity also has the advantage of being a valuable automatic stabilizer, as is widely favoured in developed economies.

prescribe the means of increasing the income elasticity of tax systems in the developing ESCAP region. Of the four countries for which estimates of the income elasticity of taxation are available, two, Malaysia and Singapore, have been found to have an elasticity exceeding unity. The other two, India and the Philippines, exhibit an income elasticity of taxation below unity.

In the case of India, the income elasticity of tax revenue at both the Central and State levels has been found to be 0.88 for the period 1960/61–1978/79, as against a buoyancy of 1.25.[21] This seems to be due largely to the low income elasticity of Central Government excises, which was estimated to be 0.75 for the period 1963/64–1974/75.[22] In 1975/76, Central Government excises accounted for about one third of the combined tax revenue of Central and State governments.[23] The elasticity and buoyancy of the personal income tax, with respect to non-agricultural income for the period 1965/66-1978/79, were also found to be below unity.[24]

In the Philippines, the taxes with elasticity of below unity during the period 1972-1980 were excises (carrying an elasticity of 0.57) and corporate income taxes (with an elasticity of 0.51).[25] In 1976, the two accounted for 31 per cent of the total central government tax revenue.[26] Import duties and sales taxes had roughly unitary elasticity, while personal income tax revenue had an elasticity of 1.38. However, the share of the personal income tax in total revenue in 1976 was only 9.6 per cent. While the buoyancy of tax revenue as a whole was 1.07, the elasticity was only 0.78.[27]

In contrast, in Malaysia during 1966-1980 both the income tax (elasticity 1.56) and export duties (elasticity 1.30) were highly income elastic.[28] Excise and sales tax revenue had roughly unitary elasticity, while import duties were income inelastic. The elasticity of total tax revenue was 1.17, which fell short of the elasticity of both current and capital expenditure during the period. The buoyancy of tax revenue was 1.35.

In Singapore, the income tax (elasticity 1.56), pay-roll tax (elasticity 1.30), and stamp duties (elasticity 1.11), are highly income elastic, while the traditional excises and import duties (elasticity 0.37) are highly income inelastic.[29] The elasticity of the property tax is 1.06. The elasticity of the total tax system during 1965-1980 was 1.13, which exceeded that of current and total expenditure but was less than that of capital expenditure. The buoyancy of the tax system was 1.27.

The examples of India, Malaysia, the Philippines and Singapore suggest that buoyancy and elasticity measures of revenue productivity differ significantly throughout the region. This difference is indicative of the importance of the discretionary measures required in the resource mobilization effort in the developing ESCAP region. Certain general conclusions are warranted with respect to future resource mobilization efforts. First, given the need to minimize politically sensitive discretionary changes, efforts should as far as possible be directed towards designing an income-elastic tax revenue structure. Secondly, those countries which have experienced a high elasticity of current expenditure will need to make more determined efforts to arrest its future growth. Thirdly, where a high buoyancy or elasticity of the tax system is exceeded by a still higher elasticity of capital expenditure, there would appear to exist scope for a thorough re-examination of the structure of public investment with a view to restraining its growth within the limits of implementable resource mobilization efforts.

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[21] I.K. Khadye, *The Responsiveness of Tax Revenue to National Income*, Reserve Bank of India, Occasional Paper (1981).

[22] Ministry of Finance, Government of India, *Indirect Taxation Enquiry Committee*, Part II (1978), p. 399. The report (p. 9) suggests that "predominance of specific duties in the period under reference has been one of the major factors responsible for the overall low elasticity of the excises".

[23] *Ibid.*, p. 12, table 2.

[24] ESCAP, "India", *Integration of Tax Planning into Development Planning* (forthcoming).

[25] A. Tyabji, *Financing Economc Development: A Comparative Study of Malaysia and the Philippines* (unpublished, 1982).

[26] M.G. Asher, *Revenue Systems of ASEAN Countries* (Singapore, Singapore University Press, 1980), tables B.4 and B.5.

[27] *Ibid.*, table B.4.

[28] A. Tyabji, *op. cit.*, p. 42.

[29] Linda Seah, *Sources of Finance for Economic Growth in Singapore with special reference to the Public Sector* (unpublished, 1982).

II. FISCAL POLICY FOR GROWTH

As distinguished from economic development, which additionally encompasses progressive change in the patterns of production, distribution and consumption, economic growth can be conceived of as sustained increase in per capita output.[1] Even in this restricted sense, the growth process is complex, involving the interaction of a multitude of economic, social, political and administrative factors. Any effort to assess the contribution of a particular policy variable to economic growth is further complicated by the fact that the observed differences in growth rates across countries or over time are the end result of the simultaneous operation of a vast array of economic policies relating to such key issues as the determination of sectoral priorities, the reliance placed on international trade, the composition of domestic and foreign capital flows, the structure of the labour markets, and the scope given to monetary and fiscal management.

Broadly stated, output growth is determined by three variables: the quantum of factor inputs, the allocation of available inputs among alternative uses, and the productivity of inputs in the uses to which they are put. In considering the role of fiscal policy with respect to output growth, the present chapter limits its consideration to the most important aspects of the case by examining the role of fiscal policy in inducing growth in the developing ESCAP region in terms of its effects on the savings-investment process. To supplement this macro perspective, the impact of fiscal policy on resource allocation is also reviewed.

A. FISCAL POLICY AND SAVINGS

An inescapable requirement for any sustained growth of output is to increase the quantum of resources devoted to its production. This warrants restraint on present consumption and a commensurate expansion in the volume of savings. The scarcity of capital at the macro level continues to be an important impediment to efforts to accelerate the growth rate for many developing countries of the region in spite of the occasional presence of excess capacity in some specific sectors and industries. The regional development strategy for the 1980s identified low saving rates as one of the main causes of shortfalls in growth, specially in the south Asian countries.[2] In recognition of the need to overcome this obstacle, growth strategies throughout the developing ESCAP region view increased domestic savings as a crucial prerequisite to improved performance. This is reflected in the development plans of most ESCAP countries, which strongly advocate the need to accelerate domestic saving as a means of promoting self-reliant economic growth. Fiscal policy is assigned an important role in this saving augmentation process.

The aggregate domestic savings of an economy consist of government and non-government savings. The latter comprises household and private business savings as well as retained earnings of public enterprises.[3] Fiscal policy for growth must be designed to improve savings performance by each of these entities.

[1] For a rigorous distinction between growth and development see Robert A. Clummang, "Economic growth and economic development: counterparts or competitors", *Economic Development and Cultural Change*, vol. 28, No. 1 (October 1979), pp. 47-61.

[2] *Economic and Social Survey of Asia and the Pacific, 1979* (United Nations publication, Sales No. E.80. II.F.1), p. 83.

[3] Public enterprises pose special analytical problems. Some enterprises are wholly owned by the Government, others partially. In either case, such enterprises are not ordinarily required to pay taxes on profits. Some public enterprises are required to transfer all their profits to the Government as non-tax revenue, while others are allowed to retain part of their profits. In yet other cases, the gross revenue of public enterprises may be included in the government revenues. Similarly, either all or part of gross expenditure incurred by some enterprises may be provided for in the government budget, with the budgetary provision covering either capital expenditure or a mixture of capital and current expenditure. In view of these complexities, public enterprise savings performance is here excluded except where it is explicitly included in the general government budget.

1. Government versus private savings

It is widely considered preferable to promote government savings as the key component of aggregate savings in the development process. In the mixed economies of the developing ESCAP region, however, the private sector accounts for the dominant share of aggregate savings. For these countries a critical fiscal policy consideration is the need to ensure that efforts directed towards increasing government savings are not offset by adverse consequences for private savings. By contrast, the centrally planned countries of the region can afford to pay relatively less attention to this constraint in their efforts to maximize aggregate savings, though they remain subject to other considerations, such as the need to maintain the level of per capita consumption and ensure that it rises in accordance with expressed development objectives and the people's expectations.

For the purpose of the present analysis government savings is defined as the budget balance on current account. It is, in other words, measured as the difference between current revenue and current expenditure. While government revenue, in particular tax revenue, has grown rapidly in the developing ESCAP region over the past three decades, current expenditure has increased commensurately. It is therefore of interest to look at the marginal propensities of Governments in the region to save.

Linear time-series estimates of the marginal propensities to save of selected Governments in the developing ESCAP region are reported in Table II.7.[4] The values show a wide range of variation from

[4] All the values are found statistically significant, except for Burma. For countries which have witnessed significant year-to-year variations in savings, the adjusted coefficient of determination ($\bar{r}^2$) is low.

Box II.6 Commercialization of state enterprises

In the centrally planned economies of the ESCAP region fiscal responsibility has, in recent years, been increasingly transferred to state enterprises. This responsibility had traditionally been concentrated at the centre in order, among other purposes, to ensure the conformity of state enterprise operations with plan targets and objectives. As development has proceeded, decision-making authority has increasingly been decentralized to the local and enterprise levels in several of the socialist economies of the region. An outstanding case is China, which after 1978 initiated various far-reaching measure providing for substantial decentralization of economic decision making.[a] Another important case is Burma, which in late 1974 decided that state enterprises, which had previously operated as integral elements of the respective ministries, would henceforth operate on a semi-autonomous basis in accordance with commercial principles.

This major departure in Burmese socialism had various aims and objectives: resolution of production problems and thereby attainment of prescribed growth targets; increased efficiency of state enterprises by using profits as an indicator of success and to provide material incentive; provision of inducements to management and labour to ensure that they would work together conscientiously in order to increase production; and the alignment of production relationships with the productive forces. In short, the operating principles of Burma's state enterprise sector were transformed from administrative to commercial lines.[b]

With this policy change, Burma's state enterprises became largely independent financial entities, with their fiscal operations no longer incorporated in the general government budget. Thus, a separate account was opened with the People's Banks to show the annual income and expenditure situation of every state enterprise. State enterprises were henceforth to maintain their financial records in accordance with prescribed standard accounting procedures. The current and capital receipts which state enterprises had previously obtained from the State Fund were terminated, and funds to finance investment and other expenditure were henceforth to be borrowed at interest from the People's Banks. State enterprises became subject to income tax on their gross profits, and profits after taxation were earmarked for allocation to certain reserves for workers' bonuses and welfare and enterprise reinvestment, with the residual serving as the state enterprises' contribution to the State.

The commercialization of state enterprises in Burma has proved highly successful. The devolution of accountability and the provision of financial incentives to individual state enterprises has served as an effective means of generating higher rates of output growth and investment in the state enterprise sector. This has been particularly important in a country like Burma, where the state enterprise sector accounted for 38.2 per cent of the total value of output and services and contained 82 per cent of the total factories and establishments employing 50 workers or more during 1981/82.[c]

[a] *Economic and Social Survey of Asia and the Pacific, 1981* (United Nations publication, Sales No. E.82. II.F.1), pp. 96-119.

[b] Burma, Ministry of Planning and Finance, Planning Department, *Guidelines for Operating on Commercial Lines to be Used by All State Economic Organizations in the Various Ministries* (May 1975).

[c] Burma, Ministry of Planning and Finance, *Report to the Pyithu Hluttaw on the Financial, Economic and Social Conditions of the Socialist Republic of the Union of Burma for 1982/83* (1982), pp. 22 and 40.

negative for Sri Lanka to over 30 per cent for Hong Kong, the Philippines and Singapore.

It is observed that the marginal propensity to save is in nearly all cases positive. This indicates that additions to government revenue can be expected to yield some increment in government savings. However, such increments are generally low. For most of the economies surveyed, the increment in government savings arising out of additional revenue is of the order of 20 per cent or less. The outstanding exceptions are Hong Kong, the Philippines and Singapore.

These findings lend support to the general validity of the Please effect (see Box II.7). Similar conclusions have been drawn by other analyses of the performance of government savings in developing countries, including those of the ESCAP region. One study covering a larger number of ESCAP countries over a shorter time period (1965-1979) concludes that government savings performance data illustrate the Please effect.[5] Another study reviewing 11 developing African countries provides further support by suggesting that an increase in tax burden is unlikely to be fully used for investment purposes.[6]

From the point of view of increasing the volume of aggregate savings through fiscal policy, what matters is not the absolute value of the Government's marginal propensity to save. The important consideration is whether this value is larger or smaller than that of the private sector. A higher government marginal propensity to save would indicate that the redistribution of a given level of income in favour of the Government should yield a greater volume of aggregate savings; a lower value would imply the reverse.

Estimates of the marginal propensity to save for the private sector have been derived by linear regression of private savings against disposable income (defined here as GDP minus tax revenue). These derivations are presented in Table II.8.[7] Variation is less, compared

Table II.7 Selected developing ESCAP economies. Marginal propensity of Governments to save, various periods[a]

	Time period	*Marginal propensity of Government to save*	*t-statistic*	$\bar{r}^2$
Burma	1963-1976	0.07	0.29	0.08
Fiji	1960-1978	0.13	7.49	0.75
Hong Kong	1960-1975	0.34	9.25	0.85
India	1960-1978	0.10	7.33	0.75
Malaysia	1960-1978	0.08	3.51	0.39
Pakistan	1960-1978	0.13	3.17	0.59
Philippines	1960-1978	0.42	13.11	0.90
Rep. of Korea	1960-1981	0.18	34.35	0.98
Singapore	1961-1976	0.37	15.98	0.94
Sri Lanka	1960-1978	- 0.04	2.40	0.21
Thailand	1961-1978	0.07	2.28	0.20

Source: Secretariat estimates, based on sources indicated in Box II.1.

Notes: [a] Equations estimated are of the form $S_g = a + bR$, where S_g represents government savings and R represents the sum of tax and non-tax revenue. Grants and capital receipts have been excluded. For Pakistan and the Philippines, public savings from national income account data have been regressed against R and thus include public enterprise savings.

Table II.8 Selected developing ESCAP economies. Marginal propensity to save for the private sector, various periods[a]

	Time period	*Marginal propensity to save, private*	*t-statistic*	$\bar{r}^2$
Burma	1963-1976	0.11	3.21	0.46
Fiji	1960-1978	0.16	10.98	0.87
Hong Kong	1960-1975	0.16	21.90	0.97
India	1960-1978	0.24	25.73	0.97
Malaysia	1960-1978	0.32	19.60	0.95
Pakistan	1960-1978	0.11	6.09	0.82
Philippines	1960-1978	0.21	44.68	0.99
Rep. of Korea	1960-1981	0.18	17.14	0.53
Singapore	1961-1976	0.21	23.69	0.97
Sri Lanka	1960-1978	0.18	8.93	0.81
Thailand	1961-1978	0.24	27.63	0.98

Source: Secretariat estimates based on sources indicated in Box II.1

Notes: [a] Equations estimated are of the form $S_p = a + bY_d$, where S_p represents private savings and Y_d represents disposable income. For Fiji, Malaysia and Sri Lanka, private savings were estimated by subtracting government savings from aggregate savings.

[5] Basil J. Moore, "Domestic savings in selected developing Asian countries", *Asian Development Bank Economic Staff Paper No. 2*, 1981, p. 9.

[6] Peter S. Heller, "A model of public fiscal behaviour in developing countries: aid, investment and taxation", *The American Economic Review*, June 1975, p. 441.

[7] All the values are statistically significant. $\bar{r}^2$ is high in most cases.

Box II.7 The Please effect

It is not often that an economist has the good fortune to have his name attached to a new "principle". In 1965, Stanley Please noted that while Governments had been successful in increasing the ratio of tax revenue to GDP, the proportion of public savings in GDP had tended to decline due to increased government current expenditure.[a] He cited specifically the behaviour of these variables in three developing countries – India, Peru and Sri Lanka – together with the findings of another study covering 19 developing countries. This relationship between increased tax revenue and increased current expenditure implies that although Governments are able to command growing portions of their nations' resources as development proceeds, their contribution to their countries' growth potential has been disappointing, contrary to the belief of many economists who advocate mobilization of domestic savings for development through the reduction of personal consumption. What had not been fully recognized, according to Please, was the effect of increased taxation on public consumption.

Tests of the Please hypothesis draw mixed conclusions concerning the effects of taxation on aggregate savings.[b] Please's response to these results emphasizes the importance of institutional factors and the causality of revenue growth on current expenditure.[c] He points out that quantitative regression analyses, even if their findings were to support the hypothesis, would only provide "a necessary condition not a sufficient condition of such a proof". Because of varying budgetary systems – some countries have ceilings on borrowing whereas for some others current expenditure is not dependent on tax revenue – the Please effect is likely to differ among countries. Please further observed the complex relationship between government expenditure and taxation and noted that "it would often seem more plausible to think of governments relating their current expenditure obligations to expected tax revenue over a medium-long period (say, a plan period of 5 years) rather than to actual tax revenue in a given budget year."[d] If this were actually practised, there would indeed appear to be a built-in tendency relating higher current expenditure to higher tax revenue.

It is relevant to note here one definitional problem in examining the Please effect. On the one hand, not all types of government capital expenditure are growth-promoting; some are status-building rather than additions to the productive capacity in the economy. On the other hand, some current expenditures contribute to the growth potential of the economy – for instance, certain education expenditures that are classified as current expenditure. Moreover, the larger the number of development projects completed, the greater will be the current expenditure required to continue the operation of these projects. Some current expenditure may thus in the final analysis be considered supportive of development in one sense or another, while a portion of government investment may be classified as non-developmental. The boundaries of the Please effect as a result become blurred.

[a] Stanley Please, "Saving through taxation – reality or mirage?", *Finance and Development*, vol. IV, No. 1 (March 1967), pp. 24-32.

[b] A summary of some of these studies can be found in R. Mikesell and J.E. Zinser, "The nature of the savings function in developing countries: a survey of the theoretical and empirical literature", *Journal of Economic Literature*, vol. XI (March 1973), pp. 15-17.

[c] Stanley Please, "The 'Please Effect' revisited", *World Bank Working Paper No. 82*, 1970.

[d] *Ibid.*, p. 11.

with that of the marginal propensity of the Government to save. The majority of the economies fall in the range of 16 to 24 per cent.

A direct comparison between the marginal propensities of Governments to save (Table 11.7) and of the private sector to save (Table II.8) must be treated with caution for several reasons. First, the values obtained may be affected by specification errors. In particular, private sector estimates may differ depending on the validity of alternative consumption functions based on the standard Keynesian version, the permanent income version or the relative income version. In addition, a number of non-income factors (e.g., willingness to bequeath) may significantly affect the balance between private consumption and savings. Government expenditure may interact with the marginal propensity to save in the private sector so as to change it considerably over time.

Despite these limitations, some important qualitative conclusions can be drawn from the marginal savings propensity estimates for the government and private sectors. It would appear that in countries such as India, Malaysia, Sri Lanka and Thailand, where the marginal propensity to save is considerably higher in the private sector than in the government sector, the objective of short-run savings augmentation would be better served by reducing taxes and increasing private disposable income. The cases of Hong Kong, the Philippines and Singapore warrant the opposite conclusion. The redistribution of income between the government and private sectors, however, is unlikely to affect aggregate savings either way in Fiji, Pakistan and the Republic of Korea. No regional pattern is thus discernible; the decision between government and private sector savings augmentation as a growth-inducing mecha-

nism must be based on the institutional characteristics of the individual country. By extension, fiscal policy to promote saving must be adjusted accordingly.

2. The indeterminate impact of taxation on savings

No universally applicable rule can be postulated concerning the relationship between fiscal policy and aggregate savings. All depends on how fiscal policy is formulated and implemented in each country's institutional setting to determine, on the one hand, government and, on the other, private savings.

Fiscal policy can potentially affect private savings in a wide variety of ways. One approach to an examination of the possibilities is to assume that households have a consumption target. Since taxes reduce disposable money income, savings would under this assumption have to be reduced in order to maintain the targeted level of consumption. The validity of this view clearly depends on the empirical verification of whether or not households' tax payments are made at the cost of reduced consumption or savings, or a combination of the two. An alternative approach postulates that, as an increase in direct taxes tends to reduce the rate of return on savings, it thus tends to promote consumption by making it a relatively less expensive use of income. A variation of this view has it that if households aim to accumulate a given level of assets over their life-time, any reduction in the rate of return on savings will stimulate them to save more.[8] Fiscal policy may also affect private savings via its impact on income distribution – both functional (e.g., as between wage-earners and capitalists) and sectoral (e.g., as between the export and domestic sectors, the corporate and household sectors, the urban and the rural sectors).[9] In each case, the effect on private savings will be determined by the impact of the fiscal regime on each sector and the marginal propensity to save in each sector.[10]

It is thus not possible to predict *a priori* either the direction or the magnitude of the relationship between taxes and aggregate savings with certainty. In order to determine whether or not the sum total of tax measures, constituting only a part of the fiscal policy mix in any country, encourages or discourages aggregate savings requires, as a result, highly disaggregated empirical verification taking into account such factors as the level, composition and incidence of taxes; the coverage and structure of incentives relating to various forms of savings and income from savings; expectations with regard to inflation and its impact on the portfolio of assets; households' time preferences between consumption and savings; and dynamic interactions between various taxes, public and private expenditure, their impact on incremental income and its distribution.

Empirical investigations into the relationship between tax policy and savings remain inconclusive. One study has found that direct taxes are not a generally significant explanatory variable for personal savings,[11] whereas another has found the relationship between taxation and savings to be negative.[12] A cross-section analysis of 20 African countries suggests that increases in taxation have a favourable effect on aggregate savings.[13] A major survey of the evidence concludes that there is "no consensus on the effects of taxation on aggregate saving but this relationship undoubtedly varies among governments with different tax structures and fiscal policies".[14]

3. Some positive indications

The inherently problematic nature of evaluating the contribution of fiscal policy in mobilizing aggregate savings is thereby confirmed. Nevertheless, a number of considerations appear to warrant the qualitative judgement that tax policy in the developing ESCAP region has not been antithetical towards aggregate savings, and thus the promotion of growth.

First, in only about one half of the economies covered in Tables II.7 and II.8 is the marginal propensity to save by Government less than that of the private sector. Though the static redistribution of income in favour of the private sector by way of reduced taxes would apparently yield a higher

[8] Vito Tanzi, "Tax increases and the price level", *Finance and Development*, vol. 19, No. 3 (September 1982), p. 29.

[9] Possible linkages between income distribution and savings are discussed in Jagdish N. Bhagwati, *Foreign Trade Regimes and Economic Development: An Anatomy and Consequencies of Exchange Control Regimes* (New York, National Bureau of Economic Research, 1978), pp. 128-134.

[10] A recent study on the Republic of Korea has found significant differences in the marginal propensity to save of rural farmers, urban workers and urban capitalists. Buyung Wak Song, "Consumption function in a developing economy and the Korean experience", *Economic Review* (Seoul), vol. XIV, No. 1 (December 1980), pp. 1-16.

[11] Jeffrey Williamson, "Personal saving in developing nations: an inter-temporal cross-section from Asia", *Economic Record*, June 1968, pp. 194-210.

[12] K. Krishnamurty, "Savings and taxation in developing countries: an empirical study", *IBRD Working Paper No. 23*, 1968.

[13] Ratan J. Bhatia, "A note on consumption, income and taxes" (International Monetary Fund, departmental memoranda, November 1967).

[14] Raymond F. Mikesell and James E. Zinser, "The nature of the savings function in developing countries: a survey of the theoretical and empirical literature". *The Journal of Economic Literature*, vol. XI, No. 1 (March 1973), pp. 1-26.

Table II.9 Selected developing ESCAP countries. Tax deductions and exemptions provided as personal saving incentives, mid-1970s

Deductions		*Exemptions*			
Contribution to pension and retirement funds	*Life insurance premiums*	*Income from certain public sector bonds*	*Interest on time and savings deposits*	*Interest from state savings institutions*	*Dividends*
Fiji[a]	Fiji	Bangladesh	Fiji[a]	India	India[a,b]
India	India	India[a]	Rep. of Korea	Sri Lanka	Pakistan[a]
Malaysia[b]	Malaysia[a]	Iran	Thailand		
Philippines	Papua New Guinea[a]	Malaysia			
Singapore[a]	Singapore[a]	Pakistan[a]			
Sri Lanka	Sri Lanka	Philippines			
		Rep. of Korea			
		Sri Lanka			
		Thailand			

Source: William J. Byrne, "Fiscal incentives for household saving", *IMF Staff Papers*, vol. 23, No. 2 (July 1976), pp. 460-461, table 1.

Notes: [a] Ceiling applicable. [b] Important restrictions.

volume of private savings, the long-term impact remains uncertain. Such an income redistribution might, among other imponderables, reduce current expenditure on social infrastructure (e.g., education, health, law and order) and thus conceivably lower the average propensity to save by the private sector by forcing up its consumption spending on such services.

Secondly, the average level of taxation does not appear to have reached excessive levels in most of the region. Based on a sample of 15 economies (Bangladesh, Burma, Fiji, Hong Kong, India, Indonesia, Malaysia, Nepal, Pakistan, Papua New Guinea, the Philippines, the Republic of Korea, Singapore, Sri Lanka and Thailand), it is found that the ratio of realized tax to normative tax is well below unity in most cases.[15] Indonesia is the solitary exception, showing well above unity value because of the inclusion of oil revenues in its tax revenue; the exclusion of oil revenue would reverse the result and bring Indonesia into equivalence with the rest of the sample. In addition, Burma, India and Sri Lanka represent limited departures from the norm because their ratio is close to unity. These findings are supported by those of another study[16] which included 10 of the above sample. In spite of well-known limitations of such findings based on international comparisons of tax performance (see Box II.2), it would be a fair generalization that the tax level in the region as a whole is not excessively high.

A third consideration which supports the proposition that fiscal policy in the developing ESCAP region has by and large not been antithetical towards savings is based on the tax structure of the economies of the region. The progressive personal income tax, based on the historical experience of the developed countries, has traditionally been lauded on the grounds of productivity, neutrality between taxpayers with different patterns of consumption, certainty of incidence, built-in stabilization impact, and – above all – equity. This tax is, however, not so simple an innovation in developing countries because of difficulties involved in its practical adoption and enforcement. First, the concept, definition and measurement of the income to which tax rates should apply are not at all unambiguous. Secondly, there is no scientific basis upon which the progressivity of personal income tax rate schedules can be determined to result in mathematically exact scale of neutrality or equity; practical determination of the rate schedule thus remains largely a matter of expediency. Thirdly, the requisite degree of accounting accuracy and honesty for the proper administration of the personal income tax can be attained in few developing countries, raising the problems of tax coverage,

[15] Normative ratios are based on the tax-GDP ratio at different levels of per capita income, as derived in Hollis Chenery and Moises Syrquin, *Patterns of Development 1950-1970* (London, Oxford University Press, 1975), p. 26, table 3. These ratios are then applied to per capita income of the sample countries in 1980.

[16] Alan A. Tait, Wilfred L.M. Gratz and Barry J. Eichengreen, "International comparisons of taxation for selected developing countries, 1972-1976", *IMF Staff Papers*, vol. 26, No. 1 (March 1979), pp. 124-156.

Box II.8 Tax compliance and the parallel economy

The policing of tax systems to ensure compliance is a universal fiscal policy task. That a significant degree of non-compliance exists in most countries, including those of the developing ESCAP region, is a generally accepted proposition. Indeed, for some developing ESCAP countries, a good case can be made that the integrity of development efforts will be seriously undermined unless the extent of tax non-compliance is reduced.

The magnitude of tax non-compliance cannot be quantified with precision but is considered high in many developing ESCAP countries. In Bangladesh, for instance, the number of tax evaders has been estimated to exceed the number of tax assessees.[a] India's tax amnesty in 1975 disclosed hidden income and wealth of about Rs 16 billion.[b] In 1981 India introduced Special Bearer Bonds, which provided immunity from investigation as to the source of funds; the success of this measure in raising Rs 10 billion bears testimony to the severity of the non-compliance problem.[c] A tax amnesty introduced in Pakistan in 1976/77 disclosed hidden income and wealth of about Rs 1.5 billion.[d] In the Philippines, a series of tax amnesties introduced in 1980/81 apparently had a somewhat less dramatic result. Faced with serious non-compliance problems, Thailand announced in 1982 that those persons who had in the past not discharged their tax liabilities in accordance with regulations would be allowed to pay their outstanding liabilities without penalty or threat of criminal prosecution.[e] These examples reveal the pervasive concern with the non-compliance problem in the developing ESCAP region.

The most obvious effect of tax non-compliance is the unwarranted loss of tax revenue, necessitating the imposition of a higher tax burden on those taxpayers not engaging in this illegal practice. The principle of horizontal equity is thus violated. Moreover, to the extent that certain income groups tend to evade taxation more consistently than others, the principle of vertical equity is also violated. These equity distortions are amplified by the fact that the income and wealth illegally retained by tax evaders must be concealed by them on a continuing basis; to the extent that this accumulated income and wealth is itself income-earning, it gives rise to cumulative tax revenue losses and increases the inequities between those who comply with tax regulations and those who do not.

The interrelationships between the need to levy higher taxes due to tax non-compliance, the resulting perceptions regarding the fairness of the tax system, and the effects of such perceptions on taxpayers' morality should be noted. Thus, the higher tax burden necessitated by non-compliance spreads the incentive to evade taxes over a larger population. The resulting increase in non-compliance raises the tax burden for the decreasing population of honest taxpayers. A vicious circle is thereby created, tending to universalize the incidence of tax non-compliance.

As increasing numbers of individuals, enterprises and transactions are exposed to tax evasion, the parallel economy (otherwise known as the "underground" or "black" economy) flourishes. The parallel economy has a number of undesirable economic, social and political and administrative effects on the development process. The fact that this sector is by definition untaxed and otherwise largely exempt from government regulation raises a variety of issues that speak for themselves. Certain specific economic problems may be noted. First, occupational choice may be affected, as income earners may seek employment in activities more amenable to non-compliance. Thus, individuals may prefer to work in the informal sector or become self-employed. This has an adverse effect on the performance of salaried professionals and technocrats, who find it extremely difficult to evade tax payments and who thereby end up receiving relatively low rates of real remuneration.

More generally, non-compliance tends to distort the allocation of resources away from productive uses. Thus, tax evaders commonly apply their illicit income and wealth holdings to speculative purposes such as the purchase of land, the hoarding of gems and precious metals, and participation in investment activities which are of questionable legality. Resources are also misallocated where tax-evaded income or wealth is used for conspicuous consumption purposes such as luxury housing and vehicles, jewellery, grandiose wedding ceremonies and extensive vacations.

Such illegally-based conspicuous consumption has many undersirable social effects as well. As tax evaders come to monopolize the consumption of scarce high-quality goods and services, honest taxpayers increasingly find themselves priced out of the market. This in turn not only creates social tensions but also tends to legitimize the practice of tax non-compliance on a wider scale. To the extent that tax-evaded income and wealth is transferred abroad to escape detection, adverse effects may also impinge on the balance of payments.

The undesirable effects of the parallel economy become even more pronounced where income and wealth accumulated outside the ambit of government regulation is used to finance political lobbying and to back candidates in elections. If a direct *quid pro quo* is expected in the form of favourable rulings concerning licences, equities, regulated prices and the like, the effects on resource allocations, international competitiveness, price stability and equity are also likely to be adverse.

From the economics point of view, the benefit from non-compliance is a positive function of the marginal

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[a] Bangladesh, *Final Report of the Taxation Enquiry Commission* (1979), p. 20.

[b] ESCAP, "India", *Integration of Tax Planning into Development Planning* (forthcoming); and N.M. Qureshi, "Pakistan, India, Sri Lanka, Bangladesh: new orientation in tax policies", *Bulletin for International Fiscal Documentation*, vol. 31 (1977), pp. 29-40.

[c] ESCAP, *loc. cit.*; and Qureshi, *loc. cit.*

[d] Qureshi, *loc. cit.*

[e] Thailand, Ministry of Finance, Department of Internal Revenue, "Provision of opportunity for additional payments of taxes", in *Documents on Royal Ordinance Amending Revenue Code (Number 9) and (Number 10), B.E. 2525 and Announcements of the Ministry of Finance* (1982), pp. 61-64.

tax rate and the anticipated rate of return on retained funds. The cost of tax non-compliance is taken to be the risk of legal penalty upon detection. Thus, the marginal rate of tax, the severity of penalty and the probability of detection are crucial determinants of non-compliance. Since the penalty rate and the probability of detection can both be influenced by tax administration, the policy implication is that high penalty rates and efficient administration play a crucial role in reducing tax evasion.

The economic approach provides only a partial explanation of these nefarious practices. The socio-politico-psychological factors are also equally important. The psychological factors would include the subjective feelings concerning not only the absolute burden imposed by taxation but also of the felt weight of this burden on the individual as compared with the presumed burden imposed on others. Psychological resistance to non-compliance is likely to be less if the tax system is regarded as unfair. Transparency of the tax system and mutually educative contact between tax administrators and taxpayers are of vital importance in this regard. The social factors making for non-compliance include the extent to which tax evasion is regarded as socially acceptable behaviour. In countries where tax evasion is practised routinely, social and psychological barriers to such behaviour are likely to be much lower than in countries where such behaviour carries a social stigma.

As to the political factors, it is well known that the distribution of political power explains the presence of certain opportunities for tax evasion and that the probability of detection and the certainty with which penalties are levied when tax evasion is detected depend crucially on political will and commitment. In addition, perceptions regarding the distribution of government expenditure benefits also have an important influence on tax compliance. Governments, therefore, must endeavour to increase the perceived and actual fairness of their expenditure systems. This requires strong fiscal discipline in matters of State as well as in matters relating to the personal financial activities of the political élites.

avoidance and evasion to the highest order of importance.

A frequently cited explanatory aspect of the relative insigificance of personal income taxes in the developing ESCAP countries is the supposed disincentive effect of the personal income tax on savings. The disincentive effect is predicted on the grounds that under this system, income is subjected to tax twice – both when it is first received and also when any interest or dividend is paid on the proportion of income saved. The potential savings disincentive element in personal income taxation is, however, effectively countered in the developing ESCAP region. The disincentive force is diluted by the facts that the proportion of revenue raised in the form of personal income tax is low in most countries and that most countries in the region provide a variety of incentives for personal savings.

These incentives usually take the form of tax exemption or reduced taxation of the portion of income that is saved in preferred forms and/or the return on such preferred forms of savings. Such incentive measures are based on an admixture of motivations for increasing the overall rate of savings as well as promoting certain specific forms of savings. Success in the latter direction may have significantly positive implications for growth. For example, if the incentive measures succeed in causing savings to flow from cash holdings, jewellery or real estate into time deposits or other financial assets, the total volume of savings may not increase; yet an expanded proportion of savings will thus have become available for productive investment and growth. Private holdings of financial assets are significantly affected by many factors other than tax incentives. In particular, the real rate of interest may exert a significant influence; examination of this important issue falls in the realm of monetary policy. Moreover, serial data on the level and composition of financial assets in various countries are not readily available to permit assessment of the impact of incentive measures. The existence of these measures, however, reflects policy makers' emphasis on fiscal policy as an instrument for promoting aggregate savings or at least improving the structure of savings.

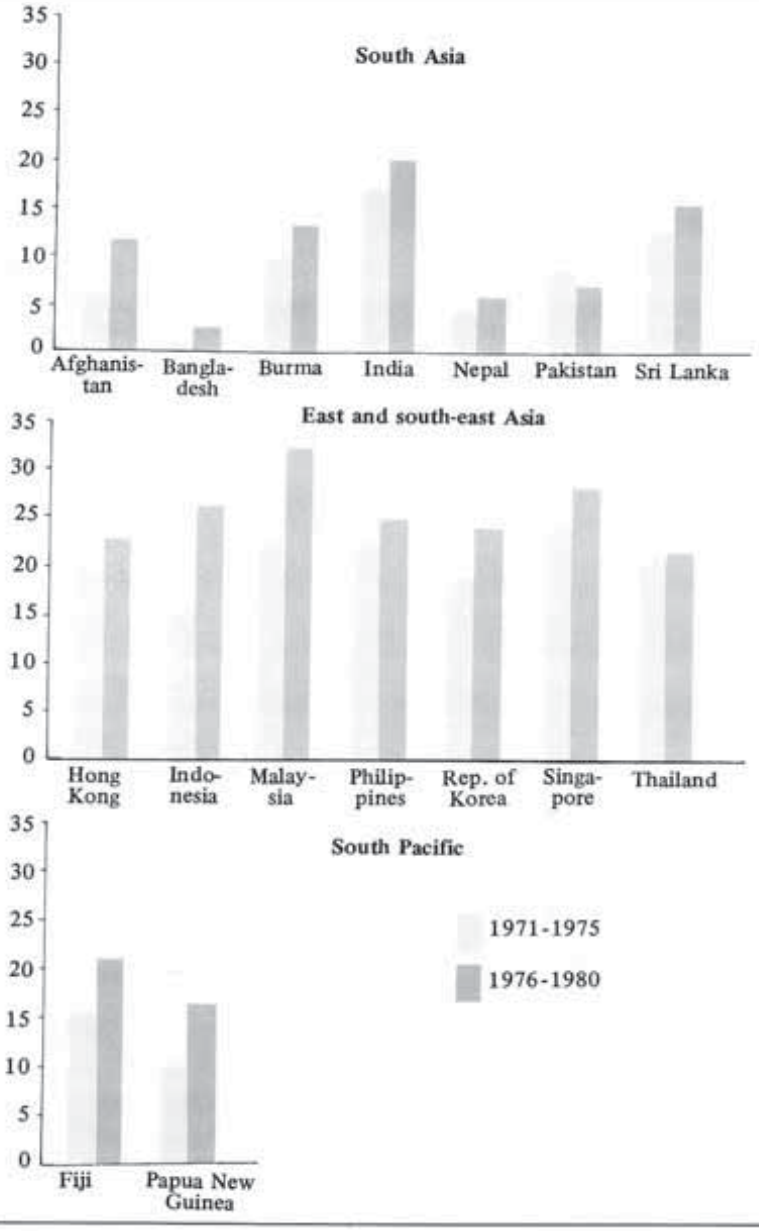
Moreover, the maximum marginal tax rates on personal income have recently been lowered in several developing ESCAP countries to allow greater reward for effort and also to encourage greater tax compliance. Thus, India in 1974/75 reduced its highest marginal rate from 97.5 to 77 per cent, then to 66 per cent and most recently to 60 per cent in 1980/81. Sri Lanka in 1976 reduced its maximum marginal rate from 75 to 50 per cent. Bangladesh and Pakistan also lowered their maximum marginal rates to 65 and 60 per cent, respectively, in the late 1970s. Indonesia lowered its income tax rate structure by raising its taxable income brackets several times during the 1970s. These reductions of rates were associated with enhanced personal and family allowances, investment allowances (for approved savings schemes), education allowances and raised minimum exemption limits.

Such measures may entail revenue loss (modified to some degree by enhanced tax compliance at reduced rates) as well as reduction of equity through the lowered degree of progressivity. The direct effect on aggregate savings is dependent on the relative marginal propensities to save by the Government and the beneficiaries of these measures. There is no convincing logic on which to conclude that these measures have in any way reduced aggregate savings. On the contrary, these measures may have improved the allocation of savings

between productive and non-productive forms (e.g., real estate, jewellery), the inflationary returns on which often remain untaxed.

Finally, the ratio of aggregate domestic savings to GDP increased in most developing ESCAP countries during 1976-1980 compared with 1971-1975 in the presence of significant increases in the tax-GDP ratio. Pakistan is the only country in the sample which recorded a decline in the domestic savings ratio between the two periods. For the others the average annual increase was 4.3 per cent. The continuing striking difference in savings ratios between south Asia and the South Pacific, on the one hand, and east and south-east Asia, on the other, was not substantially reduced by the general rise in the ratio over the course of the decade.

Figure II.6 Selected developing ESCAP economies. Share of gross domestic savings in GDP, five-year averages, 1971-1975 and 1976-1980
(Percentages)



B. FISCAL POLICY AND INVESTMENT

Increase in capital stock – i.e., investment – is an essential prerequisite for sustained output growth. Fiscal policy in the capital-scarce countries of the developing ESCAP region must therefore of necessity contend with the twin problems of accelerating the flow of aggregate investment and directing it to the most productive uses. The process is affected not merely by the volume of government savings and its direct investment in various sectors but also by private sector reactions to government revenue, expenditure and deficit financing decisions. In countries with mixed economies, tax policies in particular are likely to have a significant impact on investment flows.

At the aggregate level the ratio of investment to GDP among 15 developing ESCAP economies in 1980 ranged from 14 per cent in Afghanistan and Nepal to 43 per cent in Singapore. During the 1970s, rates of growth in investment were higher than they had been in the 1960s in Burma, Hong Kong, Indonesia, Malaysia, the Philippines and Sri Lanka. The others suffered reduced rates of investment growth in the 1970s compared with the 1960s. Nevertheless, most developing ESCAP countries recorded higher ratios of investment to GDP, the unweighted average rising from 13.0 per cent in 1960 to 19.4 per cent in 1970 and reaching 25.6 per cent in 1980.

The high investment growth rates of the 1960s and the subsequent slow-down in some major countries reflect to a certain extent the narrow base on which investment growth rates rested in the

earlier years. However, factors such as the world-wide inflation (and particularly the rising cost of capital goods), exchange rate instability, the dampened aid climate, rising interest rates and the uncertainties raised by the energy crisis also had adverse effects on investment rates throughout the region during the 1970s. Governments used a variety of fiscal policy instruments, among other measures, to fight these externally generated adverse factors.[17] The sophistication with which these instruments were applied increased steadily over the course of the decade and into the 1980s throughout the region.

Table II.10 Selected developing ESCAP economies. GDP shares and growth rates of gross domestic capital formation, 1960-1980

(Percentages)

	Share of GDP		*Average annual growth rate*	
	1960	*1980*	*1960-1970*	*1970-1980*
Afghanistan	16	14	-1.0	...
Bangladesh	7	17	11.2	1.8
Burma	12	24	2.8	8.0
Hong Kong	18	29	6.9	12.7
India	17	23	5.3	4.8
Indonesia	8	22	4.6	14.4
Malaysia	14	29	7.5	10.3
Nepal	9[a]	14	...	11.7[b]
Pakistan	12	18	6.9	2.4
Papua New Guinea	15	27	21.1[c]	-5.9
Philippines	16	30	8.2	10.5
Rep. of Korea	11	31	23.6	13.4
Singapore	11	43	20.5	6.7
Sri Lanka	14	36	6.6	9.8
Thailand	16	27	15.8	7.7

Source: World Bank, *World Development Report 1982* (Washington, D.C., 1982), tables 4 and 5.

Notes: [a] 1961. [b] 1970-1979. [c] 1961-1970.

1. Distribution of investment between the public and private sectors

The breakdown of aggregate investment into public and private sector shares is not available for many developing ESCAP countries. In the centrally planned economies of the region the public sector shares are of course overwhelming. In a number of other countries the public sector shares in total investment have also been large. Bangladesh, Burma, India, Pakistan and Sri Lanka fall into this category. For instance, Bangladesh allocated 89 and 78 per cent of its plan investment expenditure to the public sector during its first and second five-year plan periods, respectively. Burma's investment was primarily private-sector based in the 1950s, but with the progressive socialization of the economy in the early 1960s the public sector assumed increasing importance in investment activities. The importance of the public sector in total investment has also risen over time in Pakistan and Sri Lanka, to the point where it accounted for more than three fifths of total investment by the late 1970s. Bangladesh, Pakistan and Sri Lanka have of late been re-asserting the role of the private sector in investment by providing new fiscal incentive measures and strengthening and expanding existing measures to protect and promote private sector investment. By contrast with these policy shifts, the public sector's share in investment in India appears to have remained at a steady level of about two fifths of total investment over the course of several decades.

In contradistinction to the high public sector investment shares prevailing in south Asia, in east and south-east Asia the public sector share in investment appears to have been limited to one to two fifths of the total over the past two decades. However, the public sector's share showed tendencies to rise in Hong Kong, the Philippines and Thailand in the 1970s. This was due to two factors: first, stepped up investment in the public sector apparently sought to offset the shortfalls in private investment in the uncertain climate of the 1970s as a means of retaining the development impetus of aggregate investment. Secondly, increased public investment reflected the growing concern of Governments to ensure a more equitable sharing of the fruits of economic growth through increased emphasis on public services.

2. Sectoral allocation of government investment

The impact of government investment on economic growth is largely determined by its sectoral allocation. Sectoral differences in the incremental capital-output ratio define the extent to which reallocation of a given volume of such investment can increase the rate of output growth. In the absence of comparable data either from national income accounts or budgetary sources, data concerning the sectoral allocation of government investment can be derived from plan documents. Considerable difficulties inevitably arise in uniformly

[17] *Economic and Social Survey of Asia and the Pacific, 1979, op. cit.*, p. 83.

classifying sectors among countries and over time on the basis of such non-standardized sources. For some periods and countries, sectoral public investment allocations are available only in the form of plan projections rather than actual expenditures. Even with such limitations, the data nevertheless indicate the broad patterns and priorities that various developing ESCAP countries have attached to different economic sectors over time.

The collected data suggest that government development expenditure has been concentrated primarily on transport and communication, water control, irrigation and power – the infrastructure required as a foundation for production and private investment. Within the infrastructure sectors, the relative importance accorded to transport and communication has shown a tendency to decline while that of power has in some cases increased, especially in countries heavily dependent on imported energy. The emphasis on infrastructure reflects the declared policy intent of most Governments of the region (excluding the centrally planned economies), which has been to supplement rather than substitute for private investment. The trend towards encouraging private investment through public sector support has tended to grow stronger even in countries which had earlier adopted a less favourable attitude towards private investment. To the extent that this trend is consonant with objective appraisals of the relative productivity of public and private sector investment, it is likely to be growth-promoting.

Table II.11 Selected developing ESCAP economies. Public and private sector shares in gross domestic capital formation, 1960-1980

(Percentages)

	1960	*1970*	*1980*
Burma			
Public	39.7	...	74.6[a]
Private	60.3	...	25.4[b]
Hong Kong			
Public	22.6[c]	10.7	22.5
Private	77.4[c]	89.3	77.5
India			
Public	44.2	37.8	46.1[d]
Private	55.8	62.2	53.9[d]
Malaysia			
Public	34.4[c]	37.0	35.8
Private	65.6[c]	63.0	64.2
Pakistan			
Public	...	49.9	65.5
Private	...	50.1	34.5
Philippines			
Public	14.1	7.5	24.4[e]
Private	85.9	92.5	75.6[e]
Rep. of Korea			
Public	30.8	23.7	22.0
Private	69.2	76.3	78.0
Sri Lanka			
Public	39.7	43.3	60.2[e]
Private	60.3	56.7	39.8[e]
Thailand			
Public	27.8	32.0	38.1
Private	72.2	68.0	61.9

Sources: United Nations Yearbook of National Accounts Statistics, various issues, and national sources.

Notes: [a] Including state enterprises. [b] Residual. [c] 1961. [d] 1979. [e] 1978.

The sectoral share of government investment in agriculture, irrigation and flood control and rural development activities has tended to fluctuate between 20 and 30 per cent of total government investment. This reflects the continuing recognition that the stimulation of the agricultural and rural sectors serves not only growth but also a number of other development objectives. Among the countries in which continuing priority has been given to this sector in recent years are Bangladesh, Fiji, the Philippines, Sri Lanka and Thailand. In the Pacific island countries, development plans put a discernible accent on agriculture. In India and Indonesia, however, the allocation to agriculture has dropped as a proportion of public investment expenditure, but in Indonesia it has continued to rise as a proportion of GDP. Increased priority to agriculture and rural development would appear to be in the right direction because insofar as agriculture represents a relatively low capital-output and capital-labour ratio sector, such investment reallocation should promote both growth and employment, not to mention equity.

Bangladesh, India and Pakistan have allocated 15 to 25 per cent of their government investment on industrial and commercial development under their recent plans. Government investment expenditure allocated to industrial development

in east and south-east Asia and the South Pacific, however, is generally low. Under recent plans, allocations of government expenditure to industrial and commercial development was 2.1 per cent in Fiji (1976-1980), 4.3 per cent in Indonesia (1974/75-1979/80), 3.8 per cent in the Republic of Korea (1977-1981), 11.9 per cent in the Philippines (1978-1982) and 1.4 per cent in Thailand (1977-1981). However, Malaysia, with the launching of its second plan (1971-1975), increased its commitment to government-sponsored industrial development as part of its strategy of removing the imbalances in ownership of economic assets between foreign and domestic interests and among the country's major ethnic groups. Such divergent patterns of government involvement in industrial development largely reflect political perceptions of the role of government, an issue which overrides the logic of fiscal policy.

Table II.12 Selected developing ESCAP countries. Sectoral shares of government investment, various periods
(Percentages)

	Plan period	*Agriculture and allied sectors*	*Irrigation, flood control*	*Power*	*Industry and commerce*	*Transport and communication*	*Housing, urban and regional development*	*Water supply and sanitation*
Bangladesh	1973-1978	18.0	13.3	13.8	13.6	20.2	6.5	...
	1978-1980	- - - - 27.0 - - - -		14.0	17.0	18.0	8.0	...
	1980-1985	17.4	14.9	14.5	16.3	17.2	10.1	...
Fiji	1971-1975	13.9	...	...	2.9	10.8	3.7	7.4
	1976-1980	15.4	...	17.4	2.1	16.0	11.9	14.3
India	1966-1969	16.7	7.1	18.3	24.7	18.5	1.1	1.6
	1969-1974	14.7	8.6	18.6	19.7	19.5	1.7	2.9
	1974-1979	12.1	8.7	17.9	25.9	17.6	3.0	2.5
	1980-1985	11.3	12.5	27.2	15.4	15.9	2.6	4.0
Indonesia	1969-1974	- - - - 30.1 - - - -		9.4	12.3	21.7	...	...
	1974-1979	- - - - 19.1 - - - -		7.4	4.3	16.4	19.7	...
Malaysia	1966-1970	18.2	8.1	12.5	3.3	17.6	6.3	3.8
	1971-1975	21.2	2.9	1.6	19.3	19.0	2.6	2.3
	1976-1980	19.4	2.6	5.7	15.4	18.8	6.6	2.1
	1981-1985	19.1	2.2	5.5	13.9	14.4	4.2	3.2
Nepal	1965-1970	- - - - 22.4 - - - -		...	4.9	49.1	–	...
	1970-1975	15.7	10.1	8.8	9.5	40.9	2.1	...
	1975-1980	18.4	11.4	11.9	10.4	23.2	...	...
	1980-1985	- - - - 27.0 - - - -		- - - - 26.0 - - - -		23.0	–	...
Pakistan	1973-1977	11.2	...	18.6	16.1	21.3	8.4	9.3
	1978-1983	10.1	...	18.8	15.5	18.5	7.6	11.6
Philippines	1967-1970	...	7.8	4.0	...	19.2	–	...
	1971-1974	...	17.1	11.6	...	47.9	1.3	...
	1974-1977	20.0	...	...	5.0	30.4	...	...
	1978-1982	21.4	...	...	11.9	66.7[a]	...	...
Rep. of Korea	1967-1971	18.9	6.9	2.6	5.0	40.2	2.9	3.5
	1972-1976	25.2	...	1.2	8.6	34.4	2.4	...
	1977-1981	17.1	...	4.2	3.8	34.6	3.5	3.1
Sri Lanka	1972-1976	28.1	...	...	20.5	37.9[b]	3.3	...
	1981-1985	44.6	...	...	1.5	...	8.5	4.4
Thailand	1967-1971	- - - - 19.8 - - - -		8.6[c]	1.9	29.7	...	...
	1972-1976	- - - - 11.8 - - - -		10.9	2.6	18.3	...	...
	1977-1981	- - - - 15.5 - - - -		6.3	1.4	14.7	...	...

Sources: National plan documents and other national sources.

Notes: [a] Including power, water supply and sanitation. [b] Including power. [c] Energy only.

Box II.9 Shifting expenditure priorities in a centrally planned economy

Economic policy makers in China are well aware that development will be greatly enhanced if the allocation of government expenditure is appropriate and rational.[a] To ensure the rapid growth of output, it is said that expenditure should be allocated with certain fundamental "balances" in mind. These include a correct balance between accumulation and consumption, productive and non-productive sectors, agriculture and industry, and coastal and inland industries, among others.

In pursuit of the realization of these balances, government expenditure is broadly categorized into accumulation expenditure comprising capital construction, enterprise renovation, working capital and aid to agriculture; and social consumption outlay on education, health, science, culture, defence and administration. It is the Government's responsibility to ensure that these expenditure categories are appropriately allocated among the various balances.

The rate of accumulation was very high during 1958-1960, and the readjustment made during 1961-1965 was quite drastic. Accumulation again reached a very high level in 1978. The year 1979 saw the beginning of a new strategy of "readjusting, restructuring, consolidating and improving", which among several other reorientations in growth objectives gave greater emphasis to consumption over accumulation. In absolute terms, accumulation continued to expand in 1979. As a share of national income, it fell slowly, reaching 30 per cent in 1981. The Government has stated its intention to reduce the share of accumulation in national income eventually to 20-25 per cent.

A major reason for the rather slow downward adjustment in the rate of accumulation has been the difficulty faced by the Ministry of Finance in effectively reducing capital construction through budgetary means. Since 1979, state enterprises have been allowed to use bank loans to finance investment, apart from budgetary funding. Decentralized financing projects thus increased drastically in 1979. By 1982, slightly more than half of the total investment in capital construction was accounted for by locally financed projects. There were, however, indications that the share of investment by local authorities started to decline in 1982 as a result of increasing control by the central authorities. Capital construction is therefore expected to be reduced soon to the desired level.

Experiments have been conducted in the provinces to fix expenditure in proportion to revenue and submit a predetermined proportion of the surplus to the State. Another formula being tested is to submit a fixed proportion of the annual revenue increase of the provinces to the State. These measures are designed to give the State a degree of control over local finance while at the same time providing a degree of freedom to local authorities in the allocation of expenditure.

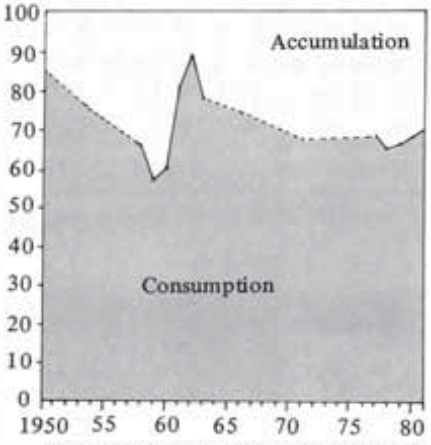
Expenditure on enterprise renovation and the provision for working capital were proportionally reduced in 1979. This move supported China's new development strategy, which gives preference to light industry over heavy industry. The overemphasis on heavy industry in the past had not only slowed down the increase in the standard of living but also created a number of bottlenecks for the economy, leading to the misuse of resources. Light industry has the stated advantages of requiring less investment, earning more profit and creating more employment per unit of output. With greater emphasis on light industry, it has therefore been possible to reduce the share of government expenditure on enterprise renovation and innovation, and the provision for working capital.

However, financial aid to the rural sector and expenditure on agriculture has been increased in absolute terms. This is in accordance with the new strategy that development priorities should follow the order: agriculture, light industry, heavy industry. Through increased expenditure on agriculture, among other measures, farmers' income and productivity have risen rapidly.

Expenditure on culture, education, health and science has also increased significantly. The objective of this is the promotion of longer-term economic growth through investment in human capital. The Government has thus demonstrated with effective action its recognition of the importance of human capital and basic scientific research in the development process.

China. Share of accumulation and consumption in total income, 1950-1981[a]

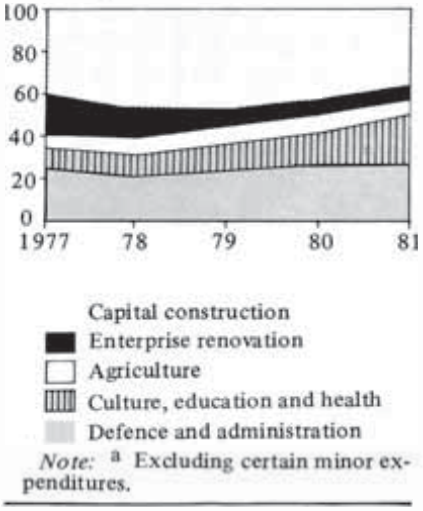
(Percentages)



Note: [a] Annual data for 1958-62 and 1977-81; other years are averages of 1950-1952, 1953-1957, 1963-1965, 1966-1970 and 1971-1975.

China. Distribution of government expenditures by major categories, 1977-1981[a]

(Percentages)



Note: [a] Excluding certain minor expenditures.

[a] *Finance and Credit* (Beijing, Financial Economic Publications of China, 1981), p. 72.

3. Profits tax policy for private investment

A sizeable share of the revenue from income taxation in the developing ESCAP countries, particularly those with a large extractive or plantation sector, is derived from taxes on profits. With dividends in most cases tax-exempt, the profits tax constitutes a separate levy on income of business enterprises as legal entities, distinct from the income received by the individuals who own these enterprises.

From a policy viewpoint the profits tax draws considerably more attention than would appear to be warranted by its relative contribution to total revenue in the developing ESCAP countries. Policy conclusions regarding profits taxation are often based on the assumption that the incidence of the profits tax falls on the returns to equity capital and that the tax, *ipso facto*, reduces such returns to the firm. Seen in this light, a tax-induced reduction of returns may discourage investment by cutting entrepreneurial earnings and personal savings from dividends. The profits tax may thus retard or obstruct economic growth.

There is, however, no clear evidence that the incidence of profits taxation is borne by the profit-earning firms. On the contrary, it is widely believed that businessmen consistently treat taxes as costs when determining prices, be it by operating under a full-cost pricing rule, by applying a conventional mark-up defined net of tax, or by pricing to meet a net-of-tax rate of return. According to these formulas, a change in profits tax rates leads to an adjustment in prices. The profits tax then becomes a quasi-sales tax. Possibilities also exist for shifting the tax backward to labour. Empirical investigations in developed economies into the possibility that the profits tax is shifted forward to consumers by short-term price increases have not resolved these conflicting viewpoints, though one widely acclaimed study, after testing alternative hypotheses, concluded that under no circumstances can the hypothesis of non-shifting be sustained.[18] A recent study on India indicates that part of the corporation income tax is shifted to labour.[19] Other studies for India have suggested that the corporation tax is shifted to consumers as well.[20]

In keeping with the view that profits taxes reduce profitability and thus investment, many developing ESCAP countries offer numerous fiscal incentives to business firms in the form of tax concessions and sometimes additionally provide loans at reduced interest rates. As in the case of savings, these incentives are also intended both to increase the volume of investment and direct investment funds into desired activities or regions. The concept of profits tax shifting adds a new dimension to the view that such incentives to business firms are redundant. To the extent that profits taxes are shifted by the firm to permit it to retain its pre-tax profit margin, such tax concessions play no role in inducing firms to invest or reinvest.

Despite such reservations, the tax legislation of many developing ESCAP countries contains various combinations of these incentive measures and provides them with varying degrees of liberality. The configuration of tax incentives in each country is so complicated and has in recent years been changing so rapidly as to make it difficult to describe in general terms. The complexity of the situation is shown in Table II.13, which summarizes the main features of various national programmes as of the late 1970s for selected developing ESCAP countries.

The tax holiday, ordinarily a full profits tax exemption for a specific number of years, is the most widely used tax incentive measure in the ESCAP region. This is widely complemented by tax exemption on dividends. Some countries permit losses incurred during the tax holiday period to be carried forward beyond the tax holiday period. The accelerated depreciation allowance is also widely used. Under this provision most countries permit the write-off of high proportions of their firms' capital costs in the first year. Countries with lower rates of special initial allowances generally allow other forms of tax credit, such as investment allowances and/or development rebates. Imported plant, machinery and raw materials are exempt from tariff duties in a number of countries. Bangladesh, India and Pakistan grant extra shift allowances at a specified percentage of the normal depreciation rates. China, in addition to other privileges for preferred foreign investments, accords preferential income tax treatment for profits reinvested by foreign investors in its special economic zones.

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[18] M. Krzyzaniak and R.A. Musgrave, *The Shifting of the Corporation Income Tax* (Baltimore, Johns Hopkins University Press, 1963).

[19] Parthasarathi Shome, "The incidence of the corporation tax in India: a general equilibrium analysis", *Oxford Economic Papers*, vol. 30, No. 1 (March 1978), pp. 64-73.

[20] See, for instance, V.D. Lall, "Shifting of tax by companies", *Economic and Political Weekly*, 6 May 1967.

[21] Brij Soin, "The business view", *Fiscal Policy and Tax Structures in the Pacific Region* (Rotterdam, International Fiscal Association, 1981), pp. 37-53. The study lists many factors, other than taxes, influencing the investment decision of foreign investors. These include the attitude of the host government, currency conversion facilities, local participation in equity, reinvestment requirements, the threat of nationalization, etc. Many of these considerations are also relevant for domestic investors.

Given the fact that the tax level is only one of many considerations affecting entrepreneurial decisions regarding investment,[21] questions have been raised regarding the costs and benefits of incentive measures. Various empirical investigations have been undertaken in developing ESCAP countries on the effects of tax incentives on investment intentions and results. A number of studies on Malaysia suggest that investment tax incentives are largely redundant.[22] A study on the impact of Pakistan's tax holiday has found that "there is no evidence that the pace of industrial development was quickened by the tax holiday. There is, however, conclusive evidence to show that the tax holiday failed to attract industries to the less developed regions".[23] A study on the role of investment in Fiji notes that investment "depends primarily on the existence of potential profit opportunity as well as on economic and political stability . . . [Advantageous] tax incentives will not in themselves either attract or assist the retention of private capital".[24] A survey of the results of studies conducted in 28 countries, including nine developing ESCAP countries, concludes that "the evidence of these studies does seem to point towards the ineffectiveness of these schemes in inducing new investment . . . The most that can be said is that their impact is either slight or unknown".[25]

Yet the costs of such tax incentives in terms of revenue foregone are considered to be substantial. For instance, it has been estimated that taxes foregone due to pioneer status amounted to $M252.8 million from 1963 to 1971 in Malaysia, assuming 100 per cent incentives redundancy.[26] This was equal to a 36 per cent subsidy of the pioneer sector's capital stock. It is estimated that, if these funds had been invested in public corporations, they would have produced a value added of $M166.8 million and provided employment for 38,000 persons in 1971. The abolition in 1972/73 of Pakistan's tax holiday is estimated to have brought the Government an additional revenue of Rs 60 million in that year.[27] Nevertheless, a five-year tax holiday scheme was subsequently reintroduced for industries set up in the less developed areas of the country. In Thailand, the tariff exemption extended to promoted firms is estimated to have amounted to 1.9 per cent of total government revenue in 1973. Thereafter the magnitude of the revenue losses from this source declined, but they continued to be substantial.[28] The cost implicit in Thailand's tax holiday scheme would appear to be considerably higher. In the Philippines, tax exemptions under the Investment Incentive Act (R.A. 5186) were estimated at 318 million pesos in 1975 for 126 firms, equivalent to 2.1 per cent of total tax revenue.[29] This Act was, however, only one of several providing privileged treatment to certain investors. Even allowing for the imperfections of such calculations, these estimates underline the fact that such generous tax concessions may have serious negative repercussions on growth and employment.

The above examples emphasize the heavy cost borne by developing ESCAP countries for an activity that might not even require such subsidization. To the extent that the absence of tax incentives might block some private investment, it must be recognized that the additional revenue collected from the investment that does continue under a full tax regime provides a source of alternative public investment. In addition, harmful consequences for growth may be generated by investment tax incentives by way of cheapening the relative price of capital and thus encouraging the adoption of inappropriate technology and also possibly by way of distorting the allocation of investment in so far as tax incentives provide for discriminatory treatment among different types of investment.

4. Commodity taxes

Taxes on commodities constitute the major source of tax revenue in most developing ESCAP countries for several practical reasons. First, it is possible to reach a far larger number of taxpayers in developing countries through the taxation of transactions than through the taxation of income and wealth. Secondly, as they are collected at a point of production, customs or sale, taxes on commodities are relatively easy and inexpensive to administer and difficult to evade.

The most serious objections against commodity taxes relate to their inequitable incidence and their possible distortive effects on resource allocation. Tax planners in

[22] Summarized in Friedrich von Kirchback, *Economic Policies towards TNCs: The Experience of the ASEAN Countries* (unpublished dissertation, University of Regensburg, 1981), pp. 424-438.

[23] N.M. Qureshi, "Pakistan, India, Sri Lanka and Bangladesh: new orientation in tax policies", *Bulletin for International Fiscal Documentation*, vol. 31, No. 1 (January 1977), pp. 7-16.

[24] M. Ward, *The Role of Investment in the Development of Fiji* (London, 1971).

[25] S.M.S. Shah and J.F.J. Toye, "Fiscal incentives for firms in some developing countries: survey and critique", in J.F.J. Toye, ed., *Taxation and Economic Development* (London, Frank Cass and Co., 1978), pp. 267-289.

[26] Kirchback, *op. cit.*, p. 427.

[27] Qureshi, *op. cit.*

[28] Kirchback, *op. cit.*, p. 157.

[29] *Ibid.*, p. 281.

many developing ESCAP countries have taken increasing cognizance of the former issue in their efforts in recent years to introduce an element of progressivity into commodity tax rate schedules by distinguishing among the commodities consumed by different income classes. Little action has been taken, however, to cope with the latter issue.

Commodity tax systems differ widely within the region in terms of their selectivity; rate structure across the broad categories of sales, excise, import and export taxes; and administrative methods with respect to points and modes of collection and other practices. In some cases, the commodity tax system is supplemented by direct or indirect subsidies, especially for exports. This plethora of tax and subsidy measures can give rise to major departures from efficient patterns of resource allocation which, among other consequences,

Table II.13 Selected developing ESCAP countries. Major tax incentives for certain types of investment, late 1970s

Country	*Tax holiday (number of years)*	*Loss carry-over (number of years)*	*Dividends*	*Accelerated depreciation*			*IA, ITC or DR (percentage)*	*Extra shift allowance (percentage)*	*Import duty exemption*
				Item	*First year allowance (percentage)*	*Annual allowance after first year (percentage)*			
Afghanistan	4	–	Exempt		–	–	–	–	–
Bangladesh	5	–	Exempt	P+M S	80 40	20 (1 year) 30 (2 years)	– –	DS = 50 D TS = 100 D	P+M exempt
Fiji	5	–	–		–	–	–	–	–
India	7	3	Exempt	B	20/40[a]	–	DR 15-25 –	DS = 50 D TS = 100 D	–
Indonesia	2-6	No limit	Exempt	B P+M	10 25	– –	IA 5 ITC 8[b]	–	P+M+R exempt
Malaysia	2-5	–	Exempt	I	80	20/40 (1 year)[c]	IA 25	–	–
Pakistan	5	–	Exempt	I	25[d]	15 (5 years)	–	DS = 50 D TS = 100 D	P+M+R exempt
Papua New Guinea	–	–	–	I	20	20	–	–	–
Philippines	–	6	Exempt	P+M	Up to 100	–	IA 10	–	–
Rep. of Korea	5	3-4	Exempt	B P+M	40-80 20/30[c]	– –	ITC 6	–	–
Singapore	5-10	–	Exempt	B P+M	25 20	33⅓ (3 years)	IA up to 50	–	–
Sri Lanka	2-10	–	Exempt	I	100	–	IA up to 100[e]		P+M exempt
Thailand	3-8	5	Exempt		–	–	IA 10-20		R exempt
Tonga	5	–	–		–	–	–	–	–

Sources: S.M.S. Shah and J.F.J. Toye, "Fiscal incentives for firms in some developing countries: survey and critique" in J.F.J. Toye, ed., *Taxation and Economic Development* (London, Frank Cass and Co., 1978), pp. 273-274 and 276-277, tables 2 and 3; International Bureau of Fiscal Documentation, *Taxes and Investment in Asia and the Pacific*, various issues.

Key: B = Buildings. D = Extra depreciation. DR = Development rebate. DS = Double shift. I = Investment. IA = Investment allowance. ITC = Investment tax credit. M = Machinery. P = Plant. R = Raw materials. S = Ships. TS = Triple shift.

Notes: [a] Twenty per cent for buildings erected since 1961 and 40 per cent for those erected since 1979. [b] Each year during the first four years. [c] Accelerated percentage if the company has exported more than 20 per cent (by value) of its total production in the base period; otherwise 20 per cent. [d] Up to 30 June 1983. [e] The full amount of the investment or 33.3 per cent of the assessable income of the persons investing, whichever is lower.

can have stultifying effects on economic growth. This consequence is particularly significant in the developing ESCAP region because of the quantitative importance of commodity taxes in government revenue structures.

While little is known about the investment or general resource allocation effects of sales and excise taxes imposed on domestically produced commodities, the effects of taxes imposed on international trade have received considerable attention, with a number of significant findings. A recent study on Bangladesh, for example, indicates that of the 62 sectors covered, the majority are not economically viable in the long run even though they enjoy high effective rates of protection afforded by tariff and other trade barriers.[30] However, these effective rates of protection were found to vary widely across sectors. Moreover, the trade tax incentive structure actually militates against exports. The pattern of industrial growth supported by this incentive structure is thus inefficient.

Of the 69 sectors examined in a similar analysis of the allocative effects of tax policies in India, the effective rates of protection were higher than the nominal tariff rates for 53 sectors, if non-traded inputs were included.[31] In addition, value added at international prices was

[30] ESCAP, "Bangladesh", *Integration of Tax Planning into Development Planning* (forthcoming).

[31] ESCAP, "India", *ibid.*

Box II.10 Effective rates of protection[a]

A particularly complex case of deviation between nominal and effective tax rates arises in connection with the protection afforded to domestic enterprise under import tariff regimes. Effective rates of protection deviate from nominal rates in that they take into account not only the protective effect on output but also the protection afforded by the tariff structure to the inputs used to produce the output. The effective as distinct from nominal degree of protection afforded by tariffs thus depends on the differential tariff rates between inputs and their associated output, and on the proportion of domestic value added in the total value of the final product. A positive effective rate of protection enables domestic producers to obtain a higher rate of return than would be possible in the absence of such protection. Negative effective rates of protection, furthermore, generally indicate that the firms so protected are producing outputs the value added of which is negative at world prices.

The complexity of this phenomenon can be illustrated by the case of Bangladesh, which can be considered a fairly representative example of the developing ESCAP countries in this respect. A number of elements of the tax system in Bangladesh significantly influence the growth pattern of domestic industry. Among these, perhaps the most important is the tariff structure. Customs duties are collected almost entirely from imports. The structure of import duties shows the typical pattern in that the closer a product to the finished stage, the higher is the rate of duty. The rates are numerous, with most falling within the range of 30-125 per cent. Some luxury consumption items, however, are subjected to as high a rate as 300 per cent whereas some essential items are imported duty-free. The number of basic *ad valorem* rates has recently been reduced from 36 to 7.

This tariff regime gives rise to a complex structure of incentives the net effect of which can be measured in terms of effective rates of protection. The structure of effective rates of protection in Bangladesh, as measured in several recent studies, gives rise to several important conclusions. First, there exists a tremendous dispersal of effective rates of protection not justified on infant industry grounds or other socio-economic criteria. The effective rate of protection in 62 industrial sectors in Bangladesh as of 1976/77 varied from 3 per cent to 2,473 per cent on the positive side while on the negative side the range was from -12 per cent to -15,733 per cent. Such a wide divergence of effective rates of protection is clearly contrary to what would be dictated by considerations of an efficient pattern of industrial growth.

Secondly, there is significant variation in the effective rates of protection on production for export as distinct from production for the domestic market. Generally, the sectors engaged in domestic production receive higher levels of effective protection than those engaged in export production. Thus, the structure of incentives strongly militates against exports.

Thirdly, the pattern of industrial growth which has emerged as a result of the present structure of protection is economically inefficient. As many as 18 out of the above-mentioned 62 sectors are net losers of foreign exchange (that is, have negative value added at world prices) and therefore show negative values of domestic resource cost. Ten sectors demonstrate lack of comparative advantage in both the short and long runs. Of the remaining 34 sectors, only 24 possess long-run comparative advantage.

Fourthly, the incentives generated by the structure of effective protection in Bangladesh tax industrial sectors which have a comparative advantage and subsidize sectors with comparative disadvantage. Moreover, the more disadvantageous the sector, the higher the implicit tariff subsidy.

The studies on which these findings are based no doubt suffer from the usual data and methodology limitations. But sensitivity tests performed with respect to world prices, shadow prices and possible overstatement of material inputs demonstrate a high degree of stability of results. The conclusion derived from this example indicates that the structure of protection in many developing ESCAP countries distorts the allocation of resources away from their most efficient and thus growth-promoting uses.

[a] Based on ESCAP, "Bangladesh", *Integration of Tax Planning into Development Planning* (forthcoming).

found to be negative for certain industries such as rubber and man-made fibres. Protection was found, furthermore, to have benefited the protected sectors in widely varying degrees.

A study of Sri Lanka's import tariff structure as of 1970 established that the effective rates of protection ranged from negative for many food-processing industries to positive rates of over 100 per cent for such industries as textiles, machinery, rubber products, petroleum refining and light engineering.[32] The tax system was also found to discriminate against the traditional export industries (namely tea, rubber and coconut) vis-à-vis non-traditional export-oriented and import-substituting industries. Despite this pattern of discrimination and its resulting inefficiencies, export taxes could not be abandoned in view of the country's heavy reliance on this revenue source. Sri Lanka has, however, recently initiated moves to revise its tariff structure with a view to rationalizing the pattern of protection across production sectors.

Similar concerns with regard to the structure of protection have been expressed in east and south-east Asia. Studies of the protective structures in the ASEAN member countries have stressed the role of export taxes in contributing to negative rates of protection in the trade sector. The export "premium" on Thai rice, which is both a major domestic consumer staple and export, has received a great deal of attention. It has also been argued that the rice premium, combined with excessive positive protection granted to other sectors, has forced resources out of their first best use and thus damaged the long-run growth potential of the Thai economy. Taxes on exports or on products which are primarily exported contribute over the longer run towards diversion of resources from the export sectors into other sectors. This effect may be particularly disturbing in cases where the exportable commodity is also an important domestic food staple, such as Thai rice; an input into an important indigenous industry, such as cloves in Indonesia's *kretek* cigarette industry, and lumber in the Philippines' and Indonesia's plywood industries; or a major income source for the rural poor, such as the Philippines' coconuts and Indonesia's smallholder cash crops. A related concern is the efficiency with which other sectors use the resources released from the penalized industries.[33]

In Indonesia, effective rates of protection for such domestic-market-oriented industries as electric appliances and motor vehicles were as high as 341 and 718 per cent, respectively, in 1975 while rates for such labour-intensive, export-oriented industries as palm oil and batik were -5 and -35 per cent, respectively.[34] Protection also resulted in excess capacity in many industries, including cable, furniture, pharmaceuticals and car assembly. This conforms to the view that under a trade regime characterized by high protection, rapid growth of the industrial sector can be sustained as long as the limits to easy import substitution are not reached. Indonesia seems to have reached this limit in the late 1970s as growth came to be increasingly determined by the rate of expansion of domestic demand.[35] In 1981 and 1982, Indonesia introduced important measures to change the policy direction towards promoting exports through a more liberal trade regime.

Even in Malaysia, long regarded as one of the least protectionist developing ESCAP countries, high effective rates of protection have been noted in certain industries despite the fact that the nominal tariff structure appears low.[36] Tax incentives and tariffs also favour large-scale industries, which adversely affects competition. Also, as protection has risen with the stage of production, the production of intermediate goods has been disfavoured, thus apparently affecting the capital-deepening process of industrialization.[37]

In other countries, such as the Republic of Korea and Singapore, after an initial period of import substitution, export expansion became the major source of accelerated industrial growth in all major sectors. It seems, however, that the strong outward-looking strategy in these countries has been sustained by ensuring that policy measures complement rather than contradict factor endowments and world market conditions, thus enhancing industrial efficiency.[38] This is not to say that import substitution policies have not been followed at all; the Republic of Korea, for instance, has constantly pursued such policies, but on a selective basis.[39] By international

[32] ESCAP, "Sri Lanka", *ibid.*

[33] Anne Booth, "The economic impact of export taxes in ASEAN", *Malayan Economic Review*, vol. 25, No. 1 (April 1980), pp. 36-61.

[34] Gershon Feder, "On exports and economic growth", *World Bank Staff Working Paper 508* (February 1982).

[35] H.B. Chenery, "Interaction between industrialization and exports", *American Economic Review*, vol. 70, No. 2 (May 1980), pp. 281-287.

[36] Malaysia, Economic Planning Unit, *Tax Incentives for Industry* (1974).

[37] K. Young, W.C.F. Bussink and P. Hasan, *Malaysia: Growth and Equity in a Multiracial Society* (Baltimore, Johns Hopkins University Press, 1980).

[38] Anne O. Krueger, *Foreign Trade Regimes and Economic Development: Liberalization Attempts and Consequences* (New York, National Bureau of Economic Research, 1978).

[39] Larry E. Westphal and Kwang Suk Kim, "Industrial policy and development in Korea", *World Bank Staff Working Paper 263* (1977).

standards, its nominal and effective rates of protection have, however, been kept purposely low and relatively uniform among sectors.[40]

For a variety of practical reasons, commodity taxes will continue to be quantitatively important in the region. The wide inter-industry differences in the effective rates of protection afforded by these taxes, however, provide a clear signal that the rate structure of this tax system must be rationalized; this can be done without causing a reduction in revenue from this source. Such rationalization can be expected to improve the growth performance of the developing ESCAP countries significantly.

In undertaking any rationalization programme with respect to the structure of commodity taxation, a critical decision must be made concerning the priority to be given to agriculture versus industry. Land taxes are levied in a number of countries of the region and clearly hit agriculture harder than industry. Taxes on agricultural commodity exports directly penalize agriculture. In addition, import taxes on industrial goods raise the prices of domestically produced import-competing substitutes and swing the sectoral terms of trade against agriculture. However, the agriculture sector has continued to receive favourable treatment in public sector investment allocations. To promote the "green revolution", a number of Governments in the region have provided agricultural input subsidies as well as price support for agricultural output. In some countries, there has been a noticeable change in recent years as fiscal policy towards agriculture shifts away from input subsidies in favour of higher output prices.

The implications for growth in the developing ESCAP region of alternative agricultural development measures under existing institutional arrangements of land ownership and administrative procedures have been the subject of a growing body of research.[41] The available evidence suggests that there has been a substantial improvement in the net barter terms of trade in favour of the agriculture sector as a whole under revised subsidy schemes and that this policy change has aided growth. A recent study reviewing 11 developing ESCAP countries (Bangladesh, Burma, India, Indonesia, Malaysia, Nepal, Pakistan, the Philippines, the Republic of Korea, Sri Lanka and Thailand) has found unmistakable evidence of a secular shift of the sectoral terms of trade in favour of agriculture over the period 1970-1977.[42] Whether or not the improvement in agriculture's net barter terms of trade has been associated with a net transfer of resources from the non-agricultural sector cannot be gauged in the absence of adequate data on income terms of trade. It can, however, be safely argued that given the developing ESCAP countries' trade and exchange rate policies, the agricultural sector would have been severely affected in the absence of fiscal subsidy measures. To that extent, fiscal policy in the region has clearly contributed to growth, especially since the capital-output ratio in the agricultural sector is low.

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[40] P. Hasan and D.C. Rao, *Korea: Policy Issues for Long-term Development* (Baltimore, Johns Hopkins University Press, 1979).

[41] See, for example, Inayetullah, ed., *Approaches to Rural Development* (Kuala Lumpur, Asian and Pacific Development Administration Centre, 1979); Keith Griffin, *The Political Economy of Agrarian Change* (London, The Macmillan Press, 1974); and Ashok Mitra, *Terms of Trade and Class Relations* (London, Frank Cass and Co., 1977).

[42] "Regional study on terms of trade between rural and urban areas to strengthen linkages between agriculture and other sectors" (E/ESCAP/AD.3/11), 1979, p. 19 and table 22.

III. FISCAL POLICY FOR EMPLOYMENT

Although employment promotion is is commonly cited an important development objective in the ESCAP region, the strategy for its fulfilment is often not clearly specified. The traditional view is that the accelerated growth of output can generate sufficient employment opportunities over the long term to absorb the developing countries' redundant labour force. However, this expectation has in most cases not been realized. Hence, the employment problem has in recent years been reasserting itself as an increasingly important element in the development strategies of many ESCAP countries. The basic thrust of policies in this regard has been to augment the demand for labour through expenditure on labour-intensive agricultural and rural development and promotion of specific labour-absorptive industrial activities. In addition, efforts have been made to reform the educational pattern in order to match the supply of skills with the likely demand and to contain the supply of labour over the long term through population control and related measures. While each of these approaches entails significant fiscal measures, it is the effort to mould the economy to absorb labour rather than the effort to alter the magnitude and composition of the labour force to fit the economy that has received the greatest attention from fiscal policy makers.

A. DIMENSIONS OF THE PROBLEM

1. Unemployment and underemployment in development

A disturbing general feature of development in the ESCAP region over the past three decades has been the lagging growth of employment opportunities in the presence of sustained and in some cases buoyant growth in aggregate output and income. With rapidly rising population and labour force, many countries of the region, particularly those of the south Asian subcontinent and other especially populous countries, have encountered increasing pressures of unemployment and underemployment.

A widely recognized causal factor has been the failure of industrialization to accommodate an equivalent sectoral restructuring of employment. Although the share of agriculture in total output has decreased appreciably in most countries of the region, its share of employment has not undergone a commensurate percentage decline. Agriculture has, in fact, become an employer of last resort for the region's growing reservoir of redundant labour.

Well over two thirds of the labour force in Afghanistan, Bangladesh, India, the Lao People's Democratic Republic, Papua New Guinea and Thailand continues to be employed in agriculture; in Bhutan, Nepal and some of the small island countries the share rises to over nine tenths. In some of these countries the proportion of agriculture in GDP fell by more than one third during the two decades 1960-1980, but this change in the structure of production was not reflected in the sectoral structure of employment. Even where the share of agriculture in GDP was reduced to about one quarter – as for example in Indonesia, Malaysia, the Philippines, Sri Lanka and Thailand – one half or more of the labour force continued to be employed in agriculture while the share in industry did not rise beyond about one sixth. An important exception is the Republic of Korea, where industry's share in output doubled between 1960 and 1980 while its share of the labour force tripled, permitting the proportion of labour force in agriculture to fall to half its former size.

Because the growing industrial sector in most developing ESCAP countries has failed to absorb more than a fraction of the growth in the labour force, the bulk of the working population has had to continue to depend on agriculture and associated activities, accentuating the already acute problems of rural unemployment, underemployment and low earnings. In the absence of adequate estimates of unemployment and underemployment,[1] relative sectoral productivity levels provide a useful indicator of the sectoral incidence of labour redundancy. According to

Table II.14 South Asia and east and south-east Asia. Relative sectoral productivity,[a] 1960, 1970 and 1980

	South Asia				*East and south-east Asia*			
	Bangladesh	*India*	*Pakistan*	*Sri Lanka*	*Indonesia*	*Philippines*	*Rep. of Korea*	*Thailand*
Agriculture								
1980	0.62	0.59	0.58	0.54	0.45	0.52	0.41	0.41
1970	0.72	0.58	0.63	0.56	0.50	0.46	0.46	0.36
1960	0.76	0.65	0.68	0.62	0.48	0.44	0.46	0.41
Industry								
1980	3.25	1.62	1.39	2.00	3.82	2.31	0.95	3.62
1970	2.32	2.22	1.27	2.16	3.50	2.02	1.57	4.16
1960	2.33	1.93	1.12	1.90	4.00	2.03	2.39	5.24

Sources: World Bank, *World Development Report, 1982* (Washington, D.C., 1982), tables 2 and 3 and *World Tables 1980* (Washington, D.C., 1980), table 5.

Notes: [a] Relative sectoral productivity measured as ratio of share of sectoral output to share of sectoral labour force.

this indicator, relative labour productivity in the agricultural sector tends to be between one third and one fifth the level obtaining in the industrial sector. By implication, agriculture contains a vast pool of the effectively "unemployed". The declining relative productivity of agriculture in south Asia and to a lesser extent in south-east and east Asia over the past two decades suggests that the pool may be growing.

For example, some four fifths of India's labour force entrants in the 1970s had to turn to agriculture or other small-scale activity for their livelihood, even though these occupations often did not provide full-time work throughout the year or even on a weekly basis.[2] As a result it is estimated that India's total rural households account for nearly four fifths of total unemployment and that rural households dependent on wages, which constitute a little over one fifth of India's total households population, account for nearly one half of total unemployment.[3] Similarly, the underemployment ratio in Bangladesh may be as high as one third of the agricultural labour force and appears to have worsened in recent years,[4] while in Pakistan well over one fifth of the work force may be considered underemployed.[5]

Though the employment problem is particularly acute in the rural sector of south Asia, it is by no means absent from other sectors or other developing ESCAP countries. An outstanding case in point is China, which experienced serious frictional unemployment in the late 1970s with the policy shift towards light industry, greater productive efficiency and a revision of the investment-consumption balance.[6] In particular, youth unemployment in the urban areas rose due to increased migration back to the home towns following the relaxation of controls on retaining the youths at their rural postings. Even Malaysia, which saw a rapid growth of employment and a substantial decline in the overall unemployment rate in the 1970s, experienced an increase in the degree of underemployment. As elsewhere in the region, however, underemployment remained predominantly a rural phenomenon, with some four fifths of the underemployed concentrated in the rural sector.[7]

2. Applications of fiscal policy

The conventional explanation for the employment-output relationship in the industrialized economies has it that public expenditure,

[1] One summary estimate of underemployment for Asia as of 1970 was 26 per cent of the labour force, based on a definition of underemployment as inclusive of part-time and very low productivity workers. Lyn Squire, *Employment Policy in Developing Countries: A Survey of Issues and Evidence* (New York, Oxford University Press, 1981), p. 72.

[2] India, Ministry of Finance, *Report of the Expert Committee on Tax Measures to Promote Employment* (1980), p. 8.

[3] India, Planning Commission, *Sixth Five Year Plan, 1980-1985* (1981), p. 205, para. 13.11. Unemployment is here measured in terms of "daily status" unemployment, whereby a person working up to four hours is considered to have worked for a half day while one working for more than four hours is regarded to have been employed for the whole day.

[4] Bangladesh, Planning Commission, *Draft Second Five-Year Plan, 1980-1985* (1980), p. VI-5, para. 6.15.

[5] Pakistan, Planning Commission, *The Fifth Five Year Plan, 1978-83* (1978), p. 17, para. 24.

[6] *Economic and Social Survey of Asia and the Pacific, 1981* (United Nations publication, Sales No. E.82. II.F.1), p. 98.

[7] Malaysia, *Fourth Malaysia Plan 1981-85* (1981), p. 85, paras. 219 and 220.

among other policy measures, can generate lasting employment increases through its "pump priming" effects. This theory of employment focuses on the investment and consumption implications of public expenditure rather than on the productivity improvements generated by the expenditure; it is a demand-side rather than supply-side theory of the employment promotion process.

The applicability of this view, with its fiscal policy implications, for the developing ESCAP region has been severely criticized on the grounds that the high levels of unemployment and underemployment chronically afflicting many of the developing countries in the region are not due to inadequate aggregate demand and can therefore not be resolved through demand-expanding fiscal policy interventions. It is often pointed out that where such policy initiatives have been taken – as for instance in pre-1978 Iran and on a number of occasions in Latin America – the result has not been full employment but rather the aggravation of production bottlenecks, diversion of resources to speculative undertakings, accelerated inflation, deterioration of equity conditions and social and political destabilization. Rejection of the applicability of this theory to the developing ESCAP region has resulted in the counter-view that the relationship between employment and production is tenuous.

The alternative, supply-side interpretation of the employment-output relationship is based on certain structural characteristics of the developing ESCAP region. First, there is the issue of differing sectoral labour absorptive capacities in sharply dualistic economies. In such economies, employment is typically highly inelastic with respect to output in the modern sector, whereas it is apparently highly elastic in the traditional sector. Demand management can play a role in generating output expansion in the modern sector in these economies, but this will necessarily have limited impact on the employment situation. Because of its vast scale, high incidence of unemployment and underemployment, semi-monetized and semi-market-oriented institutions and inelasticity of demand for many of its outputs, the traditional sector is in most cases not readily susceptible to demand-side policies for output and employment promotion. It has long been recognized that the most effective means of generating increased output in this sector is through institutional change, in close association with public expenditure to provide the basic infrastructure and directly productive investments to complement the mass of readily available labour power.

There is, secondly, the proposition that the process of sectoral adjustment that accompanies growth in the development process entails a considerable time lag as the economy re-gears itself to absorb the available pool of the unemployed and underemployed. In this connection, it has been suggested that many developing ESCAP countries have not been able to afford the required time lag but have been forced by political considerations to intervene through policies that have distorted the development process away from the realization of growth-induced employment promotion. Many developing ESCAP countries have therefore not encountered the functional relationship between employment and growth that has been experienced in certain of the more rapidly growing countries of the region. In the event, policy makers in the low-growth countries have found justification in seeking to maximize employment opportunities in the traditional sector despite the low immediate growth potential of such measures.

In the supply-constrained economies of the developing ESCAP region, aggregate demand-energizing fiscal policy for employment thus has limited relevance. The question then becomes one of defining the optimum applications of fiscal policy to mobilize the supply side, particularly the complementary factor inputs needed to generate employment opportunities for the unemployed and underemployed labour force. Beyond the various growth-promoting initiatives described in Chapter II, this can be done by orienting fiscal policy instruments in favour of the relatively more labour-absorbing industries and the relatively more labour-intensive technologies in both the traditional and modern sectors to the extent that these measures do not conflict with the growth objective.

This fiscal policy orientation has to some extent been applied in developing ESCAP countries, though the process has tended to be sporadic and has often been subsumed under other development themes. Development plans typically contain a number of public expenditure programmes – land reclamation, irrigation, road-building and other public works programmes, provision of such social services as public health and education – incorporating, whether intentionally or otherwise, a high employment potential. Public expenditure programmes aimed at specific target groups such as women, youth, disadvantaged groups and isolated communities also commonly contain a large employment content, even though the employment effect of such programmes is ordinarily of secondary interest to broader equity considerations.

The fiscal dimension of family planning programmes stands out as a case in point. Since the supply of labour is determined ultimately

by the rate of population growth and the participation rate, measures to control the growth of population are crucial for tackling the employment problem over the long term. Public expenditure on family planning programmes, tax penalties for large families and the like may thus be seen to have a long-term employment effect, but this can in no way be extended to suggest that such actions are ordinarily undertaken as an employment-promoting measure. For one thing, as demographic trends take time to be reversed, population policy, and its fiscal policy component, is not commonly regarded as a means of easing the existing employment problem.

In sum, the widespread failure of output growth to generate sufficient employment opportunities to absorb the growing labour supply in the developing ESCAP region, and the evident inability of public works programmes in most of these countries to close the gap, has led Governments to resort to a variety of fiscal policy measures geared to promote employment in specific poverty districts, depressed industries and household-labour types of enterprise.[8] These measures typically discriminate in favour of labour-intensive industries and techniques of production, small-scale units of production and rural production. The fact that these features tend to coincide in individual economic activities makes it unfeasible to determine which of them is the most important employment generator. Lacking such information, policy makers have been left with

[8] For a diversity of views on the subject see International Labour Organisation, *Fiscal Measures for Employment Promotion in Developing Countries* (Geneva, 1972).

Box II.11 The control of remittances from international labour migration

International migration of labour within the ESCAP region and from the region to major labour-deficit countries elsewhere dates back well into the colonial era. A resurgence of the phenomenon, featuring a realigned geographical flow of workers, has accompanied the recent emergence of the petroleum-exporting countries of the Middle East as important labour-scarce economies. Various labour-surplus countries of south, south-east and east Asia have responded vigorously to the employment opportunities thereby created. Since the early 1970s the number of skilled and unskilled migrants from the ESCAP labour-exporting countries has grown significantly. For example, the average annual rate of growth of migration from Pakistan, largely to the Middle East, was more than 50 per cent during 1971-1975.[a] In 1978, workers from south-east and east Asia (including here Democratic Kampuchea, Indonesia, Malaysia, the Philippines, the Republic of Korea and Thailand) contributed 12 per cent of the labour force in the Middle East, compared with only 0.5 per cent in 1970.[b]

While this sizeable labour flow has certainly eased the pressures of unemployment and underemployment in certain countries to some extent, an equally significant economic aspect of the international migration phenomenon has been the flow of repatriated earnings, which can serve as an important source of foreign exchange and may thereby form a major contribution towards reducing chronic balance of payments shortfalls. In 1978-1979 the ratio of remittances to merchandise exports was 77 per cent for Pakistan, 21 per cent for Bangladesh and 15 per cent for India.[c] Moreover, the average annual rates of growth in the nominal value of these flows during the 1970s were impressive, ranging from 20 per cent in India to more than 60 per cent in Bangladesh.[d] Given the trend and volume of these flows, the labour-exporting countries have had to face the double challenge of finding the best means of maximizing these remittances and then channelling them into productive investment.

The flow of remittances to the home countries is influenced by a variety of economic and social factors, such as the overseas workers' efforts to accumulate some target amount of remitted savings, the distribution of dependents between the host and home countries, the costs related to foreign employment (including subsistence, transportation and recruitment costs), unanticipated opportunities to spend earnings on consumer durables and luxuries, and access to foreign banks as alternative saving channels. Given these various conflicting motivations and opportunities, the Governments of labour-exporting countries have formulated a variety of policies to attract remittance flows from their emigrant workers through official channels. One approach has been to make the repatriation of remittances compulsory. The Philippines, for example, requires construction workers and seamen to remit 70 per cent of their earnings and other workers 30 per cent.[e] In general, however, labour-exporting countries prefer to offer incentives to encourage remittance inflows.

Special import privileges, foreign exchange deposit schemes carrying attractive interest rates, premium ex-

[a] Pakistan, Planning Commission, *The Fifth Five Year Plan 1978-83, Part I* (1978), p. 194, para. 23.

[b] J.S. Birks and C.A. Sinclair, *International Migration and Development in the Arab Region* (Geneva, ILO, 1980), p. 109.

[c] World Bank, *World Development Report, 1982* (Washington, D.C., 1982), p. 13. For India, the data refer to 1977.

[d] Garushri Swamy, "International migrant workers' remittances: issues and prospects", *World Bank Staff Working Paper 481* (1981), p. 11, table 4.

[e] A.G. Chandavarkar, "Use of migrants' remittances in labour-exporting countries", *Finance and Development*, June 1980, p. 37. In addition, the Philippines conserves foreign exchange by seeking to ensure that migrant workers travel between the Philippines and their overseas destinations by Philippines transportation.

considerable freedom to allocate employment-promoting fiscal incentives over a wide range of economic activities.

B. FISCAL POLICY FOR EMPLOYMENT IN THE TRADITIONAL SECTOR

1. Agriculture and rural development

There remains considerable room for absorption of more labour in agriculture than is currently employed in many developing ESCAP countries. This is suggested, for instance, by the fact that the number of workers per unit of arable land is much higher in such countries as Japan and the Republic of Korea while the yield of the land is also much higher than in other ESCAP countries.[9] Use of labour inputs of the order of intensity prevailing in such countries as Japan and the Republic of Korea has depended on the availability of complementary factors like irrigation, fertilizers and improved seed. Though such exogenous influences as climatic factors also affect the potential degree of labour absorption in agriculture, there can be little doubt that increased attention to the question of complementary factor inputs in the developing ESCAP countries' agricultural sectors can be rewarding in terms of both output growth and employment.[10] Institutional reforms with respect to land tenure arrangements, agricultural

[9] A. Vaidyanathan and A.V. Jose, "Absorption of human labour in agriculture: a comparative study of some Asian countries", in P.K. Bardhan, A. Vaidyanathan, Y. Alagh, G.S. Bhalla and A. Bhaduri, *Labour Absorption in Indian Agriculture: Some Exploratory Investigations* (Bangkok, ARTEP, 1978), pp. 165-185.

change rates, tax concessions and special investment opportunities are among the useful incentives that have been widely adopted to attract remittances. Bangladesh offers a leading case in point. Its Wage Earner Scheme,[f] launched in mid-1974, is based on the same principles as the Bonus Voucher Scheme operating in Pakistan in the 1960s. Under this scheme, a Bangladesh national employed abroad is allowed to use the earnings to import goods and may open a foreign currency account in Bangladesh pending the disposal of the earnings for imports or other uses. In addition, the account-holder is allowed to re-export remitted funds. Up to early 1982, wage earners could sell their foreign exchange in Bangladesh to importers at a premium averaging 30 per cent over the official rate.

In 1975, the Government of India introduced a Foreign Currency (non-resident) Account Scheme[g] to provide realistic rates of exchange and convenient facilities for holding remittances in approved foreign currency accounts. Under this scheme, both non-resident Indians as well as persons of Indian origin resident abroad are allowed to open pound sterling and United States dollar accounts in India in tax-free interest-bearing term deposits for periods ranging from three months to five years. Additionally, a notable feature of these foreign accounts are their possible use for investment in shares in the Unit Trust of India and in specified industrial undertakings. The success of these accounts depends on the competitiveness of the rates of interest vis-à-vis overseas rates on comparable assets. Both the Indian and Bangladesh schemes have proved generally satisfactory.

While a variety of measures have been designed to induce remittances, there is also a need to formulate positive and coherent policies to optimize the use of remitted funds at the sectoral and regional – and even at the household – levels. Available studies on the utilization of remittances in labour-exporting countries of the ESCAP region reveal that the bulk of remittances has contributed little to the development of these countries.[h] In south Asian countries like Bangladesh, India and Pakistan, a large proportion of the migrants were, prior to their recruitment and emigration, unemployed and in debt (e.g., 60 per cent in India). Once these workers' debt commitments have been liquidated and current consumption needs have been met, the assets most preferred by them are land and buildings (claiming about half of remittances in Bangladesh) and jewellery. It is clear, therefore, that the overwhelming share of remittances has not been used for productive purposes.[i]

Yet there is no doubt that remittances represent an important potential source of savings and investment. Governments should, therefore, develop measures to utilize productively the emigrant workers' surplus earnings after debts have been repaid and essential consumption needs met. Preliminary attempts have been made, but with marginal success. For instance, Bangladesh has issued prize bonds, and India and Pakistan have proposed advantageous interest rates in rural areas. These efforts mobilize the workers' financial resources for investment use in the public sector rather than consumption or speculative investment in the private sector. Such resource diversion measures need to be improved and strengthened. Along these lines, Bangladesh suggested in its second five-year plan that a special fund should be created for using remittances to promote investment in such fields as expansion and improvement of transport facilities, construction of multistoried housing complexes and employment- and income-generating projects.[j]

[f] See Syed Ashrat Ali, *et al.*, "Labour migration from Bangladesh to the Middle East", *World Bank Staff Working Paper 454* (1981), pp. 52-56.

[g] Chandavarkar, *loc. cit.*, p. 37.

[h] *Ibid.*, p. 38.

[i] See Syed Ashrat Ali, *et al.*, *loc. cit.*, p. 132; and Chandavarkar, *loc. cit.*, p. 39.

[j] Bangladesh, Planning Commission, *Draft of the Second Five Year Plan 1980-85* (1980), p. XVIII-18, para. 18.44.

Box II.12 The "green revolution" and employment

The "green revolution" technology, consisting of a package of inputs (improved seed, water, fertilizer) also known as high-yielding variety (HYV) technology, has been widely heralded as a path-breaking approach to the acceleration of agricultural growth and employment. Employment benefits have been anticipated because the associated production process is believed to be labour intensive (requiring, e.g. seedling transplantation, line-sowing, fertilizer application, irrigation system maintenance), with increased output per unit of land leading to increased labour demand for harvesting and post-harvest processing. Besides, the technology is believed to permit greater absorption of labour by enabling the cultivation of more crops as a result of the shortened crop cycle. The fiscal instruments employed in promoting the adoption of the HYV technology include, on the one hand, price support schemes for output and, on the other, subsidies on seed, fertilizer, irrigation water and agricultural machinery.

The evidence from a number of developing ESCAP countries, specially India, Pakistan and the Philippines, shows that significant output gains have resulted from the application of the HYV technology.[a] The continued presence of the problem of unemployment and underemployment in many countries of the region has, however, raised doubts as to the employment benefits of the technology. Empirical studies regarding employment in the context of the green revolution centre mainly on two issues. First, it is argued that the institutional arrangements covering distribution of subsidized inputs favour the larger farmers, who typically employ less labour per unit of land than the small farmers, thus reducing the potential employment benefit.[b] The policy implication of such findings from the point of view of employment promotion is to undertake institutional reforms so that small farmers will no longer be discriminated against.[c]

The second line of reasoning relates to the preferential treatment given to mechanization in the HYV technology package by the promotional policy mix combining fiscal and monetary policy elements. The empirical evidence in this regard is mixed. A number of studies related to Indonesia have focused on the adverse employment implications of increased use of tractors, rotary weeders and the like.[d] The HYV seed-fertilizer technology has in India led to reduced labour use per unit of land for individual crops because of mechanization, but to increased overall employment as a result of shifts in cropping patterns in favour of labour-intensive crops and increased cropping intensity.[e] It has also been found that the total labour employment on mechanized farms is not significantly different from other farms.[f] In Pakistan, while increased use of new seeds has tended to create greater demand for labour, its impact is moderated by the use of more capital on large farms.[g] In the Philippines (central Luzon), the introduction of new technology in rice-growing areas has had a negligible impact on creating additional demand for labour due to increased mechanization.[h]

The rapidly accumulating evidence does not contest the inherent land-augmenting and labour-absorbing nature of the HYV technology, but it questions the merits of the incentives package, which appears in many cases to inadvertently favour mechanization. Thus, in evaluating fiscal policy for employment in agriculture, it is important to examine the apparent tendency of fiscal incentives to skew the factor proportions towards greater capital intensity. The empirical evidence cited above serves to highlight the need for a searching reappraisal of the employment implications of the full range of HYV-technology fiscal incentives.

[a] Inayetullah, ed., *Approaches to Rural Development: Some Asian Experiences* (Kuala Lumpur, Asian and Pacific Development Administration Centre, 1979), pp. 377-404.

[b] World Bank, *World Development Report, 1979* (Washington, D.C., 1979), p. 50.

[c] For further details, see "Rural development, the small farmer and institutional reforms", *Economic and Social Survey of Asia and the Pacific, 1975* (United Nations publication, Sales No. E.76.II.F.1), pp. 47-172.

[d] See Barbara L. Martin Schiller, "The 'green' revolution in Java: ecological, socio-economic and historical perspectives", *Prisma* (Jakarta), No. 18 (September 1980), pp. 89-90.

[e] Shakuntla Mehra, "Some aspects of labour use in Indian agriculture", *Indian Journal of Agricultural Economies*, October-December 1976, pp. 95-121.

[f] Kahlon, "Impact of mechanization of Punjab agriculture with special reference to tractorization", *ibid.*, pp. 54-70.

[g] Mahmood H. Khan and Dennis A. Maki, "Relative efficiency by farm size and the green revolution in Pakistan", *Pakistan Development Review*, Spring 1980, pp. 51-64.

[h] Keith Griffin, *The Political Economy of Agrarian Change* (London), The Macmillan Press, 1974), p. 71.

credit facilities and access to markets can also promote the labour absorptive capacity of the agricultural sector. In addition to its expenditure functions in connection with the provision of such facilities, fiscal policy may indirectly assist in increasing the use of labour in agriculture by, for example, supporting programmes that seek to prevent the premature introduction of mechanization of a kind that would likely lead to large-scale displacement of labour.[11]

Recognizing the limited capacity of the industrial and service sectors to resolve the employment problem, many developing ESCAP countries – particularly the heavily labour-surplus economies of south Asia – have in their recent plans placed increasing emphasis on the development of agriculture, rural areas and traditional activities and occupations. This is reflected in the proportion of development expenditure allocated to agriculture

[10] S. Ishikawa, *Economic Development in Asian Perspective* (Tokyo, Kinokuniya Bookstore Co., 1967), especially chapters 2 and 3.

[11] *Ibid.*

and rural uplift in recent plans and budgets. In India, the combination of agriculture, rural development, irrigation and flood control has generally accounted for over one fifth of the total public sector outlay in the plans. Similarly in Pakistan, expenditure on agriculture, fertilizers and water formed about a quarter of the total annual development programme of the Federal Government for 1981/82 and 1982/83.[12]

In Malaysia, the planned allocation to agriculture (consisting of integrated agricultural development projects, land and regional projects, drainage and irrigation, and agricultural credit, marketing and processing) forms 20 per cent of the total public sector development allocation for 1981-1985, an increase of 35.5 per cent over the 1975-1980 allocation.[13] Papua New Guinea has targeted 21 per cent of all planned expenditure for 1981-1985 to activities aimed directly at providing economic opportunities or improving services to rural people.[14]

Rural development programmes and projects typically incorporate employment promoting activities. The series of United Nations-sponsored small farmers' development programmes in Bangladesh, Nepal and the Philippines, for instance, generate employment in the process of seeking to assist the weaker sections in improving their earning capacity.[15] Similarly, under Indonesia's first five-year development plan, a scheme was initiated to provide financial assistance to district authorities for carrying out labour-intensive public works programmes.

India's Employment Guarantee Scheme and Food for Work Programme offer interesting examples of how fiscal policy can be turned to rural employment promotion. Initiated by the State of Maharashtra in the early 1970s and subsequently emulated elsewhere, the Employment Guarantee Scheme seeks to ensure employment to all rural workers by providing job opportunities on public works projects with the additional assurance of a minimum unemployment allowance in case suitable projects are not available within a stipulated area of the job-seeker's place of residence. The Food for Work Programme, initiated by the Central Government in 1977 and supplemented by a Rural Employment Programme in 1980, provides public works employment opportunities for the rural poor in return for payment in the form of foodgrains as well as cash. It appears that the Employment Guarantee Scheme has benefited landowners (though mainly small landowners) more than the landless and that there have been difficulties in developing durable asset-creating projects. In addition, such programmes have had inflationary implications where undertaken on an extensive scale, except where they have been designed in such a way as to result in additional production of consumption goods and/or where they have been financed out of additional taxation, as in Maharashtra.

2. Traditional and other small industries

A variety of policy responses have been devised to cope with the rapid growth of urban population and the massive flow of migrants into the cities of Asia and the Pacific and the accompanying problem of urban unemployment and underemployment. Among these responses has been an effort to promote traditional and small industries. The Chinese experience since 1976 demonstrates the manner in which fiscal policy may be applied to this issue in a centrally planned economic system. Government expenditure patterns have been adjusted to maximize employment opportunities by giving increased priority to agriculture and to light industries in view of their greater employment potential. It has been reported that since collective enterprise can generate five times as many jobs as state enterprises per quantum of investment, the creation of collective enterprises has been favoured in urban and semi-urban districts.[16] Tax concessions have been granted and requirements to surrender profits have been reduced to encourage the growth of such enterprises. Budgetary support has also been extended to enterprises run by communes and brigades.

In countries allowing greater scope to the market system, a variety of fiscal policy devices have been introduced at the sectoral and micro levels to promote more labour-intensive technologies and industries within the cottage and handicrafts sectors. One approach that has proved popular in certain developing ESCAP countries is the preservation of traditional labour-intensive activities. This is based on the perception that modernization generates unemployment as a by-product of the replacement of traditional, labour-intensive activities by high-technology, capital-intensive industries. Coupled with cultural and political considerations favouring the preservation of traditional industries, this view has resulted in a diversity of highly

[12] Pakistan, Finance Division, *Budget 1982-1983 in Brief* (1982), p. 29.

[13] Malaysia, Economic Planning Unit, *op. cit.*, p. 292, para. 767.

[14] Papua New Guinea, National Planning Office, *The National Public Expenditure Plan 1982-85* (1982), p. 38, para. 615.

[15] "Measurement of social and economic benefits generated by the SFDP and their incorporation into cost-benefit analysis" (AD/SBPRP/1).

[16] *Economic Reporter* (Hong Kong), 1 October 1980, p. 21.

specific promotional measures to encourage the survival or revival of selected traditional labour-intensive activities. Such policy measures include the reservation of selected industries for small units using traditional technologies, guaranteed regular supply of raw materials to these industries at controlled prices, extension of cheap credit and marketing facilities to these industries, and provision of direct subsidies and differential tax treatment to these industries and their products.

A typical instance of the attempt to support traditional labour-intensive activities is provided by India's policies in favour of handlooms as against powerlooms and, to a greater extent, against the organized sector of the textile industry, the textile mills. Since the early 1950s ceilings have been imposed on the weaving capacity of the mills, and certain varieties of cloth have been reserved for the handloom and powerloom sectors. These policies have been complemented by certain fiscal measures, including the exemption of handloom cloth and of yarn used in handlooms from excise duties and assistance to handloom operators out of a cess on mill-made cloth. In addition, the products of a number of industries are exempt from excise duties if no power is used in their manufacture, and in some industries (e.g., sugar, matches, leather products and soap) output generated by manually operated, relatively non-mechanized processes enjoys concession in excise duty. Concessional tax treatment is similarly accorded to cottage and village industry products both by the Central and the State Governments.

Fiscal devices have been used in many other developing ESCAP countries as elements of policy packages to promote specific small-scale labour-intensive industries. In the Philippines, for instance, household enterprises registered with the National Cottage Industry Development Authority enjoy institutional credit, assistance in marketing and exemption from minimum wage legislation. These measures are complemented by tax reduction on capital goods imports and by concessions on sales tax. In the case of Indonesia, the indigenous textile and cigarette industries stand out as traditional small-scale and labour-intensive areas which have come under special government sponsorship. Among the steps taken was the reduction in the 1970s of the excise duty on tobacco products in view of the industry's importance as an employment generator.

Because of their multiplicity of forms and scattered incidence, it is difficult to specify in quantitative terms the net outcome of the various fiscal measures for protecting small-scale and labour-intensive industries in the developing ESCAP countries. It is, however, evident that small-scale units and certain traditional industries have registered significant growth in several countries of the region under active government support. In India the policy of promotion of the handloom sector has resulted in a phenomenal growth of handloom textiles output, while the production of the mills has been pegged at a particular level. Similarly, the use of machines has been successfully prevented in several other industries, including the production of indigenous cigarettes. Small-scale units account for a large proportion of the employment in the manufacturing sectors of several other countries of the region. As of the mid-1970s, over 60 per cent of manufacturing employment in the Philippines and Indonesia was provided by the so-called "informal" sector. In Thailand, 90 per cent of the total employment among registered factories was accounted for by units employing less than 50 workers.[17]

Table II.15 South-east Asia. Employment elasticity[a] in manufacturing

	1960-70	*1970-79*
Indonesia	0.68	0.44[b]
Malaysia	0.30[c]	0.65[d]
Philippines	0.45	0.32[e]
Singapore	0.36	0.69
Thailand	0.27	0.97

Source: Rashid Amjad, ed., *The Development of Labour Intensive Industry in ASEAN Countries* (Bangkok, ARTEP, 1981), p. 14.

Notes: [a] Ratio of the percentage change in employment to the percentage change in value-added over a specific period of time. [b] 1970-1978. [c] 1961-1970. [d] 1970-1975. [e] 1970-1977.

C. FISCAL POLICY FOR EMPLOYMENT IN INDUSTRIALIZATION

The employment problem in the developing ESCAP countries hinges in large part on the scope for factor substitution in industrialization. The observed low sectoral employment substitution elasticities in the labour-surplus developing ESCAP countries suggest that technological choices may not be very responsive to prices, at least in the short run. The south-east Asian experience, for example, indicates that the elasticity of employment with respect to value added in manufacturing has in most cases been very low over the past two decades. Despite increasing efforts

[17] R. Amjad, ed., *The Development of Labour Intensive Industry in ASEAN Countries* (Bangkok, ARTEP, 1981), pp. 24-25.

to absorb redundant labour, the employment elasticity of manufacturing actually declined in two of those countries between the 1960s and 1970s. While the elasticity increased in the other three countries, only in Thailand did it approach unity.

Despite the impression conveyed by these data, the view that price signals have little impact on factor substitution in developing economies lacks empirical support.[18] Even in large-scale manufacturing industries in the developing ESCAP countries there exists some scope for technological modification capable of increasing both employment and profitability. Various field studies suggest that substitution of labour for capital is feasible in the large-scale manufacturing sectors of south-east and south Asia without adverse effects on profits.[19]

Among the reasons why such opportunities have not been exploited may be the lack of information and the costs of fundamental decision making. Such impediments arise because many entrepreneurs consider it more rewarding to attend to inventory control, floor supervision and the search for new markets and for raw materials at cheaper prices than to investigate and determine which technologies will provide the most cost-effective factor combinations.[20] Far more important, however, have been the variety of policy interventions that have distorted factor prices away from those reflecting their true scarcity values. As a result, wage rates in the organized sector frequently exceed the levels warranted by the abundance of labour, while capital is often available at lower costs than commensurate with its limited supply. These price distortions ensure that the relatively abundant factor will be underutilized.

Employment-oriented fiscal policy could thus have a rather different potential role in the industrialization process than has generally been accorded to it. If economic decision makers in the market-oriented mixed economies of the region were cost-sensitive, it would be appropriate for fiscal policy in the industrial sector to be factor-price neutral, as this would induce firms to adjust their technologies in favour of the relatively cheaper factor, labour. Additional policies designed to bring already-distorted factor prices back into alignment with relative factor endowments are a weak second-best solution in this regard. It would be more efficient and effective if the employment implications of the policy instruments that have distorted relative factor prices in the first place were reassessed, and if these instruments were appropriately adjusted to reduce their distortive impact.

In this regard, the employment implications of the total fiscal policy package at the macro level require careful review. Particularly serious are the wide variety of fiscal incentives accorded to capital utilization. Tax systems in most of the developing ESCAP countries extend wide-ranging incentives which serve to reduce the cost of capital and thus create a bias in favour of capital intensity.[21] Such capital allowances are in several countries partly conditional on the fulfilment of certain employment-related criteria. For instance, Indonesia favours labour-intensive industries with an additional year of tax holiday if the new investment creates more than 2,000 jobs and has a capital-labour ratio of less than $US5,000. The efficacy of this provision in promoting labour-intensive industries is, however, open to question on the grounds that it is limited mainly to large enterprises and invokes stringent conditions. In India, the tax holiday provisions in the income tax law were revised following the recommendation of an expert committee on tax measures to promote employment to remove the bias in favour of capital intensity.[22] The exemption for projects of new industrial undertakings is now granted in the form of a deduction of a specified percentage of profits instead of a deduction related to capital employed. In Sri Lanka, the development rebate favouring capital-intensive enterprises was abolished in 1978; the lump-sum depreciation allowance for plant and machinery, however, was changed into a 100 per cent initial year write-off, which remained in effect until 1982.

In some countries, the tax system provides concessions to encourage firms to hire additional labour. For example, the Philippines allows one half of the expenses on labour training up to a certain limit as a deduction from taxable income. Export firms are also granted a wage subsidy partially to meet the labour cost in the manufacture of export products. In India, the cost of construction of workers' houses may be depreciated at a faster rate than that of other similar buildings. However, such tax incentives are availed of mainly by large, usually capital-intensive firms and thus probably provide more of an incentive to capitalization than to employment expansion. Besides, allowances and

[18] S.N. Acharya, "Fiscal/financial intervention, factor prices and factor proportions: a review of the issues", *World Bank Staff Working Paper No. 183* (1974).

[19] Howard Pack, "Micro-economic implications of factor substitution in industrial processes", *World Bank Staff Paper 377* (1980), p. 51.

[20] *Ibid.*, p. 46.

[21] See Chapter II, pp. 135-136.

[22] India, Ministry of Finance, *Report of the Expert Committee on Tax Measures to Promote Employment* (1980).

Box II.13 The employment contribution of EPZs[a]

An export processing zone (EPZ) is, in effect, an industrial estate set in a free trade zone. It forms a manufacturing enclave providing export-oriented investors with special privileges ordinarily consisting of fully subsidized infrastructure, streamlined and heavily subsidized services and a variety of tax incentives. In the developing ESCAP region, EPZs thus stand out as a costly public expenditure in support of private enterprise.

Despite their cost, EPZs have proliferated in the developing ESCAP region over the past decade as a growing number of countries have entered the competition to attract foreign-invested manufacturing enterprises. Among the development contributions claimed by EPZs the one most consistently emphasized is their provision of additional employment opportunities. Other benefits are said to be their positive impact on the rate of investment through their attraction of foreign enterprise, on GDP through their addition to manufacturing value added, on the balance of payments through their expansion and diversification of exports, and on technology transfer and diffusion through their introduction of modern plant and equipment, management processes and production skills. In addition, they are said to generate "linkage" and "growth pole" effects through the generation of derived demand.

In the wake of the remarkable success of the EPZs established in north-east Asia during the boom years of the 1960s and early 1970s, a number of other developing ESCAP countries decided to emulate this experience. One of the first was Singapore, which promulgated in 1967 the Pioneer Industries Ordinance and effectively turned the whole of Singapore into an EPZ for preferred types of industrial activity; by extension, Hong Kong could also be considered an EPZ. Malaysia followed in 1971 with the Free Trade Zone Act, which led to the establishment of some ten EPZs throughout the country. The Philippines initiated the Bataan Export Processing Zone in 1972. In Sri Lanka, the Greater Colombo Economic Commission, formed in 1978, developed the Katunayake Investment Promotion Zone. China has set up four special economic zones since 1978.[b] Additional EPZs are currently in the planning or development stage in Bangladesh, China, India, Indonesia and Pakistan. Nepal and Thailand, among other countries, are also considering joining the competition. And some ESCAP countries with existing EPZs are planning expansion programmes. The continuing proliferation of EPZs has thus become a phenomenon of regional dimensions.

The total number of workers employed in EPZs in the developing ESCAP region is estimated to be only 750,000, the majority being employed in the older EPZs of north-east Asia. Singapore's "pioneer industries" accounted for 38 per cent of manufacturing employment, or 12 per cent of the labour force, in 1980. Malaysia's EPZs employed about 81,000 persons in 1978, equal to 11 per cent of total manufacturing labour or 1.6 per cent of the total labour force. In Sri Lanka, the EPZ provided employment to nearly 15,000 people in 1980, a miniscule figure in comparison with the national labour force of approximately 6 million, of which some 15 per cent was unemployed. And the Philippines EPZ in 1980 provided jobs to about 28,000 people, a similarly small fraction of the country's total labour force.

The actual cost of providing this employment can only be guessed at. The total accumulated investment expenditure incurred by the Philippines in establishing its EPZ has been estimated as 705 million pesos as of 1976/77. Accumulated capital expenditure by Sri Lanka's Greater Colombo Economic Commission, primarily for developing its EPZ, was estimated as Rs 302 million at end-1981. Under Malaysia's federal structure, capital expenditure on EPZs has been undertaken by the states with central government assistance, and cumulative capital costs of the EPZs are thus not available on a comprehensive basis.

These figures permit rough approximations to be derived of the Philippines and Sri Lanka Governments' capital costs per EPZ manufacturing job created. In the Philippines, the Government invested more than $US4,000 per job over the first eight years of operation. In Sri Lanka the figure came to approximately $US1,200 after about three years of operation. These estimates exclude the continuing government outlays in the form of administrative costs, service subsidies and tax expenditure.

About half the EPZ labour force in the developing ESCAP region is employed in the electronics industry, and an additional eighth works in the garment and textile industries. These industries and others that predominate in the region's EPZs are renowned for being "footloose"; they seek out cheap labour markets, require low-skill workers, pay relatively low wages, base their production on high import content and generate low domestic vaue added. Being mobile, they are able to exert maximum pressure on Governments by threatening to pull out unless maximum benefits are provided. As a result, the EPZs tend to generate inferior types of employment and provide minimal other benefits to the domestic economies at maximum government expense.

In the final analysis, considerable doubt comes to rest on the proposition that EPZs provide an exciting new departure in the continuing effort of the developing ESCAP countries to generate employment-promoting industrialization. Therefore, it would well behove the developing ESCAP countries to undertake a careful reappraisal of their growing commitment to the EPZ competition.

[a] Data in this note are derived primarily from Gus Edgren, "Spearheads of industrialization or sweatshops in the sun?: a critical appraisal of labour conditions in Asian export processing zones", *Asian Employment Programme Working Papers* (Bangkok, ARTEP, 1982); M. Datta-Chaudhuri, "The role of free trade zones in the creation of employment and industrial growth in Malaysia", *ibid.*; Judy S. Castro, "The Bataan Export Processing Zone", *ibid.*; Dennis Ramanayake, "The Katunayake Investment Promotion Zone: a case study", *ibid.*; and Chia Siow Yue, "Export processing and industrialization: the case of Singapore", *ibid.*

[b] *Economic and Social Survey of Asia and the Pacific, 1981* (United Nations publication, Sales No. E.82.II.F.1), pp. 113-114.

incentives related to capital are usually much more substantial than those given for employment of labour.

Instances of employment incentives in the form of direct subsidies are rare. Even where such subsidies are available they do not seem to be very effective. For instance, in West Bengal, India, a scheme has been in force for some years whereby industrial units using labour-intensive technology are eligible for a subsidy for employment of workers in excess of a specified capital-per-labour norm (the norm is Rs 70,000 per registered factory worker in relatively developed areas and Rs 100,000 in backward areas). The subsidy is payable for three years at the rate of 15 per cent of the wage bill excluding bonus and other extras and subject to a ceiling of Rs 500,000 per year.

Apart from the inadequacy of employment-oriented incentives and the implicit capital bias reflected in policies ostensibly favouring capital and labour at the same time, differential taxation schemes intended to benefit labour are not always drawn up with careful consideration of their social costs and benefits and suffer from deficiencies which tend to undermine their efficacy in promoting employment. For example, concessions related to smallness of scale are generally based on such capital criteria as size of investment rather than on a labour force or capital-labour ratio criterion. Sometimes concessions are available for production up to a specified limit despite the fact that the capital-labour ratio is not necessarily related to scale.

Thus in Malaysia, the capital-labour ratio has been found to be highest among firms employing 20-29 workers.[23] In Thailand, firms employing less than 10 workers have been found to be more capital-intensive than those employing 50-99 workers and only a little less than those in the 100-199 workers bracket.[24] In India, although employment potential is generally larger in "small" and "tiny" units and investment in plant and machinery per worker is less in these units than in the larger ones, there is no consistent pattern.[25] Also, while employment per unit of output is ordinarily higher in smaller units, employment potential declines considerably in firms with output or fixed investment beyond certain levels. Concessions given to firms exceeding these limits obviously do not serve the cause of employment.

Inefficiencies in the design of tax concessions for employment also stem from inadequate evaluation of costs and benefits. Very little information is available regarding either the revenue cost of concessions or the employment benefits derived. The annual cost of protecting or subsidizing employment through concessions in excise duties in India has been estimated to amount to Rs 523 per full-time worker in the handloom industry as against Rs 881 in sugar refining and Rs 2,669 in the cottage sector of the match industry.[26] Even allowing for the limitations of data and methodology underlying these calculations, it is evident that the cost of employment protection varies widely from one industry to another and that such schemes are not designed to maximize the cost effectiveness of the subsidies involved. Apart from the fact that such employment-promoting fiscal incentives are often inadequate to neutralize the bias in favour of capital, some incentives are thus inefficient on the basis of independent criteria.

D. COPING WITH THE PRODUCTIVITY DILEMMA

No matter how carefully designed, employment promotion policies cannot outflank the fact that, while the essence of economic growth lies in the sustained rise of productivity, the productivity of labour-intensive technologies and industries is normally relatively low. Yet it must not be overlooked that labour complements capital whatever the prevailing technology and thus in the short term encounters increasing demand as aggregate investment and consumption increase. High rates of economic growth may thus generate demand for labour sufficient to absorb the expanding labour force despite the adverse employment implications of technological change in the process of development.

The successful employment performance of the Republic of Korea, Hong Kong and Singapore – not to mention post-war Japan – and to a lesser degree certain other countries of east and south-east Asia may be largely explained on the basis of their ability to counteract the labour-saving tendencies of technological change with the rapidity of their output growth. Fiscal concessions have been introduced to attract domestic and foreign investment and modern technology. Yet these measures have been subordinate to the basic thrust of policy, which has consistently sought to generate growth and industrialization without seriously distorting the relative prices of capital and labour.

Empirical studies have confirmed the relevance of factor prices for labour-using capital inno-

[23] Chee Peng Lim, Donald Lee and Foo Kok Thye, "The case for labour intensive industries in Malaysia", in Amjad, ed., *op. cit.*, pp. 272-274.

[24] Amjad, *op. cit.*, p. 206, table 5.17.

[25] India, Ministry of Finance, *Report of the Expert Committee on Tax Measures to Promote Employment* (1980), pp. 62-63.

[26] *Ibid.*, p. 91 and pp. 106-117.

vations and significant employment expansion in Japan since the 1950s and in the Republic of Korea during the 1960s.[27] The recent emphasis on fiscal measures to promote technology-intensive industries in the Republic of Korea[28] and Singapore[29] is less relevant to other developing countries of the region because the problem of unemployment had already been largely alleviated in them when these measures were introduced. The earlier phenomenal growth of employment in the manufacturing sector in the Republic of Korea was caused not simply by the rapid growth of the economy following massive capital accumulation but also by the use of this capital in labour-intensive ways.[30] In other words, growth was achieved with minimal factor displacement. A similar experience has been recorded by Hong Kong and Singapore.

Relatively high wages and low capital costs undoubtedly act as a drag on employment wherever investment is heavily subsidized in

[27] Gustav Ranis, "Industrial sector labour absorption", *Economic Development and Cultural Change*, vol. 21, No. 1 (October 1972), pp. 387-408.

[28] Chang-Shick Ahn, "Republic of Korea: tax structure and fiscal policy", *Bulletin for International Fiscal Documentation*, vol. 32, No. 6 (June 1978), pp. 263-267.

[29] Lee Fook Hong, "Singapore's new tax incentives", *Bulletin for International Fiscal Documentation*, vol. 33, No. 8-9 (Aug./Sept. 1979), pp. 386-389.

[30] A.K. Sen, "Levels of poverty: policy and change", *World Bank Staff Paper 401* (1980).

Box II.14 Capacity utilization

A central concern of fiscal policy for investment in the developing ESCAP countries is the urgent need to accelerate output growth while simultaneously alleviating severe unemployment problems. Investment, however, requires sacrifice of current consumption. A supplementary approach to promoting employment with growth without imposing an unduly heavy burden on consumption is to generate higher levels of production through the more intensive utilization of existing industrial capacity.

This is a feasible option because a number of developing ESCAP countries suffer from chronic idle capacity in many industries. The extent to which the capacity problem is the result of liberal fiscal incentives in the form of numerous capital allowances to private enterprise is debatable, but that such provisions have contributed to this problem is widely agreed. Similarly, there is general agreement that the administrative inefficiencies that tend to be built into the operation of public enterprise in many countries result in serious under-utilization of capacity.

In Bangladesh, the capacity utilization issue revolves around the performance of public enterprise in large-scale industry. While the share of public enterprises in gross domestic product in the mid-1970s was approximately 8 per cent, it was over 56 per cent in the mining and manufacturing sector, and in large-scale manufacturing it was over 80 per cent.[a] The dominance of public enterprise in the large-scale industrial subsector was due primarily to its position in the jute, cotton yarn and cloth, and cement industries. As of the mid-1970s, capacity utilization in the jute industry was 61 per cent. In the cotton yarn and cloth industries it was slightly in excess of 70 per cent, and in the cement industry it was 36 per cent.[b] By 1980/81, capacity utilization in the major branches of the jute industry had risen to 90 per cent and in the cement industry to 77 per cent, but it remained at 72 per cent for cotton yarn and 36 per cent for mill-made cloth.[c] Raw material supply bottlenecks, energy and transport shortfalls and conflicting administrative priorities were among the basic constraints to further progress.

The problem of capacity utilization has also received considerable attention in India. In addition to the over-expansion induced by investment incentives, industrial "sickness" resulting from shortages of power, inadequate transport facilities and mismanagement, among other factors, has caused concern. Thus, as of mid-1980 some 389 large units, 1,026 medium-scale units and 22,325 small units were reported as "sick".[d] The capacity utilization ratio of 30 out of 45 major industries stood at less than 80 per cent; in certain basic industries the ratio was only around 50-60 per cent.[e] Such evidence of industrial stagnation, carrying strong overtones regarding the employment situation, has generated such official responses as government takeovers, fiscal and other measures favouring industrial mergers and fiscal incentives to induce increased capacity utilization.

Faced with similar problems in a different institutional environment, Burma took the major step of decentralizing the decision-making process of its state enterprises in the mid-1970s, providing greater managerial autonomy and flexibility and increased accountability (see Box II.6). The results have been impressive, with a substantial improvement in the profitability of state enterprises and with average capacity utilization in state factories and establishments rising steadily from 66.7 per cent in 1978/79 to 73.6 in 1981/82.[f]

[a] Rehman Sobhan and Muzaffer Ahmad, *Public Enterprise in an Intermediate Regime* (Dhaka, Bangladesh Institute of Development Studies, 1980), p. 369.

[b] *Ibid.*, p. 405.

[c] Bangladesh, Planning Commission, *Economic Review 1980-81* (1982), pp. 95-97, Annexure 'B'.

[d] India, *Economic Survey 1981-82* (1982), p. 21, paras. 4.27-4.30.

[e] India, Reserve Bank, *Report on Currency and Finance 1980-81* (1981), pp. 45-48, tables III.14-15.

[f] Burma, Ministry of Finance and Planning, *Report to the Pyithu Hluttaw on the Financial, Economic and Social Conditions of the Socialist Republic of the Union of Burma for 1982/83* (1982), pp. 139-140.

factor markets. That factor costs are important determinants of labour absorption can be seen from the fact that a large share of manufacturing employment in labour-surplus economies is generated in the informal, low-wage sector either directly or through subcontracting by large units. Interestingly, the factor proportions in the factories set up by transnational enterprises in developing countries often reveal a higher labour element than in their parent countries.[31] there is thus substantial evidence to suggest that appropriate factor pricing and the resultant incentives for research and development of intermediate technologies can help tilt the scales in favour of labour intensity and overcome the "engineering instincts" that favour capital-intensive technology.[32]

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[31] Pack, *op. cit.*

[32] L.J. White, "The evidence on appropriate factor proportions for manufacturing in less developed countries: a survey", *Economic Development and Cultural Change*, vol. 27, No. 1 (Oct. 1978), pp. 27-60.

IV. FISCAL POLICY FOR EQUITY

With the exception of India and a few other countries, a real concern over equity as a clear and distinct development objective arose relatively late in the ESCAP region. Toward the end of the 1960s and the early 1970s, it became apparent in a number of developing ESCAP countries, including some which had achieved sustained high rates of growth, that the share of the population in absolute poverty and the extent of inequalities among the major classes of society remained unacceptably high. This concern came to be almost universally shared as the 1970s proceeded. As a result, the equity objective had by the 1980s emerged as a key development strategy component in the region, with considerable attention being turned to the means whereby fiscal policy might be applied to this end.

A. THE EQUITY OBJECTIVE AND FISCAL POLICY

Improvement in the living standards of the poorest elements of the population and reduction in inequalities of income and asset distribution throughout society have been stressed as major policy objectives in Bangladesh from the very start of that country's planned development. The first five-year plan (1973-1978) placed primary emphasis on equity and the reduction of poverty. However, little progress was achieved during the plan period. Indeed, the distribution of income in the rural sector worsened, partly because of rapid population growth but more importantly because of the inability to expand the resource base and the persistence of inequalities of access to essential agricultural inputs, primarily the main productive asset, land.[1]

In India, though the share in consumer expenditure accounted for by the rural poor was noticeably higher in 1977/78 by comparison with what it had been in 1958/59, 51 per cent of the rural population remained below the poverty line as defined by the Government of India. In urban areas there was less improvement in the consumption levels of the poor, and 38 per cent of the urban population was still below the poverty line as of 1977/78. Marked differences also remained in the degree of poverty both between and within urban and rural areas and between States.[2]

The main thrust of government policy during the 1960s in Thailand was on economic growth. Emphasis was placed on the expansion of agricultural output with the expectation that with rising rural incomes the extent of poverty and income inequality would be reduced. These expectations were, however, not fulfilled. Regional disparities in income increased, one reason being that public investment expenditure and the provision of public services to rural areas did not coincide with overriding economic efficiency criteria.[3] Efforts were initiated during the 1970s to correct these imbalances, but by the early 1980s about one third of the population was still regarded by the Government as absolutely impoverished. Regional imbalances, especially between the outlying regions and the agro-industrial complex centring on Bangkok, also remained marked.

These examples illustrate a general theme running throughout much of the region that, despite the application of a variety of fiscal policy measures, serious disparities persist among social classes, urban and rural populations and subnational regions in levels of income and consumption and in access to public services. The policy emphasis has tended to be on broad disparities rather than on interpersonal inequalities as such, although the two are obviously closely related. Considerations such as these have led Governments of many developing ESCAP countries to place increasing emphasis in their successive development plans on more active and direct forms of intervention to attack the equity issue rather than continue to rely on economic

[1] Bangladesh, Planning Commission, *The Second Five Year Plan 1980-85* (1980), chapter II.

[2] India, Planning Commission, *The Sixth Five Year Plan 1980-85* (1981), pp. 7-10.

[3] Thailand, National Economic and Social Development Board, *The Fourth National Economic and Social Development Plan, 1977-1981* (1979), chapter II.

growth alone to eliminate poverty and generate greater equality in the development process.

The second five-year plan (1980-1985) of Bangladesh, for example, shifts the angle of attack by calling for new efforts to deal with poverty through greater concentration on direct action programmes at the village level, covering not only basic needs of food and shelter but also the provision of improved education and health facilities and supplies of essential agricultural inputs.[4] Institutional changes such as land reforms and family planning are recognized to be critical contributory factors in determining whether more effective progress can be made.

In India, a number of programmes aimed at the special circumstances of backward areas and disadvantaged groups, such as the Food for Work and National Rural Employment Programmes, were introduced in the 1970s. Despite these initiatives, the sixth plan acknowledges the need for the more effective implementation of asset transfer measures such as land reforms, more equitable distribution of credit and a co-ordinated effort to enable the poor to join the economic mainstream.[5] These proposals focus increased attention on the rural poor and give clearer recognition than in the past to the need to identify and measure poverty characteristics, formulate programmes in strict accordance with needs and set realistic targets.[6]

Thailand's fifth plan (1982-1986) sets the eradication of rural poverty as a major target with which the growth objective will need to be harmonized, especially in relation to rural development. The measures proposed as the best

[4] Bangladesh, Planning Commission, *op. cit.*, chapter II.

[5] India, *op. cit.*, p. 10.

[6] *Ibid.*, p. 51 and pp. 170-172.

Box II.15 The concept of equity in development

In the present context, equity is concerned with "fairness" in the distribution of "goods" among persons or groups.[a] Though there are strong interrelationships among these "goods", they may be conveniently classified in three separate categories: income, wealth and opportunities.[b]

There is a common tendency to express the equity objectives primarily in relation to income. This is unfortunate because it tends to obscure the real concern with equity in consumption of particular goods and services, especially basic necessities such as food, clothing and shelter. The inadequacy of these necessities for large groups in society intensifies the felt injustice about the capacity of the better-off, even though they may be relatively few, to indulge in "luxury" consumption.

Obviously, gross inequalities of income distribution are unacceptable, but moving towards equality of income will not necessarily do much to reduce absolute deprivation. An agricultural labourer with scarcely enough food to keep himself and his family alive is unlikely to be comforted with the knowledge that, nonetheless, the Gini coefficient of income inequality had improved over the latest plan period from 0.40 to 0.35.

Feelings of injustice may also be attached to certain sources of income, with the returns to land and capital (rent, interest and profit) being regarded as unearned and therefore in some sense "unjust". Two points relevant to equity-oriented policies may be made in this regard. The first is that if feelings of injustice are widely held, some overt attempt may need to be made to discriminate against receivers of unearned income, at least temporarily. The second is that the real source of feelings of injustice may lie in the maldistribution of the wealth from which such income is generated. In the case of most developing ESCAP countries, land remains the principal form of wealth, but ownership of physical production facilities in manufacturing and transport as well as ownership of financial assets is increasing in relative importance as growth proceeds. Major institutional changes such as effective land reforms thus continue to be an immediate requirement for reducing income and consumption inequality, while consideration must also be turned to the institutional means of ensuring the wide ownership of capital as economic growth proceeds.

Inequalities of income and wealth are closely linked to inequalities in opportunities to acquire income and wealth. This covers a wide variety of circumstances, the most important of which are inequalities in access to public services such as education and health care, and the opportunity for individuals to participate in decision-making processes directly affecting them. Such opportunities may be restricted through deliberate or customary discrimination on various grounds such as race, sex or religion, or as an unintended result of the fact that the spatial distribution of population frequently does not coincide with the area over which major social services can be economically or feasibly provided.

The emphasis here has been on inequities among individuals in the distribution of, or access to, wealth and opportunities. Fiscal policy can deal with some aspects of each of these equity variables, but it would be unrealistic to expect that it can remove all sources of felt injustice. An essential role of fiscal policy in many developing ESCAP countries has been to attempt to change the parameters of individual behaviour in order to generate progressive movement toward greater equity over time. In the process, priority treatment has ordinarily been accorded to those inequities that are sufficiently disruptive of social harmony to permit a ready consensus on action.

[a] The concept of "fairness" has in recent years been exposed to a searching reappraisal following the appearance of John Rawls, *A Theory of Justice* (Cambridge, Harvard University Press, 1971). Cf. Norman Daniels, ed., *Reading Rawls: Critical Studies of a Theory of Justice* (London, Basil Blackwell and Mott, 1975).

[b] See "Economic growth and social justice", *Economic Survey of Asia and the Far East, 1971* (United Nations publication, Sales No. E.72. II.F.1).

means of fulfilling this target include job-creation schemes and village programmes covering food production, basic education and primary health care, with special emphasis on the ability of villagers to help themselves.[7]

Indonesia's third five-year plan (1979-1984) delineates the equity objective more fully than its preceding two plans. Explicit recognition is given to the fact that all development policies have equity implications and that these need to be taken specifically into account in the design of particular programmes and projects. Also, in contrast to the earlier plans, it is noted that equity has a number of dimensions often submerged under the general heading of equitable income distribution. Thus the equity objective is seen as comprising equity in access to basic necessities of food, clothing and shelter, education and health services, employment and business opportunities, participation in the development process and opportunities to obtain justice.[8]

The theme of equity of access has also been prominent in Malaysia's development policy since the early 1970s. Malaysia's second plan (1971-1975) brought into greater prominence the goals of reducing and eventually eradicating both poverty and the identification of race with economic function. The continuation of economic growth at a high level was seen as imperative to attaining these goals, but more intensive measures were seen as necessary because growth in the 1960s had not benefited the rural poor. As a result of the policy reorientation, it was estimated that, as of 1980, 37.7 per cent of rural households were below Malaysia's poverty line compared with 58.7 per cent in 1970, the corresponding figures for urban households being 12.6 and 31.3 per cent, respectively.[9] Income differentials between

[7] Thailand, National Economic and Social Development Board, *Fifth National Economic and Social Development Plan, 1982-1986* (1982).

[8] Indonesia, Department of Information, *The Third Five Year Development Plan, 1979-84 (Summary)* (1980), pp. 4-5.

[9] Malaysia, Economic Planning Unit, *Fourth Malaysia Plan 1981-85* (1981), p. 34, table 3-2.

Box II.16 The "trickle down" thesis

In the early years of development planning in the ESCAP region the equity objective was ordinarily expressed in very general terms. Apart from the absence of any standard definition of equity, a general reason was the pervasive underlying view that the only adequate solution to problems of equity, especially the elimination of absolute poverty, in the long run rests with economic growth. It was widely accepted that, given the low average level of living in most developing ESCAP countries, short-run redistribution policies of the kind prominent in public revenue and expenditure patterns of industrial countries would do little to assist the poor. Increasing the share of the poor in total consumption would only reduce the capacity of the better-off to save, and this would impair the capital accumulation process essential for growth.

That view has been criticized on a number of grounds. The debate will not be reviewed here except to note three points that are relevant to the articulation of fiscal policy measures to attain specific equity objectives. One is that relying on the "trickle down" process to transmit the benefits of growth widely through society implies a high degree of homogeneity and mobility among the population both spatially and socially. This is far from being the case even in industrialized countries and is certainly not true of most developing ESCAP members, with the possible exception of Hong Kong, Singapore and some of the very small island countries of the South Pacific. Policy measures must thus be aimed at specific target groups if their equity intent is to be achieved.

Another important point is that, to some degree, policies which increase the consumption of the poor can simultaneously serve the ends of both equity and growth. Public expenditure, such as that directed at improved access to good nutrition, health services, basic education and the upgrading of skills, may provide direct consumption benefits to the poor. Yet they are also to be regarded as investments in human capital, and insofar as they raise the productivity of the poor they also contribute to growth. Investments in agricultural infrastructure, such as irrigation or flood control, provide direct benefits through raising employment during the construction phase and indirect benefits subsequently insofar as they raise the productivity of rural smallholders. The indirect effects are less certain since the accrual of benefits to the poor is likely to depend in some countries on associated institutional changes such as land reforms or improved means of access to credit.

A third point relates to the political economy of the growth process and concerns the time frame within which the benefits of growth might be expected to trickle down. In the context of market-oriented political democracies, such as those that characterize a number of developing ESCAP countries, it is unrealistic to expect that large segments of society should participate vigorously in the drive for increased productivity or the building of national unity in return for little expectation of early reward in the form of increased consumption possibilities or the reduction of social and economic barriers to their personal aspirations. The promise of uncertain benefits in a distant future in the presence of visible signs that others are reaping immediate gains is unlikely to generate popular participation. From this point of view, there is a strong political imperative for Governments to attempt to promote equity in the short run even if that implies a lower rate of economic growth.

urban and rural households and among ethnic groups were also narrowed, though they remained substantial in absolute terms.

These examples illustrate the growing awareness in the developing ESCAP region that, while growth-oriented policies are of fundamental importance, they cannot be relied upon to reduce absolute poverty or inequalities except possibly over a longer time period than may be politically acceptable. Even where growth is considered compatible with the pursuit of equity, its effectiveness depends upon the particular aspects of equity that are of most concern. There is no reason in principle to expect that growth will automatically lead to the elimination of the basic institutional causes of imperfection and rigidities in labour and capital markets which underlie, for example, the ethnic and geographic disparities that are matters of concern in so many countries.

In this light, government fiscal operations are relevant to the equity objective at two distinguishable levels. In the first place, management of the budget taken as a whole – its size, structure and balance – can produce desired effects on the general level of economic activity. Fiscal policy at this level of aggregation is not normally concerned with distributional objectives but with producing effects on such macro-economic variables as total output, employment, the general level of prices and the balance of payments. Nonetheless, fiscal measures at the macro level inevitably generate distributional consequences that may enhance or detract from pursuit of the equity objective.

The best-known example is the adverse effect on low or fixed income earners of inflation induced by deficit financing. Another is where, in response to the need for fiscal restraint, capital expenditures for social development projects and current expenditures providing direct assistance to the poor or other disadvantaged and powerless groups are the first or most seriously curtailed. However, macro-economic fiscal policy aimed at promoting growth may also be beneficial with respect to equity, as for example through the general expansion of employment or through the earmarking of government revenues to support projects having a direct impact on the poor. The task of redressing inequities is a good deal easier in time of prosperity, and thus the positive relationships between fiscal policy for growth and for equity tend to be demonstrated in such economic circumstances.

At the second level, where the effects of particular fiscal instruments on clear-cut target groups and problems may be distinguished, more can be said. Whatever the basis of assessment or entitlement, taxes are in the end paid by persons out of income or wealth and public expenditures ultimately accrue to persons as increases in income or wealth. The possibility therefore exists that distributional inequities may be corrected either by differentiating among persons in terms of their tax liabilities or public expenditure entitlements or by choosing among particular kinds of taxes and public expenditures according to their likely relative effects on different groups or persons. Though this is essentially what most Governments attempt to do, formidable problems are involved in devising effective and efficient instruments within this framework for the amelioration of inequities. The scope of these problems and the means whereby they have been approached in the developing ESCAP region form the subject matter of the following sections.

B. TAXATION AND EQUITY

1. Taxation of personal income

Equity in taxation is commonly associated with the ability-to-pay principle, which requires that the rich contribute a substantially higher proportion of their income or wealth to the public purse than the poor. The most obvious candidates for compliance with the ability-to-pay principle are taxes assessed on personal income. Steeply progressive nominal rate structures are commonly applied to personal income in the developing ESCAP countries, but their effectiveness in generating greater equity among income recipients is seriously limited due to a number of factors.

Most important is the fact that taxes on personal income form in the main a small part of total revenue in the developing ESCAP countries, typically under 15 per cent, compared with 56 per cent on the average for the OECD countries.[10] In the least developed countries of the ESCAP region the proportion tends to be even lower, due to the dominance of subsistence-oriented agriculture and the low level of wage and salary employment, compounded by the weakness of the tax administration apparatus. At the other extreme lies Papua New Guinea, which employs a large number of highly paid and highly taxed expatriates and an efficient tax administration despite its continuing emphasis on subsistence agriculture, and Fiji, where urbanization and monetization have proceeded so rapidly as to permit the proportion of personal income tax in total revenue to reach an unusually high level.

Not only is the share of personal income tax in total revenue

[10] OECD, *Revenue Statistics of OECD Countries, 1965-1980* (1981), tables 7 and 13. The OECD data include social security contributions under personal income taxes.

Table II.16 Selected developing ESCAP countries. Tax revenue from personal income and profit as shares of total revenue, 1970-1979

(Percentages)

	1970			1979		
	Personal income taxes	*Profit taxes*	*Total taxes on income*	*Personal income taxes*	*Profit taxes*	*Total taxes on income*
Bangladesh	3.59[a]	0.08[a]	3.67[a]	5.81	1.64	7.45
Fiji	17.96	10.12	28.08	33.53	11.44	44.97
India	11.55	9.04	20.59	9.24	9.68	18.92
Indonesia	7.24	22.36	29.60	7.02	64.57	71.59
Malaysia	7.00	20.38	27.38	10.82	24.33	35.15
Nepal	...	...	4.76	3.98	1.88	5.86
Pakistan	10.55[a]	3.03[a]	13.58[a]	18.84	7.44	11.40
Papua New Guinea	19.77	13.91	33.68	22.89	27.73	50.62
Philippines	8.56	13.88	22.48	13.17	8.61	21.78
Rep. of Korea	12.24	18.02	30.26	13.00	12.37	25.37
Singapore	...	...	20.70	...	...	27.64
Sri Lanka	...	...	16.54	...	...	10.78
Thailand	6.87	4.78	11.65	7.67	9.64	17.31

Sources: See Box II.1, and national sources.

Note: [a] 1973.

generally low in the developing ESCAP region, but this share increased on average only marginally during the 1970s despite the introduction of a variety of policy measures to improve the situation. Modest increases were achieved over the course of the decade in Bangladesh, Malaysia, Papua New Guinea, the Philippines, the Republic of Korea and Thailand. The only country to record a substantial improvement, however, was Fiji, which managed a 15 percentage point increase.[11] Some developing ESCAP countries, including India, Indonesia and Pakistan, actually experienced a decline in the share of personal income taxes in total revenue (though the decline in Indonesia was due to sharply increased petroleum revenues rather than stagnation of the tax effort).

That personal income taxation remains for most developing ESCAP countries a relatively small proportion of total revenue is attributable in large measure to the small size of the taxable base. The low level of personal money income among the population at large severely limits the taxable income base especially when, as is the practice in many developing ESCAP countries, a sizeable slice of income is tax exempt or taxed at low rates. Agricultural income is also notoriously difficult to tax and is in many countries of the region left tax exempt because of problems of assessment and enforcement.

The personal income tax rate structure in developing ESCAP countries gives the impression that Governments actively seek to abide by the ability-to-pay principle as a means of pursuing equity. Personal income tax rates are generally steeply progressive, with maximum rates typically being reached at income levels ranging between $US5,000 and $US30,000. Exceptions are Sri Lanka, which reaches its maximum rate at approximately $US3,000, and Thailand, which reaches its maximum rate at approximately $US50,000. Maximum rates generally lie within the range of 48-66 per cent. The general tendency is for rate structures to be steeper and for maximum rates to be reached at lower income levels in south Asia than in southeast and east Asia and the South Pacific. This subregional distinction is partly due to the differences in the ranges of taxable incomes among developing ESCAP countries.

The impression of sharp progressivity in conformity with the equity objective that is conveyed by these data is misleading. The personal income tax rate structures actually in effect in developing ESCAP countries invariably fall far below the nominal structures, which are reduced in practice by the supervention of numerous and substantial exemptions, deductions and allowances. The magnitude of the resulting tax reduction is increased by the fact that the concessions permit considerable lati-

[11] The exceptional improvement in Fiji was attributable in large measure to the country's unique situation at the centre of the Pacific astride the major sea and air routes. Provision of large-scale transshipment services, in conjunction with the world-wide inflation, raised the tax base. Rapid expansion of the sugar industry and a boom in sugar prices also played a role.

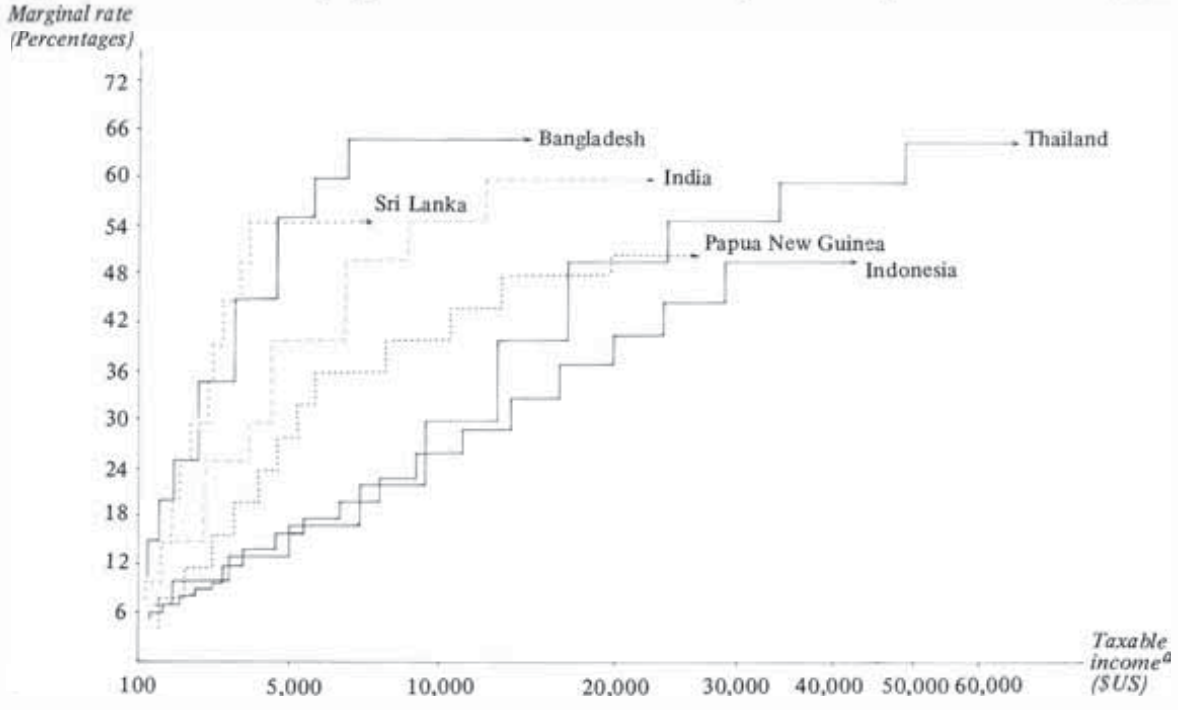
tude to the taxpayer in determining his liability and, given the understaffing and other difficulties facing revenue departments, allow taxpayers to opt for the most generous treatment. Furthermore, the range of exemptions or deductions commonly allowed against business, education and other expenses and against certain kinds of savings such as contribution to life insurance and provident funds and investments in government bonds tend to work against the equity objective since they are the kinds of outlays which only the better-off are able to afford.

The personal income tax is further weakened as an equity-promoting instrument by the widespread existence of outright tax evasion, a major consequence of which is the so-called parallel economy. Estimates of the extent of tax evasion in the developing ESCAP region are not available, but it is widely believed to be substantial and Governments have acted on that premise in reducing excessively high marginal tax rates and by turning to tax amnesties. India's introduction of a Special Bearer Bonds scheme in 1981 extended immunity from investigation as to the source of funds invested in such bonds. In Sri Lanka, two special measures to deal with tax evasion were the demonetization of 1970 and the tax amnesty of 1978. In Bangladesh, a tax amnesty was announced in 1982 granting immunity, or payment of a moderate tax, to taxpayers disclosing previously unreported incomes.

One source of personal income which is only lightly taxed, if at all, is capital gains. A number of countries, including Pakistan, Singapore and effectively Thailand, exclude capital gains from taxation. Though provision for such taxation exists in such countries as India, Indonesia, the Republic of Korea and Sri Lanka, substantial concessions ensure that in practice it has not been a significant tax revenue source. The assessment of capital gains requires fairly sophisticated accounting and tax administration procedures, and this militates against the widening of the tax base to include this revenue source in an effective manner. The effect of this combination of factors is to favour transactions in real property and financial assets, speculative activities which are possible only for the wealthy and which frequently distort the economy away from the effective pursuit of development goals.

From the equity viewpoint, the inability of many developing ESCAP countries to bring a larger share of personal income earners

Figure II.7 Selected developing ESCAP countries. Nominal marginal rates of personal income tax, 1980



Source: International Bureau of Fiscal Documentation.

Note: [a] Taxable income scale in logarithms. Domestic currencies converted into the United States dollars at official exchange rates shown in International Monetary Fund, *International Financial Statistics* (Supplement of exchange rates), 1981.

Box II.17 Personal income tax exemption limits

An important factor underlying the limited revenue significance of the personal income tax in most developing ESCAP economies is its restricted coverage. In many of them only a small fraction of the working population, often less than 5 per cent, is liable to pay income tax. This is primarily because the threshold level at which the tax becomes payable is relatively high as compared with the per capita income levels in most cases.

In the region's low-income countries the basic exemption limit for income tax is as a rule several times higher than per capita GNP, the multiple varying from 2.5 in Sri Lanka to 6.3 in India. In the middle-income countries, with the exceptions of Malaysia and Papua New Guinea, the multiple is approximately one or less. Among the high-income countries, however, the exemption limit falls to a fraction of per capita GNP.

The practice of having an exemption limit for the personal income tax derives its rationale partly from the concept of equity and partly from considerations of administrative convenience. An equitable system of taxation, it is thought, should spare the poor from the burden of at least the most direct of taxes. In addition, the administrative difficulties inherent in taxing the poor militate in favour of an exemption limit to keep the task and cost of enforcement manageable.

If it is to serve as a dividing line between the poor and the non-poor, the income tax exemption limit should be fixed at "the poverty line", which falls below the per capita income level of even the low-income countries. If, alternatively, the idea is to exclude from taxation an initial slab of income required for maintaining a "minimum acceptable standard of living", the exemption limit ought to be fixed at a higher level than just what is needed for bare subsistence. What constitutes such an acceptable minimum would naturally differ from country to country depending on the general level of living prevailing in each country. Presumably, the level would be lower in a low-income country than in countries enjoying higher average levels of income.

A comparison of the exemption limit for income tax in the ESCAP countries in absolute terms (United States dollars), however, shows that while the level of exemption is generally lower in the low-income countries than in the middle-income countries, income tax becomes payable in a few of the poorer countries at a much higher level than in some of the countries with fairly high per capita incomes. The most extreme skew is between India, with an exemption of approximately $US1,500, and New Zealand, with an exemption of approximately $US150 (as of 1978). These comparisons do not, of course, take into account the various allowances which have the effect of raising the exemption limit beyond what is indicated by the basic exemption and thus sometimes cause it to give a misleading impression of the lower limit of the income tax. Even making allowance for this deficiency, it would appear that the income tax exemption limit among the ESCAP countries lacks a consistent pattern, and it is difficult to find a rationale for it everywhere in terms of equity.

A possible reason for fixing the exemption limit in a low-income country at a relatively high level could be not only to exempt incomes below what is regarded as necessary for maintaining a reasonable minimum standard of living but also to keep the number of taxpayers within administratively manageable limits. It would therefore appear that with some improvement in the efficiency of the administrative machinery the exemption limit could be lowered in several countries of the region. In considering such a revision, it would be important to estimate not only the increase in administrative cost involved but also the increase in tax revenue to be derived. It would also be essential to consider the social groups that would be affected by the move.

Selected ESCAP economies. Income tax exemption limit as proportion of per capita GNP or GDP, 1980

	Per capita GNP or GDP ($US)	*Income tax exemption limit ($US)*	*Income tax exemption limit as share of per capita GNP (percentages)*
India	240	1 513	6.30
Nepal	140	833	5.95
Bangladesh	130	738	5.68
Pakistan	300	1 212	4.04
Sri Lanka	270	667	2.47
Papua New Guinea	780	1 360[a]	1.74
Malaysia	1 620	2 252	1.39
Solomon Islands	626	708	1.13
Philippines	690	725	1.05
Indonesia	430	249	0.58
Hong Kong	4 240	2 432	0.57
Thailand	670	343[b]	0.51
Fiji	1 604[b]	714[b]	0.45
Rep. of Korea	1 520	455[c]	0.30
Australia	9 820	2 059[a]	0.21
Singapore	4 430	926[b]	0.21
Japan	9 890	1 429	0.14
New Zealand	7 090	149[a]	0.02

Sources: World Bank, *World Development Report, 1982* (Washington, D.C., 1982), pp. 110-111, table 1, and national sources.

Notes: [a] 1978. [b] 1979. [c] 1981.

within the tax net, the existence of numerous and often generous exemptions and the weakness of enforcement mean that, while nominal tax structures may show a high degree of progressivity, effective progressivity remains low. Furthermore, with given expenditure requirements, the weak revenue performance of personal income taxation requires a shift to other forms of taxation for which the scope for progressive sourcing is in principle and practice far more limited.

2. Profits taxation

Taxes on profits contribute on average about the same share of total revenues in developing ESCAP countries as do taxes on personal income. But even more than in the case of personal income taxes, the tax base on profits is attenuated by a bewildering array of concessions, including tax holidays, accelerated depreciation allowances, restructuring allowances, export incentives and many others.[12] These tax expenditures usually seek to encourage private investment activities either in general or in particular forms or fields of activity or favoured regions. Except perhaps for the latter, they are not particularly concerned with the promotion of equity except in the broad sense that, as they are presumed to encourage desirable investment, they promote economic growth and thus its equity spin-offs.

The adverse equity implications are, however, several. There is first their effect in eroding the tax base, reducing the tax yield and thus requiring increased emphasis on other revenue sources such as commodity taxation. Secondly, profits tax incentives may distort the pattern of production away from what would be desirable on the basis of a strict evaluation of efficient resource use and may thus reduce the benefits of development and their diffusion among the people. Thirdly, such incentives directly reward owners of capital. As against those who are without wealth or who rely on wage and salary income; thus the concentration of wealth and economic power is encouraged, especially as it is likely to be the larger enterprises that are better able to take advantage of the incentives offered.

Apart from the effects of incentives, taxes on business income raise questions concerning the proper equity in taxing those who engage in business trading activity as against those who derive their income from wages and salaries. Generally speaking, taxable income from business is derived after deduction of all expenses incurred in producing gross income. The definition of "expenses" is by no means clear-cut and in the developing ESCAP countries is often to an important extent a matter of negotiation between individual taxpayers and the enforcement authorities, who often have considerable discretion over what can be allowed as deductions. Business income, especially the income of small-scale traders with rudimentary or non-existent accounting systems, notoriously offers greater scope for tax avoidance and evasion than does personal income, for which deductions are standardized to a greater degree, which is in an increasing number of cases taxed at source, and which displays limited scope for disguise. A final, more general point is that far greater possibilities of backward and forward shifting exist for profits taxes than is the case for personal income taxation.

The nominally proportional rate structure of profits taxes in the developing ESCAP region would thus appear to be negated in practice, with the effective rate structure being regressive. Taking taxes on personal and business income together, there is every reason to suspect that this component of the tax structure in the developing ESCAP region is on the whole regressive in its effective impact despite its ostensible foundation on the ability-to-pay principle.

3. Wealth taxation

Very little use has been made by developing ESCAP countries of taxes on wealth or wealth transfers as a means of reducing disparities in the ownership of assets. In only one of the economies surveyed, Hong Kong, does this revenue source provide as much as 1 per cent of total tax revenue.

Most countries of the region have provisions for estate or inheritance taxes, but in some cases these measures are not associated with taxes on gifts, a circumstance which allows for avoidance through "estate planning". Wealth tax provisions vary widely among countries of the region. Nominal rate structures for estate and gift duties are in general steeply progressive, but these rates apply to a tax base net of substantial deductions and allowances. A substantial first slice of any estate or gift is commonly exempt from tax; this amount has in almost all the surveyed countries been increased repeatedly in recent years, ostensibly to allow for inflation, though the view that estate or inheritance taxes serve as a disincentive to savings has also had some influence. Exemptions are also commonly allowed on certain types of personal property (such as dwellings), and similar exemptions are in some cases also allowed in assessing the base for net worth taxation.

The provision of extensive exemptions reduces substantially the effective rates of taxation on wealth transfers and thus prevents such taxes from reducing the existing large inequalities in wealth ownership. For example, though nominal rates of estate and gift duties are steeply progressive in India, the average effective rates for the period 1970/71-1977/78 have been estimated at 7.6 and 7.8 per cent, respectively; for wealth tax the effective rate was only 0.84 per cent.[13] Due to such concessions, revenue from wealth,

[12] See the discussion of investment incentives in Chapter II.

[13] ESCAP, "India", *The Integration of Tax Planning into Development Planning* (forthcoming).

Box II.18 The legal conflict between equity and expediency in taxation

The difficulties encountered in determining the tax liability of certain classes of income and capital taxpayers have been among the major factors responsible for undermining the equity of tax systems in many developing ESCAP countries. Assessment of taxable income proves particularly difficult in the case of self-employed persons, such as farmers, traders, contractors and professionals, as these income earners ordinarily do not keep accounts or do not maintain them in verifiable form. Similarly for taxation of capital, the difficulty of determining tax liability, whether on net wealth or capital transfers, arises from the problem of obtaining reliable information regarding the value of taxable assets in the absence of competitive market prices.

A convenient means of resolving the problem of assessment of incomes of self-employed persons is to levy the tax on a presumptive or potential base. Among the developing ESCAP countries, Singapore has explored the feasibility of presumptive taxation of hawkers, restaurateurs, taxi-drivers, property brokers and other commercial intermediaries who do not keep proper accounts. Along parallel lines, the land tax based on potential or presumptive net yield is relied on in many developing ESCAP countries as a better instrument for taxing farm income than taxation based on realized income. In the case of capital taxation, the problem posed by the widespread practice of under-reporting rents and real capital values could likewise be resolved to a considerable extent if standards or norms could be laid down for the valuation of properties with reference to such readily identifiable criteria as location, use, type and age.

For reasons of equity, however, attempts to simplify the administration of direct taxes in such ways cannot be carried very far. The problem is that presumptive taxation necessarily assumes a certain degree of homogeneity among taxpayers. It therefore fails to differentiate among persons in different circumstances. As a result, it violates the legal principle of equal treatment of equals.

The conflict between equity and expediency in taxation has surfaced in a particularly acute form in India as a result of the assurance of equality contained in the Indian Constitution. Article 14 of the Constitution of India guarantees equality of every citizen before the law. A tax statute, like any other statute, is required to satisfy the test of equality if it is to be regarded as constitutional. A number of tax laws have over the years been struck down by the courts as *ultra vires* the Constitution for violating Article 14.

One of the earliest cases to appear before the Supreme Court of India on the question of infringing Article 14 arose out of an enactment of the State of Kerala which sought to introduce a uniform system of land taxation to replace the State's existing divergent and complex system of land revenue. Despite its acknowledged merits of "brevity" and "simplicity", the tax (which was levied at a flat rate of Rs 2 per acre) was held illegal on the grounds that its incidence fell equally on all land regardless of differences in quality or productive capacity. It was determined that the lack of distinction among different classes of land resulted in equal treatment of unequals and thus sacrificed the higher virtue of equity for the lower one of administrative convenience.

Essentially on the same reasoning, the basis of an urban land tax levied in Madras in the 1960s had to be changed to meet the requirement of Article 14, and a tax based on floor area of residential premises in relatively large cities in the State of Maharashtra was pronounced unconstitutional. Similarly, a tax levied in West Bengal on multi-storied buildings at graduated rates varying from Rs 0.50 to Rs 7.50 per square metre of "covered space" was stuck down as violating Article 14. This tax was held to be tainted "with the vice of inequality" because of its treatment of all multi-storied buildings on the same basis regardless of their location, cost of construction and other factors affecting their income-earning capacity. The basis of the tax was subsequently changed to an annual value as determined for municipal property taxation in order to meet the judicial tests of equality even though such annual values are known to suffer from a high degree of arbitrariness and subjectivity, often being based on the concept of a notional "fair rent".

India's courts of course recognize that, in matters of taxation, absolute equality is not always attainable. It is also conceded that the requirement of equality does not preclude the legislature from resorting to classification for purposes of administrative feasibility in taxation. Yet such classification, it has been repeatedly emphasized, must be reasonable, and the tests of reasonableness are that the classification system should be founded on intelligible differentia and that it must have a rational relation to the object sought to be achieved by the statute in question. The courts also insist that there should be reasonable classification among persons or things essentially dissimilar so that unequals are not subjected to uniform treatment.

Any scheme of presumptive or standardized taxation of income or property in India has thus to provide for adequate differentiation among taxpayers if their economic circumstances differ significantly, even though that might detract from the criterion of simplicity. Where income is the base, a system of presumptive taxation would be vulnerable unless an option were also allowed to the taxpayer to be taxed on actual income. In the case of a tax on property, standardization of valuation would have to allow for variations in the major factors affecting property values. In the case of agricultural land taxation also, variations in the potential productivity of different holdings should be taken into account while determining the potential of each holding, even though such a procedure is time-consuming and expensive. In fact, doubts about the legality of any system of land taxation based on the presumptive income of the holdings derived from the average yield of such land in a given area or locality constitute a major impediment to the reform of agricultural taxation and any quick revision of the traditional land revenue system.

estate and gift taxes is extremely small throughout the region. In Hong Kong it forms only about 2 per cent of what is already a relatively small total tax take, while in the cases of Bangladesh, Indonesia and the Philippines the share of wealth taxation in total tax revenue is so miniscule as to raise the question of whether such taxes are worth the associated administrative and compliance costs.

On balance, then, it is difficult to avoid the conclusion that wealth taxes have made little or no contribution to lessening prevailing inequities in wealth and property ownership in the developing ESCAP region. Other considerations, however, such as the effects on incentives to accumulate wealth, remain relevant. Furthermore, an efficient system of wealth taxation requires a fairly sophisticated administrative infrastructure both to assess the wealth base and to prevent avoidance and evasion; from the revenue point of view, improvements in the quality of tax administration might more profitably be directed to improving the yield from taxes on income and expenditure.

Table II.17 Selected developing ESCAP countries. Wealth taxation, 1980

(Percentages)

	Rate structure[a]			*Share of total tax revenue*
	Wealth tax	*Gift tax*	*Estate tax*	
Bangladesh	0.5-2.5	...	5-50	–
Hong Kong	–	–	10-18	2.0
India	0.5-5.0	4-85	5-75	0.6
Indonesia	0.5	–	–	–
Malaysia	–	–	12-55	0.2
Pakistan	0.5-1.5	...	20-75	0.3
Philippines	0.25-2.0	1.5-40	3-60	0.1
Rep. of Korea	0.3-5.0	10-75	...	0.2[b]
Samoa	–	Up to 50	Up to 40	0.6
Singapore	–	–	5-60	0.6
Sri Lanka	0.5-2.0	–	5-70	0.3
Thailand	–	–	–	–

Sources: International Bureau of Fiscal Documentation, *Taxes and Investment in Asia and the Pacific*, various issues; R.W. Parsons, "Survey of tax systems in the Pacific region" in *Fiscal Policy and Tax Structure in the Pacific Region* (Rotterdam, International Fiscal Association, 1979), pp. 24-25, table 4; and national sources.

Notes: [a] On dutiable balance (i.e. net of exemptions). [b] Inheritance and gift taxes only.

Box II.19 Specific wealth taxes

A significant caveat to the accompanying survey of wealth taxation in selected developing ESCAP countries is the existence of various specific wealth taxes. A tax on "net worth" ordinarily covers wealth in the form of bank balances, land, houses and other major personal assets on a collective basis. In many countries, however, certain of these assets are individually exposed to taxation. Such "property" taxes may be considered a subsidiary category of wealth taxation for equity purposes.

A number of developing ESCAP countries, for instance, impose an annual tax on land, with the rate structure in some cases progressive with respect to area owned and with differential rates being applied to rural and urban land and to land under different uses. An associated example is the annual motor vehicle registration fee system, which is in some cases progressive with respect to such status indicators as vehicle body weight and/or engine capacity.

To the extent that land holdings, motor vehicle ownership and the like are closely correlated with general wealth distribution, the magnitude of the tax levy and the progressivity of the rate structure of such specific wealth taxes are important measures of the equity orientation of the national tax effort. They are also excellent indicators of the degree of national commitment to the promotion of equity as a development objective. An additional useful attribute of such specific wealth taxes is that they are relatively easy to assess and relatively difficult to avoid or evade. Evidence across the region indicates that these taxes are generally imposed at low rates and without the degree of progressivity that would generate a significant effect on equity conditions.

4. Taxes on goods and services

Inability to raise the level of taxation of personal or business income and wealth has obliged most developing ESCAP countries to rely heavily on the taxation of goods and services to provide the revenue required to finance current and capital expenditure. Taxation of goods and services typically exceeds one half and can reach four fifths of total revenue in developing ESCAP countries. Taxes on goods and services are usually considered to be regressive, but some degree of progressivity can be introduced by taxing more heavily those items consumed more by the rich than by the poor and conversely by exempting from taxation articles of common consumption.

In the import tariff structure of Sri Lanka as revised in 1977, for example, essential consumer goods were exempted, raw materials and replacement parts were taxed at 5 per cent, intermediate goods at 12.5-22 per cent, non-essentials competing with domestic production at 75-100 per cent and most luxuries at 500 per cent.[14] In India,

[14] ESCAP, "Sri Lanka", *The Integration of Tax Planning into Development Planning* (forthcoming).

both Central Government excise tax rates and State sales tax rates differentiate in favour of essential articles such as foodgrains and bread and against luxury consumption such as tobacco and liquor. The excise on textiles places a relatively heavy burden on high-priced varieties while cloth used by poorer people is exempt. Electronic goods such as television sets and tape recorders are taxed heavily while cheaper varieties of radio receivers are either duty free or taxed at lower rates.[15] In Bangladesh, customs duties are not levied on foodgrains, which form the major share of the consumption expenditure of the poor, and essential items such as seed and fertilizers are also exempt. Low rates apply to pharmaceuticals and coarse cloth, but items likely to be consumed by wealthier people, such as motor vehicles and electrical goods, are taxed at much higher rates.[16]

By contrast, sales taxes on luxury consumer durables have been reduced in Indonesia in recent years in order to encourage production of and trade in domestically produced goods such as radios, televisions, air conditioners and motor vehicles. Government sales tax revenue from consumer durables has thus fallen in spite of rapidly growing consumer purchases of these items. Excise revenue is derived almost entirely from manufactured tobacco products, which fall disproportionately on the lower- and middle-income groups, and the low taxes on alcoholic beverages and petroleum products mean that the excise system is less progressive than in many other developing ESCAP countries.[17]

Given the very limited revenue-raising capacity of taxes on personal income and profits in the developing ESCAP countries, the yield requirements of commodity taxation are particularly keenly felt. This imperative limits the extent to which essential consumer goods and services can be exempted from taxation or taxed at low rates. The overriding importance of such taxes as a revenue source is demonstrated by the fact that they continue to be heavily relied on despite the fact that heavy taxation of consumer staples directly contravenes the equity objective and does so in a particularly open manner.

C. PUBLIC EXPENDITURE AND EQUITY

1. The limited scope for equity-oriented expenditure

Though taxation may be able to improve the relative income status of the poor by reducing the incomes of the better-off, it can do little to improve directly their

[15] ESCAP, "India", *loc. cit.*

[16] ESCAP, "Bangladesh", *The Integration of Tax Planning into Development Planning* (forthcoming).

[17] Mukul G. Asher and Anne Booth, *Commodity Taxation for Economic Development in ASEAN* (Singapore University Press, 1982), chapter II.

Table II.18 Selected developing ESCAP countries. Tax revenue from domestic and foreign trade as shares of total revenue, 1970-1979

(Percentages)

	1970			1979		
	Taxes on domestic goods and services	*Taxes on internationally traded goods and services*	*Total taxes on goods and services*	*Taxes on domestic goods and services*	*Taxes on internationally traded goods and services*	*Total taxes on goods and services*
Bangladesh	22.4[a]	18.0[a]	40.3[a]	23.4	26.0	49.4
Fiji	10.9	40.7	51.6	9.5	28.9	38.4
India	44.1	13.7	57.8	42.2	19.8	62.1
Indonesia	28.4	25.6	53.9	9.3	10.0	19.3
Malaysia	19.0	33.7	52.7	19.5	33.0	52.5
Nepal	26.5[b]	36.7[b]	63.2[b]	35.3	35.6	70.9
Pakistan	38.8	25.2	64.0	33.6	35.9	69.6
Papua New Guinea	...	...	51.6	15.8	19.8	35.5
Philippines	24.2[b]	23.0[b]	47.2[b]	39.8	22.1	61.9
Rep. of Korea	41.0	12.2	53.1	43.2	16.8	60.0
Singapore	16.4[a]	10.4[a]	26.9[a]	16.1	7.7	23.8
Sri Lanka	34.6	40.2	74.8	27.5	53.9	81.4
Thailand	41.2	33.1	74.3	44.0	24.3	68.3

Source: See Box II.1.

Note: [a] 1973. [b] 1972.

absolute position, especially in the case of those who have little or no money income. By contrast, government expenditure can be directed at any social group or income class and thus offers in principle greater scope for specific target-group-oriented distributional activities. Equity considerations can be addressed in this case either by discriminating in favour of those programmes or projects likely to benefit the disadvantaged or by discriminating among persons entitled to benefit from them.

Government expenditure may be classified as "exhaustive", insofar as it entails the purchase of labour or other resources, or as "transfers", where it involves direct cash grants to persons who are then free to make their own claims on resources. The extent to which either of these types of public expenditure can be used to promote equity is limited by a number of factors. There is first the constraint imposed by the overall size of the budget in relation to total output. This depends in part upon views concerning the appropriate role of government in any economy and in part upon the capacity of the economy to generate resources from taxation, borrowing or, within limits imposed by the requirements of economic stability, deficit financing. The scope for using government expenditure for distribution is considerably different in, say, Nepal, where expenditure (plus net lending) in recent years has been equivalent to about 15 per cent of GDP, from Sri Lanka, where it has exceeded 30 per cent.

A second point is that in industrialized countries the main expenditure instrument for dealing with poverty and inequality is the provision of direct cash grants through social security schemes (see Box II.20). Redistribution of this kind, however, requires a sufficiently high level of income to permit the necessary transfers. Given the relatively low per capita income levels in most developing ESCAP countries and the priority need in these countries for basic development expenditure, that instrument is not generally available to them. Redistribution policies must therefore operate primarily through exhaustive expenditure, which comprises virtually the entire budget of most developing ESCAP countries.

However, in contrast to direct transfers in cash or kind, which can be targeted to specific income classes or disadvantaged groups, much exhaustive expenditure is not readily open to such manipulation. For one thing, exhaustive expenditure is usually directed at highly aggregative targets, such as the provision of basic infrastructure or improvements in the supply of public goods such as defence, law and order, general administration and management of the economy. For administration, in particular, the benefits are in the main general and indiscriminate, and it is usually not feasible to separate these benefits into distinguishable parts and vary the quantity available to individuals in accordance with such equity criteria as income size.

Efficiency requirements also cannot be ignored. Many public services are characterized by substantial economies of scale and must be located near population centres or where, as with irrigation or hydropower development, technical constraints are minimized. It is not always feasible to provide a full range of public services to all members of society wherever they may happen to be located. This is particularly true, for example, of scattered island countries such as Indonesia, the Philippines and the South Pacific island countries. A geographical bias in public expenditure is possible for some categories of outlay but not for others; the elimination of all significant inequalities of access to public services or to employment opportunities as between areas or sectors is thus not a feasible policy objective.

For some other expenditure items, such as those on education or health care, it is possible to bias public outlay in favour of the poor at least in a general way. It is nonetheless difficult to determine how the benefits of such outlay are ultimately distributed across income classes, either in the form of consumption benefits or increased incomes as a result of greater productivity or capacity to work. Moreover, a large share of the benefits are not restricted to those at whom the expenditure is immediately directed but are diffused throughout society.

2. Transfers and subsidies

Cash transfers to increase directly the income of individuals or households are a major fiscal policy instrument for equity in developed countries but have virtually no role in the developing ESCAP region. For the most part, those without access to income, whether as a result of unemployment, illness, other disability or old age, must rely as best as they can upon traditional extended family or community arrangements for their support.

Transfers in kind, however, have been a good deal more important in a number of countries in the region. These consist of direct food distribution or the subsidization of basic foodstuffs and other essential consumer goods as well as important agricultural inputs. The institutional arrangements are of various kinds both within and among countries, but they nearly all result in direct or indirect charges on the government budget.

For a number of south Asian countries, food subsidies are closely associated with systems of government food procurement and distribution.[18] These schemes involve

essentially the procurement of basic commodities (principally foodgrains, sugar and edible oils) from domestic production or imports and the sale of these items to consumers at lower than procurement prices. In Pakistan and Bangladesh, these arrangements are supported by rationing systems, while in India a widespread network of "fair price shops" helps to ensure a high level of access to the subsidized commodities.

In Sri Lanka also, low price policies were long followed for certain basic foodstuffs. From the early 1950s until the late 1970s all consumers were entitled to a food ration. The cost to the Government of providing the subsidy was influenced by international prices of the rationed commodities, the prices charged to consumers, the quantities rationed to each consumer and the number of consumers participating in the scheme. Management of subsidy costs was achieved by varying the rationed volume and by varying the prices charged. With the change to a more market-oriented policy, the ration programme was in 1978 restricted to low-income consumers, and in 1979 the scaled-down programme was replaced by a system of food stamps for specific target groups. This revised system absorbed 15 4 per cent of govern-

[18] See "Food supply and distribution in Asia and the Pacific: medium-term outlook and regional co-operation" (E/ESCAP/246), 1982, chapter IX.

Box II.20 Social security schemes

The establishment by Governments of comprehensive social security systems intended to provide for income maintenance in such circumstances as old age, widowhood, disability or unemployment is a relatively recent policy development. Few industrialized countries had such systems prior to the 1940s, though many had public welfare provisions (usually niggardly and often humiliating) for the "deserving" poor. By and large, individuals were expected to make their own arrangements against various contingencies by accumulating private savings. These included the acquisition of real assets such as homes, farms and personal property or financial assets such as savings deposits, annuities, endowment insurance and membership in occupational pension schemes operated by larger firms or Governments for the benefit of civil servants, teachers and military personnel or war veterans. Obviously these possibilities were open mainly to the middle and upper income groups who could afford to save; for others, it was a case of either remaining in the work force until the last few years of life or depending upon family support or, as a last resort, public charity.

The social security movement in the industrialized countries reflected in large part the realization that private arrangements were inadequate for the vast majority and that, if the majority was to be protected, government intervention was essential either to compel private savings to cover specific contingencies or to raise the disposable incomes of disadvantaged groups by direct cash grants. Social security schemes in industrial countries take many forms and vary considerably in the extent to which they redistribute income in favour of the poor or potentially poor. In general, however, they account for a large share of government revenue and expenditure, a fact which goes very far to explaining why developing ESCAP countries remain very cautious about adopting a similar approach to the problem of poverty in the region.

Most developing ESCAP countries have instituted pension schemes for privileged groups such as civil servants, teachers and military personnel, but general pension schemes covering broad segments of society or the population as a whole are absent. The few exceptions prove the rule. The Republic of Korea enacted a National Welfare Pension Law in 1974, but its actual implementation has been deferred several times. In the Philippines, a scheme of social insurance has been in effect for a number of years, but its coverage in terms of benefits and categories of persons is restricted; total disbursements from this scheme and also including civil service pensions and benefits were equivalent to less than 0.04 per cent of GDP in 1980.[a]

Hong Kong provides allowances to the very old and infirm and the severely disabled in addition to a limited programme of assistance to needy families, but the Government has firmly resisted the establishment of more extensive social security provisions or even a central provident fund.[b] The provident fund approach has, however, been favoured by several other developing ESCAP countries, notably Fiji, India, Malaysia, Samoa, Singapore, Solomon Islands and Sri Lanka. Membership is usually compulsory in principle, though self-employed persons, agricultural workers and employees in small establishments are excluded, along with those whose incomes are in excess of a relatively modest level. In practice, therefore,

[a] Philippines, National Economic and Development Authority, *1981 Philippines Statistical Yearbook* (1981), tables 3.9, 13.2 and 13.3.

[b] Hong Kong, *The 1982-83 Budget: Speech by the Financial Secretary concluding the Debate on the Second Reading of the Appropriation Bill, 1982* (1982).

[c] The expectation that children will provide support in old age is still strong among the poorer and rural classes of Asia and the Pacific. This is revealed in the results of a survey (in F. Arnold, *et. al., The Value of Children: A Cross-National Study*, vol. 1, 1975) which asked householders in four different ESCAP countries to indicate whether they expected to rely on their children for financial support in their old age. The positive responses by country and socio-economic groups (as percentages of total responses) were:

Country	*Urban middle*	*Urban lower*	*Rural*
Japan	29	31	72
Philippines	73	82	89
Rep. of Korea	25	62	72
Thailand	26	83	90

ment expenditure in 1979 but was expected to fall to less than 5 per cent in 1982.[19]

Elsewhere, the costs of consumer subsidies have also been high. Food subsidies in Indonesia have been largely confined to certain food staples. The main consumer subsidy, however, is for petroleum products, introduced in 1979 to cushion the effect on consumers of the large rise in oil prices. Mainly because of this expansion in the subsidy programme, total consumer subsidies rose from 1.5 per cent of government expenditure in 1977/78 to over 11 per cent in 1980/81.[20] In Pakistan, 7.2 per cent of total expenditure was accounted for by food subsidies in 1978/79, but the elimination of some minor items and a substantial reduction in the wheat subsidy reduced this figure to under 4 per cent in 1980/81.[21]

In addition to explicit consumer subsidies of the kind mentioned above, certain other less overt forms of consumer subsidization are present in most developing ESCAP countries. The most important are those arising from the operations of public enterprises and state trading organizations. Implicit subsidies are involved wherever such organizations fail to set the prices of their products (e.g., utility fees, freight rates, postal charges) to cover costs. Below-cost pricing may be the result of political directives rather than inadequate financial control and management, but whatever their cause their effect is the same. The effect is that transfers from the treasury are required to cover losses or provide contributions to capital expenditure.

Where the effect of consumer subsidies is to reduce prices of particular commodities to all, the benefit to the poor may be attenuated. Rationing schemes such as Sri Lanka's food stamp programme can in principle be helpful in targeting the benefit of subsidies to the poorer classes, but that case illustrates some of the problems that arise in restricting eligibility. Although the intention was that only those in receipt of income of less than Rs 300 per month (about 7.1 per cent of households) should be eligible, nearly 50 per cent of the population actually participated. Furthermore, the difficulty of determining the incomes of rural households or the self-employed meant that the eligibility criterion could technically be applied only to urban wage-earners with verifiable money income. To confine the benefit of subsidies to particular consumers thus require thorough administrative determination of eligibility and rigorous means of enforcement.

The reduction or withdrawal of subsidies, as has been happening in a number of ESCAP countries in the 1980s because of the need to restrict public expenditure, raises further equity issues. In particular, subsidy reduction or withdrawal affecting the prices of items which are mainly consumed by the poor will have more serious equity repercussions than desubsidization of more generally consumed items. In sum, the more selectively poor the target group for a particular subsidy, the more will that group gain through that subsidy and lose through its withdrawal.

3. Expenditure on social services

The contribution of the various conventional categories of social services expenditure to the promotion of equity in the developing ESCAP region is not immediately obvious. By far the largest share is taken by education, commonly over half of social service outlay or one fifth of total government expenditure. Though in the public mind educational expenditure is equity-promoting, the actual case is not so clear-cut. In the first place, the magnitude and composition of expenditure on education are affected by the size of private education expenditures and their distribution among different levels. These effects are not insignificant. In Indonesia, for example, nearly 50 per cent of total enrolment at

[19] *Ibid.*

[20] *Ibid.*

[21] *Ibid.*

the coverage of provident fund schemes is largely restricted to urban wage-earners.

Furthermore, provident fund schemes are often no more than compulsory savings arrangements under which individuals build up in personal accounts their entitlement to annuities (or more frequently lump sum payments) upon reaching a certain age, financed by contributions from the individual as well as the employer. Borrowings from the funds for housing finance are often permitted, as in the case of the provident funds of Singapore and Malaysia.

Though arrangements of the provident fund type have little to do with redistribution of income from the richer to the poorer sections of society, they may be of general assistance to growth insofar as they raise the rate of savings. On the contrary, they may run counter to the equity objective to the extent that markets for factors and products are imperfect and employers' contributions are shifted forward into prices or backward to depress wages.

In most developing ESCAP countries, provident funds or more broadly conceived social insurance systems remain of limited relevance in combating the poverty problem. However, they may well have a greater role to play in the future as per capita income levels rise, wage employment grows, urbanization proceeds and extended family links weaken. However, in rural areas of Asia and the small island countries of the South Pacific the more traditional types of social security arrangements are likely to prevail for some time to come.[c]

the secondary level but only 9 per cent at the primary level is in private institutions.[22] In the Philippines, the equivalent figures are over 46 per cent and only 5 per cent, respectively.[23] An even more striking position prevails in Bangladesh, where virtually the whole of primary education is publicly financed whereas secondary education is provided almost entirely in the private sector.[24]

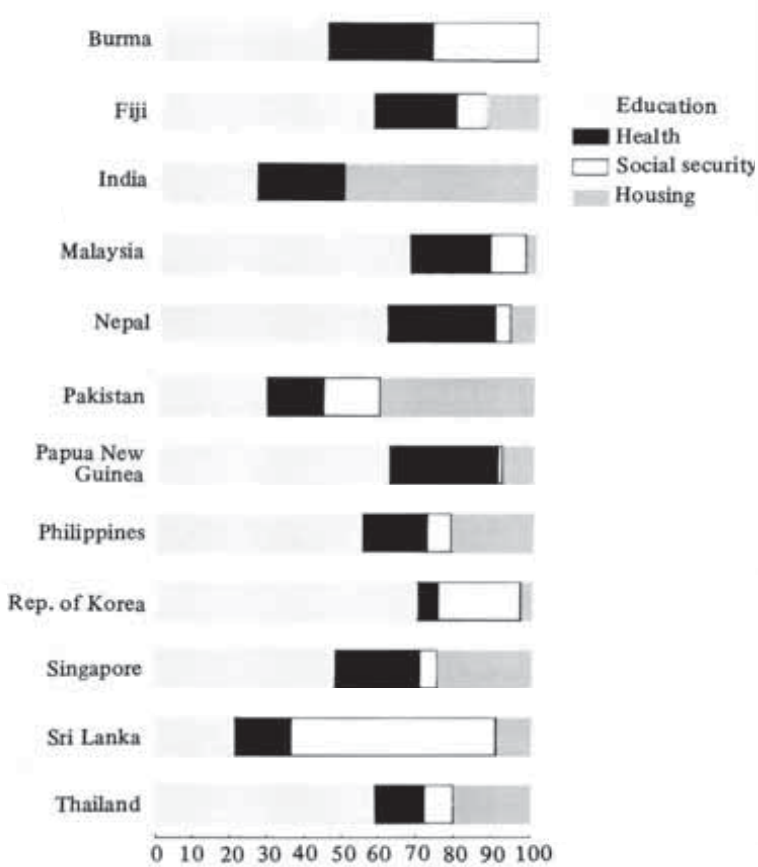
Educational expenditure and its distribution are inputs into a process, but this says nothing about the distribution of the benefits among different groups in society. In this regard, it may be noted that some nine tenths of recurrent education expenditure at the primary level in the developing ESCAP region consists of teachers' salaries, leaving very little for books, teaching aids and financial assistance for students from lower-income classes.[25] Furthermore, the quality of that teaching is often very low, especially in rural or remote areas, which fail to attract the better teachers. There is also the question

Box II.21 The scope for equity in social expenditure

Though a great deal of inter-country variation can be observed in the expenditure patterns of developing ESCAP countries, general administration and defence typically absorb 25-40 per cent of the total budget and economic services absorb another 20-30 per cent. Expenditure on education, health, food subsidies, housing and communal amenities typically take up only 20-30 per cent. Relating these figures to total expenditure as a proportion of GDP suggests that even if the whole of expenditure on social services could be targeted towards the poorest groups, the scope for action would not be greater than 8-9 per cent of GDP even in those countries (such as Fiji, Malaysia and Papua New Guinea) where such items form a relatively high proportion of total expenditure.

Estimates of the composition of expenditure on social services, as in the accompanying figure, reveal the relative emphasis placed by Governments on various equity-promoting types of activity. Thus, education is evidently regarded as the fundamental means of pursuing the equity objective throughout the region; it is equality of opportunity, opening possibilities for future rather than immediate equalization of income and wealth, that is apparently the politically most acceptable approach to attacking the equity issue in the developing ESCAP region. In India and Pakistan, which devote unusually small shares of their Central Government social expenditure to education, the balance is righted at the State level. In Sri Lanka, the other country showing a low educational expenditure ratio, the absolute level of such expenditure was actually still quite high in 1979, but this was obscured by the greater emphasis placed on social welfare programmes in the form of food subsidies. Of all the other developing ESCAP economies surveyed, only Singapore devotes less than half its social expenditure to education, and here the explanation lies in its relatively high level of prior attainment. With such prominence being given to education within a very restricted component of total expenditure, the scope for equity through other social expenditure forms is reduced to minimal proportions.

Selected developing ESCAP countries. Shares of social expenditure, 1979[a]



Note: [a] Central government only.

of the relevance of curricula to needs. The emphasis on academic attainment is of questionable benefit to those who neither can nor wish to pursue extended academic careers. Similarly, the emphasis on academically focused secondary and tertiary education in many countries has been accompanied by increasing graduate unemployment. Educational wastage through high drop-out, repeater and absentee rates even at the primary level is also a major problem in many developing ESCAP countries. There continue to be marked differences in some countries in the primary enrolment ratios for boys and girls and as between those in rural and urban areas.[26] Nonetheless, a large proportion of the poor have at least begun to enter the educational stream, and the cause of this salutary development has been active government intervention through increased public expenditure on education.

The equity contribution of other existing patterns of social service expenditure – health care, housing and community services – is even less clear. Public housing programmes, slum clearance and assistance towards village housing improvements are common to most developing ESCAP countries and areas but, apart from Hong Kong and Singapore which have probably done most by the way of providing low-cost housing for the poor, they form only a small proportion of outlay. Even so, much of the emphasis is on housing the urban poor rather than those in the rural areas, where needs are greatest in terms of sheer numbers.

As for health care expenditures, which usually account for about 5-6 per cent of the budget, the link between these and the health status of the poor remains indeterminate. In most ESCAP countries, overall health status indicators such as mortality rates, life expectancy at birth and infant mortality rates have shown distinct improvement. This positive development must certainly be attributed in large measure to the effective expenditure of public resources. It is, however, extremely difficult to establish an explicit connection between these improvements and levels of expenditures on health care. There is indeed good reason to expect that the process of health status improvement is closely related to expenditure on education and the eradication of illiteracy, and the provision of adequate housing, clean water supplies, sanitation and improved nutrition.

A further difficulty in linking general measures of health status with public expenditure is that, as with education in many countries, private expenditures on health care play a large role. In Indonesia, for instance, it has been estimated that 64 per cent of health care is financed privately, while in Burma the primary health care programme is almost wholly financed by local communities. Little is known in any case about the distribution of public medical care services according to particular groups or income classes. Though most countries have endeavoured to correct, for example, the disparities between urban and rural health care facilities, those disparities remain considerable.

A broad conclusion must be that public expenditure has probably had only a limited impact on equity of access to health and health care. This is not to say, however, that a more positive role is unachievable. One of the main problems continues to be the distribution of health care facilities as between rural and urban areas and the distribution of services as between different levels of care. The best opportunities would seem to lie in providing public facilities and types of care in areas that the private system fails to serve, as well as encouraging the fuller utilization of services that already exist and to improve their quality.

D. POSSIBILITIES FOR FURTHER ACTION

Despite the variety of approaches that have been reviewed here, it must be concluded that the role of fiscal policy in promoting the equity objective stressed so prominently by most developing ESCAP countries has been limited. It is nevertheless evident that for a number of developing ESCAP countries rather more can be done than has been achieved in the recent past. Apart from the possibility of greater equity consciousness in resource mobilization, particularly with respect to closer attention to the incidence of alternative tax measures, opportunities exist for much clearer specification of the critical areas of inequality and for the formulation of expenditure programmes more closely suited to deal with these problems.

One such problem area is the disparity between levels of living in urban and rural areas. Highly specific and realistic programmes can be formulated to fulfil the basic needs as seen by the rural people themselves and to involve them in decisions about what can and should be

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[22] World Bank, *Annual Report* (1982), p. 119.

[23] Philippines, National Economic and Development Authority, *op. cit.*, p. 433, table 10.4.

[24] Bangladesh, Bureau of Statistics, *Statistical Pocket Book of Bangladesh, 1978* (1977), p. 252, table 8.1.

[25] UNESCO, *Statistical Yearbook 1981* (Paris, 1981), table 4.2.

[26] See *Economic and Social Survey of Asia and the Pacific, 1978* (United Nations publication, Sales No. E.79. II.F.1), chapter III(3). See also, UNESCO, *op. cit.*, table 1.3, which compares illiteracy rates for urban and rural males and females.

done to make effective use of their own skills. Such an approach has a much greater chance of success than one which is centrally directed or imposed, even though with the best of motives. There is no reason why that same approach, stressing self-help and popular participation, cannot be extended to cover public expenditure in urban areas as well, especially in the fields of education, health care and housing. More generally, to require as a matter of course specific attention to the equity aspects of every public investment may well reveal possibilities for avoiding inequitable consequences which previously were unrecognized or assumed not to exist.

Such a pragmatic approach to introducing greater equity through the fiscal process may be complemented by the results of in-depth policy-oriented analysis. In this regard, however, the numerous attempts that have been made to estimate in quantitative terms the distributional effects of government revenue and expenditure have encountered many conceptual and statistical pitfalls. This experience compels a cautious approach to the acceptance of the results of such studies for any particular country. With this qualification in mind, the general uniformity of the conclusions reached by budgetary incidence studies in a number of ESCAP countries nevertheless suggests that the effects of fiscal policy in reducing income inequalities have not been as great as hoped for. For instance, one survey of fiscal policy to benefit the poor in Malaysia concludes that the redistributional impact covers only a very small proportion of total income. Moreover, those projects which are supposed to have the rural poor as direct beneficiaries also indirectly benefit the more affluent. If these indirect benefits of redistributional programmes were considered, the effect of Malaysia's fiscal policy with respect to income distribution would be even less salutary.[27]

Similarly, it has been found that in the Philippines the size distribution of income by income class is relatively unaffected by taxes and expenditure.[28] The conclusion in respect of Thailand is equally uncertain; at best, the Government's budgetary policies have effected no identifiable change in the distribution of household income and at worst may have made that distribution more unequal.[29]

Notwithstanding the doubts that attach to the theoretical validity of budgetary incidence studies and to the significant differences that alternative methodologies may have on the results, the consistency of the findings regarding the effect of fiscal policy on equity throughout the developing ESCAP region cannot be ignored. These findings strongly support the view that qualitative assessments of the likely direction of particular fiscal policies can provide useful guides to action. The existing state of knowledge concerning the equity implication of fiscal policy for development thus offers a formal basis upon which equity considerations can be specifically introduced into the design and implementation of fiscal systems.

[27] Ishak Shari, "The impact of public policies on income distribution in Peninsular Malaysia", *Economic Bulletin for Asia and the Pacific*, vol. XXX, No. 2 (December 1979), summarizing the findings of D. Snodgrass, *Inequality and Economic Development in Malaysia* (Kuala Lumpur, Oxford University Press, 1980) and J. Meerman, *Public Expenditure in Malaysia, Who Benefits and Why* (New York, Oxford University Press, 1979).

[28] Edita A. Tan, "Public policy and income distribution in the Philippines, a survey", *Economic Bulletin for Asia and the Pacific*, vol. XXX, No. 2 (December 1979).

[29] M. Krongkaew, "An assessment of the distributive impact of government policies in Thailand", *Economic Bulletin for Asia and the Pacific*, vol. XXX, No. 2 (December 1979).

V. FISCAL POLICY FOR STABILITY

Fiscal policy is conventionally used in developed economies as an aggregate demand management tool to counteract fluctuations in income, employment, prices and the balance of payments. The term "stabilization" has thus acquired multiple connotations. Whichever of these connotations may be accorded to the stabilization problem in a particular situation, the concern of fiscal policy in the developed economies remains essentially the regulation of demand conditions at the macro level.

The relevance of tax, expenditure and deficit finance instruments in this context, though universally recognized, is nevertheless far from unambiguous. For example, tax increases are conventionally viewed as an effective means of controlling inflation on the assumption that taxation depresses aggregate demand. The validity of this proposition has been subjected to critical scrutiny in consideration of the simultaneous effect of taxes on aggregate supply. The supply-side view of the price effects of tax changes suggests that tax policy for stabilization may have lost some of its "sharp cutting edge" and raises the possibility that public expenditure adjustments may be a more efficient instrument for this purpose.[1]

[1] Vito Tanzi, "Taxation and price stabilization", in S. Cnossen, ed., *Comparative Tax Studies* (Amsterdam, North-Holland Publishing Co., forthcoming).

However, the practicability of expenditure cuts remains an open question on other grounds, in particular administrative feasibility. In addition, where budgetary commitments require deficit spending, the methods of financing the deficit carry implications for the money supply and reserve assets of the banking system and thus blur the distinction between fiscal and monetary policy. This leads into the issue of the various forms of interaction between the fiscal and monetary variables. The persistent and essentially futile debate between the "monetarists" and "fiscalists" has left unresolved the question of the relative efficacy of fiscal versus monetary policy as a counter-cyclical tool. Given their interaction, particularly in connection with deficit finance, it is apparent that co-ordinated use of both policies is an essential requirement for achieving the stabilization objective.

In the developing ESCAP region, the scope for the application of fiscal policy to "fine-tune" aggregate demand as a means of moderating income, employment, price and balance of payments fluctuations appears relatively restricted. This is due to several matters. First, the promotion of economic growth, employment and distributive justice, as noted in preceding chapters, is accorded high priority in most of the developing ESCAP countries. These long-term development objectives play a large role in determining the level and composition of revenue and expenditure, thereby constraining the options for manipulation of these fiscal variables for short-term stabilization purposes.

Secondly, the design of fiscal policy for short-run stabilization purposes tends to be seriously handicapped in most developing ESCAP countries by structural rigidities, an inadequate institutional framework and an insufficient information base. The weak information base, for instance, hinders the prediction of interactions among economic sectors with respect to the incidence and timing of the impact of fiscal policy instruments. Thirdly, the limited capacity of fiscal policy as a stabilization instrument at the macro level in the externally vulnerable economies of the region is also a matter of concern. It is extremely difficult, for instance, to contain imported inflation in these economies without severe pressures on the budget, the balance of trade and foreign exchange reserves.

In spite of these limitations, there has been an increasing awareness that persistent attempts to accelerate growth and employment through, for example, deficit spending in the face of supply bottlenecks and structural rigidities can be counter-productive by generating inflation and reserve losses. These can seriously hamper efficient and equitable growth and employment over the longer term. Such structural considerations, from the stabilization point of

Box II.22 The supply side critique of counter-inflationary fiscal policy

The relationship between fiscal policy and inflation is usually analysed in terms of the effect of fiscal policy on aggregate demand. Increased taxes are in this context viewed as a logical substitute for reduced public expenditure since both measures are considered to depress aggregate demand and should, therefore, have a similar anti-inflationary impact. The analytical consistency of this argument is critically dependent on the implicit assumption of other things remaining the same, but the reality is that other things do not remain the same. In particular, an increase in taxes, while depressing aggregate demand, may simultaneously increase production costs, thus causing cost-push inflation.

There are a number of mechanisms by which a tax increase can raise production costs. Under the normal assumption of shared incidence, increases in the indirect taxes which constitute the major source of revenue in the developing ESCAP countries would raise the cost of living. This is likely to create pressures for wage increases and thereby generate cost-push inflation. Moreover, many indirect taxes are imposed directly on inputs used in the production process. Any tax-induced increase in their prices would almost certainly raise production costs and thus product prices.

Profits taxes may also impose upward pressure on production costs. These taxes tend to be shifted either backward to labour in the form of reduced wages or forward to consumers in the form of higher product prices. In either event, pressures are likely to build up for wage increases in order to defend pre-tax levels of living. Similar arguments would also hold for increased personal income taxation.

It is often argued that such tax-induced cost increases imply only a one-shot price rise and thus do not generate inflation in the sense of a sustained upward movement in prices. It is also argued that these changes cannot cause an increase in the overall price level because, unless the money supply rises for autonomous reasons, an increase in some prices must mean a fall in others. Such arguments are of limited policy relevance in the face of spiralling inflationary expectations created by specific price increases, the disregard of downward rigidity in wages and prices and the consequent need for validating increases in the money supply to protect output and employment levels.

It is, therefore, clear that increased taxes can cause inflation from the supply side at the same time that they seek to contain it from the demand side. The net result would be significantly affected by institutional arrangements (e.g., the degree of unionization of workers, the nature of the wage-setting mechanism, the ease of firms to pass on costs through higher prices, the commitment of consumers to the established level of living) and by other accompanying economic policies (particularly monetary, trade, incomes and administrative policies). Though the extent of cost-push inflation through fiscal policy has not been empirically demonstrated, the important point remains that this possibility should be taken into account in the design of tax-subsidy programmes for price stabilization.

view, act as a macro constraint on the use of deficit spending in the region. As a result, fiscal policy for stabilization is largely confined to cushioning the impact of specific economic shocks.

A series of destabilizing shocks experienced by the developing ESCAP countries during the 1970s led to the introduction of various fiscal policy responses. The lessons learned on the role of fiscal policy for stabilization in the context of development form the basic subject matter of this chapter. More specifically, the chapter deals with the fiscal policy responses of developing ESCAP countries to three major destabilizing events of the 1970s – namely, the series of foodgrain shortages, oil price shocks and sharp swings in merchandise export earnings – the repercussions of which have continued well into the 1980s.[2] The study, therefore, takes a partial equilibrium view of the stabilization issue, a view parallel to that adopted by fiscal policy makers in the developing ESCAP countries themselves.

A. STABILIZATION IN THE FOOD SECTOR

An important cause of economic disturbance in most developing ESCAP countries is the influence of unpredictable weather on domestic food supply. Food production accounts for the bulk of value added in agriculture which, in turn, contributes over two fifths of GDP in west and south Asia, and between a third and one quarter in south-east and east Asia (excluding Hong Kong and Singapore) and the South Pacific.

Adverse climatic conditions during 1970-1973 seriously harmed food output in west and south Asia. In per capita terms, food output declined by an annual average of 1.25 per cent in these subregions compared with a decline of 0.20 per cent for the developing ESCAP region as a whole.[3] Largely as a result, the food price index

[2] S.W. Black, "The impact of changes in the world economy stabilization policies in the 1970s", in W.R. Cline and S. Weintraub, eds., *Economic Stabilization in Developing Countries* (Washington, D.C., The Brookings Institution, 1981), pp. 53-62; and *Economic and Social Survey of Asia and the Pacific, 1977* (United Nations publication, Sales No. E.78.II.F.1), pp. 37-47.

jumped by around 25 per cent per year throughout the region during 1973-1974. These movements were closely mirrored by general consumer prices, as between two fifths and three fifths of the consumer price index in the developing ESCAP region relates to food items.[4]

Weather-generated shortfalls in food production during 1979-1980 did not result in as serious a consumption crisis as the 1970-1973 instance. Not only was shortage much less grave, but modest overall production gains of 1976-1978 permitted the replenishment of foodgrain stocks in several chronically food-deficit economies.[5] The result was a less severe rate of food price inflation than in the earlier instance, over 15 per cent per year for the region as a whole during 1980-1981, with the South Pacific subregion on this occasion suffering the greatest food price and general inflation problems.

The moderation of food price inflation and simultaneous distribution of food supplies on an equitable basis during such food crises constitute important short-term policy objectives throughout the developing ESCAP region. The range of fiscal policy instruments available for food price stabilization during such transient food crisis situations is, however, restricted. The objective of assuring food security at reasonable prices has generally been pursued by means of two basic fiscal policy approaches.

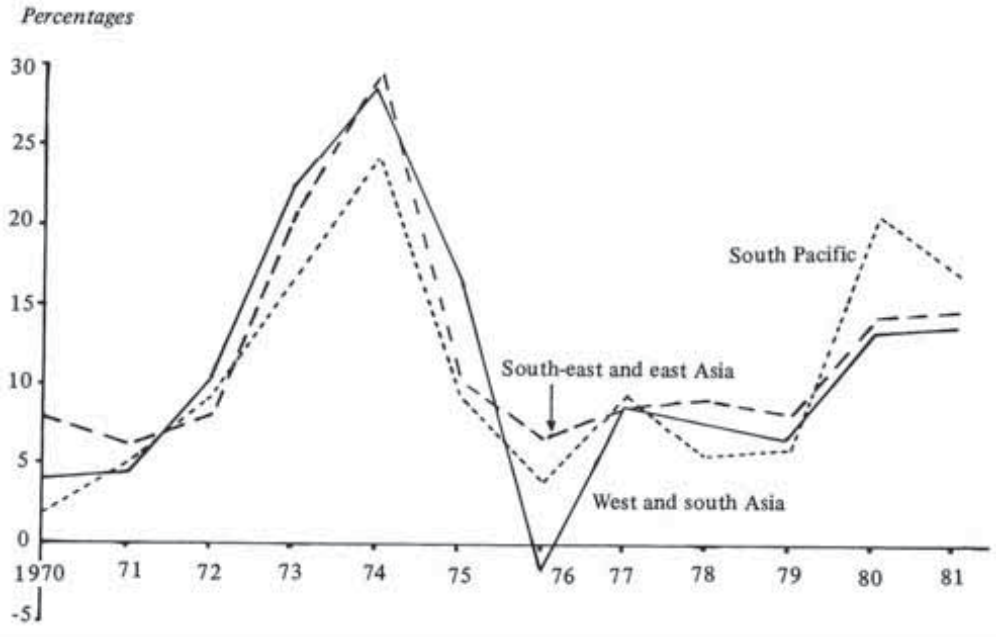
On the one hand, import and/or sales taxes on basic food items are lowered substantially or completely removed, and quantitative restrictions on food imports are relaxed. This policy, however, conflicts with revenue requirements and possibly with other, longer-term development objectives and is non-discriminatory among target groups. The second approach, which can be designed to have considerable target-group selectivity, is to introduce or increase total or per unit consumer subsidies for locally procured and/or imported food staples. Destocking, as will be seen later, constitutes a closely related measure with useful anti-inflationary implications. This food price subsidization option, how-

[3] *Economic and Social Survey of Asia and the Pacific, 1974* (United Nations publication, Sales No. E.75.II.F.1), pp. 19-21.

[4] *Economic and Social Survey of Asia and the Pacific, 1978* (United Nations publication, Sales No. E.79.II.F.1), p. 49.

[5] *Economic and Social Survey of Asia and the Pacific, 1980* (United Nations publication, Sales No. E.81.II.F.1), pp. 23-26.

Figure II.8 Developing ESCAP subregions. Annual changes in food price indexes, 1970-1981



Notes: West and south Asia includes Bangladesh, Burma, India, Iran, Nepal, Pakistan and Sri Lanka; South-east and east Asia refers to the five ASEAN members plus Hong Kong and the Republic of Korea and South Pacific includes Fiji, Papua New Guinea, Samoa, Solomon Islands and Tonga.

ever, is not viable in those countries of the region with historically low carry-over stocks. It is also not sustainable during serious or extended production shortfalls.

1. The 1972-1975 crisis

A diversity of established institutional arrangements, including government-sponsored food procurement, destocking and subsidized distribution, were activated in the food crisis of the early 1970s, particularly in the more food deficit-prone countries of south and south-east Asia.[6] Experiments in increased subsidization appear to have been the chief fiscal response to the crisis in most of the less deficit-prone countries as well.

In the Republic of Korea, for example, resource transfers from the public sector through direct sales at below-market prices were reflected in the steadily rising debt of the Grain Management Fund (GMF). The operating deficits incurred by GMF rose from 25 billion won in 1973 to 94 billion won in 1975. This resource transfer was equivalent to 0.5 and 1.0 per cent of GNP in 1973 and 1975, respectively.[7] To increase farm production, rice procurement prices at farm-gate were in 1973 deliberately raised by 45 per cent and then by another 25 per cent annually in 1974 and 1975. Those for barley and wheat were raised by 30 and 38 per cent over the same period.[8]

Official selling prices were increased from 1974 onward to slow down the substantial drain on government resources through food and fertilizer subsidies. This gradual easing off in subsidy rates permitted a declining level of GMF deficits, which were cut by almost one half, to 50 billion won or 0.5 per cent of GNP, in 1976.[9] Rising procurement, however, facilitated the achievement of technology-led high yields, which permitted the Republic of Korea to achieve increasing self-sufficiency as the 1970s wore on.

Rice pricing strategy in Indonesia, implemented principally through the National Logistics

[6] "Food supply and distribution in Asia and the Pacific: medium-term outlook and regional co-operation" (E/ESCAP/246), pp. 93-108.

[7] *Economic and Social Survey of Asia and the Pacific, 1978, op. cit.*, p. 55; and P. Hasan, D.C. Rao *et al., Korea: Policy Issues for Long-Term Development* (Baltimore, Johns Hopkins University Press, 1979), p. 30.

[8] "The international economic crises of the 1970s: country responses", *Economic Bulletin for Asia and the Pacific*, vol. XXIX, No. 1 (June 1978), p. 22.

[9] *Ibid.*

Table II.19 Selected south Asian countries. Foodgrain imports and food subsidies, 1970-1981

	1970	*1971*	*1972*	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*
						Foodgrain imports (million tons)						
Bangladesh	...	...	...	2.82	1.67	2.29	1.49	0.78	1.65	1.15	2.24	1.20
India	3.58	2.03	-0.49	3.59	5.16	7.53	6.91	0.47	-0.84	-0.94	-0.42	...
Pakistan	0.12	0.27	0.45	1.49	1.05	1.19	1.29	0.54	0.82	2.11	0.67	0.25
Sri Lanka[a]	0.95	0.74	0.66	0.78	0.85	0.98	0.89	1.14	0.83	0.76	0.71	0.55
						Ratio of foodgrain imports to domestic cereal production (percentages)						
Bangladesh[b]	...	...	...	23	14	20	12	7	13	9	20	8
India	4.7	2.4	–	4.7	6.2	9.6	7.3	0.5	–	–	–	...
Pakistan[c]	1.2	2.5	4.4	9.1	10.5	10.5	10.9	4.2	6.0	16.0	4.5	1.6
Sri Lanka[d]	84	75	72	84	76	122	102	97	64	58	49	36
						Food subsidies[e] indexes (1973 = 100)						
Bangladesh	...	...	...	100.0	123.0	117.0	128.5	97.1	135.4	122.5	211.2	139.7
India	...	...	46.5	100.0	117.3	99.4	201.2	190.8	226.6	238.6	258.4	258.4
Pakistan	...	...	...	100.0	237.6	278.5	167.7	120.8	179.9	337.1	354.0	207.0
Sri Lanka	81.9	87.6	102.0	100.0	135.8	175.5	133.8	203.1	308.4	403.8[f]	272.6[f]	247.5[f]
						Food subsidies[e] as percentage of total revenue						
Bangladesh	...	...	...	27	24	16	11	7	8	6	9	5
India	...	...	1.9	3.6	3.6	2.4	4.4	3.7	3.7	4.3	3.6	3.5
Pakistan	...	...	...	11	15	19	8	5	6	9	7	4
Sri Lanka	21	22	22	17	20	24	16	21	18	22[f]	14[f]	11[f]

Source: National sources.

Notes: [a] Rice, wheat and wheat flour. [b] Rice and wheat. [c] Wheat, rice, maize, jowar and bajra. [d] Domestic cereal production includes only rice. [e] Including subsidies for non-grain basic food items [f] Primary food stamp values.

Board, was in the early 1970s designed primarily to raise domestic production to a level as near self-sufficiency as possible and, at the same time, to maintain stable and affordable food prices for consumers. The rice crisis of the early 1970s necessitated increased volumes of foodgrain imports along with substantial increases in rice subsidies. The subsidies set by the Board came to almost 2 per cent of GDP over the fiscal years 1973-1975, compared to between 0.2 per cent and 0.6 per cent (with an average of 0.3 per cent) for the rest of the 1970s.[10] The main reason for reduced levels of subsidization was significant production gains; paddy output increased by 9.4 million tons, or 40 per cent, between 1977 and 1980. This resulted, among other things, in lower import requirements and enlarged stocks, enabling improved procurement and distribution levels. The Government was able, under these circumstances, to insulate domestic rice prices, which as a result fluctuated much less than international rice prices over the 1970s as a whole.[11]

Food price subsidies in Sri Lanka were originally designed with a distinct development policy emphasis. From the early 1950s, every person aged one year or over had been entitled to receive a food ration, consisting of both free and subsidized foodgrains. This "universal" food subsidization scheme remained essentially unchanged until 1978, when it was restricted to households with declared incomes of less than Rs 3,600 per year. In 1979, the ration programme was replaced by a food stamp scheme of fixed values per age group for specific income classes.[12] Sri Lanka's food distribution and price stabilization system under its pre-1978 format constituted a major burden on the government budget. Under the food crisis conditions of the early 1970s the cost rose to exceptionally high levels. Food subsidies accounted for 17 per cent of total revenue during 1973 but rose to 20 per cent in the next year and reached 24 per cent in 1975. The need to contain the burden of the subsidy in order to retain adequate resources for growth promotion became, under these strained circumstances, a major policy issue. Related developments and subsequent changes, together with their stabilization implications, will be examined in conjunction with the second food shortage of the 1970s.

Continuing subsidization of food distribution has also been a tradition extending back over several decades in other south Asian countries. The emphasis on food security in these countries has tended to be somewhat less intense than in Sri Lanka. The schemes generally operate in terms of a dual pricing system, whereby a fixed, limited amount is subsidized, leaving additional demand to be met at market prices.[13]

The case of Bangladesh is representative of the south Asian experience. Ration prices of rice in Bangladesh averaged 63 per cent of market prices in 1971 but declined to 37 and then 27 per cent under the unprecedented market price increases of 1973 and 1974.[14] Consequently, food subsidies in these years averaged over 25 per cent of total revenue. However, the reduced need for subsidized distribution in the subsequent more normal years, combined with higher ration prices and improved government receipts, lowered the relative importance of food subsidies to 11 per cent of total revenue in Bangladesh in 1976.

Foodgrain imports during 1973-1975 in both India and Pakistan were noticeably higher than in preceding years. The steeply increased import prices of foodgrains were a major financial drain on restocking efforts.[15] Higher subsidies to offset the inflationary impact of increased grain prices claimed 17 per cent of public revenue in Pakistan during 1974-1975 compared to 11 per cent in 1973. By comparison, food subsidies accounted for less than 5 per cent of government receipts in India in the peak year, 1976, despite expanded transfers during the food shortage period. Total subsidies rose from Rs 1.2 billion in 1972 to an average of Rs 2.7 billion over 1973-1975.

2. The 1979-1980 shortage

The food problems encountered by developing ESCAP countries in the late 1970s were different from those of the 1972-1975 crisis in several ways. Production shortfalls in 1979-1980 did not eventuate in a consumption crisis. Secondly, food price inflation did not exceed rates of increase in the consumer price index in the large majority of the developing ESCAP economies, as it had during the earlier crisis.[16] The third difference relates to the fiscal impact of the 1979-1980 foodgrain shortage and

[10] Indonesia, Bank Indonesia, *Indonesian Financial Statistics*, various issues.

[11] *Ibid.*, and Indonesia, Central Bureau of Statistics, *Monthly Statistical Bulletin*, various issues.

[12] "Food supply . . .", *loc. cit.*, pp. 105-107.

[13] *Economic and Social Survey of Asia and the Pacific, 1974, op. cit.*, p. 78.

[14] "Food supply . . .", *loc. cit.*, p. 94.

[15] For example, the prices of rice (ex-Bangkok) and wheat (ex-Fort William, Canada) shot up by almost 270 per cent and 200 per cent, respectively, during the commodity price boom of 1973-1974. International Monetary Fund, *International Financial Statistics Yearbook, 1981* (Washington, D.C., 1981), p. 85.

[16] The few exceptions included Fiji, Iran, Nepal, Papua New Guinea, Solomon Islands and Sri Lanka during 1980 only.

the nature of the fiscal policy responses to it.

Bumper harvests of wheat (1975/76 crop year) and rice (1976/77 crop year) in India made possible the enlarged accumulation of stocks. The rice and wheat output shortfalls in 1979 and 1980, respectively, thus did not necessitate any import procurement.[17] Output shortfalls were completely met by buffer stocks, which by the end of 1980 had been run down by about one third, or 5.7 million tons. Compared with earlier years, the fiscal drain due to subsidized food distribution rose only marginally in 1979-1980.

Compared with 1978, the value of food subsidies almost doubled in 1979 in Pakistan and increased further by a marginal amount in 1980. Rising foodgrain prices in the world market raised substantially the subsidy per unit of domestic foodgrain consumption from about 39 per cent of ration shop prices in 1976/77 to 66 per cent in 1978/79. Subsequent increases in issue prices, averaging 27 per cent in 1979/80 and a further 12 per cent in 1980/81, were instituted primarily to reduce the fiscal drain; the unit subsidy percentage consequently fell to 44 and 34 per cent during the respective years.

The food shortage of the late 1970s was more serious in Bangladesh than in India or Pakistan. Foodgrain imports at 1.6 million tons in 1978 about doubled the previous year's level and then rose

[17] In fact, exports of wheat and wheat flour from India totalled over 2 million tons during 1978-1980.

Box II.23 Direct production subsidies for stabilization[a]

As a means of stabilizing its balance of payments through self-reliance in food and increased reliance on agro-based exports, Pakistan provides a direct subsidy to fertilizer inputs into its agricultural sector. This subsidy forms a major part of Pakistan's consumer and producer price control programmes. The aggregate value of subsidies distributed by Pakistan's Federal and Provincial Governments increased considerably during 1972/73-1979/80. The total subsidy expenditure reached Rs 6,544 million in 1979/80, a fourfold increase over the 1972/73 level. As a proportion of total tax revenue, subsidies increased from 17.5 per cent in 1972/73 to 20.1 per cent in 1979/80. Consumer subsidies were provided mainly in connection with the retail sale of wheat, edible oil and sugar. Most of Pakistan's producer subsidies were concentrated in fertilizer.

Pakistan's fertilizer subsidies claim over 40 per cent of the Government's total expenditure on subsidies. This has constituted a significant fiscal drain, but because of the importance placed on the subsidization of fertilizer input into agriculture as a means of increasing agricultural production to meet rising demand and thus stabilizing prices, this cost has continued to be borne. The rationale behind the subsidy is also derived from the fact that it represents a resource transfer to the agricultural sector from the rest of the economy, a reallocation in close conformity with the country's overall development priorities.

However, continued reliance on the fertilizer subsidy as an inter-sectoral resource transfer mechanism has significant side-effects at the intra-sectoral level. The magnitude of these intra-sectoral side-effects may, in fact, be more significant in the country's development process than the planned inter-sectoral effects. This is largely because fertilizer use in Pakistan is positively correlated with farm size. Some 68 per cent of Pakistan's farmers occupy landholdings of 5.1 acres or less, and these holdings account for only about 30 per cent of total farm area. Since the predominant share of subsidized fertilizer goes to the larger farmers, the fiscal benefits conferred by Pakistan's fertilizer subsidies accrue to a relatively small group of farmers. Nevertheless, the subsidy continues to be provided because of apprehensions of the impact of its withdrawal on domestic economic and social stability and on the balance of payments (i.e., food import) consequences of the possible decline in output due to reduced fertilizer use.

Pakistan. Fertilizer use, by farm size, 1978

Farm size (acres)	*Farms using fertilizer (percentages)*
1 to 5	66
6 to 12	81
13 to 25	76
26 and above	79

Of Pakistan's total fertilizer consumption, nearly one half is accounted for by wheat and another 24 and 16 per cent by rice and cotton, respectively. Fertilizer accounts for approximately one quarter of total farm costs excluding rent for major crops. It is estimated that the withdrawal of subsidy would raise fertilizer prices by over 50 per cent. It is thus feared that withdrawal of the subsidy would lead to a serious drop in agricultural production, a sharp increase in food prices and pressures for wage increases, resulting in a spiral of cost-push inflation. Additionally, the higher prices that would have to be paid by food-deficit households would have serious equity consequences.

The implication of Pakistan's fertilizer subsidies with respect to the inter-sectoral transfer of resources, and thus the country's balance of payments position, appears to be at least partially offset by the obviously undesirable intra-sectoral implications of the subsidy. The resulting ambiguity suggests that a careful reappraisal of the actual effects of such production subsidies be undertaken by developing ESCAP countries to ensure that fiscal policy operates in close conformity with overall national development objectives.

[a] Based on Mushtaq Ahmad, "Direct government subsidies in Pakistan", *Journal of Development Studies* (Peshawar), vol. IV (1981), pp. 1-15.

further to 2.2 million tons in 1980. Higher costs of imported foodgrains raised significantly the amount of unit subsidy. In spite of upward adjustments of ration prices, the ratio of issue prices to free market (wholesale) prices, which stood at 80 per cent in 1976/77, declined to 61 per cent in 1979/80. In relative terms, however, food price subsidies ranged between 6 and 9 per cent of government receipts during 1978-1980 compared to over 25 per cent during the 1973-1974 crisis.

The major policy and institutional changes that were initiated in Sri Lanka after 1977 included a substantial reduction in the commitment to food price subsidization. Reduced eligibility for the food ration, its substitution by fixed-value food stamps and increases in the official price contributed to a steady fall in the volume of public rice distribution from some 720,000 tons in 1977 to 320,000 tons in 1980 and 160,000 tons a year later. The administered prices for food-stamp rice and wheat flour rose by 286 and 223 per cent, respectively, between end-1978 and mid-1981. By comparison, open market prices for rice rose by only 143 per cent during the same period. These developments, coupled with improved domestic grain production, helped reduce the cost of food subsidies to the Government as a share of revenue during this period. As a proportion of total revenue, such income transfers reached a peak of 22 per cent in 1979 and thereafter fell off sharply. As a result of the fall-off, Sri Lanka's food subsidy scheme came to play a reduced role in restraining food price inflation.

Broadly speaking, subsidization, supported by increased imports and/or destocking, has been the principal fiscal policy instrument adopted by the developing ESCAP countries to moderate food price inflation during recent food shortages. This response has been warranted not merely because of the importance of food prices in the consumer budget of the developing ESCAP countries generally but also because of the tendency of food price rises to have serious cost-push consequences. The trade-off has been a worsening external balance and a higher fiscal drain. The sensitivity of the region's Governments to food prices has caused the balance to tilt in favour of domestic price stability as against external and fiscal stability. However, the deterioration in the balance of payments and in the budget balance cannot be sustained indefinitely. This partly explains the relatively mild policy reactions to the 1979-1980 shortage.

B. STABILIZATION IN THE ENERGY SECTOR

Barring certain important exceptions, namely Afghanistan, Brunei, Burma, China, Indonesia, Iran and Malaysia, the developing ESCAP countries are heavily dependent on imports to meet their energy requirements and are therefore vulnerable to energy price inflation in the world market. The first energy shock raised the price of crude oil by over 400 per cent while the second boosted it by another 200 per cent. These price hikes supplemented the impact of the food shortages of the 1970s to generate severe inflationary pressures in the region. The consumer price indexes of developing ESCAP countries tripled during 1973-1975 and then doubled over 1979-1980. The price hikes also had serious implications for the balance of payments, as the share of imported energy in total import spending of non-oil developing ESCAP countries about doubled between 1973 and 1974 and rose by one third during 1979-1980. With few exceptions, the heavier costs of hydrocarbon imports were translated almost simultaneously into widening deficits on current account.[18]

The task of energy management in the non-oil developing ESCAP countries is complicated by three common features reflecting the unique position of energy in the economy. First, the modern sector in a large part of the region is almost totally dependent on imported petroleum products. Oil imports are estimated to provide approximately 75 per cent of total commercial energy supplies in these countries.[19] Secondly, the volume of hydrocarbon imports will need to be increased rapidly if these countries are to accelerate their industrial modernization.[20] The implications for equitable development, thirdly, are evident in view of the limited availability of alternative energy sources for such consumer essentials as lighting, cooking and transport requirements.

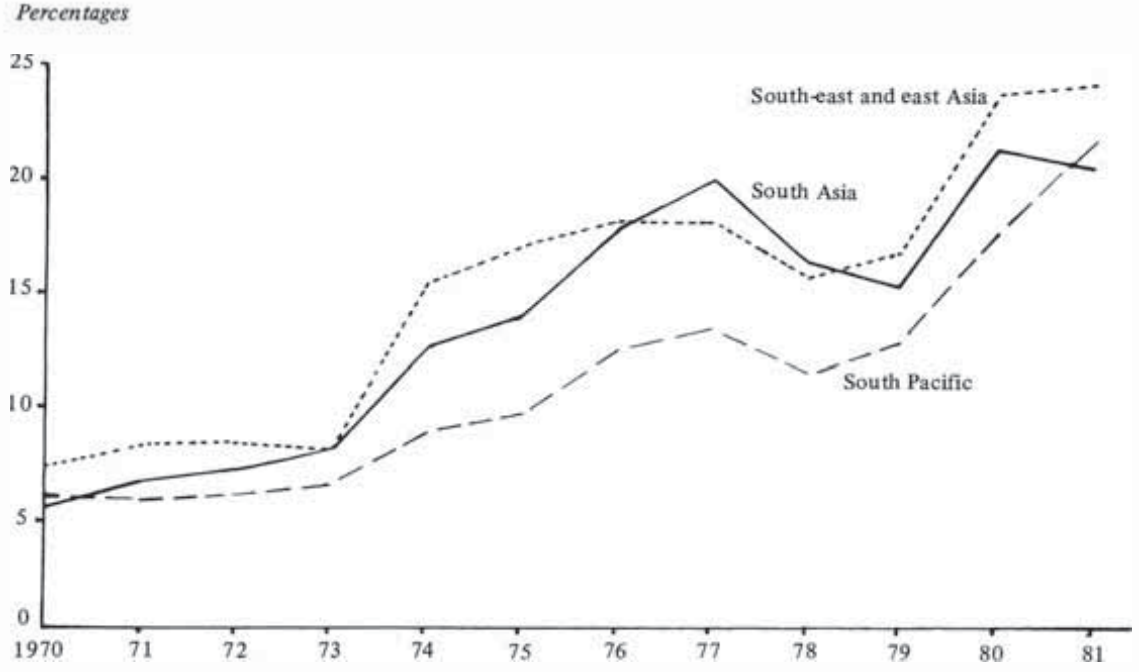
A common long-term objective of fiscal policy responses to the energy crisis has been to encourage conservation through more efficient utilization of available hydrocarbon resources. Retail prices of basic energy products have, therefore, been increased to reflect at least partially the cost of energy importation. Within this broad policy framework, however, the developing ESCAP countries have turned to variations in taxes and subsidies

[18] *Economic and Social Survey of Asia and the Pacific, 1980, op. cit.*, pp. 82-86.

[19] *Ibid.*, p. 112.

[20] Commercial energy consumption of oil-importing less developed countries is projected to rise from a daily volume of 12.4 million barrels of oil in 1980 to 22.8 million barrels in 1990. This is equivalent to an annual growth rate of 6.3 per cent. The rate was 6.9 per cent during 1950-1974 and 3.6 per cent during 1975-1980. World Bank, *Energy in the Developing Countries* (Washington, D.C., 1980), p. 2; and *Economic and Social Survey of Asia and the Pacific, 1980, op. cit.*, p. 112.

Figure II.9 Developing ESCAP subregions (excluding major oil producers). Share of imported petroleum products in total merchandise import values, 1970-1981



among specific energy-using subsectors and specific energy products for short-term stabilization purposes.

1. The overall policy impact

With a few minor exceptions, the absolute burden of taxes and duties on petroleum products rose appreciably throughout the region during the 1970s in response to the oil shocks. The steepest increases, ranging from nearly 200 to nearly 500 per cent between 1971 and 1979, were recorded for India, the Philippines and Thailand.

Changes in the tax rate structure relative to commercial energy prices, however, reveal differences in policy objectives. The proportion of fiscal levies in net retail prices of liquid fuels fell off sharply in Burma and Sri Lanka and, to a relatively lesser extent, in India and Pakistan. This moderation was due mainly to deliberate policy decisions to minimize the adverse impact of rising energy prices on domestic inflation, production and consumption.

In comparison, however, the share of taxes and duties in net retail prices for commercial energy remained relatively stable in the Philippines and Thailand over 1971-1979. It thus appears that considerations of external balance in these countries played a more important part in the design of short-term fiscal policy responses to the oil shocks.

The combination of rising world energy prices, domestic energy-using output growth and the impact of fiscal policy measures on domestic pricing of petroleum products in the developing ESCAP region during the 1970s generated two contrasting consumption trends.[21] On the one hand, an exceptional demand expansion occurred in the face of comparatively steep rises in liquid fuel prices in a number of countries. Over the period 1973-1974 to 1980-1981, real spending growth totalled around 8-15 per cent in the Philippines, Singapore and Solomon Islands and upwards of 95 per cent in India, Pakistan and the Republic of Korea.[22] On the other hand, real expenditure fell or did not rise significantly in Bangladesh, Fiji, Nepal, Sri Lanka and Tonga. Such

[21] See "Energy transition through demand management: long-term strategies and policy imperatives", *Economic Bulletin for Asia and the Pacific*, vol. XXXII, No. 2 (December 1982).

[22] Derived from Asian Development Bank, *Key Indicators of Developing Member Countries of ADB*, vol. XII, No. 1 (April 1981), pp. 24 and 26; and vol. XIII, No. 1 (April 1982), pp. 24 and 26.

restraint was a remarkable achievement insofar as it revealed a capacity to make major sacrifices and adjustments under difficult circumstances.

These contrasting trends render untenable any unqualified generalization about the impact of fiscal policy measures on the domestic demand for imported energy in the non-oil developing ESCAP countries. The possibility of generalization is also reduced by the fact that aggregate demand for imported energy is dependent on a variety of factors which are largely outside the direct control of fiscal policy makers in the short term. These include, among others, the availability and auxiliary costs of competitive alternate energy sources, types of energy-consuming capital stock, patterns of income distribution and extent of urbanization and rural modernization. It follows that an improved understanding of the characteristics of sectoral and subsectoral demand conditions with respect to specific energy products is a pre-condition for the design of appropriate fiscal policy measures for stabilization in the energy sector.

2. Specific approaches

(a) *Energy subsectors*

The transport and industrial sectors in most of the developing ESCAP region rely most heavily on imported mineral energy. The former sector depends almost exclusively on liquid fuels and is estimated to account for about one half of total consumption of petroleum products. The proportion varies from approximately 23 per cent in Bangladesh to 50-55 per cent in India, Indonesia, Nepal, Sri Lanka and Thailand.[23] By comparison, direct industrial use of hydrocarbons absorbs between 20 and 30 per cent of the available energy supply, with natural gas providing substantial industrial power in

23 *Economic and Social Survey of Asia and the Pacific, 1980, op. cit.*, p. 72.

Table II.20 Selected developing ESCAP countries. Taxes and duties as a share of net retail prices[a] for selected petroleum products, 1971-1979
(Percentages)

	1971	*1972*	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*Increase in energy taxes and duties, 1971-1979 (per unit)*
Burma, Rangoon										
Regular	121	124	127	65	47	6	2	8	7	–82.8
Premium	93	96	100	50	39	5	17	17	17	118.1
Kerosene	25	30	4	38	60	5	6	7	7	–40.0
India, New Delhi										
Regular	452	419	295	173	227	245	236	236	300	190.8
Premium	382	382	262	154	199	207	207	218	262	189.7
Kerosene	124	122	66	57	69	56	56	51	59	101.9
Pakistan, Islamabad[b]										
Regular	...	...	...	555	718	610	130	74	...	65.5[c]
Premium	...	...	...	448	197	197	66	65	...	65.5
Kerosene	...	...	...	157	350	344	288	–	...	...
Philippines, Manila										
Regular	43	44	41	38	37	35	43	44	...	448.6
Premium	33	33	31	36	35	32	44	43	...	491.4
Kerosene	17	18	15	8	9	10	7	7	...	42.9
Sri Lanka, Colombo										
Regular	...	...	92	72	49	25	25	1	1	...
Premium	...	...	92	72	49	25	25	1	1	...
Kerosene	...	...	47	30	30	10	10	1	1	...
Thailand, Bangkok										
Regular	94	94	78	75	45	45	58	76	77	248.0
Premium	82	82	68	69	42	43	52	69	71	248.0
Kerosene	33	30	29	23	12	13	14	11	28	116.9

Source: *Economic and Social Survey of Asia and the Pacific, 1981* (United Nations publication, Sales No. E.82.II.F.1), p. 94.
Notes: [a] Retail price net of duties and taxes. [b] The base year does not include taxes. [c] July 1978.

Box II.24 Energy demand management[a]

Demand management strategies in the energy sector can be designed to reduce the overall demand for energy or influence the fuel-mix in favour of alternative energy sources. The policy variables whereby these forms of demand management may be implemented include controls over quantity (so-called direct controls) and over price (in particular, tax/subsidy measures). Since energy costs and availabilities may be a major potential constraint on development, it is essential that the development implications of these strategic options should be explicitly analysed and that the preferred choices be fully integrated into development plans.

Energy demand strategies aimed at influencing the energy coefficient in production require substitution of fuels by other inputs (e.g., energy-saving capital, skilled labour); those aimed at influencing the fuel-mix seek to move from oil to other energy sources (e.g., coal, natural gas, renewables). Both possibilities exist in almost all end-use sectors. For example, in transportation, a major oil-using sector, a shift from road transport to railways would improve the efficiency of oil use while electrification would reduce oil consumption on railways. However, such forms of substitution require high capital investment and are likely to reduce employment. A detailed consideration of similar trade-offs may be required in manufacturing, irrigation pumping, household lighting and cooking and so forth.

Oil conservation strategies require adjustments in pricing policies as well as use of non-price instruments. Where price adjustments are made, tax/subsidy systems are most commonly applied; this has proved a relatively efficient policy approach. It is necessary in such cases not only to consider relative prices of different fuels but also prices of capital and labour relative to energy prices. Prices of different fuels and energy-dependent products should, furthermore, be determined in an integrated framework, which calls for close co-ordination between fiscal policy makers and the physical planners.

The success of price policy – and of the tax/subsidy measures which support it – in achieving the desired objectives of conservation and interfuel substitution depends on the special characteristics of energy demand in developing countries. Levels and patterns of energy consumption in these countries are determined more by supply constraints than by demand considerations. Non-availability of cheaper fuels may result from lack of production capacity or transport bottlenecks. In such situations, consumers tend to adjust their demand patterns to availabilities of different fuels even if their technical preferences suggest different fuel-mixes. Nevertheless, user choices may be affected by factors other than the relative prices of fuels – e.g., security of supply, uniformity of quality and the effect of fuel-mix on the quality of processed materials. It is also worth noting that fuel costs form a small proportion of total costs in many industries in developing countries and that entrepreneurs are frequently in a position to pass on increased fuel costs to consumers because of protected markets, lack of internal competition and general shortages of goods and transport capacity.

In many developing countries the existing prices of capital, labour and foreign exchange may not necessarily reflect the "true opportunity costs" of these factor inputs due to market imperfections or administrative controls such as minimum wages, subsidized capital and import quotas. Given the distortions in prices of non-energy inputs, it may be necessary to fix energy prices through tax/subsidy and other measures in such a way that they do not provide misleading signals to consumers, resulting in substitution of these scarce inputs for energy.

Non-price instruments include such measures as rationing of fuels, direct controls on consumers or producers regarding such energy-using goods as vehicles and energy-using equipment, and restrictions on production and investment in energy-intensive industries. The efficacy of these instruments varies from one country to another depending on the use of private vehicles, the adequacy of the apparatus for implementation of government legislation, the extent to which government is empowered to control the activities of producers and so forth. Reliance on such direct measures may be workable in centrally planned economies and may be feasible in situations of temporary shortages in mixed and market economies, but is not likely to be effective as a long-term policy instrument in the absence of a well-developed, adequately staffed and fully informed public administration. Given the existing realities in much of the developing ESCAP region, it would appear that, at least for short-term stabilization, the most feasible approach to energy demand management remains price adjustment through tax/subsidy arrangements.

[a] Based on "Energy transition through demand management: long-term strategies and policy imperatives", *Economic Bulletin for Asia and the Pacific*, vol. XXXII, No. 2 (December 1981).

Pakistan and, to a lesser extent, Indonesia.

Within the transport sector, the short-term fiscal policy response has been mainly one of raising import duties and sales taxes on motor vehicles, with steeply graduated rates on larger, petrol-driven cars. Annual registration and road taxes also have become increasingly progressive for bigger cars. These discriminatory measures have, at the same time, been supplemented by various non-fiscal restrictions relating to travelling speeds, working hours of service stations, access zones to private vehicles and so forth. In recognition of the fact that transport itself cannot be sacrificed, the overall policy intent has been to conserve on energy by shifting transport usage to more energy-efficient carriers.

Despite much discussion of various innovative possibilities, careful examination has shown that

relatively few energy substitution possibilities are available within the major industry sectors in the developing ESCAP region in the short term.[24] However, some scope exists for policy-induced improvements in industrial energy utilization, especially in the few developing ESCAP countries with energy-intensive activities (e.g., copper processing, cement and ammonia manufacture, pulp and paper making etc.). This is clearly a medium- to long-term process. The relevant policy packages for this purpose are not examined in this study.

(b) Energy products

Fiscal policy responses to the energy crisis represent essentially a compromise between the needs for short-term price stabilization and other longer-term objectives of development. With few exceptions, fiscally-induced increases in regular- and super-grade petrol prices in the developing ESCAP region averaged 30 to 50 per cent higher, in real terms, during the 1970s than diesel and kerosene prices. This was the net result of a combination of policy measures, including slower tax increases and government subsidies. Comparatively, real rates of growth in retail prices of kerosene were among the lowest in Bangladesh and Sri Lanka, averaging 6.7 and 9.3 per cent per year, respectively, during 1970-1979.[25]

The net impact of these measures in unclear. Gasoline consumption declined significantly in Sri Lanka over 1973-1979 and in the Republic of Korea between 1973 and 1977. Marginal changes in demand were observed in Bangladesh and Nepal, but gasoline consumption continued to grow, for example, in Papua New Guinea and Thailand. Generally speaking, then, the impact of the variety of fiscal policy measures introduced to alter prices had a limited effect on gasoline demand from private vehicle owners.[26]

Growth of kerosene consumption was contained in Bangladesh and Sri Lanka over 1973-1978. However, relatively steady growth in kerosene consumption was recorded in some countries which had considerably faster rates of increase in the real retail prices of this product. These contrasting demand patterns suggest that the

[24] A limited number of alternate primary energy sources have been developed which are technically feasible and commercially viable and require inexpensive investment for industrial use in the developing ESCAP region. These are surveyed in *Economic and Social Survey of Asia and the Pacific, 1980, op. cit.*, pp. 102-103.

[25] *Ibid.*, p. 95. Nevertheless, there was apparently some substitution of natural gas for kerosene in domestic cooking in urban areas of Bangladesh.

[26] *Ibid.*, p. 116.

Table II.21 Selected developing ESCAP countries. Volume of consumption of major petroleum products, 1971-1979

(Million litres)

	1971	*1972*	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*
Kerosene									
Bangladesh	346.9	319.7	446.4	387.2	375.3	410.8	406.1	453.5	477.2
Nepal	–	–	–	33.0	32.0	30.0	33.0	34.0	40.0
Papua New Guinea	12.0	14.0	14.0	15.0	15.0	18.0	19.0	22.0	23.0
Rep. of Korea	533.0	467.0	472.0	385.0	628.0	694.0	728.0	1 081.0	1 433.0
Sri Lanka	318.5	329.2	319.7	252.2	248.6	240.4	248.6	285.3	396.6
Thailand	191.0	268.0	209.0	241.0	206.0	295.0	285.0	266.0	340.0
Gasoline									
Bangladesh	52.1	63.9	77.0	68.7	71.0	65.1	66.3	71.0	78.1
Nepal	–	–	–	10.0	11.0	11.0	11.0	11.0	12.0
Papua New Guinea	85.0	97.0	97.0	99.0	113.0	114.0	114.0	118.0	120.0
Rep. of Korea	992.0	976.0	1 041.0	698.0	664.0	838.0	1 105.0	1 259.0	1 372.0
Sri Lanka	163.4	156.3	153.9	112.5	112.5	118.4	130.2	151.6	136.2
Thailand	1 269.0	1 268.0	1 500.0	1 606.0	1 763.0	1 963.0	2 183.0	2 307.0	2 323.0
Gas oil									
Bangladesh	–	–	–	–	–	–	201.3	217.9	241.5
Nepal	–	–	–	24.0	25.0	30.0	33.0	44.0	45.0
Papua New Guinea	–	–	–	–	10.0	8.0	14.0	14.0	13.0
Rep. of Korea	2 099.0	2 338.0	2 838.0	2 918.0	3 328.0	4 103.0	4 768.0	5 558.0	5 915.0
Sri Lanka	296.0	312.6	309.0	278.2	291.3	299.6	305.5	359.9	415.6
Thailand	2 584.0	2 714.0	3 083.0	2 955.0	2 867.0	3 357.0	3 730.0	3 926.0	4 411.0

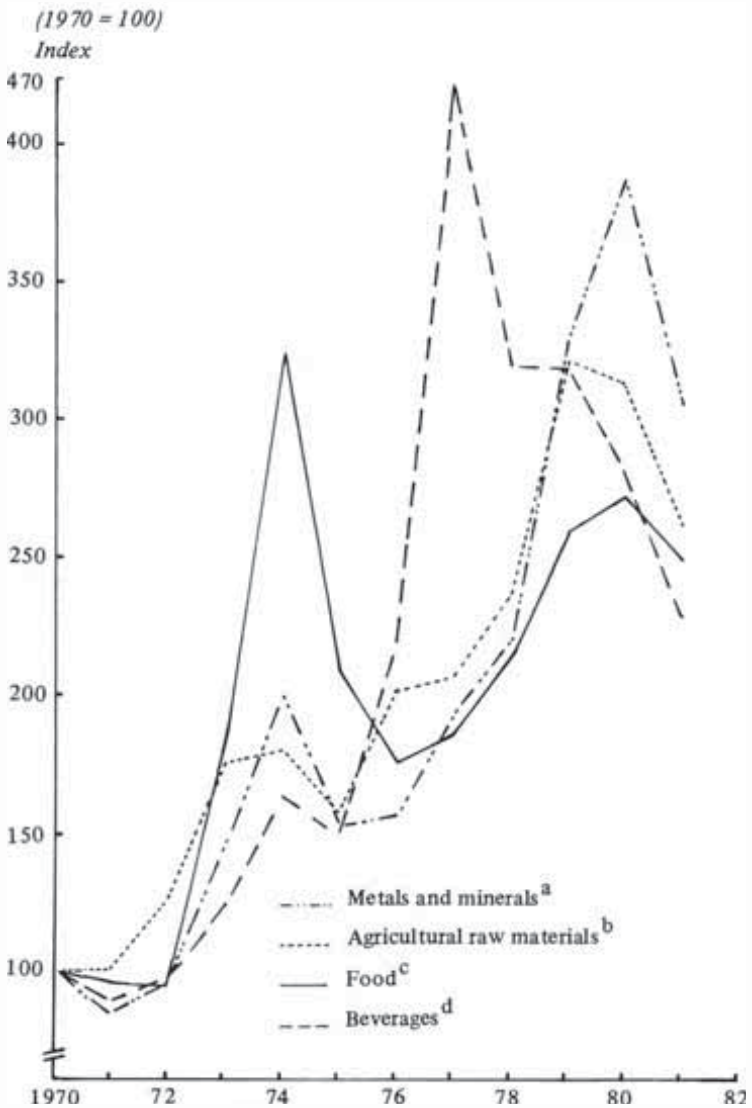
Source: Economic and Social Survey of Asia and the Pacific, 1980 (United Nations publication, Sales No. E.81.II.F.1), p. 97.

underlying causes of kerosene consumption trends require more careful attention from policy makers in the region. This is particularly important because kerosene is a significant consumption component in household budgets of the poor.

In sum, the oil shocks of 1973-1974 and 1979-1980 necessitated wide-ranging policy-induced short-run adjustments in the developing ESCAP region. On the one hand, retail prices of liquid energy products were permitted to rise substantially. These adjustments were generally intended to permit local prices to reflect more closely the landed cost of energy imports, partly in the interest of external stability and fuel conservation/substitution objectives. On the other hand, the various energy subsectors and energy products were not treated uniformly in consideration of the variable impact of domestic prices on specific social and economic groups.

In the final analysis, however, short-term policy responses to the oil shocks, including tax/subsidy measures to adjust prices in keeping with national interests, achieved only limited results. The necessity for appropriate long-term structural changes cannot, therefore, be overemphasized. This is particularly important for the non-oil developing ESCAP countries, which had to allocate one third to one half of their commodity export earnings to fuel imports in 1980-1981.[27] This increased burden also tended to fall with disproportionate severity on those countries of the region which were, by and large, least equipped to bear them.

Figure II.10 Developing ESCAP region. Price indexes of selected primary commodities exports, 1970-1981



Notes: [a] Copper, lead, gold and tin. [b] Cotton, hides, jute, logs and rubber. [c] Copra, maize, rice, palm oil, sugar and wheat. [d] Cocoa, coffee and tea.

C. STABILIZATION IN THE EXPORT SECTOR

In combination with the instability caused by intermittent food shortages and oil price shocks, the developing ESCAP countries have been adversely affected by fluctuations in the export earnings of their primary products. Cyclical swings in such earnings have conformed broadly to the instability patterns of non-oil commodity prices. Regional export trade receipts increased by 140 per cent over 1973-1974 and by 65 per cent during 1979-1980. Aggregate rates of growth in regional merchandise export earnings were much subdued in the years subsequent to these upswings, although exports of the region's oil exporters and newly industrializing economies expanded at comparatively faster rates than the regional averages. These,

[27] Asian Development Bank, *Key Indicators of Developing Member Countries of ADB*, various issues.

Box II.25 Stabilization policy in a centrally planned developing economy

As a largely self-contained economy, China is well insulated from external economic instability. Similar to the trend of commodity exports, the value of f.o.b. imports more than doubled from 12 billion to about 27 billion yuan over the period 1977 to 1980, amounting to 4.6 and 7.3 per cent of national income in 1977 and 1980, respectively.[a] Merchandise trade is, moreover, under strict central control although some degree of autonomy has been granted to local authorities. Official subsidies are provided for several import items as a means of moderating the domestic impact of imported inflation.

The principal instruments for ensuring domestic balance in general, and price stability in particular, are the budget variables. Unlike in market economies, monetary policy tends to play a neutral role in China; it is designed primarily to accommodate the planned requirements of the production sectors rather than influence the level and intensity of economic activities.[b] The primary task of fiscal policy for stabilization has generally been to achieve and sustain overall balance between government expenditure and revenue. This policy emphasis resulted in closely balanced budgets until 1978. During the years 1979-1980, however, the budget deficit amounted to almost 30 billion yuan, which was equivalent to 4.3 per cent of national income.[c] Some of the factors responsible for these deficits were substantial increases in planned capital construction, tax-relief programmes and general wage increases.[d] The overall deficit was financed mostly by means of overdrafts from the People's Bank of China. Currency on issue in 1980, for example, totalled 7.6 billion yuan compared to the planned target of only 3 billion yuan.[e]

The impact of increased currency in circulation was reinforced by appreciably higher procurement prices for farm products and increases in the cost of major food items and administered prices. The purchasing price index for agricultural produce, for example, went up by 22.1 per cent in 1979.[f] These factors contributed to a rise of 6 per cent in retail prices and 13.8 per cent in those for foodstuffs during 1980.[g] Although these inflationary rates were modest by international standards, they constituted a source of significant concern to the Government because China had enjoyed very stable prices over the previous three decades, the cost of living index having increased by an average of 1 per cent per year between 1950 and 1979.

Concern about the emergence of domestic imbalance and inflation has led to several measures for readjustment and stabilization. Planned deficits for 1981-1982 were reduced to 5.7 billion yuan. Projected capital construction was cut back from 54 billion yuan in 1980 to under 30 billion yuan in the 1982 budget. Remitted profits from state enterprises were permitted to decline further, from 48.2 billion to 34.4 billion yuan in the respective years. This was intended to provide incentives to enterprise management for improving productivity and reducing costs of production.

These measures yielded beneficial results. State purchase prices for several agricultural products, including vegetables, were raised and a larger volume of these items was acquired at prices applicable for surplus (above quota) output in 1980-1981. Nevertheless, the farm price index rose by only 7.1 per cent in 1980 and another 5.9 per cent a year later, compared to 22.1 per cent in 1979.[h] The premium for above-quota production was, to some extent, offset by consumer price subsidies, which amounted to 14.6 billion yuan in 1979, rose to 20.8 billion yuan a year later and were expected to reach 32 billion yuan in 1981.[i]

Reduced aggregate absorption, moderate changes in procurement and controlled prices and increased supplies interacted to slow down significantly the rate of retail price inflation. The average rate, at 2.4 per cent in 1981, was just over one third of the level a year earlier. Food prices rose by 3.7 per cent in 1981.[j] It is thus apparent that determined fiscal policy measures, among other readjustments, have contributed appreciably to the restoration of domestic balance and price stability in China since 1981.

[a] International Monetary Fund, *International Financial Statistics*, vol. XXXV, No. 6 (June 1982), p. 120.

[b] Yao Yilin, "Report on the readjustment of the 1981 National Economic Plan and State revenue and expenditure (excerpts)", *Beijing Review*, No. 11 (16 March 1981), p. 16.

[c] International Monetary Fund, *op. cit.*

[d] *Economic and Social Survey of Asia and the Pacific, 1981* (United Nations publication, Sales No. E.82. II.F.1), p. 115.

[e] Yao, *loc. cit.*, p. 15.

[f] China, State Statistical Bureau, "Communique on fulfilment of China's 1980 National Economic Plan", *Beijing Review*, vol. 24, No. 20 (18 May 1981), p. 17.

[g] Yao, *loc. cit.*, p. 15.

[h] China, State Statistical Bureau, *op. cit.*; and "Communique on fulfilment of China's 1981 National Economic Plan", *Beijing Review*, vol. 25, No. 20 (17 May 1982), p. 21.

[i] *Economic and Social Survey of Asia and the Pacific, 1981, op. cit.*

[j] China, State Statistical Bureau, *op. cit.*; and "Communique . . . 1981 . . .", *loc. cit.*, p. 21.

however, were characteristically volatile.[28]

The task of stabilization in this context is to prevent or at least minimize the translation of periodic swings in export earnings into magnified swings in local real incomes, and hence consumption, employment and prices. Fiscal policy instruments can be powerful stabilizers of export earnings if suitably formulated and implemented. For example, export taxation and/or commodity stabilization levies can be structured so as to yield large receipts when com-

[28] *Ibid.*, vol. XIII, No. 1 (April 1982), p. 21.

modity earnings are booming and diminished receipts during downswings. Such collections are intended to be transitory and used only to supplement revenue shortfalls and/or subsidize the export industries during downturns.

On the government expenditure side, two options are available in this regard. The rate of real growth in public expenditure and the magnitude of budget deficits/surpluses can be varied in direct response to fluctuation in trade earnings. Alternatively, the trend of public sector expenditure can be estimated, and the rate of sustainable expansion in current and capital expenditure in real terms can then be projected. To the extent that fluctuations are offsetting and of sufficiently limited amplitude, this eliminates the need for short-run discretionary adjustments in the rate of public spending in response to export swings.[29]

Expenditure measures to stabilize export prices or insulate domestic earnings levels against commodity price swings clearly operate within narrow limits in developing countries. It is therefore on the revenue side that the more effective stabilization measures appear. This is particularly true of export taxation. Although many developing ESCAP countries specialize in primary exports, export taxation has constituted a substantial source of public revenue only in Malaysia, Sri Lanka and, to a lesser extent, the Philippines and Thailand. In the latter two countries, export taxes provided over 10 per cent of government revenue in the boom year of 1974. The relative contribution of export duties to the budget, although rather variable, averaged 14 and 17 per cent in Malaysia and Sri Lanka, respectively, during 1970-1981.

[29] This planning budgeting approach has been pursued most explicitly and vigorously in Papua New Guinea.

1. Export taxation

The relatively limited revenue contribution of export taxation in most developing ESCAP countries does not adequately reflect this instrument's role as an economic stabilizer. Though it is regularly and heavily resorted to in only a few countries, its occasional and marginal use in other cases generally has a significant stabilization impact. For example, the need for temporary levies to absorb windfall incomes has been well recognized in Bangladesh. When there was a sharp rise in the price of tea in early 1977, the counter-cyclical role of export taxation was strongly advocated by the Taxation Enquiry Commission in the following year.[30]

Export tax policy for stabilization appears in a number of countries to be a matter of responding to particular situations as they emerge. Thus, Pakistan imposed export duties on several items to eliminate windfall gains shortly after the rupee was devalued in 1972. The Philippines introduced temporary stabilization taxes to capture excess profits arising from the 1970 devaluation of the peso. An additional stabilization premium was levied in early 1974 to counteract the export price surge starting in 1973. In Indonesia, the sharp devaluation of late 1978 was followed in 1979 by the imposition of an additional export tax, previously levied on palm oil, on several other commodities, including coffee, black tea, coconut products and sawn timber.[31] The primary aim of this extended tax coverage was to ensure the retention of adequate domestic supplies at reasonable prices. Nevertheless, it also produced a useful counter-cyclical price impact as these commodities were at that time benefiting from buoyant world demand.[32]

Export levies formulated expressly for counter-cyclical purposes are well established in Malaysia, Papua New Guinea, Sri Lanka and Thailand, as well as some other South Pacific island countries. These export tax systems are generally designed in one of two ways. Export stabilization arrangements in the South Pacific island countries are operated by statutory authorities, such as marketing or industry boards, while export taxes form part of consolidated government revenue in Malaysia, Sri Lanka and Thailand. The latter three economies rely largely on export taxes at varying rates of *ad valorem* progression[33] to moderate swings in trade earnings, while in the South Pacific the export stabilization process comprises both graduated collections during an upturn and subsidies or bounties to export producers in a depression.

Revenue from rubber export taxes and cesses in Malaysia, for example, increased heavily over the commodity export boom of the early 1970s. From a depressed level of about 4 per cent of rubber value collected as export tax over 1971-1972, it jumped to 11 per cent in 1973-1974 and, following a later revision to increase export tax progressivity, ranged from 17 to 25 per cent during 1976-

[30] Bangladesh, Ministry of Finance, *Final Report of the Taxation Enquiry Commission* (1979), pp. 234-235.

[31] The export levy on logs had been raised from 10 per cent to 20 per cent *ad valorem*, and that on processed timber abolished in early 1978.

[32] Reductions in export taxes, particularly on coconut products, were made in 1980/81 to counter falling world prices, causing trade earnings on non-oil and gas products to fall by 10 per cent. Bank Indonesia, *Report for the Financial Year 1979/1980* (1980), p. 69; and *1980/1981* (1981), p. 64.

[33] *Ad valorem* progression means a sliding scale, with tax rates rising at higher levels of price and falling at lower levels.

1980.[34] This represented the withdrawal of a substantial volume of excess purchasing power and liquid assets from the private and financial sectors during an expansionary period. Levies on the two other major primary products, namely tin and palm oil, also exhibited a high degree of *ad valorem* graduation, with similar counter-cyclical implications.

In Sri Lanka, export duties as a proportion of export values show wider variability for rubber and coconut than for tea, partly reflecting differing degrees of progressivity in the tax structure. Both export values and export tax revenue col-

[34] The system is reviewed in R. Chander, C.L. Robless and K.P. Teh, "Malaysian growth and price stabilization", in W.R. Cline *et al.*, eds., *World Inflation and the Developing Countries* (Washington, D.C., The Brookings Institution, 1981), p. 222; and C.T. Edwards, *Public Finances in Malaya and Singapore* (Canberra, Australian National University Press, 1970), pp. 233 ff.

Table II.22 Selected developing ESCAP countries. Export earnings and export tax revenue from major primary commodities, 1970-1981

		1970	*1971*	*1972*	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*
Malaysia													
Rubber	A	1 724	1 460	1 298	2 507	2 888	2 026	3 098	3 379	3 601	4 483	4 617	3 708
	B	80	50	49	233	384	121	519	577	716	1 118	1 098	519
	C	4.6	3.4	3.8	9.3	13.3	6.0	16.8	17.1	19.9	24.9	23.8	14.0
Tin	A	1 013	906	924	897	1 515	1 206	1 524	1 704	2 021	2 316	2 506	2 137
	B	130	127	127	130	271	195	291	441	500	545	575	298
	C	12.8	14.0	13.7	14.5	17.9	16.2	19.1	25.9	24.7	23.5	22.9	13.9
Palm oil	A	264	380	363	467	1 086	1 318	1 220	1 790	1 872	2 471	2 604	2 834
	B	18	28	32	50	228	282	166	346	207	246	166	142
	C	6.8	7.4	8.8	10.7	21.0	21.4	13.6	19.3	11.0	10.0	6.4	5.0
Papua New Guinea[a]													
Coffee	A	20	21	20	23	29	34	42	132	107	125	119	74
	B	–	–	–	–	–	–	7	39	17	20	11	–5
	C	–	–	–	–	–	–	16.7	29.5	15.9	16.0	9.2	–6.8
Cocoa	A	16	14	11	11	23	40	28	55	63	58	46	34
	B	–	–	–	–	–	–	4	28	17	11	2	–8
	C	–	–	–	–	–	–	14.3	50.9	27.0	19.0	4.3	–23.5
Copra	A	13	14	9	8	24	29	12	19	25	44	25	20
	B	...	...	...	...	...	...	...	2	–1	11	–6	–6
	C	...	...	...	...	...	...	...	10.5	–4.0	25.0	–24.0	–30.0
Sri Lanka													
Tea	A	1 119	1 144	1 162	1 261	1 360	1 932	2 100	3 503	6 401	5 722	6 170	6 444
	B[b]	176	169	163	171	156	178	167	280	2 780	2 495	1 920	1 880
	C	15.7	14.7	14.0	13.6	11.5	9.2	8.0	8.0	43.4	43.6	31.1	29.2
Rubber	A	440	307	265	592	739	654	890	931	2 021	2 491	2 590	2 895
	B	54	14	11	142	284	140	197	261	1 001	1 239	1 386	1 431
	C	12.3	4.6	4.2	24.0	38.4	21.4	22.1	28.0	49.5	49.7	53.5	49.4
Coconut	A	237	276	263	142	394	388	502	496	1 271	1 699	1 234	1 011
	B	99	55	27	33	162	65	5	14	345	335	218	241
	C	41.8	19.9	10.3	23.2	41.1	16.7	1.0	2.8	27.1	19.7	17.7	23.8
Thailand													
Rice	A	2 516	2 909	4 437	3 594	9 774	5 852	8 603	13 382	10 425	15 592	19 508	26 352
	B	540	225	158	333	3 123	371	5	–	–	–	–	–
	C	21.5	7.7	3.5	9.3	32.0	6.3	0.1	–	–	–	–	–
Rubber	A	2 232	1 905	1 862	4 573	5 035	3 474	5 297	6 164	8 030	12 351	12 351	10 818
	B	195	22	15	320	871	325	675	960	1 354	2 335	2 442	1 459
	C	8.7	1.2	0.8	7.0	17.3	9.4	12.7	15.6	16.9	18.9	19.8	13.5

Sources: National sources.

Notes: A = Export values (national currency, million). B = Export duties (national currency, million).
C = Export duties as share of export values (percentage).

[a] Including export taxes and stabilization levies and bounties administered by statutory authorities. [b] Excluding sales tax revenue on domestic auctioned tea.

lected on all three commodities rose sharply in 1978. Moreover, the proportion of export taxes collected out of export earnings marked a steep increase and remained generally higher throughout the 1978-1981 period relative to 1969-1977. The change in 1978 was in large measure due to the introduction of higher export tax rates and a major devaluation in replacement of the foreign exchange entitlement certificate scheme, which had formerly served in effect as an implicit tax (in the form of an unfavourable official foreign exchange rate) on these "traditional" export commodities. From the stabilization point of view, the important point is that during 1978-1981 export tax revenues as a percentage of export values averaged 36 per cent for tea, 51 per cent for rubber and 22 per cent for coconut products, thus enabling the withdrawal of a substantial volume of private sector purchasing power.

The stabilization potential of tea taxation in Sri Lanka has been partly blunted by its gradual shift away from an *ad valorem* levy at the auction point to a specific duty collected at the export point.[35] With this change the export tax system requires discretionary intervention whenever stabilization objectives are to be sought. The feasibility of providing the export tax system with a sliding-scale *ad valorem* rate structure would thus appear to deserve careful consideration in Sri Lanka, as in other developing ESCAP countries which have retained specific export tax rate structures.

The rubber export tax in Thailand incorporates a graduated *ad valorem* schedule so that, compared with the corresponding levels during 1975-1976, duty receipts increased by 600 per cent as a result of a rise of about 350 per cent in rubber earnings over the extended upswing of 1977-1980. Rice is also subject to an *ad valorem* export duty. A far more important additional levy, in terms of revenue yield and counter-cyclical impact, used to be the rice export premium. This tax had operated with a frequently adjusted specific rate structure, except during 1967-1968, when it had been experimentally converted to fixed *ad valorem*[36] rates. The rice premium achieved mixed success for a variety of reasons, including its specific rate structure and hence its inadequate synchronization with highly variable market conditions. Nevertheless, in combination with other measures such as occasional quantitative export restrictions, the premium possessed significant potential as a fiscal stabilizer, particularly during periods of rising export prices. For various reasons, including its adverse inter-sectoral equity implications and political sensitivity, reliance on the rice export "premium" was much reduced after 1974 and its importance as a fiscal stabilizer declined markedly thereafter.

2. Commodity stabilization schemes[37]

To cope with cyclical instability in the commodity export prices and earnings, several South Pacific island countries have institutionalized tax/subsidy arrangements. These arrangements are in the form of national industry or marketing boards for coconut products, banana, cocoa, coffee and certain other commodity exports. These bodies exert, directly or indirectly, significant counter-cyclical influence on the domestic economy through the determination of local producer prices by regulating the amount of stabilization levy to be collected and the subsidy to be granted per unit of export output of the relevant commodities under changing market conditions.

The stabilization framework for the principal agricultural export commodities in Papua New Guinea is perhaps the most elaborate within the South Pacific subregion. Export price stabilization in this country is carried out through levies collected by or bounties distributed by the Copra Marketing Board and the Cocoa and Coffee Industry Boards. The marginal rates of progression of the relevant levies/bounties were increased substantially after an extensive restructuring and simplification of the schedules during 1976-1978. They are 50 per cent of the excess between actual and reference export prices in the case of cocoa and coffee, and reach 60 per cent at peak copra price levels.[38]

Fortuitously, the cocoa and coffee industries experienced an unusually prolonged boom, of varying degrees of intensity, during 1977-1980. As a result, the respective stabilization funds were able to collect a windfall of almost 145 million kina of export proceeds during this period. This massive sum was equivalent to over a quarter of producer incomes, including the margins for traders and exporters.[39] As about two thirds of

[35] Central Bank of Ceylon, *Review of the Economy, 1978* (1979), p. 247; and *Annual Report for the Year, 1978* (1979), p. 54-57.

[36] Fixed *ad valorem* rate means that the tax rate does not change with price changes.

[37] This discussion does not consider such important commodity stabilization schemes as the international rubber and tin buffer stock arrangements because these schemes rely primarily on stocking/destocking rather than on tax/subsidy arrangements.

[38] The reference levels represent the average of monthly export prices, in real terms, of the last 10 years.

[39] Bank of Papua New Guinea, *Quarterly Economic Bulletin* (December 1981), pp. 36 and 43.

stabilization fund balances are normally immobilized as interest-bearing deposits at the Bank of Papua New Guinea, a substantial volume of private sector purchasing power was thus absorbed. Despite considerable payouts to cocoa and coffee producers in response to depressed export prices in 1981, the cocoa and coffee funds remained in a strong financial position due to very high reserves.

In sharp contrast, accumulated reserves in the Copra Stabilization Fund have historically been very low. Nevertheless, the Copra Marketing Board has been able to perform a significant income support role within its financial limits. The most recent price boom, reaching its peak in 1979, helped raise total reserves to 11.3 million kina in the first quarter of 1980. However, world prices for copra then experienced a steep decline and remained at a lower level thereafter. Continuing subsidies lowered fund balances to just 1.4 million kina by the end of the first quarter of 1982.[40] Should the copra price slump continue, and without a financial transfer from the Government, fund reserves will have been totally exhausted by early 1983.

In sum, fluctuations in commodity export earnings have constituted a persistent and serious disturbance to economic stability in the large majority of developing ESCAP countries. Yet only a few economies have devised a systematic export tax/subsidy framework for stabilization purposes. It is not that such a need is not fully appreciated. The limited reliance within the developing ESCAP region on export levies for counter-cyclical containment is due largely to the difficulty of accommodating such a policy instrument to longer-term equity and producer welfare considerations. Nevertheless, a graduated, *ad valorem* export tax has proved to be a useful stabilization device because it is able to absorb an increasing share of windfall profits during export price booms and automatically to recede

[40] Bank of Papua New Guinea, *Quarterly Economic Bulletin* (June 1982), p. 43.

Box II.26 The case for integration of commodity stabilization schemes

The formal stabilization schemes administered by statutory commodity authorities in several developing ESCAP countries, as exemplified by the cocoa and coffee schemes in Papua New Guinea, involve a graduated export levy in periods of rising world demand and maintenance of producers' income in periods of falling world demand. The latter condition is achieved through a unit subsidy or floor price guarantee at levels judged to be adequate for sustained production during periods of depressed export prices and earnings. Conversely, a levy is collected when prices exceed these levels. The levies or subsidies per unit of export output may be derived according to an automatic formula. However, such formal arrangements do not characterize commodity stabilization policies in all countries or for all commodities within a country. Thus, one of the issues emerging in discussions regarding commodity stabilization policies in these countries relates to the question of extended coverage under the existing formal systems.

It has been suggested that the extended availability of formal stabilization mechanisms could improve the timeliness and consistency of producer price adjustments in response to rapid world price fluctuations in a number of commodity-exporting countries of the developing ESCAP region. However, stabilization schemes formalized on the basis of producer income support have encountered considerable problems in establishing industry-wide "average" or "representative" cost levels, as commodity producers in the region tend to be characterized by high degrees of variation in their efficiency of production.

An even more important issue is that export commodity stabilization on an income-support basis could result in support of industries which are subject to long-term declining world demand, and thus inherently uneconomic. In that event, tax/subsidy arrangements would deteriorate into continuing subsidization, quickly bankrupting the "stabilization" arrangements that were established to ensure their viability.

In the presence of unpredictable world market conditions, there is the ever-present possibility that the accumulated levies of stabilization schemes may prove insufficient to underwrite guaranteed floor prices or trend-determined subsidies if low commodity prices persist over an extended downswing. In this connection, arrangements to permit cross-borrowing between different commodity schemes merit consideration. Export earnings do not fluctuate in synchronized fashion for all commodities. Thus, there is scope for the utilization of the surplus or excess reserves of one stabilization fund in effective support of the operational viability of another scheme in pooled arrangements.

Another issue is the multiplicity of statutory authorities that oversee individual agricultural products in some developing ESCAP countries. Since commodity prices do not always fluctuate in neat coincidence, there may be a case for the establishment of single national boards to regulate all commodities together. Among other advantages, the aggregate reserves required to stabilize a group of commodities under an integrated arrangement would likely be much smaller than the amounts needed by separate boards to regulate individual commodities.[a]

[a] See "Report of the expert group meeting on domestic stabilization of international trade instability in the South Pacific" (E/ESCAP/DP.4/2), 20 August 1982, pp. 5-6.

thereafter. To maintain producer incentives – not to mention viability – such a policy measure should ordinarily be supported by subsidy arrangements during periods of price decline.

D. THE STABILIZATION DILEMMA

Any stabilization policy directed towards specific sectors or commodities is confronted with the inescapable dilemma that the results obtained in these sectors or commodities may not be commensurate with those that would be desired at the macro level. Where the stabilization consequences of particular policy measures are evaluated in a general equilibrium framework, such shortcomings become painfully clear. A special complication in such evaluative efforts arises, however, from the fact that the observed consequences of actual policy regimes are ordinarily compared with those that would have obtained under some alternative "ideal" policy scenario or in the hypothesized absence of any policy intervention. Such theoretical alternatives emphasize the technical deficiencies of existing partial-equilibrium policy regimes.

To take but one example, the basic stance on short-term fiscal policy responses to moderate the effects of food price inflation in the developing ESCAP region has consisted of increased price subsidies and supply availability through imports and/or destocking. The success of such measures in stabilizing the overall consumer price index is, however, dependent on a variety of conditions which are observable only at the macro level. Considering the importance of food in the overall consumer price index, subsidy measures may be considered to have made a direct contribution to overall price stability to the extent that they have resulted in reduced prices of foodgrains. Alternatively, food price inflation may be translated into pressures for bargained wage increases and, therefore, cost-push inflation. In such circumstances, the monetary authorities have little option other than to permit validating increases in money supply to avoid contractions in the level of employment.

Other consequences would also need to be taken into account in a general equilibrium analysis. One important issue is how the subsidy is financed – by raising more taxes, by borrowing and, if so, from whom. For example, if the subsidy is financed by borrowing from the monetary authorities, the attempt to contribute to price stability by subsidizing food prices may actually accelerate inflationary pressures. Secondly, subsidies transfer real income to consumers. The resultant increased purchasing power and the price changes that accompany it cause a reallocation of private expenditure not merely among consumption goods but also between consumption and saving, thus affecting aggregate demand, investment, production and employment, among other key macro-variables. The effect on the overall price index would be determined by the combined interaction of these factors and not simply by the subsidy *per se*.

To the extent that the policy response to the energy crisis has involved subsidization, similar propositions would hold. Insofar as domestic energy prices were permitted to rise in the 1970s, important considerations included such matters as the importance of energy in production costs, the supply response of alternative sources of energy to price changes, the impact of reduced real income of affected users on savings and the rates of investment and output growth. In the case of fluctuations in commodity export prices, the net effect of high export taxes on domestic prices during boom periods would depend to a large extent on what the Government does with the extra revenue raised. Were the Government to spend it all, the inflationary impact of the export boom would be further aggravated, thus defeating the very purpose of the stabilization policy.

The above examples illustrate some of the complex processes whereby the intentions of particular stabilization policy measures may be distorted in practice. The ultimate implications of such policy measures cannot be determined without comprehensive general equilibrium models capable of capturing the interactions of the various economic sectors and of relative price changes. The partial equilibrium conclusions derived in this study should thus be treated with considerable caution.

VI. DEVELOPMENT PLANNING AND FISCAL POLICY

A development plan is essentially a blueprint of strategies for steering the economy along a postulated path, formulated in consideration of the nation's development objectives and the feasibility of attaining them within a given time frame. The plan serves as a means whereby national development aspirations may be translated into effective action. In a more instrumental sense, it provides a set of guide-lines or instructions concerning the mobilization and utilization of resources, both physical and financial, in a carefully orchestrated manner aimed at achieving targeted ends efficiently and expeditiously. The process of development planning revolves around the formulation, implementation and review and evaluation of such plans on a continuing basis.

Nearly all developing ESCAP countries utilize development planning as a means of pursuing their national development aspirations, though the diversity of variations on the planning theme – in terms of the intensity of the effort, strategic trajectory, extent of public sector participation, modality of control, administrative apparatus and so forth – ensures that each case remains in large measure unique. Despite this diversity, however, certain common features of development planning may be noted throughout the region. One is the high degree of consensus that has been reached as to the essential objectives of development. Another is the consistency with which fiscal policy, and a specific range of fiscal policy instruments, has been relied on to achieve these objectives.

The broad objectives of development as expressed in the national plans of developing ESCAP countries are not only shared by the various countries of the region but have been consistently pursued by them, though with varying orderings of priority, for the past several decades. A classic analysis undertaken a quarter of a century ago listed the most commonly accepted development objectives in the region as follows: rapid increase in per capita income; high level of employment; relatively stable price level; equilibrium in the balance of payments; reduction of inequalities in income distribution; avoidance of marked disparities in the prosperity and growth of different regions within a country; and a diversified economy.[1] This list of objectives remains as relevant today as when it was drawn up.[2]

Within the development plan, the design of a framework of economic policies aimed at the simultaneous fulfilment of these objectives is no easy task. It would be ideal if each policy instrument could be assigned to a single, clearly defined and demarcated objective. Though policy instruments are often designed with only one objective in mind, their implementation does not permit such singularity of purpose, as individual instruments invariably have multiple effects. The policy optimization techniques advanced in the extensive literature on the theory of choice among multiple objectives thus remain in the realm of phraseology.[3]

The problem of linking individual development objectives with single policy instruments is further complicated by the conflicts that are generated by the inconsistent effects that each instrument necessarily has on multiple objectives. In the absence of clearly defined priority rankings among development objectives, policy makers are left with the often impossible task of seeking the simultaneous fulfilment of a number of "first priority" development goals. This problem is particularly acute where,

[1] *Programming Techniques for Economic Development with Special Reference to Asia and the Far East: Report by a Group of Experts* (United Nations publication, Sales No. 60.II.F.3), p. 6.

[2] See, for instance, the remarkably similar list of development objectives presented in M. Todaro, *Economic Development in the Third World* (London, Longman Group Limited, 1981), pp. 457-458.

[3] See, for instance, H. Theil, *Optimal Decision Rules for Government and Industry* (Amsterdam, North-Holland Publishing Company, 1964); K.R. MacGrimmon, *Decision Making Among Multiple-attribute Alternatives: A Survey and Consolidated Approach* (memorandum RM-4823, ARPA, Rand Corporation, 1968); and C.H.R. Blitzer, P.B. Clark and L.V. Taylor, eds., *Economy-wide Models and Development Planning* (London, Oxford University Press, 1975), chapter IX.

as in many countries of the region, development policy is formulated on the basis of a vague qualitative integration of a large number of economic, social and political objectives. As a result, trade-offs are not clearly specified, leading to the formulation and implementation of plans which fail to pursue effectively any of their specified objectives.

Fiscal policy instruments have been among the most universally applied means of pursuing the development objectives identified in the plans of developing ESCAP countries. As with other policy variables, the conduct of fiscal policy has resulted in a variety of conflicts among the development objectives pursued by countries of the region. However, possible points of complementarity among objectives have sometimes been overlooked. In addition to the general issues raised above in connection with the need to match objectives with instruments in the development planning process, certain aspects relating to fiscal policy in particular may be noted.

First, the traditional view of fiscal affairs as a matter dealing specifically and solely with the mobilization of adequate revenue to finance planned expenditure not only excludes the expenditure side of the fiscal process from consideration as a fiscal policy variable but, equally important, ignores the potential role of revenue management in the planning process. It is a matter of continuing concern that, despite the recognition accorded in scholarly expositions and public pronouncements to the value of fiscal policy as a key development planning instrument, priority at the working level is nearly invariably placed on the maximization of revenue to meet predetermined expenditure requirements.

Closely related to this problem is the divergence that is frequently observed between fiscal policy measures as formally prescribed in plan documents and the actual conduct of fiscal affairs. The gap between formulation and implementation may derive in part from the different perceptions of development planners and fiscal policy makers, the narrow focus of the fiscal authorities, or the failure of the planners to take into active consideration the institutional constraints. It may also stem from the continuing pressures encountered by fiscal policy makers to diverge from the longer-term goals set in the plan in order to combat short-term "crises". Whatever the causes of such inconsistencies between plan formulation and the execution of fiscal policy, it is clear that remedial action is called for if development planning is to have operational meaning, and in particular if plan documents are to be considered as something more than rhetoric.

Whether fiscal policy is applied in a centrally planned, mixed, or market economy, it serves the planners as a management tool to guide the behaviour of the myriad of participants in the development process – individuals, households, business firms, co-operatives, state enterprises, government agencies and others – in accord with the strategy devised to attain the nation's development objectives. Whether directed at the public or private sectors, viewed as a means of revenue generation or expenditure allocation, or used as a mechanism for distribution of rewards or penalties, the leverage provided by fiscal policy measures makes them perhaps the single most effective instrument for guiding the developing ESCAP region to the attainment of its development objectives.

A. THE RESOURCE CONSTRAINT

The role of the public sector as an "engine of development" varies greatly from country to country in the developing ESCAP region. The primary fiscal indicator of government's role, the ratio of total government expenditure to GDP, provides only a partial view, as it does not cover the great variety of legislative, administrative and other instruments whereby the Government leads the nation in its pursuit of development objectives. Nevertheless, for a sample of 16 developing ESCAP countries the expenditure-GDP ratio in 1980 averaged 26.2 per cent.[4] The leadership role played by Governments in development expenditure is even greater. Thus, the share of the public sector in gross domestic capital formation in a sample of nine developing ESCAP countries as of 1980 was 43.2 per cent.[5]

The leading position assigned to the public sector in the development plans of ESCAP countries can only be achieved through intensive efforts to mobilize the necessary resources. This calls into play a broad-ranging assortment of revenue-generating approaches, consisting not only of tax and non-tax revenue but also to a considerable extent in many cases of grant aid and domestic and foreign debt finance. However, severe constraints on the degree to which various of these sources can be tapped restrict the possibilities of resource mobilization considerably.

For one matter, aid grants can only be considered as a transitional, temporary and uncertain source of government receipts.[6] Furthermore, the absence of well-organized

[4] See Table II.1. These data refer to central government expenditure only and exclude expenditure incurred by autonomous public enterprises. The country sample does not include centrally planned economies.

[5] See Table II.11.

[6] United Nations, "Foreign aid and development needs", *Journal of Development Planning*, No. 10 (1976), pp. 1-22.

Box II.27 Administrative co-ordination

Consultation and collaboration between the development planning and fiscal policy-making agencies is provided for in the administrative apparatus in all developing ESCAP countries, often under direct ministerial supervision and participation. However, such arrangements frequently do not work satisfactorily in practice. The reasons stem partly from rigidities in the institutional arrangements and partly from the absence of necessary motivation for co-operation among personnel in the agencies concerned.

The urgency of major administrative changes to improve interagency co-ordination in development plan formulation and implementation has been recognized by many developing ESCAP countries. Among the most recent development plans of 12 ESCAP countries surveyed, eight (those of Bangladesh, Fiji, India, Malaysia, Pakistan, the Philippines, Samoa and Sri Lanka) contain chapters specifically devoted to the issue of administrative machinery for plan implementation. In addition, the development plans of the other four countries (Afghanistan, Indonesia, Iran and Thailand) allocate much space to a consideration of administrative capabilities in relation to plan implementation.[a]

Co-ordination problems between planners and fiscal policy makers are of special concern. The perspectives and operating procedures of the agencies responsible for development planning and fiscal policy differ. Particularly important is the fact that planning agencies tend to be more concerned with medium- to long-term perspectives while finance ministries are basically preoccupied with the annual budgeting exercise and day-to-day administrative tasks. Moreover, the capability of finance ministries to co-ordinate their operations over the longer term is often constrained by the need to accommodate short-term economic and political vicissitudes.

Fiscal policy is usually under the charge of a government agency, ordinarily the ministry of finance, which is autonomous (below ministerial level) from the agency responsible for development planning. To ensure the implementation of fiscal policy measures as envisaged in the development plan, effective arrangements must be devised to enforce close co-ordination between the development planners and the fiscal policy makers. This is particularly true of tax measures, as plan documents seldom spell out in detail the revenue actions to be taken by the fiscal authorities in consonance with plan objectives. Fiscal policy makers are thus left with wide decision-making latitude with respect to the adjustment of revenue to meet expenditure requirements.

Despite the fact that administrative links usually exist between the planning and fiscal policy authorities at the top level in developing ESCAP countries, linkages at the working level are often weak and thus leave wide gaps in co-ordination between development objectives and the fiscal instruments required to promote those objectives. Notwithstanding the need for ensuring the secrecy of tax legislation, close collaboration at the working level between the finance ministry and the planning agency is essential for assessing the impact of existing tax measures and of potential tax changes on various development objectives. In reviewing regional experience in this regard, a recent expert group meeting on tax planning concluded that "attempts at co-ordination at the highest levels alone were not adequate for ensuring consistency of tax policy with development planning objectives. There should be effective institutional arrangements for co-ordination between development planners and budget and tax formulators at various working levels".[b] While various inter-ministerial working committees are typically called upon to participate in a consultative capacity in plan formulation, such detailed consultations often do not take place when budgets and tax policy changes are being considered. The consultative process thus is often a one-sided affair and is pursued at such high levels as to have little operational content.

For instance, Thailand's planning agency, the National Economic and Social Development Board (NESDB), does not ordinarily participate in tax policy formulation, a function under the jurisdiction of the Ministry of Finance (MOF). The longer-term development planning strategy has in past years thus been less than fully reflected in the fiscal policy frame. Recognizing the co-ordination problems, a Tax Policy Board has been set up in Thailand to help reduce the gap between short-term tax policy making and long-term tax planning. This Board, which advises MOF, consists of members from MOF and NESDB, as well as other agencies involved in development planning and the conduct of fiscal policy.

The Republic of Korea's planning agency, the Economic Planning Board (EPB), has concentrated under its jurisdiction the functions of economic plan formulation as well as the preparation of guide-lines for all supportive economic policies, including budget and tax policies. Thus, formally speaking, there should be no lack of co-ordination between the planners and the fiscal policy makers. But the Finance Ministry bears the main responsibilities for financial resource mobilization and adoption of new tax measures. In spite of efforts to bring about close co-ordination between the two agencies at the ministerial level, the absence of institutionalized channels of communication at the working level has caused occasional complications.

In some countries of the region no forum is provided wherein fiscal policy proposals can be formally discussed by the planning and financial authorities. In the case of Bangladesh, for instance, the Planning Commission and the Internal Resources Division of the Ministry of Finance have little continuing formal means of co-ordination in fiscal policy formulation, though extensive consultations do take place between these agencies in connection with plan formulation. Hence, the effects of fiscal policy decisions on plan objectives are rarely exhaustively evaluated, reducing the effectiveness of fiscal policy as a planning instrument.

In Sri Lanka, one of the few countries where the finance and plan-

(Continued overleaf)

[a] *Changes and Trends in Public Administration and Finance for Development, Second Survey, 1977-1979* (United Nations publication, Sales No. E.82.II.H.1).

[b] ESCAP, Report of the Expert Group Meeting on Integration of Tax Planning into Development Planning in the ESCAP Region (E/ESCAP/DP. 4/16), 1982, p. 7.

Box II.27 Administrative co-ordination

(Continued from previous page)

ning agencies occupy one ministry, the Ministry of Finance and Planning, high-level co-ordination is ensured by an *ad hoc* officials' committee which makes basic policy recommendations. Informal consultations between the fiscal policy and planning personnel within the Ministry are also provided for. The institutional integration of planning and finance, though not complete (the Ministry retains separate "Wings"), has gone far to reducing the co-ordination problem.

Papua New Guinea and the Philippines have relatively elaborate procedures for ensuring co-ordination of fiscal policy and planning. In the Philippines, a number of interagency committees ensure effective co-ordination among the various agencies involved in the planning and policy process. The Budget Co-ordination Committee is the main institutional link to ensure conformity between the annual budget and the development plan. The development plan for 1978-1982 provided for the synchronization of the planning and budgeting cycles on an annual and a five-year basis. However, this "committee" approach to resolution of the problem has not resolved all the issues.

In Papua New Guinea, the adoption of the "rolling plan" technique seems to have contributed greatly to the harmonization of fiscal policy with development planning. The four-year rolling plan is based directly upon a multi-year budget system. In addition, the plan lays down a number of guide-lines and procedures aimed at improving plan implementation through better co-ordination among the departments responsible for disbursements in the context of the plan. It seems that these harmonization efforts have been largely successful.

In China, the State plan is explicitly given a predominant role; the annual State budgets are formulated strictly to conform to the direction and magnitude of economic development as envisaged in the plan. The budget is viewed as an instrument to implement the plan. Administrative co-ordination is largely ensured by recognition on the part of all concerned that the State economic plan provides the rationale for the State budget. Fiscal policy thus adopts a longer-time horizon, in closer co-ordination with the perspective of development planning.

and sufficiently large financial markets in most countries of the region puts an effective limit on domestic borrowing from the non-bank sector.[7] Similarly, the dangers of the "financial crowding out" of the private sector from the domestic market for commercial credit and investment funds inhibit government borrowing from the banking sector.[8] Borrowing from the monetary authorities, though a significant factor in some developing ESCAP countries, is recognized to be highly inflationary, thus imposing an effective ceiling on that source of public sector finance.[9] Finally, foreign borrowing, in addition to its inflationary dangers, is generally very costly, particularly in recent years.

As a consequence of these constraints on the Government's ability to mobilize resources, developing ESCAP countries are left to rely primarily on tax measures to raise the revenue called for in their plans. This situation is reflected in the plans themselves, which regularly turn their attention to the tax system in considering their revenue requirements. Despite the clear priority thus given to tax systems, the success of developing ESCAP countries in raising additional resources through taxation for development purposes has been mixed. This is exemplified by the frequency with which tax revenue targets as laid down in the plans have not been realized.

Resource mobilization through tax policy measures has regularly encountered three fundamental obstacles. First, the success of such measures in raising additional resources has been constrained by the rise of non-compliance and the parallel economy as reliance on taxation as a revenue source is increased. This problem poses a serious threat not only to the possibilities of attaining ambitious plans but to the social and political fabric itself and must therefore be carefully considered whenever increased reliance on taxation is called for in development plans.

Secondly, the policy recommedations or instructions regarding taxation incorporated in the development plans provide guide-lines which are frequently too general for direct translation into implementable tax measures. Often, the plans call for expansion of the tax base, increased tax progressivity, increased reliance on direct taxation, heavier taxation of imports in general and luxury imports in particular, improved policing and administration and so forth. Yet specific actions to implement these general guide-lines are rarely proposed.

Thirdly, shortcomings in resource mobilization in some cases suggest that developing ESCAP countries have opted to sacrifice increased revenue in order to pursue more effectively certain development objectives. Development plans often point out that resource mobilization should not conflict with development objectives. Indonesia's third five-year

[7] V.V. Bhatt and J. Meerman, "Resource mobilization in developing countries: financial institutions and policies", *World Development*, vol. 6, No. 1. (January 1978), pp. 45-64; and W.T. Newlyn, *The Financing of Economic Development* (Oxford, Oxford University Press, 1977); see also S.Y. Lee and Y.C. Jao, *Financial Structures and Monetary Policies in South-east Asia* (London, Macmillan, 1982).

[8] C.T. Taylor, "Crowding out: its meaning and significance" in S.T. Cook and P.M. Jackson, eds., *Current Issues in Fiscal Policy* (Oxford, Martin Robertson, 1979), pp. 86-107.

[9] B.B. Aghevli and S. Khan Mohsin, "Government deficits and the inflationary process in developing countries", *IMF Staff Papers*, vol. 25, No. 3 (September 1978), pp. 383-416.

plan (1979-1984), for instance, states that revenue expansion should not be achieved at the cost of employment, equitable distribution of income, promotion of economic growth, efficient resource allocation and maintenance of economic stability.[10] Malaysia's fourth plan (1981-1985) suggests that resources should be mobilized without creating inflationary pressures in the economy.[11] Since 1977, mobilization of domestic fiscal resources in Sri Lanka has regularly been constrained in pursuing the objectives of the new series of five-year investment programmes. In the Republic of Korea, various tax incentives and income tax rate adjustments promulgated under the fourth five-year plan (1977-1981)

[10] Indonesia, Department of Information, *The Third Five-Year Plan, 1979-1984, Summary* (1980), p. 11.

[11] Malaysia, Economic Planning Unit, *Fourth Malaysia Plan 1981-1985* (1981), p. 212, para. 528.

Box II.28 Fiscal policy variables in planning models

One important factor which explains the observed discrepancies between the fiscal strategies outlined in development plans and the actualities of fiscal policy making can be traced back to the nature of the econometric models that are used as a basis of plan formulation. Planning models seek to define in precise quantitative terms the basic relationships which determine the course of economic development over the medium term and the effects on the course of development created by changes in key policy variables. However, inadequate attention is usually paid to fiscal policy variables in such models. While a number of tax and expenditure functions ordinarily appear in planning models, the dynamic interaction between the projected evolution in the model's real variables and its fiscal variables is in most cases weakly specified. In such a situation, the fiscal policy measures discussed in the plan are not fully represented in the model, and as a result the performance of the economy targeted in the plan cannot be fully consistent with the development projections arrived at from the model.

The basic task of the planning models currently in use in the developing ESCAP region is to provide a quantitative framework for testing the aggregate consistency of plan projections. Given a set of predetermined growth rates of selected real variables, such a model allows the computation of required levels of investment consistent with the economy's production functions. The level of consumption, the balance of payments deficit and foreign aid requirements will then be determinable. While ensuring intersectoral consistency through a set of fixed-coefficient inter-industry relationships, the model determines the quantum of investment required and, *ipso facto*, the volume of savings. The financial submodel then examines how the savings required for planned investment levels will be mobilized. In the process, it estimates the resources likely to accrue to the public sector in the form of tax revenue.

Development planning in some ESCAP countries, including Bangladesh, Fiji, India, Iran, Papua New Guinea, the Philippines, the Republic of Korea and Thailand, is based on disaggregated medium-term models of the type described above. Despite varying degrees of sophistication, the specification of the fiscal policy variables in these models remains generally vague and inadequate.

In a recent review of the models used in some countries in the region, it was noted that in most cases tax revenue is estimated directly from the observed past elasticity of taxes with respect to real variables.[a] This procedure does not consider feedback processes between alternative tax measures and real variables. As a result, such models do not provide the necessary information for evaluating alternative revenue policies and their effects on the average and marginal propensities to consume, and thus on savings and investment.

It would also be useful to be able to evaluate with planning models the possible effects of tax incentives on the choice of technique in production. As input-output coefficients are fixed in the planning models used by developing ESCAP countries, such changes cannot be investigated. This means that the impact of tax incentives to encourage, for instance, employment-intensive industrialization cannot be assessed.

Finally, as such models are formulated mainly in real terms, it is not clear what will be the effects of proposed tax changes on inflation and relative sectoral prices. Such effects may substantially modify the parameters of planning models as well as their financial submodels and thus frustrate the realization of projected targets, including government revenue and expenditure targets.

To quote one example, the model underlying the Philippines' plan (1978-1982) incorporated several tax equations, but these were used simply to project revenues.[b] The projections were, in fact, essentially linear trend extrapolations based on tax growth rates observed during 1966-1976. The model also gave little consideration to the interaction between real economic parameters and changes in fiscal policy variables. This method makes it difficult to evaluate the potential effects of additional tax collection schemes. In the planning model underlying the subsequent plan (1983-1987), certain improvements were made, as the elasticity of taxes with respect to GDP was explicitly included as a parameter to arrive at total taxes, which were thus treated as an endogenous variable. Fiscal policy variables remain, however, highly aggregated in the model, and the impact of changes in these variables on the real variables is not explicitly incorporated.

There can be no doubt that fiscal policy exerts decisive influence on behavioural patterns in the economy. Although these structural features are not easy to incorporate into a planning model, efforts should nevertheless be directed at better integration of the fiscal submodel in macro-economic planning models. Otherwise, planners in the developing ESCAP region will be left with no rigorous means of evaluating the impact of alternative fiscal policy decisions on the pursuit of plan objectives.

[a] ESCAP, *Integration of Tax Planning into Development Planning* (forthcoming).

[b] ESCAP, "The Philippines", *Integration of Tax Planning into Development Planning* (forthcoming).

in pursuit of multiple objectives have prevented tax revenue from reaching target levels.

Despite these limits to further resource mobilization in pursuit of development objectives, there can be no doubt that there continues to exist in the developing ESCAP region considerable tax revenue potential. In order to tap this potential without conflicting with the pursuit of the region's development objectives, certain possibilities warrant priority attention. One relates to the formulation of macro-economic models as the basis of development planning. Macro modelling is increasingly being relied upon in many developing ESCAP countries as a standard procedure for determining the optimum policy mix for the pursuit of development objectives.[12] The integration of fiscal policy variables into these models is an important step toward ensuring the maximum degree of harmonization between fiscal policy measures and the larger effort in pursuit of development objectives. The enormity of the problems involved in engineering such harmonization has left this issue unresolved for all practical purposes to the present.[13] Efforts at closer integration of the fiscal policy variables into macro modelling would be a major step forward not merely in establishing better co-ordination between revenue and expenditure targets but also in ensuring the balanced pursuit of development objectives.

An additional source of discrepancy between the intent of fiscal policy measures as outlined in the development plans of ESCAP countries and as actually implemented by them arises out of the administrative apparatus. For a variety of historical and functional reasons, the agencies responsible for formulating and executing development plans and those charged with the formulation and execution of fiscal policy in the developing ESCAP region are ordinarily autonomous at the ministerial level. The lack of co-ordination between development planning and fiscal policy making is thereby institutionally determined. Urgent steps are required to improve inter-agency co-ordination to ensure that fiscal policy is harmonized to the maximum extent possible with the overall development planning framework.

B. TRADE-OFFS AND COMPLEMENTARITIES

The simultaneous pursuit of a broad range of development objectives has led in many developing ESCAP countries to the formulation of fiscal policy measures which are inconsistent in their effects. At the same time, however, the interdependence among development objectives provides considerable scope for the application of fiscal policy measures to the complementary pursuit of multiple objectives. While the problem of trade-offs is well known, the possibilities posed by complementarities has received scant attention. For instance, the trade-off between employment and price stability over the short term is discussed far more frequently than the possibility that measures to reduce inflationary pressures over the long term can aid in promoting growth and improving equity conditions, thereby contributing to the expansion of employment opportunities. In the formulation and execution of fiscal policy as a development planning instrument, such complementarities must be accorded as much consideration as the potential trade-offs among development objectives.

This section reviews some of the main trade-offs among development objectives with which the developing ESCAP countries have had to contend in their reliance on fiscal policy as a planning instrument. In doing so, it also considers the scope for applying fiscal policy to the exploitation of complementarities among these objectives. The review does not intend to provide a comprehensive or exhaustive treatment of the subject but merely crystallizes certain of the findings from the preceding chapters around the central objective of growth in relation to the other main development objectives covered in the study.

1. Growth and equity

Economic growth and the equitable distribution of its benefits can be considered the main objectives of most development plans currently in effect in the developing ESCAP region. As the fourth plan (1980-1984) of Samoa states: "Raising GNP does not promote the welfare of all citizens unless it is accompanied by a reasonably equitable distribution of income".[14] Malaysia's fourth five-year plan (1981-1985) mentions: "Apart from ensuring rapid growth, strategies to effect the desired structural pattern of development [are] of paramount importance. Such structural changes . . . will result in substantial reduction in income inequalities . . ."[15] Pakistan's fifth five-year plan (1978-1983) calls for rapid growth

[12] Charles R. Blitzer, Peter B. Clark and Lance Taylor, eds., *Economy-wide Models and Development Planning* (London, Oxford University Press, 1975). ESCAP, *Proceedings of the First Regional Seminar on an Interlinked Country Model System* (forthcoming).

[13] On the complexities involved even in a simplified theoretical framework, see, for instance, H. Uzawa, "An optimal fiscal policy in an aggregative model of economic growth" and D. McFadden, "Comment", in Irma Adelman and Erik Thorbecke, eds., *The Theory and Design of Economic Development* (Baltimore, Johns Hopkins University Press, 1966), pp. 113-146.

[14] Samoa, Economic Development Department, *Fourth Five-Year Development Plan, 1980-1984*, vol. 1 (1980), p. 4.

[15] Malaysia, *op. cit.*, p. 157, para.365.

in both industrial and agricultural production to provide "a basis for changing the direction of allocation of resources . . . to meet the basic needs of the people at large".[16] The reduction of poverty and the more equitable distribution of income are the dominant targets of the second five-year plan (1980-1985) of Bangladesh; but it also states: "One of the measures of success of the Plan should be how it accelerates the growth process. . . ".[17]

Though the simultaneous attainment of both these objectives is conventionally considered an imperative of development in the plan, fiscal policy in the developing ESCAP region is in practice ordinarily based on the perceived conflict between them. The ultimate expression of this conflict is seen in the trade-offs that are often claimed to exist between the public and private sectors as leading elements in the development process. It has been argued, on the one hand, that distributional objectives can be better achieved through the public sector's revenue and expenditure schemes than if left entirely to the private sector. On the other hand, it has been accepted as axiomatic in many countries that the private sector's role in the achievement of growth is essential; the substantial need for resource mobilization by the public sector in order to finance redistributional development strategies has been felt in such cases to constrain private sector initiative, leading to a direct trade-off between growth and equity.

The perception of this conflict by planners and policy makers, in combination with the differing priorities that they assign to equity vis-a-vis growth, helps explain the greater importance of the public sector share in total investment in the centrally planned and the south Asian economies relative to the south-east and east Asian and South Pacific economies. Interestingly enough, recent major policy shifts in the public-private balance in some of these countries reflect the significance of changes in these perceptions. Thus, such countries as Bangladesh and Sri Lanka have in the past several years been placing increased emphasis on the private sector on the presumption that the former over-emphasis on equity has adversely affected growth. However, the public sector appears to be assuming an increasingly active role in such countries as Malaysia and Thailand under the presumption that the earlier over-emphasis on growth has hurt equity conditions.

There can be no unequivocal answer to the question whether development through the public sector of necessity promotes equity at the expense of growth or whether a development strategy that emphasizes the private sector inescapably involves the sacrifice of equity for the sake of growth. The historical development performance of both developed and developing countries offers innumerable examples of the permutations and combinations of role and achievement of the public sector with regard to growth and equity. Little clear guidance on the matter is offered by this wealth of information. A more rewarding approach to the search for harmony in the pursuit of growth and equity lies in the analysis of public revenue and expenditure structures. That is, it is not the size of the public sector but its performance in pursuit of national development objectives that should be the point at issue.

(a) Direct taxes

Inextricably linked with the issue of conflict or complementarity between growth and equity is the problem of tax structure progressivity. It is frequently assumed that direct taxation of income and wealth is an effective means of achieving tax progressivity with minimal distortions of relative prices.[18] It should thus promote equity without causing misallocation of resources and its adverse consequences for growth. Yet direct taxes continue to account for a minority share in total revenue in the developing ESCAP region, and thus its progressivity in practice remains blunted.

In most countries of the region, the progressivity of direct taxation remains limited because of a number of features. First, direct taxation is largely restricted to the modern business sector and the civil service. Most other potential taxpayers manage to avoid or evade income taxes. Secondly, efforts at implementing strongly progressive income tax rates have led to increased evasion, with its consequent effects on the already narrow tax base. Countries like Bangladesh, India, Pakistan and Sri Lanka have as a result actually decreased their higher marginal income tax rates in recent years. Thirdly, the share of personal income taxes in total tax revenue is low in most ESCAP countries because of the relative ease with which various indirect taxes can be collected.

One explanation of this situation can be found in the contradiction inherent in the fiscal policy design, where measures ostensibly directed towards savings and investment for growth have contributed to the narrowing of the income tax bases, thus conflicting with the equity objective. To the extent that

[16] Pakistan, Planning Commission, *The Fifth Five-Year Plan, 1978-1983*, Part I, 1978, p. 5.

[17] Bangladesh, Planning Commission, *Draft Second Five-Year Plan, 1980-1985* (1980), p. II-13, para. 2.62.

[18] See M.S. Ahluwalia and H. Chenery, "A model of distribution and growth" in H. Chenery *et al.*, *Redistribution with Growth* (London, Oxford University Press, 1974), pp. 209-235.

the progressivity in tax incidence and tax coverage have been sacrificed to maintain the real incomes of the better-off sections of the population, fiscal policy has been biased towards preserving the high savings ratios of the rich, thus favouring growth over equity. This policy preference rests on several implicit assumptions regarding the differences in propensities to save among income classes and income sources; it also rests on the hypothesis that a decline in savings will reduce the rate of growth.[19]

In recognition of the adverse equity consequences of this situation, the development plans of almost all developing ESCAP countries have called for the need to improve the yield of direct taxes by widening the tax base and removing the numerous exemptions and concessions provided for in tax legislation. The call has in most cases remained a pious wish. In the final analysis, the factors against improved harmony between growth and equity in the design of direct taxes remain the presumed impact of increased tax coverage and progressivity on aggregate savings and investment and the requirements of investment for growth. Yet, the existence of excess capacity in some countries of the region raises the possibility that, to some extent, increased investment may not be required for accelerated growth. Furthermore, many of the incentives offered as stimuli to investment appear to be redundant. Not only would reduction of such concessions raise revenue levels, but they would relieve the tax administrations of the time-consuming burden of largely discretionary interpretation of various deductions and allowances and enable them to improve tax compliance. By such means, resource mobilization and equity could be immediately improved without sacrificing growth.

(b) Indirect taxes

The relatively low revenue significance of direct taxes as well as non-tax revenues in the developing ESCAP region automatically implies heavy dependence on indirect taxes. Given the immediate need for revenue and the difficulties attendant upon collection, fiscal policy makers have opted for more easily implemented and less "visible" indirect tax measures. The developing ESCAP countries have attempted to correct the essentially regressive character of this type of taxation by introducing differential rates on commodities. For instance, in the Republic of Korea, the regressivity of the VAT burden has been partially corrected by zero rates on consumer necessities and special high tax rates on luxury items and expensive durable goods.[20]

To some extent, the dependence on indirect taxes in the region is related to their presumed beneficial effects on growth. It is often argued that since indirect taxes are primarily imposed on consumption, they tend to postpone consumption and thus promote savings. It is presumed, moreover, that these taxes tend to fall less heavily on the richer sections of the community, whose marginal propensity to save is higher. The empirical validity of these propositions favouring indirect taxes require verification. Besides, since the indirect taxes in most ESCAP countries are selective in rates as well as coverage, they may simply cause a re-allocation of consumption expenditure without causing any postponement of present consumption.

Due to their differentiation of indirect taxes against goods consumed by the rich and the varying deviation of such taxes from universal coverage, the net effect of these taxes on growth and equity is not very clear. On balance, however, the case in favour of growth-equity complementarity for direct taxes outweighs the case for indirect taxes. The scope of substitution of indirect taxes by direct taxes thus cannot be ruled out. In any such redesign of tax systems, particular attention will have to be paid to possible economic consequences contrary to usual assumptions. These relate, among others, to the impact of indirect taxes on the balance between consumption and saving and the extent and direction of shifting of direct taxes. In addition, the constraint of administrative feasibility will have to be contended with.

(c) Expenditure

Most developing ESCAP countries have formulated expenditure measures specifically to supplement real incomes and provide essential social services to designated deprived target groups. These expenditure schemes are aimed directly at alleviating poverty and providing basic necessities, especially food and fuel, to the very poor. For instance, Bangladesh, India and Pakistan allocate important proportions of their budgets to food subsidy systems. Other countries, such as Indonesia and Thailand, have adopted strong measures aimed at easing the impact of oil price hikes on low-income consumers. Finally, a number of countries have earmarked a substantial share of their budgets for the provision of social services, with expenditure on education, health and related social services accounting for as

[19] See W.R. Cline, "Distribution and development: a survey of literature", *Journal of Development Economics*, vol. 2, No. 1 (March 1975), pp. 359-400. For an in-depth analysis of the Philippines, see G. Rodgers, M. Hopkins and R. Werny, *Bachue Philippines: Population, Employment and Inequality* (London, Saxon House, 1978).

[20] Chang-Shick Ahn, "Fiscal policy and tax structures in the Pacific and India region: Republic of Korea", *Bulletin of International Fiscal Documentation*, vol. 32, No. 6 (June, 1978), pp. 263-269.

much as one fifth to one fourth of their total public expenditure.

Despite these achievements, it should be kept in mind that the contribution of such public expenditure to the equity objective is limited in most developing ESCAP countries by its small scale in relation to total output. The net redistributive impact of these income and wealth transfers also depends upon the effectiveness with which resources are raised through a progressive tax structure, a criterion in terms of which the

Box II.29 The Kuznets curve hypothesis

In discussions of the reputed trade-off between income inequality and economic growth, the Kuznets curve provides a useful point of departure.[a] Drawn as a regression of historical levels of per capita income and income concentration, the curve shows that, in the earlier stages of economic development, the distribution of income tends to worsen as per capita income rises. Beyond a certain point, however, income distribution starts improving with the continued growth of per capita income. This generalization is derived from historical data for the presently developed countries.

Though the originator of this "hypothesis", Simon Kuznets, has expressed doubt as to its universal applicability, other studies based on cross-national data involving groups of developing and developed countries have found evidence supporting the Kuznets relation between inequality and growth.[b] It would appear from these findings that the inherent dynamics of economic development in its early phases tend to work against the poor and in favour of middle and upper income groups. In a recent analysis pertaining to a selection of ESCAP countries, the relation between income distribution and growth has been further elaborated.[c] According to this study, as the agricultural sector becomes increasingly commercialized in the early phases of development, a widening of rural inequality is experienced; at the same time, urban inequality worsens. As the economy then enters a phase of more rapid industrialization, income differentials across industries and occupations tend to increase sharply. To check the widening rural-urban income gap, subsidies are provided to the agricultural sector, but these mainly favour richer farmers, further increasing rural inequality. Finally, a turning point is reached as labour markets shift from a situation of surplus to one of scarcity. This leads to a regional dispersal of industries and more equal income opportunities, particularly for the rural poor.

The validity of the Kuznets hypothesis has been challenged on the grounds that the empirical evidence supporting it is weak and that, moreover, it reflects the choice rather than the inherent necessity of the economic development trajectory followed by countries in the past.[d] From the statistical point of view, the results of the Kuznets curve analysis are considered weak, particularly insofar as the inference of dynamic relationships from cross-section data is of doubtful merit. The impact of long-term economic changes is in fact deduced by comparing over time the average of the characteristics of countries at different levels of development. This amounts to imposing a single "average" development path on all countries.

It has also been argued that even statistically valid empirical confirmation of the Kuznets hypothesis cannot be interpreted to mean that all developing countries must pass through an inescapable phase of widening income differences in the early stages of industrialization.[e] It merely reflects policies which have been applied by countries in past periods and the economic structures which have been allowed to develop. This point of view is summed up in the proposition that it is the structure of the economy, not the level of income or rate of growth, which determines the pattern of income distribution. Thus, despite contrary claims, unequal distribution is not a necessary condition for rapid growth.[f]

While growth must be considered an essential ingredient in any income-redistribution programme, the question is not one of a choice between faster growth and greater equality but one about the type of growth a country wishes to pursue. The historical results referred to above provide a warning signal that problems may arise if deliberate policies aimed at reduction of income inequalities are not implemented by developing countries. There is good evidence that policies to achieve redistribution with growth are feasible.[g] It appears "reasonable to postulate that particular policies, combined with the inherited social structure, make income highly unequal in some [developing countries] while alternative policies and structure make it more even in others, but there is no inexorable theoretical basis justifying a worsening of the distribution in the course of development".[h]

[a] S. Kuznets, "Economic growth and income inequality", *American Economic Review*, vol. 45, No. 1 (March 1955), pp. 1-28 and S. Kuznets, "Quantitative aspects of the economic growth of nations: VIII, distribution of income by size", *Economic Development and Cultural Change*, vol. 11, No. 2 (January 1963), pp. 1-80.

[b] E.L. Bacha, "The Kuznets curve and beyond: growth and changes in inequalities", in E. Malinvaud, ed., *Economic Growth and Resources*, vol. 1 (London, Macmillan, 1979), pp. 52-73.

[c] H.T. Oshima and T. Mizoguchi, eds., *Income Distribution by Sectors and Over Time in East and Southeast Asian Countries* (Quezon City, Council for Asian Manpower Studies, 1978).

[d] W.R. Cline, "Distribution and development: a survey of the literature", *Journal of Development Economics*, vol. 2, No. 1 (March 1975), pp. 359-400; and I. Adelman and C.T. Morris, *Economic Growth and Social Equity in Developing Countries* (California, Stanford University Press, 1973).

[e] *Ibid.*, pp. 143-146 and F. Paukert, J. Skolka and J. Maton, *Income Distribution, Structure of Economy and Employment* (London, Croom Helm, 1981).

[f] W. Galenson and H. Leibenstein, "Investment criteria, productivity and economic development", *Quarterly Journal of Economics* (August 1955), pp. 343-370.

[g] H. Chenery *et. al.*, *Redistribution with Growth* (London, Oxford University Press, 1974);

[h] W.R. Cline, *op. cit.*, pp. 359-400.

developing ESCAP countries do not perform particularly well. Moreover, the concern for growth accounts for the fact that economic services form the largest share of expenditure in most developing ESCAP countries.

In sum, the conduct of fiscal policy in the framework of development planning is in most developing ESCAP countries based on the perceived conflict between growth and equity, with the balance noticeably in favour of growth. Yet there is a growing realization that the growth-equity trade-off has been vastly overstated and that a number of fiscal and other policy measures can be designed to make redistribution with growth a reality.[21] Ultimately, in all countries, it is the political determination of the ruling élites, be they farmers, landowners, businessmen, workers, the military or the civil service, which gives concrete expression to development policies aimed at promoting growth together with a just distribution of its benefits.

2. Growth and allocative efficiency

The efficient allocation of productive resources is generally viewed as one of the main factors contributing to the achievement of self-sustaining growth. It is not surprising, therefore, that allocative efficiency features prominently among the development objectives of developing ESCAP countries. The fourth five-year plan (1977-1981) of the Republic of Korea, for instance, "aims to build an economic structure for self-sustaining growth. to increase equity in income distribution through social development and to improve technology and efficiency of the economy".[22] Nepal's fifth plan (1975-1980) calls for "the best use of available labour and resources", in pursuing development[23] while Pakistan's most recent plan (1978-1983) mentions that "efforts have to be focused on improving the efficiency of the economy by increasing allocation of resources in agriculture and rural development".[24] Malaysia's fourth plan (1981-1985) advises that "export promotion and import substitution strategies will be coordinated to maximize the benefit from inter- and intra-industry linkages".[25]

As regards the tax structure, empirical studies in the region seeking to determine who bears the ultimate burden of profits taxes and of indirect taxes on domestically produced goods have reached limited and inconsistent conclusions. This prevents any definitive generalization as to the net impact of these taxes on allocative efficiency and growth. The quantitative importance of direct taxes being generally small, however, it would appear that their aggregate allocative effect is of relatively limited significance. This, of course, must be qualified by the allocative implications of tax evasion.

Somewhat more can be said, however, on the effects of international trade taxes, which account for over one fifth of total revenue in the majority of ESCAP countries. In many developing ESCAP countries, the issue of sectoral priorities has been dominated by considerations of export promotion and import substitution. International trade taxes have often been relied on as a major instrument in pursuing the preferred strategy orientation. In connection with import substitution strategy, international trade taxes in the region are characterized by varying rates of import tariff, usually rising with the stage of production of a product. Simultaneously, the need for foreign exchange earnings has given rise to a number of export incentives, including outright subsidies, duty draw-back on imported raw materials, reduced tax rates on firms producing high local-content exports and so forth. These measures give rise to a complex structure of protection, the net effect of which becomes difficult to assess.

Protection can, of course, be justified on such grounds as the infant industry argument, generation of countervailing power against monopoly control, strategic considerations, and other broad socio-economic and political factors. In terms of economic development considerations alone, however,it is evident that extremely high and economically unwarranted effective rates of protection are provided to many industries. Furthermore, variations in these rates are often not consonant with policy objectives. Such protective structures are conducive of resource misallocation, and this is a continuing fiscal policy problem in the developing ESCAP region.

The need for reformulation of fiscal policy to rationalize the structure for protection in the developing ESCAP region has been demonstrated. Such reformulation should take note of both the variability across sectors in production for domestic needs and the adverse discrimination accorded to exports. The resulting re-allocation of resources in closer accord with the countries' comparative ad-

[21] See, for example, S. Gupta, *A Model of Income Distribution, Employment and Growth: A Case Study of Indonesia* (Baltimore, Johns Hopkins University Press, 1977); and Ho Tak Kim, "A macro model of economic growth and income distribution in the Republic of Korea", *Asian Economics*, No. 13 (June 1975), pp. 28-54.

[22] Republic of Korea, Economic Planning Board, *The Fourth Five-Year Economic Development Plan, 1977-1981* (1976), p. 10.

[23] Nepal, National Planning Commission, *The Fifth Plan, 1975-1980, in Brief* (1975), p. 8.

[24] Pakistan, Planning Commission, *op. cit.*, p. 5.

[25] Malaysia, Economic Planning Unit, *op. cit.*, p. 157, para. 367.

vantage would promote growth while increasing allocative efficiency. This consideration assumes urgency because a growth strategy based on import substitution is inevitably constrained by the limited scope of domestic demand in the developing ESCAP countries either because of low levels of purchasing power per capita, as for instance throughout much of south Asia, or low aggregate levels due to population limits, as in most of south-east Asia and the South Pacific. Efforts towards improved allocative efficiency will require a great deal of co-operation from the developed countries, whose markets must be made available to permit the requisite expansion of exports. In this context, the rising protectionism evident in the developed countries is a cause of grave concern.

An important efficiency concern in connection with public expenditure relates to the public enterprise sector. The generally disappointing financial performance of public enterprises in the developing ESCAP region is, of course, partly attributable to the preoccupation of Governments with broader considerations such as subsidization of essential social services and improved sectoral and regional income distribution and employment promotion. It is nevertheless clear that to some extent the weak financial performance of public enterprises can be attributed to managerial inefficiency or low worker productivity, or both. In some countries, the misallocation of resources through investment in public enterprises has been translated into idle capacity in some production sectors. In so far as financial resources have been diverted to support public enterprises operating at unacceptably low productivity levels, not only has the efficiency objective, and therefore growth, not been fulfilled, but an unwarranted resource constraint has been imposed on the public sector.

Box II.30 Budgeting as a development planning instrument

The implementation of expenditure programmes and projects in accord with national development priorities as laid down in the plans of developing ESCAP countries requires reforms in the planning, control and management of available resources. This calls for systems of budgeting that would permit financial managers to look ahead and take into consideration the wider implications of programmes while at the same time providing detailed information on the performance and costs of activities already under way.[a] To this end, several developing ESCAP countries have in recent years introduced innovative budgeting systems which classify government activities in terms of functions, sectors, programmes and projects rather than along traditional administrative lines and which, in addition, specify activities in relation to their objectives and develop units of measurement for the evaluation of their performance.

Various techniques, including planning, programming, budgeting systems (PPBS); zero-based budgeting (ZBB); multi-year programmes; and cost-benefit and cost-effectiveness analysis, have been experimented with in the developing ESCAP region. Iran introduced a partial ZBB approach for the preparation of its 1978/79 budget. PPBS has been applied on a tentative basis in Indonesia since the early 1970s. Malaysia and the Republic of Korea have also partially introduced PPBS. In Indonesia and Malaysia, the development budget has been restructured in terms of programmes and activities; this has been extended to the entire budget in Nepal and Sri Lanka. In the Philippines, multi-year programming has been introduced as a means of strengthening long-term expenditure planning. In India, performance budgets are prepared as supplementary documents to the main budget. These improved budgeting methods have in most cases been used in conjunction with such analytical techniques as cost-benefit and cost-effectiveness analysis to determine the net gain provided by programme outputs, their alternatives and possible means of reducing their costs.

In most countries, the integration of these reforms into the established budgetary process has been rather slow. Furthermore, the results obtained have in a number of cases been less useful than anticipated. This is most often due to partial implementation, lack of adequate skilled personnel and absence of effective political support.[b]

Additional efforts are required for the development of integrated schemes of budget classification to identify programme and project objectives, resource requirements and output expectations. Satisfactory mechanisms for performance review, possibly in the form of achievement indicators with direct reference to development objectives, await further development in the region. Such functional improvements will also involve institutional and organizational changes in such areas as accounting and reporting, the structure of authority at the central level and within operating agencies, and the use of analytical techniques for monitoring and evaluating programme and project implementation and performance. While the initial costs of installation and institutionalization of such budgeting systems may be high for the developing ESCAP countries, the potential net benefits over the long term – in terms of greater efficiency in development planning and plan implementation and as a means of ensuring the optimum use of resources for development purposes – are great.

[a] See Naomi Caiden and Aron Wildavsky, *Planning and Budgeting in Poor Countries*, (New Brunswick, N.J., Transaction Books, 1980), and ECAFE, "Government budgeting and economic planning in developing countries", *Economic Bulletin for Asia and the Far East*, vol. XVII, No. 3 (September 1966), pp. 1-15.

[b] *Changes and Trends in Public Administration and Finance for Development – Second Survey – 1977-1979* (United Nations publication, Sales No. E.82.II.X.1), 1982.

Reappraisal of the role of public enterprise as a development instrument is under way in some countries of the region. Burma and China have reformed the incentive structure to improve the operating efficiency of public enterprises. Bangladesh is contemplating the transfer of a number of enterprises to the private sector. Similar efficiency-promoting moves are under consideration in some other countries.

A last area where efficiency should be a cause of great concern is in the sectoral allocation of government expenditure. Efficiency considerations should play an important role in the choice of allocation of public expenditure among sectors and industries. Unfortunately, in most developing ESCAP countries, this concern does not appear obvious in either the development plans or the budgets. Although a major share of the expenditure foreseen in the budgets invariably goes to the provision of basic infrastructure for improved transportation, communication and irrigation, it is not possible to provide an appreciation of this expenditure in terms of its relative efficiency except on a project-by-project basis. Where such detailed analysis has been undertaken, the results are often disappointing. Of course, most countries undertake project analysis, such as cost-benefit studies, before selecting major projects (especially those funded by foreign assistance), but these studies are ordinarily based on inadequate information. Moreover, many projects are not subjected to any pre-implementation analysis at all. Thus, a clear, consistent and comprehensive approach to efficiency promotion on the expenditure side remains absent.

3. Growth and employment

Growth, equity and employment can be regarded as strongly interrelated development objectives.[26] Growth is capable of generating employment, thereby securing higher standards of living for the masses, which would in

Box II.31 Some international aspects of fiscal policy

For most developing countries, the pursuit of growth and employment creates a substantial need for foreign capital and technology. As the transfer of both human and non-human resources from developed to developing countries becomes increasingly involved in the competitive circuit of global trade and capital markets, the need for economic co-operation among countries assumes vital significance as a means of creating a favourable international investment climate.

An important aspect of international co-operation in the fiscal field is the prevention of double taxation. Such preventive action provides strong support to the promotion of international investment as well as transfer of technology from developed to developing economies. Despite widespread recognition of the importance of double tax treaties, co-operation between developed and developing countries in this area was slow to develop in the 1960s and early 1970s. This probably reflects the fact that "model" tax treaties negotiated between developed countries contained features which were unacceptable to developing countries. For instance, the provision that the country of "source" abandon certain forms of tax revenue implies the imposition of an inequitable burden on the developing countries, as the tax source being exempted is investment income, which means a sacrifice for the developing "host" countries but virtually none by their developed country counterparts.[a]

A typical example is provided by the OECD model double taxation convention on income and capital, which is a standard reference for negotiating bilateral tax treaties between countries, whether developed or developing.[b] Developing countries raise strong objections to the OECD type of convention on the grounds that capital flows between developed and developing countries are asymmetrical, the latter group of countries being essentially capital importers.[c] For instance, Indonesia has in the past objected to entering into double tax treaties with the United States and other OECD countries as it was felt, among other matters, that the definition of the concept of "permanent establishment" used in the model convention was felt to be restrictive as it excludes taxation of foreign shipping companies doing business in Indonesian ports. Similarly, it was recognized that the model tax treaty's limitations on withholding taxes on dividends and interest would cut deeply into Indonesia's tax revenue.

Recognizing the need for a model treaty which responds to the requirements of developing countries, the United Nations has sought to formulate a more appropriate model.[d] The United Nations model double taxation convention between developed and developing countries represents a compromise between the source principle of taxation and the residence principle, with the former receiving more weight than in the OECD model. While focusing on the rights of the country of income source (in effect, the developing country counterpart), the convention stresses that the source coun-

[a] OECD, *Fiscal Incentives for Private Investments in Developing Countries: Report of the OECD Fiscal Committee* (Paris, 1965).

[b] OECD, *Model Double Taxation Convention on Income and on Capital* (Paris, 1977).

[c] S.R.F. Plasschaert, "The design of schedular and global systems of income taxation: the international dimension", *Bulletin for International Fiscal Documentation*, vol. 35, Nos. 8-9 (August-September 1981), pp. 409-416.

[d] "Manual for the negotiation of bilateral tax treaties between developed and developing countries" (ST/ESA/94) (New York, 1979); and "United Nations model double taxation convention between developed and developing countries" (ST/ESA/102) (New York, 1980).

turn allow improvement in income distribution. Similarly, higher employment levels and more equitable income distribution should generate purchasing power and thus create the domestic demand to stimulate accelerated investment and thus growth. Progressive income redistribution can, moreover, cause a shift in private expenditure patterns towards more labour-intensive products, encouraging domestic production in line with comparative advantage, and thereby promoting growth and employment. Studies carried out for a number of developing ESCAP countries, including India, Pakistan, the Philippines, the Republic of Korea and Sri Lanka, have shown that improved income distribution can indeed lead to increases in aggregate output and employment.[27] Though the specific quantitative results of such investigations rely upon a number of assumptions, they are generally indicative of the complementarities among development objectives which could be exploited by appropriate applications of fiscal policy.

Many developing ESCAP countries, including Bangladesh, India, Indonesia, Malaysia, Nepal, Pakistan, Papua New Guinea and the Philippines, have provided substantial support to employment promotion through fiscal policy measures. At the same time, however, these countries have experimented with various capital and investment allowances which, together with low import duties on capital goods, have biased the structure of fiscal incentives towards capital-intensive industrialization. In Malaysia, for instance,

[26] P. Streeten and F. Stewart, "Conflicts between output and employment objectives in developing countries", *Oxford Economic Papers*, vol. 23, No.2 (July 1971), pp. 145-168; ILO, *Towards Full Employment: A Programme for Colombia* (Geneva 1970) and J. Paukert, J. Skolka and J. Maton, *Income Distribution, Structure of Economy and Employment* (London, Croom Helm, 1981).

[27] W.R. Cline, *loc. cit.*, pp. 359-400; and D. Morawetz, "Employment implications of industrialization in developing countries: a survey", *Economic Journal*, vol. 84, No. 3 (September 1974), pp. 491-542.

try should recognize "that (i) taxation of income from foreign capital should take into account expenses allocable to the earning of the income so that such income would be taxed on a net basis, that (ii) taxation should not be so high as to discourage investment and that (iii) it should take into account the appropriateness of the sharing of revenue with the country providing the capital".[e] In addition, tax treaties should also include special clauses relating to investment incentives. For instance, in a treaty recently concluded between Belgium and Pakistan, Belgium grants credit relief for tax not imposed in Pakistan due to incentives to promote economic development.[f] Most developing ESCAP countries have now entered into double taxation conventions with developed countries based on the OECD model as modified along the lines proposed by the United Nations.[g]

Recognizing the need for intra-regional tax co-operation to stimulate capital flows and technology transfer among developing countries, a number of developing ESCAP countries have also established bilateral conventions among themselves (e.g., Malaysia/the Republic of Korea, Indonesia/the Philippines, the Republic of Korea/the Philippines, Malaysia/the Philippines). Regional co-operation on tax matters, in fact, extends beyond the negotiation of bilateral tax treaties. For instance, member countries of the Ministerial Conference for the Economic Development of South-east Asia established in 1970 a Study Group on Asian Tax Administration and Research (SGATAR). This group, in a series of annual meetings, has examined a wide variety of issues related to tax structures and administration in member countries as well as co-operation among south-east and east Asian countries.[h]

While most developing ESCAP countries express the need to attract foreign capital and associated technology as an essential ingredient in their development strategy, concern has been expressed that untempered competition in the granting of tax incentives to foreign investors may have adverse effects on the region's development prospects.[i] It has, in particular, been shown that tax concessions have in many developing ESCAP countries led to the establishment of excessively capital-intensive industries which do not reflect the countries' comparative advantage. In the absence of regional co-operation on tax matters, it is difficult for an individual country to modify its fiscal incentive system without corresponding action by countries which compete with it to attract foreign investment.

Beyond the adoption of double tax treaties, there is thus a clear need for the developing ESCAP region to standardize and harmonize tax incentives for foreign investment. Such an agreement would contribute greatly to the acceleration of development in developing ESCAP countries by limiting revenue sacrifices resulting from the competitive tax concessions granted to foreign enterprises as well as by drawing investment into activities in consonance with the countries' comparative advantage.

[e] "United Nations model double taxation convention between developed and developing countries", *op. cit.*, pp. 5-6.

[f] International Bureau of Fiscal Documentation, *Tax News Services*, vol. 16, No. 2 (30 January 1982). p. 9.

[g] International Bureau of Fiscal Documentation, *Tax News Services*, various issues.

[h] Angel Q. Yoingco, *The First Decade: A Brief History of the Study Group on Asian Tax Administration and Research* (Manila, 1980).

[i] ESCAP, Reports of ESCAP seminars held at Sydney, Australia, and at Bangalore, India, in 1978 and 1980, respectively (1981).

the question of whether growth could not have been more effectively employment-oriented has been raised as a key policy issue.[28] Somewhat similar conclusions have been drawn for Nepal.[29] The finding that many investment incentives tend to favour capital-intensive and large-scale industry has led to reconsideration of the fiscal policy package in many developing ESCAP countries in recent years.

The Republic of Korea represents one of the few countries which has successfully co-ordinated growth with employment through labour-intensive export promotion. A deliberate choice was made in the 1960s to give investment priority to labour-intensive manufacturing for exports. As a result, the labour-capital ratio in manufacturing, which had risen during the first half of the 1960s before entering a phase of decline through 1972 (though never falling back fully to the earlier level), started rising again from 1973.[30] Fiscal policy in the Republic of Korea is characterized by selectivity in investment incentives at the sectoral level and in protection measures by industry, coupled with a direct concern for generating employment opportunities. It is such "fine tuning" of fiscal incentives that has permitted the choice of industrial activities to be a success from the point of view of employment promotion.[31]

To some extent, the conflict between the growth and employment objectives may be an inherent aspect of the development process because high output-capital ratios do not always coincide with high labour-capital ratios. Nevertheless, distortions in factor costs created by fiscal incentives have in many cases aggravated the situation. The simultaneous achievement of high growth and high employment in economies like Hong Kong, the Republic of Korea and Singapore demonstrates that complementarity opportunities do exist and can be exploited under an appropriately designed incentive structure. Policy makers should therefore closely examine the role of fiscal incentives to avoid such policy-induced conflicts and promote harmony between growth and employment wherever possible.

4. Growth and stability

Development plans formulated in the developing ESCAP region over the past decade have attached increasing importance to the maintenance of domestic price stability and a sustainable external balance. This reflects the heightened awareness among policy makers in the region that growth cannot be sustained under circumstances of volatile prices and deteriorating external payments positions arising out of an increasingly unstable international economic environment. The concern is all the more acute as it is perceived that the reduced growth resulting from instability transmits itself to increased unemployment and underemployment and hence to a deterioration of equity conditions.

Acting upon this concern, the Republic of Korea introduced in 1980 a special stabilization programme which replaced, in effect, the fourth plan (1977-1981) and prepared the stage for the fifth plan (1982-1986). Price stabilization was given high priority through the reduction of the public sector deficit, capacity expansion in industries producing basic necessities, stabilization of housing costs and related matters.[32] To supplement the long-term growth and equity emphasis in its latest plan, Thailand has also pursued various stabilization policies through fiscal measures, such as management of agricultural commodity prices through variable price support schemes and a series of adjustments in public utility rates. Similar action has been taken in other countries, including Malaysia, Papua New Guinea and the Philippines.

At the macro level, the concern for stability has been manifested in the studied avoidance by the large majority of the countries of the region of over-emphasis on borrowing from the monetary authorities. One beneficial impact of this policy stance is that the developing ESCAP region has suffered less inflationary pressure than have other regions in the past several years.

During the 1970s, the developing ESCAP region experienced a number of exogenous shocks. The fiscal policy response to two of these, namely the food and energy crises, emphasized subsidization and increased availability through imports and/or destocking. These measures were directed towards domestic price stability while also accommodating equity considerations. However, they created a drain on fiscal resources needed for public sector investment expenditure, thereby constraining growth. The inherent unsustainability of these policy measures over the longer term and their adverse growth implications even in the short term prompted efforts in the late 1970s

[28] Malaysia, Economic Planning Unit, *Tax Incentives for Industry* (1974), and K. Young, W.C.F. Bussink and P. Hasan, Malaysia, *Growth and Equity in a Multiracial Society* (Baltimore, Johns Hopkins University Press, 1980), pp.190-198.

[29] R. Islam, A.R. Khan and E. Lee, *Employment and Development in Nepal* (Bangkok, ARTEP, 1982), pp. 95-97.

[30] P. Hasan and D.C. Rao, *Korea, Policy Issues for Long-term Development* (Baltimore, Johns Hopkins University Press, 1979), p. 251.

[31] D.C. Cole, and L.E. Westphal, "The contribution of exports to employment in Korea", in Wontak Hong and Anne O. Krueger, eds., *Trade and Development in Korea* (Seoul, Korea Development Institute, 1975).

[32] ESCAP, "Republic of Korea", *Integration of Tax Planning into Development Planning* (forthcoming).

to reduce the subsidy drain. Recognizing the possible inflationary implications of such efforts from the supply side, the region's policy makers wisely resisted the temptation to resort to the alternative measure of deficit financing.

It can in sum be stated that, in general, fiscal policy makers in the developing ESCAP region have demonstrated a clear recognition of interrelations between the objectives of growth and stability. With a limited range of fiscal policy options available under the difficult circumstances created by unstable exogenous factors, a substantial degree of flexibility in policy making was a noteworthy achievement. However, most countries of the region do not yet possess the synchronized fiscal policy frameworks that would permit them to deal effectively or in any sense automatically with externally generated economic disruptions. Additional efforts in this direction are called for.

C. DEVELOPMENT, PLANNING AND FISCAL POLICY

To ascribe objectives to the development process itself is to indulge in teleology. It is the clear recognition of this fact that has impelled the developing countries of Asia and the Pacific to attempt, over the past three decades, to define their national development aspirations and devise strategies toward their attainment. Through development planning, the countries of the ESCAP region have sought to bring history under control and thereby permit their national aspirations to be transformed into realizable objectives.

The development strategies that have been worked out in the region differ considerably from one another; the development objectives that these strategies pursue are remarkably similar. Considerable uniformity is also evident in the instruments with which these development strategies have been executed. This is particularly so in the case of fiscal policy, which embraces all government budgetary transactions and operations on both the revenue and expenditure sides that have as their objective the fulfilment of national economic and social goals.

Fiscal policy is used today as perhaps the single most important development planning instrument in the region. Its multi-dimensional role as a planning tool in pursuit of the growth, efficiency, employment, equity and stability objectives of development has formed the heart of this study. In tracing through some of the complexities attendant on the application of fiscal policy to the pursuit of the ESCAP region's development objectives, the study has focused on key problems related to the effective application of various types of expenditure and revenue measures to the pursuit of development objectives and has offered recommendations for action where appropriate. It is hoped that, in their continuing efforts to improve their performance in pursuit of national development objectives, the Governments of the region will give these recommendations their serious attention.

In the final analysis, the future of fiscal policy as a development planning instrument in the region will be determined by the political will to formulate and enforce effective policy measures, the administrative capability to implement such measures and the behavioural reactions of the multitude of decision-making agents who constitute the heart of the economic development process.

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