

Chapter 7: Growth and Equity in Semi-industrialized Nations

Development Patterns in Semi-industrialized Countries

Some of the more advanced Middle Income countries can aptly be described as semi-industrialized, since in several respects their economies are more akin to those of industrialized countries than to those of other developing countries. To illustrate their development experience, 16 countries have been selected, in each of which manufacturing accounts for about 20 percent or more of gross domestic product and merchandise exports. Although few in number, the 16 countries account for about 70 percent of the total GDP and over half of the total population of the Middle Income countries, and have per capita income levels ranging from about US\$320 in Egypt to over US\$3,000 in Spain. Several of these countries have achieved high levels of per capita income even though they are not richly endowed with natural resources.

Among the semi-industrialized countries, three broad patterns of development can be identified. The first is marked by very rapid

population growth, moderate to fast GDP growth, and a relatively high incidence of poverty. Several relatively large countries—Brazil, Colombia, Egypt, Mexico, the Philippines and Turkey—are prime examples of this pattern. The Republic of Korea and the smaller East Asian nations—the Republic of China, Hong Kong and Singapore—typify a second pattern. Although with the exception of Singapore their populations are still growing at 2 percent a year, they have clearly entered the declining-fertility phase of the demographic transition; they have also achieved remarkably fast GDP growth and have virtually eliminated absolute poverty. The Southern European countries—Greece, Portugal, Spain and Yugoslavia—exemplify a third pattern, whose distinguishing characteristic—a very low rate of population growth—is largely a consequence of their having maintained comparatively high living standards over an extended period. Their maintenance of moderately fast GDP growth over a relatively long period has also enabled these countries virtually to eradicate absolute poverty. Argentina

32. Basic Indicators for Selected Semi-industrialized Countries

	Population (millions)	GNP Per Capita (US dollars)	Average Annual Percentage Growth 1960-77		Percentage of Manufac- turing in GDP		Percentage of Labor Force in Agriculture		Percentage of Manufac- tures in Merchandise Exports	
			GNP Per Capita							
	1977	1977	1960	1977	1960	1977	1960	1977	1960	1976
Brazil	116.1	1,360	4.9	8.0	26	..	52	42	3	25
China, Republic of	16.8	1,170	6.2	9.1	22	37	56	34	..	85
Greece	9.2	2,810	6.2	6.7	16	19	56	40	10	49
Israel	3.6	2,850	4.8	8.0	23	30	14	8	61	78
Korea, Republic of	36.0	820	7.4	10.0	12	25	65	44	14	88
Philippines	44.5	450	2.5	5.5	20	25	61	51	4	24
Spain	36.3	3,190	5.2	6.4	27	30	42	19	22	69
Turkey	41.9	1,110	4.1	6.4	13	20 ^a	78	62	3	24
16 Semi- industrialized Countries	494.2	1,315	4.4	6.3	25	28	54	39	22	58

^a1976.

and Israel complete the group of 16 countries. Although their development patterns are not easily accommodated in the threefold classification given above, the richness of their individual experience warrants their inclusion in the analysis.

The diversity of experience among the semi-industrialized countries can yield insights into the process of structural transformation that can be used to guide countries yet to embark on a major industrialization program. The emphasis in this chapter, however, is on the lessons to be gleaned for future development within the semi-industrialized countries. In particular, it examines the possibility of further reducing poverty and assesses the prospects for sustaining rapid economic growth in a less expansionary international environment.

Growth and Equity: The Record

Economic Growth and Structural Transformation

Many of the semi-industrialized countries have achieved impressive rates of economic growth. Between 1960 and 1976, the combined GDP of the 16 countries increased at an annual average rate of 6.4 percent. Not only is this growth performance considerably superior to

that of the other developing countries, it also surpasses the 4.3 percent annual growth rate achieved by the industrialized countries (Figure 12). Not all of the semi-industrialized countries, however, have been equally successful in this respect. With the exception of the Philippines, the East Asian countries recorded the highest growth rates—around 9 percent a year. The other countries achieved annual growth rates from 5 to 8 percent, the sole exception being Argentina whose economy grew at less than 4 percent.

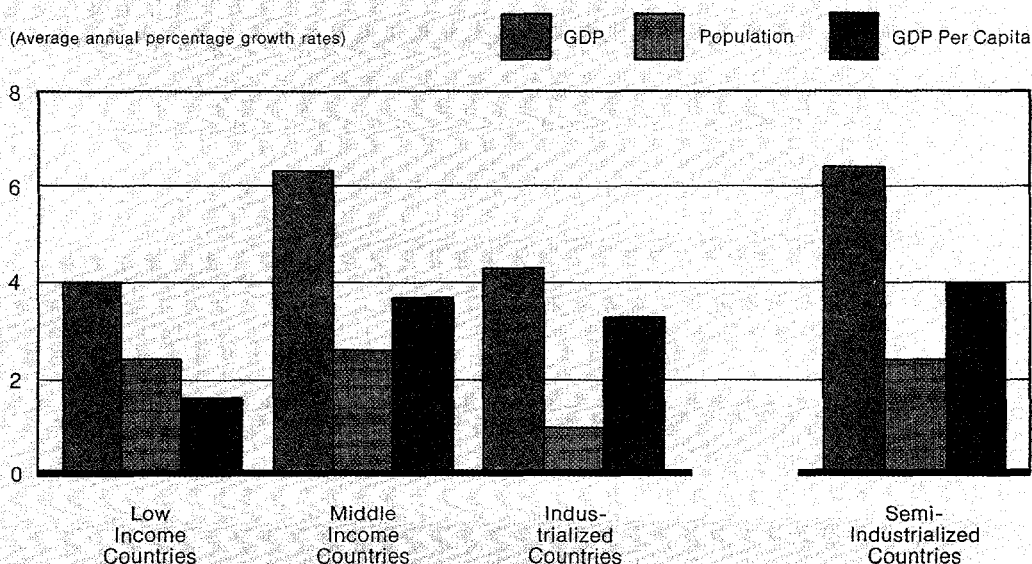
Because of the marked variation in population growth among countries, these rates of GDP growth had very different implications for per capita output. For example, although Mexico and Greece experienced very similar rates of economic growth between 1960 and 1977 (6.5 percent and 6.7 percent respectively), Mexico's population was growing at 3.3 percent a year, so that its per capita output rose by about 70 percent, while Greece, with population growth of only 0.6 percent a year, increased its per capita income by as much as 170 percent.

This example epitomizes the differences between the Southern European and some of the Latin American countries. The former and

Figure 12

Semi-Industrialized Countries: Comparative Growth of Gross Domestic Product and Population, 1960-76

(Average annual percentage growth rates)



Argentina have virtually completed the demographic transition: their low death rates (around 10 deaths per thousand of the population) are associated with low birth rates (around 20 births per thousand of the population) and hence slow population growth. Brazil and Mexico have attained equally low death rates, but their birth rates are double those in Southern Europe and—unlike those of the East Asian countries—have barely started to decline.

Economic growth is rapidly transforming the structure of production in the semi-industrialized countries. In virtually all of them industry in general, and manufacturing in particular, have been the most dynamic sectors. In the 1970s, manufacturing grew at an annual rate of nearly 20 percent in the Republic of Korea, and at more than 12 percent in the Republic of China. In the remaining countries, annual manufacturing growth rates ranged from 5 to 9 percent, with the exception of Argentina where the annual rate was only 3 percent. By 1977, manufacturing accounted for between 20 and 40 percent of GDP in the semi-industrialized countries, compared with 10 to 20 percent in the other Middle Income countries and only 10 percent in most Low Income countries.

Notwithstanding their impressive rates of industrialization, agriculture remains the major source of income for a significant proportion of the population in most of the semi-industrialized countries. Most of them have achieved impressive rates of agricultural growth. Disregarding the city-states of Hong Kong and Singapore, many of them expanded agricultural production at annual rates close to 3 percent or more between 1960 and 1977; only in Portugal was the rate less than 1 percent. Only Argentina, Hong Kong, Israel, Singapore and Spain had less than 20 percent of their labor force in agriculture in 1977; the range for most of the remaining countries was 30 to 50 percent, the extreme case being Turkey where agriculture accounted for

60 percent of the total labor force.

The number of people dependent on agriculture, however, is declining both relatively and absolutely in many of these countries. This trend sets them apart from other developing countries, in which the absolute size of the agricultural labor force is still increasing, and it has significant consequences for the growth of labor productivity in agriculture, as is illustrated in Table 33. Between 1960 and 1976 agricultural production grew about 50 percent faster in the

33. Semi-industrialized Countries: Comparative Growth of Agricultural Production, Labor Force and Productivity, 1960-76

(Average annual percentage growth rates)

	Value Added	Labor Force	Labor Productivity
Low Income Countries	2.1	1.5	0.6
Middle Income Countries	3.1	0.8	2.3
Industrialized Countries	1.3	-4.1	5.4
Semi-industrialized Countries ^a	3.1	-0.2	3.3

^aExcludes Brazil, Israel and Hong Kong for lack of data on growth in agricultural value added.

semi-industrialized countries than in the Low Income countries, whereas agricultural labor productivity grew more than five times faster in the former than in the latter group.

Expansion of international trade has been an important ingredient of growth in several semi-industrialized countries, especially in the smaller ones. Those economies in which production for export has expanded more quickly than production for the domestic market have generally enjoyed the fastest rates of overall growth. The Republic of China, the Republic of Korea and, to a lesser degree, Greece, Hong Kong, Israel and Spain have benefited substantially from rapid export growth. Much of this growth reflects the interaction between rapid

34. Semi-industrialized Countries: Comparative Growth and Structure of Merchandise Trade, 1960-77

(Percentages)

	Average Annual Growth 1960-77		Exports as Share of GDP	Manufactures as Share of Exports
	Exports	Imports	1977	1976
Low Income Countries	3.8	3.6	12	23 ^a
Middle Income Countries	7.7	8.9	19	33
Industrialized Countries	8.4	7.6	15	75
Semi-industrialized Countries	11.3	9.5	14	58

^aBased on 14 Low Income countries, which account for nearly 90 percent of the total GDP of Low Income countries.

industrialization and limited domestic markets: the small semi-industrialized countries quickly exhausted the possibilities for efficient import substitution and switched to production for export in order to maintain the pace of industrialization. As a result, the share of manufactures in merchandise exports has changed dramatically in some of these countries: in the Republic of Korea, for example, it increased from below 20 percent in 1960 to almost 90 percent in 1976. Apart from the Republic of China and Hong Kong, no other country can match this performance; nevertheless, in Israel, Portugal, Spain and Yugoslavia manufactures now account for two-thirds or more of total merchandise exports. In the remaining semi-industrialized countries, manufactures typically make up 20 to 30 percent of merchandise exports. The growth of exports in general, and of manufactured exports in particular, highlights the extent to which future expansion in the semi-industrialized countries depends on a favorable international trading environment.

Poverty and Basic Needs

In the wealthier semi-industrialized countries—Argentina, Greece, Hong Kong, Israel, Portugal, Singapore, Spain and Yugoslavia—few people remain seriously impoverished. Even in countries such as the Republic of China and the Republic of Korea, whose annual per capita incomes are around US\$1,000, a relatively egalitarian distribution of income ensures that very few people are in absolute poverty. In Brazil, Colombia, Egypt, Mexico, the Philippines and Turkey, however, poverty remains a serious problem: rough estimates suggest that 15 to 30 percent of their populations subsist below a poverty line defined as the minimum income necessary to purchase basic requirements of food, clothing and shelter.

The majority of the poor in these countries live in rural areas. In Brazil, for example, around 70 percent of the poor live in rural areas, a large proportion of them in the Northeast. Many of them depend on the labor market for their income, either solely, because they have no land, or partially, because their smallholdings yield inadequate incomes. In urban areas, the poor usually seek their livelihood in the traditional service and manufacturing sectors. Although few are unemployed, most are confined to low-productivity jobs where long hours of labor are required simply to subsist.

A common characteristic of poor households is their large size. Rough estimates suggest that the poorest 20 percent of households in Colombia, for example, support almost 30 percent (approximately 2 million) of all children under age 10. Although crude, such figures indicate the especially severe incidence of poverty among children, and highlight the importance of directing government programs toward the alleviation of poverty, and poverty-induced deficiencies, among children. They also emphasize the desirability of extending family planning facilities to the poor in both urban and rural areas.

Other measures of wellbeing such as life expectancy, child death rates and adult literacy rates provide further indications of social and economic progress. Between 1960 and 1977, for example, life expectancy at birth increased by between five and ten years in most of the semi-industrialized countries; the average citizen of the richer nations—Argentina, Greece, Hong Kong, Israel, Portugal, Singapore, Spain and Yugoslavia—had achieved an expected life span of more than 65 years by 1977. These same countries reduced their child death rates during this period to three or fewer deaths per thousand in the age group 1 to 4 years. In 1975 more than 75 percent of adults were literate in all semi-industrialized countries, with the notable exceptions of Egypt, Portugal and Turkey.

Economywide statistics, however, conceal considerable variation within some countries. Life expectancy in rural Northeast Brazil, for example, is reported to be about 20 years less than in Sao Paulo. In Brazil as a whole, more than 70 percent of children aged 7 to 14 were in school in 1974, but in the rural Northeast, the enrollment rate was less than 50 percent. In Turkey almost one-fifth of the population was estimated to consume less than 75 percent of the recommended daily calorie intake, though the country's supply of calories was more than adequate to meet the population's needs. Nutritional deficiencies are often more apparent, and are always most harmful, among children: for example, it is estimated that less than half of all Brazilian children attain the normal body weight for their age.

These disparities in welfare reflect both the maldistribution of personal income and the inequitable supply of public services. Health, education, water supply, sanitation and housing are important determinants of individual wellbeing

35. Semi-industrialized Countries: Some Comparative Indicators of Welfare

	Life Expectancy at Birth (years)		Child Death Rate Per Thousand ^a		Percentage of Adults Who Are Literate	
	1960	1977	1960	1977	1960	1975
Low Income Countries	42	50	30	19	29	36
Middle Income Countries	53	60	19	11	51	69
Industrialized Countries	69	74	1	1	..	99
Semi-industrialized Countries	57	64	13	7	64 ^b	76 ^c

^aThe child death rate is the number of deaths among children 1-4 years of age, per thousand children in the same age group, in a given year.

^bExcludes Singapore.

^cExcludes Greece and Spain.

and environmental quality. The public provision of these services, however, is usually much more extensive and effective in urban than in rural areas. Over 80 percent of Colombia's urban population, for example, had access to safe water and excreta disposal facilities in 1975, compared with about one-third of the rural population. There are similar disparities in the distribution of health services and education. Even within urban areas, however, access to public services is generally unevenly distributed among income groups. Frequently, the urban poor are unable to afford the high-cost piped and treated water systems and housing units provided by the public sector. Despite their income levels of more than US\$1,000 per person, Brazil, Mexico and Turkey have neither eliminated absolute poverty nor ensured universal access to basic services.

Approaches to Poverty Elimination

Augmenting and encouraging the efficient use of the productive assets owned by the poor—labor and land—is the most desirable approach to eliminating poverty since it simultaneously contributes to growth. In those countries where the structure of incentives has encouraged both employment creation and broadly based agricultural expansion, the benefits of growth have been relatively evenly distributed. Public investments to increase the productivity of labor and land—educational expansion, the construction of irrigation systems and physical infrastructure—have helped both to stimulate growth and to reduce poverty. Investments in social infrastructure, such as health facilities and water supply, though less directly related to productivity, have also improved the wellbeing of the poor in a number of countries.

Income Growth for the Poor

How far the poor participate in the benefits of growth depends to a large extent on the choice of industrialization strategy, with its implications for employment. The employment-creating attributes of the Korean strategy of export promotion, described in Chapter 4, have been noted and partially emulated by several other semi-industrialized countries. The Brazilian industrialization experience is of particular interest since it both exemplifies the transition from import substitution to export promotion and demonstrates the importance of trade policy even for countries whose domestic markets are relatively large.

Before 1964, production in Brazil was heavily protected by tariffs and quantitative restrictions: during the 1950s and early 1960s, average rates of net protection for all internationally traded goods oscillated between 50 and 100 percent, but were very much higher for manufactures than for other traded commodities. Exports were discouraged by the much overvalued exchange rate: implicit net export taxes averaged 30 to 40 percent, those on manufactures being considerably higher. Under this policy regime the economy performed well in certain respects. Between 1947 and 1962, GDP increased at an annual rate of 6 percent, manufacturing output grew at 10 percent, and agriculture expanded at more than 4 percent, mainly as a result of increases in the area cultivated.

The limitations of import substitution were becoming apparent by 1960. Imports had been reduced to only 4 percent of the total supply of manufactures and only 10 percent of that of capital goods, while exports of manufactures amounted to only 3 percent of domestic production. Even more significant in the present con-

text, however, was the very low rate of labor absorption in manufacturing (under 3 percent a year) and the negligible rate of growth in agricultural labor productivity. Moreover, the use of low-interest loans and subsidized inputs, intended to offset the bias against agriculture implicit in strategies of import-substituting industrialization, largely served to encourage large landowners to introduce labor-displacing mechanization. The failure of the import-substituting strategy to create adequate employment in either industry or agriculture, and its inability to stimulate smallholder agriculture, implied a failure to expand the income sources upon which the poor were most dependent.

In 1964, Brazil began a major shift in policy. Significant devaluations between 1964 and 1968, and "crawling-peg" adjustments to the exchange rate thereafter, combined with fiscal incentives for exports and reductions in protection, established a realistic exchange rate and virtually eliminated the bias against exports. Increases in public sector expenditure on infrastructure and investment in manufacturing helped to accelerate growth: between 1967 and 1974 GDP (at 11 percent a year), manufacturing (at 13 percent), and agriculture (at 5 percent), all expanded even faster than in the earlier phase of rapid growth based on import substitution.

The switch in policies not only secured a significant increase in exports but also promoted the growth of employment. Manufacturing employment, for example, rose by over 6 percent a year between 1968 and 1973. Real wages increased and considerable numbers of workers moved to better-paying jobs. A large shift of labor out of agriculture was accommodated without an increase in unemployment, while at the same time the productivity of agricultural labor increased, partly as a result of the more favorable exchange rate and partly as a result of movements in world prices. On balance, the policies associated with export promotion proved more successful than those of import substitution in stimulating growth and in securing significant increases in the incomes of the poor.

Many of the semi-industrialized countries have switched their policies away from heavy reliance on import substitution toward the promotion of exports. Hong Kong and Singapore and their East Asian neighbors, the Republic of China and the Republic of Korea, have pursued export promotion more vigorously than any

other country and have reaped the benefits of rapid growth in production and remunerative employment. A number of countries, including Argentina, Brazil, Colombia, Greece, the Philippines, Spain and Yugoslavia have provided some degree of encouragement to exports over the past decade, but in most of them further efforts in this direction are warranted.

In some countries the task of creating adequate employment opportunities has been eased by slow population growth. In Yugoslavia, for example, where the population growth rate is less than 1 percent a year, the labor force increased at an annual rate of less than 1 percent between 1960 and 1977. Foreign demand for Yugoslav workers, the strong growth of demand for non-agricultural labor, and slow labor force growth combined to secure a decrease in the agricultural labor force of more than one million between 1960 and 1977. Slow labor force growth also eased the problem of employment creation in Argentina, Greece, Portugal and Spain. For example, while Spain and Mexico had roughly the same size labor force in 1960, the increment in Spain during 1960-70 was only about 250,000 workers, compared with an increase of 3.5 million in Mexico.

The effect of rapid population growth on the age structure of the population has significant implications for dependency ratios: the average member of the Portuguese labor force, for example, supported about 1.5 dependents in 1970, whereas his Mexican counterpart was responsible for almost 2.5 dependents. The concentration of large families among the poor in Brazil, Colombia, Mexico, the Philippines and Turkey has been an important factor limiting the equitable distribution of incremental income.

Most semi-industrialized countries that have not yet succeeded in eliminating rural poverty possess dualistic agricultural structures. Since the relatively high agricultural growth rates achieved by Brazil, Colombia and Turkey, for example, are largely the product of expansion in a commercialized subsector, large portions of their agricultural populations remain severely impoverished. In countries such as the Republic of China and the Republic of Korea, by contrast, a relatively egalitarian distribution of landholdings has ensured that the benefits of agricultural growth are widely dispersed.

The experiences of the Republic of China and Mexico illustrate the interaction among the distribution of land ownership, the diffusion of

public support for agriculture and the eradication of rural poverty. Throughout the 1950s and 1960s, these countries achieved equally high annual rates of agricultural growth, at approximately 4 percent. In the Republic of China, however, the productivity of labor and land increased at 3 and 4 percent a year respectively, whereas in Mexico they increased at less than 2 percent. Moreover, the Mexican productivity and yield increases were concentrated in a relatively small modern sector, where increased mechanization and more intensive use of fertilizer significantly expanded wheat and cotton production. The large traditional sector, comprising small private farms and most *ejidos*¹ and accounting for 70 percent of the agricultural labor force, stagnated. The growth that did occur in the output of such crops as corn and beans largely came from newly cultivated land. Thus yields and labor productivity in traditional agriculture failed to show any marked improvement.

A significant difference between the experiences of the Republic of China and Mexico lies in the distribution of land and other inputs and the diffusion of technical knowledge. In the Republic of China, land reform had conferred rights of ownership within an existing, fairly even distribution of operational units. A substantial part of the total cultivated land was irrigated, fertilizer use was widespread, and technical innovations and credit were effectively disseminated through farmers' associations. In Mexico, however, land reform involved the expropriation and redistribution of only part of the total agricultural area, while irrigation facilities were not provided to most small farmers, and research and extension, with some exceptions, were concentrated primarily on irrigated agriculture.

Land reform is a highly sensitive political issue, but in the absence of further efforts at reform, extreme poverty will remain a prominent feature of rural Brazil, Colombia, Mexico and Turkey. The stimulus given to rural industry by a more egalitarian distribution of land holdings is an important ancillary benefit, and one of special significance in these economies, where the landless constitute a substantial proportion of the rural labor force. Non-farm rural enterprises in the Republic of China, for ex-

ample, have benefited from the demand by small farmers for both agricultural inputs and consumer goods, as well as from public efforts to improve rural infrastructure. By 1970, 70 percent of this country's farm households derived some income from non-farm employment, and almost 30 percent earned more from their non-farm jobs than from farming. In bimodal agricultural systems, however, the demands of the modern sector are largely for items such as tractors and high-value consumer goods which are usually only available from urban or foreign suppliers.

Surveying the experience of the 16 countries, the crucial obstacles to eliminating absolute poverty are the failure to create enough non-agricultural jobs, fast population growth, and the inequitable development of agriculture. Unless population growth rates among the poor are reduced and employment and agricultural opportunities are expanded, available estimates indicate that continued GDP growth will succeed in reducing the percentage of the population in poverty but will have little impact on the absolute numbers of people in poverty.

Provision of Public Services

The wealthier semi-industrialized countries—Argentina, Greece, Hong Kong, Israel, Portugal, Singapore, Spain and Yugoslavia—have rapidly extended the provision of education, health services and water supply. Achievements in the other semi-industrialized countries vary. The Republic of China and the Republic of Korea, for example, have attained a relatively even distribution of public services, whereas some of the larger countries have failed to provide adequate services in depressed regions—Northeast Brazil, Southern Mexico, and Eastern Turkey. The relatively high per capita incomes in these countries suggest that they are now in a position to expand the flow of services. Equally important, however, is the possibility of reorienting existing services, to reach people in poverty more consistently. Although the appropriate recommendations will vary among countries, some of the illustrative policy measures described below contain elements of general validity.

Educational programs provide a prime example of the scope for reorientation. The low enrollment rate among children aged 7 to 14 in Northeast Brazil, for example, may be due less to the insufficiency of school places than to

¹*Ejidos* are agricultural communities based on redistributions of land since the 1910 revolution. Members have the right to the products of the land and pass on that right to their heirs, but the land cannot legally be sold or rented to others.

the insufficiency of demand for them: parents are reluctant for their children to attend school because of the earnings they will forgo in doing so. Providing incentives to attend school is one possible solution. In the state of Goias, experimental programs of free school meals increased school attendance rates from below 80 to around 90 percent, and helped to improve the nutritional status of school children. Higher salaries are also required to attract better-trained teachers to rural areas. Such efforts could be financed from within existing educational budgets, by gradually reducing subsidies to higher education, which often constitute one of the most inequitable transfers of income. Since public expenditure on higher education is about half that on primary education in most countries, a substantial amount of public funds could be released by introducing tuition fees for higher education.

Health systems in many countries are biased toward urban rather than rural areas, and toward curative medicine, which generally meets the requirements of the rich, rather than preventive medicine, which can reach more people at lower cost. The annual subsidy from the Colombian public health system to households in large cities is estimated to be more than twice that to rural households. In Brazil, the expansion in health expenditure from 1 to 2.5 percent of GDP between 1949 and 1975 reflects an increasing bias toward curative medicine; whereas preventive medicine accounted for almost 90 percent of total health expenditure in 1949, by 1975 it accounted for less than 30 percent. Rough estimates indicate that a health care system that emphasized preventive rather than curative medicine could serve the entire Brazilian population without any increase in total health expenditures. Restructuring the health system in favor of preventive health care, especially in the rural areas, could significantly improve the health of the poor. Brazil has already begun efforts in this direction: the Program for Interiorization of Health and Sanitation Actions in the Northeast (PIASS) emphasizes preventive and simple curative medicine at the community level, with a well developed arrangement for the referral of more complicated cases to health centers and regional hospitals.

The health of the population also benefits substantially from improvements in nutrition and sanitation. The secular improvement in health standards in Western Europe and North

America, for example, followed from the rise in living standards and better *social conditions*, rather than from improved medical care; the incidence of cholera and typhoid fell in the UK and the US long before effective methods of treatment were available for these diseases. Similar results have been observed in the developing countries: in the Philippines, for example, improved water supply and sanitation have reduced the incidence of cholera by about 70 percent. Significant improvements in the health status of the poor may not be forthcoming until water supply and sanitation are adequate. **

Efforts to provide information on nutrition and family planning services to the poor are especially important given their large family sizes. General improvements in socioeconomic conditions may not reduce birth rates sufficiently, especially in countries such as Brazil and Mexico where the distribution of income is highly uneven. Colombia, despite a much lower level of per capita income, successfully initiated a comprehensive family planning program in the 1960s. Relying heavily on paramedical workers and lay "outreach" field workers, Colombia reduced its crude birth rate from 46 births per thousand of the population in 1960 to 30 in 1977. The Colombian experience is especially pertinent for the other countries in Latin America where population growth remains extremely high. Pregnant and lactating women and children with nutritional deficiencies also benefit from the services provided at Colombian health care centers. Since the learning capacity of children, and hence their subsequent earning ability, can be seriously impaired by inadequate nutrition, such programs are an especially important part of efforts to help the poor escape their poverty.

Some of these programs can be financed by appropriate reallocation of expenditure within existing budgets, but additional revenue will be required in many cases. In oil producing countries such as Colombia and Mexico, elimination of the subsidy on the domestic consumption of oil products could increase government revenue by the equivalent of about 3 percent of GNP. In most countries, the introduction of more realistic user charges, especially for urban services, could significantly reduce the outflow of public funds and ensure a more efficient use of public services. In Colombia, the valuation of property at market prices could yield an additional 1 percent of GNP in property taxes.

Eliminating income tax exemptions on the imputed rent for owner-occupied dwellings, a highly regressive subsidy used in many countries, could yield equally substantial increases in revenue. The preferred combination of services, expenditure reallocation and revenue generation will vary among countries. In raising revenues to finance basic services, the poorer of the semi-industrialized countries, such as Egypt and the Philippines, may have few options but to reallocate public expenditures. But countries such as Brazil, Mexico and Turkey, where annual per capita income exceeds US\$1,000, could afford both to raise additional fiscal resources and to reallocate existing funds to finance the equitable provision of these services.

Sustaining Economic Growth in a Changing World

The future success of the semi-industrialized countries in sustaining rapid growth will depend crucially on their policy responses to changes in world trading conditions and to structural changes within their own economies. The prospect of increased protection in the industrialized countries, the decelerating rate of growth in world trade, rising domestic labor costs, a continuing shift out of agriculture, and a worsening foreign debt position are the main issues confronting them.

Industrialization and Trade Policy

In 1973-77 the annual rate of growth in world trade fell to less than half the 9 percent recorded between 1965 and 1973. The annual growth rate of developing country exports recorded comparable setbacks, declining from 6.4 percent to 3.6 percent, largely as a result of slower growth in the industrialized countries and increased protection, especially against manufactures. These trends raise important issues for countries for which expansion in manufactured exports has been the prime stimulus for GDP growth, as well as for countries where export-promotion policies have had an important salutary effect on industrial efficiency and agricultural growth.

There is a danger that the prospect of slower world economic expansion may induce the semi-industrialized countries to retreat to the extensive use of import-substitution policies, in the hope of maintaining the pace of industrialization. Faced by a crisis in world trade during the Great Depression, Argentina adopted im-

port-substituting policies, and pursued these policies for several decades, with unfortunate results for economic growth and stability; export stagnation, inefficient domestic industries and recurrent balance of payments crises resulted in slow and very irregular economic growth. Turkey's import-substituting approach to industrialization has been characterized by similar stop-go cycles, and the most recent crisis has yet to be surmounted. Other countries—Brazil, Colombia, Mexico and the Philippines—which relied heavily on import substitution, also experienced cyclical balance of payments problems though of a less severe nature. The historical evidence suggests that the pursuit of industrialization through import-substitution policies is not always a satisfactory response to temporary slowdowns in the expansion of world demand for exports.

Moreover, continued growth in the semi-industrialized countries is crucially dependent on their capacity to import, and hence on their ability to earn foreign exchange. Two points are particularly noteworthy in this regard. First, the move to increased protection in the industrialized countries is concentrated on those manufactures—clothing, textiles, and footwear—that have constituted an important part of the recent expansion in exports from the developing countries. Second, the semi-industrialized countries have now established sizable industrial bases; their labor forces are relatively skilled; and some of them are losing their competitive edge in traditional, labor-intensive exports as a consequence of rising real wages.

These points suggest that the more advanced semi-industrialized countries are now at the stage where both external and internal developments warrant a gradual shift into more capital-intensive and skill-intensive lines of production. Such a move would be consistent with the historical experience of Japan, where changes in the relative profitability of different manufactured goods, induced by rising real wages for unskilled labor and an expanding supply of skilled workers, led to a reorientation of exports away from labor-intensive products such as textiles and clothing and toward capital-intensive and skill-intensive items such as steel, shipbuilding and car manufacturing.

Recent trends in international trade herald a movement to greater concentration on capital goods exports in the total exports of developing countries. During the 1970s the growth of

their machinery exports has far exceeded that of their traditional exports. Although these nations have exploited the fast growing markets for capital goods in the industrialized countries, in 1976 over 40 percent of developing country exports of machinery and transport equipment went to other developing nations. The bulk of these exports are of relatively low-technology goods such as small electric motors, cables, electric meters, television receivers and powered hand tools, but the semi-industrialized countries have begun to diversify their exports into more complex lines of industrial machinery. Brazil, for example, has been exporting textile equipment, machinery for making pulp and paper, construction and mining equipment, and power transformers to the US and Europe; Singapore's exports include ball and roller bearings, construction and mining equipment, pumps and centrifuges, powered tools and mechanical handling equipment; and in the Republic of China the production of sewing machines, agricultural machinery, bicycles and textile equipment has helped the development of a dynamic machine tool industry.

The development of a capital goods sector in the semi-industrialized countries depends critically on the maintenance of export-promoting policies, given the limited, albeit expanding, domestic markets for these goods. Although some protective tariffs or other modes of subsidization may be necessary for the establishment of a capital goods industry, continued reliance on such supportive measures could be self-defeating. Other forms of public action may also be required, such as vocational training programs and the subsidization and organization of schemes for in-plant training; public support for industrial research, through tax incentives and government contracts; and efforts to centralize marketing and product-testing facilities. Finally, the indivisible nature of investments in the sectors using capital goods, and the need for correspondingly large and discontinuous expansions in the capital goods-producing sector itself, justify some degree of indicative macroeconomic planning in order to reduce uncertainty and avoid costly errors.

Priorities in Agriculture

Apart from its important role as a source of employment and labor income, agriculture remains a significant earner and saver of foreign exchange in most semi-industrialized countries,

particularly the larger ones. In 1976, agricultural commodities made up more than half the total merchandise exports of Argentina, Brazil, Colombia, the Philippines and Turkey, whereas in smaller nations such as the Republic of China, Hong Kong, Israel and Singapore, and in most of the richer Southern European countries, the share was less than 30 percent. Food comprised less than 15 percent of merchandise imports in all countries of the group except Egypt, Hong Kong and Portugal. Agriculture's ability to generate foreign exchange, either directly through exports or indirectly through food production, is and will remain crucial to the growth of semi-industrialized countries. Furthermore, in an increasingly protectionist environment the buoyancy of the domestic market will come to depend more heavily on healthy, broadly based agricultural growth.

The broad macroeconomic approach to exchange rate policy, agricultural pricing issues, and the sectoral allocation of investment influences the relative profitability of agricultural production and exports, and hence the overall rate of agricultural growth. The significance of the general macroeconomic framework for agriculture has been described in Chapter 5, and is readily apparent in the individual experiences of the semi-industrialized countries. The Republic of China and the Republic of Korea, for example, maintained the profitability of agriculture through exchange rate and agricultural pricing policies and by the adequate provision of infrastructure. At the other extreme, the disappointing performance of Argentinian agriculture throughout the 1950s and 1960s, despite the country's rich resource endowment, was primarily due to the implicit and explicit taxes on agriculture and the fluctuating and generally unfavorable exchange rate. The slow growth of agriculture was, in turn, an important factor contributing to the country's persistent foreign exchange shortage.

Since the maintenance of an appropriate macroeconomic framework has been discussed elsewhere, this section concentrates on policies toward agriculture that are most relevant to those semi-industrialized countries whose agricultural labor force has started to decline. Where slow population growth is accompanied by a rapidly expanding demand for non-agricultural labor, efforts to enhance agricultural labor productivity become increasingly important.

To meet these productivity requirements, the

availability and timely dissemination of new and improved technologies are essential. Countries such as the Republic of China and the Republic of Korea, which invested in agricultural research at an early stage of their development, were subsequently able to achieve substantial increases in agricultural production and labor productivity. Until the early 1970s, chemical technology was the main factor raising agricultural yields in the Republic of Korea, but since 1972 the development and dissemination of high-yielding varieties of rice also has been an important stimulus to yields. In recent years, mechanical equipment has been gradually, but increasingly, substituted for labor: between 1965 and 1976, the use of labor per harvested hectare of rice decreased from 1,400 hours to 1,040 hours, while the capacity of farm machinery per hectare of cultivated land increased from about 0.2 to 0.9 horsepower. Rising labor costs in some of the more advanced semi-industrialized countries have signaled the need to increase the use of farm machinery, especially at planting and harvesting time.

The crucial policy issues during this phase of development are the provision of appropriate pricing signals to private agriculture, and the efficient development of industries that supply inputs to agriculture and process its outputs. In Turkey, the development behind protective measures of a domestic tractor industry, combined with subsidized credit for tractor purchases, resulted in premature mechanization: the number of tractors in use trebled between 1962 and 1972, although unemployed and underemployed workers were readily available. This experience highlights the deleterious effects of efforts to force the pace of both industrialization and agricultural mechanization.

Finally, the changing pattern of demand for agricultural products entails corresponding adjustments in the commodities produced, with

expansion in the output of livestock products, fruits and vegetables, and development of processing, packaging and marketing facilities. Self-sufficiency in staple crops may become more difficult and less necessary as increased emphasis is given to the production of high value export and industrial crops.

Resource Mobilization and Debt Management

The semi-industrialized countries have maintained high and increasing rates of investment, ranging in 1977 from 19 percent of gross domestic product in Argentina to above 30 percent in Singapore and Yugoslavia. In some countries, such as Brazil and Turkey, public investment has been an important part of total capital formation, but in other countries, such as the Republic of China, the Republic of Korea and the Philippines, the private sector has been the main source of fixed investment. In the exceptional case of Yugoslavia, worker-managed enterprises have been responsible for a significant proportion of total capital formation.

The method of financing investment has varied considerably among countries. High interest rates and development of the capital market, for example, were important in the Republic of China and the Republic of Korea. Major tax reforms and improvements in tax administration and collection in the mid-1960s helped to finance the Brazilian expansion in public investment. Some countries—notably Argentina and Turkey—had recourse to involuntary savings enforced by inflation, but often at the cost of serious foreign exchange crises. Private direct foreign investment has been important in Singapore and, to a lesser extent, in Brazil, Hong Kong, Mexico and Spain.

Many of the semi-industrialized countries faced severe problems in adjusting their balances of payments to the oil price increases of 1973-74, and the slackening in the demand for

36. Semi-industrialized Countries: Comparative Investment and Debt Service Ratios, 1960-77
(Percentages)

	Gross Domestic Investment as Share of GDP		Debt Service as Share of ^a			
			GNP		Exports of Goods and Services	
	1960	1977	1970	1977	1970	1977
Low Income Countries	14	21	1.3	1.8	12.4	7.6
Middle Income Countries	21	25	1.7	2.4	9.1	9.2
Semi-industrialized Countries	21	24	1.5	2.2	11.4	11.7

^aDebt service on external public and publicly guaranteed medium- and long-term loans only.

their exports that resulted from the recession in industrialized nations in 1974-75. Most of these countries turned to foreign capital markets in an attempt to sustain their economic growth; indeed, much of the increase in the total foreign debt of developing countries that occurred in 1974 and 1975 reflects the borrowing activities of semi-industrialized countries. As a result, some of these countries now have high debt burdens. A few of them, including Portugal and Turkey, have already experienced significant debt problems, while others, such as Brazil, the Republic of Korea and Mexico, have avoided liquidity crises even though their debt burdens are sizable.

Their increased foreign borrowing, especially in private capital markets, allowed the semi-industrialized countries to finance the imports they required to maintain the pace of economic growth through 1976. In the following two years, however, with the important exception of the

East Asian semi-industrialized countries, a limited capacity to purchase imports, resulting from weak export performance and increased debt service burdens, meant that economic growth was significantly slower. The East Asian countries' ability to adjust to changing external conditions and to develop and diversify their exports has been crucial to their continued success. The East Asian experience, combined with the need of all countries to preserve a stable climate for commercial capital flows and to avert balance of payments crises, underscores the importance of further expansion and diversification of manufactured exports by Latin American and Southern European semi-industrialized countries. Unless these countries can improve their export performance and increase their domestic savings rates, their existing debt burdens will limit their room for maneuver, with potentially serious consequences for their economic growth.