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To: Members of the Executive Board

From: The Secretary

Subject: Korea - Recent Economic Developments

The attached supplement to the report on recent economic developments in Korea (SM/82/70, 4/15/82), has been prepared on the basis of additional information.

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KOREA

Recent Economic Developments--Supplementary Information

Prepared by U. Baumgartner (ASD), M. Wattleworth (FAD), and M. Fetherston (EP)

Approved by the Asian and Fiscal Affairs Departments

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1. Introduction

This section describes the main features of Korea's Fifth Five-Year Plan, covering the period 1982-86. Korea's development plans are prepared by the Economic Planning Board, chaired by the Deputy Prime Minister and Minister of Economic Planning, following consultation with other government agencies and groups in the private sector. The plans are implemented on a rolling basis by means of annual Economic Management Plans, which, within the overall context of the Plan strategy, allow flexibility in the face of unanticipated changes in external or domestic economic conditions.

An outline of the major objectives, economic background, and policy strategy set forth in the draft Plan document is followed by a more detailed analysis of the major policy measures and institutional reforms which are to be implemented. As described in the Recent Economic Developments report (SM/82/70, 4/15/82), many of the institutional reforms envisaged for the Plan period have already been initiated. To achieve the Plan's objectives, these initial steps will need to be followed up in the course of the Plan period, and will have to be complemented by appropriate external and domestic financial policies. Since exports will continue to play a key role in the Korean economy, achievement of the Plan's targets depends importantly on the provision of adequate export incentives.

2. Overview

a. Objectives

The Plan aims at economic growth sufficient to absorb the anticipated expansion of the labor force and to reduce unemployment, while also ensuring further significant gains in real per capita income. As compared with previous plans, increased emphasis is placed on the pursuit of social objectives; these include improvements in housing supply, medical services, rural sanitation, and education standards at all levels. Improvements in social services will also be geared toward relief of absolute poverty and the improvement of income distribution and basic amenities in rural areas. The incidence of poverty associated with old age and disability is to be reduced through expansion of pension, medical insurance, and workmen's compensation schemes.

b. The international and domestic environment

Korea's growth strategy for the Fifth Plan is based, as in the past, on a dynamic export sector. External conditions, however, are likely to be significantly less favorable, with Korea's trading position nampered

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1/ Prepared by Martin Fetherston.

by sluggish world demand, increased protectionism in industrial country markets, sharper competition in labor-intensive activities from other newly industrializing countries, and continuing uncertainties over oil prices and supplies. In addition, the Plan identifies three recent problem areas associated with earlier deficiencies in domestic policies (1) high inflation following overexpansionary demand management policies, (2) allocative distortions resulting from the system of preferential policy loans and excessive direct government intervention in the economy, and (3) relatively inadequate social development reflecting the higher priority assigned to industrialization. Against this background, export growth is to be promoted by containment of domestic inflation and through structural reforms to improve the efficiency of the economy; reflecting the changing emphasis of overall objectives and the need to reduce distortions, government intervention will be geared more toward social development, with direct influence over economic activity reduced. As a result, the Fifth Plan is intended to be more indicative in character than its predecessors, with most investment decisions other than some large-scale projects to be left to the private sector.

c. Macroeconomic targets

In order to enhance international competitiveness and provide conditions for balanced growth, high priority is assigned to the elimination of inflationary expectations through a progressive reduction in the inflation rate.1/ Real GNP growth is targeted at an annual rate of 7.6 per cent, sustained by expansion of export volume averaging over 11 per cent. With import growth projected at 8 per cent per annum, the Plan aims at a steady improvement in the external position, reducing the deficit on the current account from 7.5 per cent of GNP in 1981 to 2.5 per cent by 1986. As total investment is projected to rise to nearly one third of GNP, the reduction in foreign savings requires a significant increase in the domestic savings effort.

d. Institutional reforms

Public policy initiatives are strongly oriented toward institutional reforms, such as import liberalization, financial sector reform, redesign of industrial and export incentive schemes, deregulation of domestic markets, and improvements in the tax system, all designed to extend the operation of market mechanisms and improve economic efficiency. Although the overall emphasis of public expenditure will switch toward social development projects designed to improve basic amenities for the general population, increased government financial support is also foreseen for technological and manpower development. Industrial policy emphasizes promotion of skill- and capital-intensive products, especially machinery, both as a major source of export growth and, through development of domestic parts and components supply, import substitution. Energy policies aim to diversify sources of supply away from dependence on imported oil,

1/ The Plan document foresees a reduction in the rate of increase in the WPI (December-December) to 9 per cent by 1986 from 17 per cent then projected for 1981; the outcome for 1981 was actually 11.8 per cent.

notably toward nuclear power, and to encourage conservation by inducements for energy-saving innovations, structural shifts away from energy-intensive industries, and realignment of energy prices. In the agricultural sector, increased production is to be fostered by improvements in distribution systems and social conditions in rural areas.

3. Major policies and institutional reforms

a. Growth, investment, and savings

The Plan projections specify a growth target of 7.6 per cent per annum in real terms during 1982-86 (Table 1). This growth rate is below the longer-term average of about 9 per cent since the mid-1960s, reflecting the changed international environment and the difficulty of maintaining rapid growth from a much higher base, it is, however, some 2 percentage points higher than was achieved during the Fourth Plan (1977-81), when growth after 1979 was curtailed by the effects of the oil crisis and associated adjustment policies, as well as the impact of civil disturbances and a poor harvest. The projected growth rate would still be very respectable by international standards, maintaining Korea's position as one of the world's fastest growing economies.

Table 1. Korea: Growth of Output, Employment, and Population, 1972-86

(In per cent per annum)

	Five-Year Plan Periods		
	Third 1972-76	Fourth 1977-81	Fifth 1982-86
	Actuals		Projections
Real GNP	10.1	5.6	7.6
Productivity	5.4	3.2	4.5
Employment	4.5	2.3	3.0
Population	1.8	1.6	1.6
Labor force	4.4	2.4	2.8
Unemployment rate 1/	3.9	4.5	4.0
Real GNP per capita	8.2	3.9	5.9

Source: Economic Planning Board, Fifth Five-Year Economic and Social Development Plan, 1982-86 (Fifth Plan).

1/ As per cent of labor force in terminal year.

The growth rate of productivity is projected at 4.5 per cent, near the average for the last ten years, but representing an acceleration from performance under the Fourth Plan. Total employment would increase by 3 per cent per annum, sufficient to absorb continued expansion of the labor force and gradually reduce the unemployment rate from 4.5 per cent in 1981 to 4 per cent by 1986. Given the projected 1.6 per cent average rate of population growth, 1/ real GNP per capita would expand by about 6 per cent per annum. Consistent with continued reliance on manufactured exports, growth of output would be most rapid in the manufacturing sector (11 per cent per annum), especially machinery (18 per cent), although light manufactures would remain of major importance in absolute terms (Table 2).

Table 2. Korea: Industrial Origin of GNP, 1980-86

	1980	1981	1986	Annual Increase in Volume 1982-86 1/
	(In per cent of GNP) 1/			(In per cent)
Agriculture, forestry, and fisheries	16.3	18.8	14.8	2.6
Mining	1.4	1.4	1.0	5.0
Manufacturing	28.8	28.7	34.0	11.0
Light	(13.4)	(13.1)	(14.7)	(9.5)
Chemicals	(7.9)	(7.7)	(8.4)	(8.8)
Metals	(2.9)	(3.0)	(3.1)	(6.8)
Machinery	(4.7)	(5.0)	(7.8)	(17.6)
Services	53.5	51.1	50.2	7.3
Social overhead capital	(17.9)	(17.2)	(18.6)	(8.9)
Other	(35.6)	(33.8)	(31.6)	(6.4)
Total	100.0	100.0	100.0	7.6

Sources: Fifth Plan; and Bank of Korea, Economic Statistics Yearbook.

1/ At 1980 prices.

1/ The disparity between the growth rates of population (1.6 per cent) and the labor force (2.8 per cent) reflects the youthful age structure of the population, of whom currently one third are under 14 years of age.

The fixed investment requirements of the target growth path imply an aggregate incremental capital-output ratio of 4.4 (Table 3), similar to the average for the last ten years, and well below the 6.3 of the 1977-81 Fourth Plan period, when major investments in capital-intensive heavy industrial projects led to the emergence of excess capacity in certain sectors. Total domestic investment, including stockbuilding, as a ratio of GNP, which rose to 35 per cent during the 1970s before declining to 27 per cent in 1981, is projected to increase to 32.5 per cent by 1986, averaging 1 percentage point higher than during the Fourth Plan.

Table 3. Korea: Savings and Investment, 1972-86

(In per cent of GNP at current prices)

	Five-Year Plan Periods					
	Third 1972-76	Fourth 1977-81	Fifth 1982-86	1980	1981	1986
	Actuals		Projections			
Total investment	26.6	30.5	31.6	31.5	27.3	32.5
Fixed investment	(24.0)	(30.0)	(30.0)	(32.7)	(28.3)	(30.9)
Stockbuilding	(2.6)	(0.5)	(1.6)	(-1.2)	(-1.1)	(1.6)
Foreign savings 1/	6.8	6.0	4.5	10.2	8.3	2.9
Domestic savings	20.3	23.6	27.1	19.9	20.0	29.6
Households	(5.3)	(7.7)	(10.2)	(5.5)	(4.9)	(11.2)
Companies 2/	(11.4)	(10.0)	(10.2)	(9.0)	(9.0)	(10.5)
Government	(3.6)	(5.8)	(6.7)	(5.4)	(6.1)	(7.9)
Statistical discrepancy 3/	-0.5	0.9	--	1.4	-1.0	--
Incremental capital output ratio 4/	2.7	6.3	4.4			

Sources: Fifth Plan; and Bank of Korea, Economic Statistics Yearbook.

1/ Net transfers and borrowing from the rest of the world.
2/ Including communications service.
3/ Difference between expenditure and output estimates of GNP.
4/ Gross domestic fixed capital formation as a ratio of increase in GNP at constant prices.

In line with the increased emphasis on improved social development, especially through housing and education projects, the share of investment allocated to services will be higher than in recent years, and those of agriculture and manufacturing slightly reduced (Table 4); however, reflecting the anticipated shift in industrial structure, the share of investment in the machinery sector is projected to rise sharply.

The financing of investment is to shift significantly from recent trends. With a substantial improvement targeted for the external position, foreign savings are expected to decline from about 8 per cent of GNP in 1981 to below 3 per cent by 1986, implying a rapid increase in domestic savings from 20 per cent of GNP in 1981 to almost 30 per cent by the end of the Plan period. About one fifth of the increase in the savings ratio is to be generated by the government sector, notably through an increase in the tax effort and progressive reduction of Grain Management Fund subsidies. As a result, government savings are to rise from about 6 per cent of GNP in recent years to nearly 8 per cent by 1986.

Table 4. Korea: Allocation of Investment, 1972-79 and 1982-86

(In per cent of total)

	1972-79 Actual	1982-86 Projection
Agriculture, forestry, fisheries, and mining	10.0	9.4
Manufacturing	23.2	22.5
Light	(8.7)	(7.4)
Chemicals	(4.5)	(4.7)
Metals	(4.4)	(2.0)
Machinery 1/	(5.6)	(8.4)
Social overhead capital	33.9	34.1
Electricity	(6.0)	(6.5)
Transport and communication	(24.5)	(23.5)
Other	(3.4)	(4.1)
Other services	32.8	34.0
Housing	(15.8)	(20.0)
Education	(3.0)	(5.0)
Other	(14.0)	(9.0)
Total	100.0	100.0

Source: Fifth Plan.

1/ Includes electronics and transport equipment.

The major source of increased savings, however, is expected to be the household sector; household savings, which averaged 5 per cent of GNP during 1972-76 and 8 per cent during 1977-81, are projected at about 10 per cent for 1982-86, almost double tne depressed levels of 1980-81. Increased household savings will be promoted by the progressive liberalization of the financial sector, including denationalization of commercial banks, deregulation of the securities market, and the development of nonbank financial institutions; while as part of this process, interest rates are expected to be freed eventually from direct control, in the interim the authorities intend to fix them at positive levels in real terms. Company savings are projected to average 10 per cent of GNP, below the average for the 1970s, though 1 percentage point higher than in 1980-81, when profitability was adversely affected by the recession.

b. Domestic financial policies

A steady reduction in the inflation rate plays a key role in the strategy of stabilization of the economy and improvement of export competitiveness. This is to be achieved through restrained demand management and structural measures to alleviate supply bottlenecks, including infrastructural improvements and import liberalization. The growth of broad money is to be progressively reduced, despite an anticipated decline in velocity associated with the financial deepening of the economy expected to result from the progressive liberalization of the financial sector and the maintenance of positive real interest rates. In keeping with the general intention to reduce direct controls, monetary policy will rely less than before on interest rate control and credit ceilings and increasingly utilize indirect instruments, such as discount rate and reserve ratio changes and open market operations. Fiscal policies aim at a steady reduction in the overall public sector deficit, from about 4 per cent of GNP in 1981 to 1 per cent in 1986, mainly via increased tax effort and continuing expenditure restraint. Revenue measures include the new education tax, implemented in early 1982, and prospective limiting of tax exemptions, while current outlays will be restrained by controls on public employment and by progressive elimination by 1986 of the deficit of the Grain Management Fund through abolition of the two-tier pricing systems for rice and barley.1/ At the same time, provision is made for commitments to increase spending on infrastructure, social services, and agriculture, and to maintain defense spending at 6 per cent of GNP.

c. Foreign borrowing

The principal objectives of external debt management are to reduce the debt service ratio for medium- and long-term debt from about 13 per cent in 1981 to 11 per cent by 1986, and to keep the ratio of external debt to GNP below 50 per cent. This is to be achieved by progressive

1/ Similar measures are to be taken to eliminate the deficit of the Fertilizer Fund, which although outside the definition of the public sector, is under government control and has access to Bank of Korea financing.

reduction in the current account deficit, improving the debt structure in favor of increased borrowing from international financial institutions, and attracting higher direct investment inflows through the liberalization of regulations governing foreign equity participation and the gradual internationalization of the Korean securities market.1/

d. External trade policies

Foreign trade is to continue its key role in the development of the Korean economy, with rapid growth of exports required both to sustain overall economic expansion and to reduce the current account deficit. At the same time, increased competition from imports is expected to make an important contribution toward improving the efficiency of the economy. Specific external trade policy measures include improvements in the export incentive system, import liberalization and tariff restructuring, and expansion of credit for exports on deferred payment. The system of specific export incentives is to be reoriented away from provision of subsisidized short-term export credits toward indirect support for the development of new export products via encouragement of investment in technology and manpower development projects. Strong government support is to be provided for fixed investment in industries with a comparative advantage, which is perceived to be shifting away from light manufactures, the mainstay of Korea's earlier export expansion, toward more skill- and capital-intensive activities, such as industrial machinery and electronics.

Import policy features extension of liberalization, with the proportion of unrestricted categories to rise to a level comparable with that of industrial countries. The tariff structure is to be streamlined, partly in order to simplify the administration of tariff rebates on exports. Tariff rates will generally be reduced for domestic products judged to be internationally competitive; higher rates may, however, be retained for other products, and in some cases quotas may be replaced by new tariffs.

Growth of invisible earnings is to be fostered via encouragement of higher value-added overseas construction contracts, support for local shipping companies, and development of tourist facilities.

e. Industrial policies

Industrial policies will be oriented toward reducing the extent of direct government intervention in the allocation of resources and increasing the responsiveness of the domestic economy to shifting patterns of comparative advantage in world markets. High priority is assigned to upgrading the structure of industry through technology and manpower development; these are to be fostered by increased tax and

1/ See Section II for a more detailed analysis of the balance of payments projections of the Fifth Plan.

financial incentives and by improved local dissemination of advanced foreign technology through liberalization of inward investment, expanded information services, more overseas training opportunities, and increased local employment of foreign technicians. Competition in domestic markets will be bolstered by strengthened implementation of monopoly regulation and fair-trading legislation and the removal of anticompetitive regulations and administrative practices.

The Plan foresees a substantial shift in the pattern of manufacturing investment, with declines in the shares of light industrial products and metals, and a sharp increase in that of the machinery sector, from less than 25 per cent of total manufacturing investment during much of the 1970s to 37 per cent during 1982-86 (Table 4). Machinery is also projected as the fastest-growing sector of industry in terms of its contributions to the growth both of real output (18 per cent per annum) and of exports (22 per cent per annum), reflecting the anticipated shift of Korea's comparative advantage in this direction. However, the emphasis on machinery investment and output is mainly to take the form of raising the domestic value-added component of existing products through development of complementary activities, such as parts and components, and improving utilization of existing plants, rather than of major investments in new final output capacity. An important exception is the shipbuilding industry, whose capacity is to be increased by 50 per cent during the Plan period. Policy measures to promote this pattern of development for the machinery sector include tax and financial incentives, increased availability of buyers' credits, and enlarged technical extension services, the use of preferential loans, substantial in the past, is to be kept to a minimum.

Elsewhere in the heavy industrial sector, moderate expansion is planned, notably in petrochemicals, where following recent overcapacity difficulties, more gradual development is intended than in the recent past. Steel capacity will be expanded to permit future replacement of imports.

Light manufacturing products, such as textiles and footwear, will continue as the major export industry, though its share in total exports, investment, and output is expected to decline as faster growth occurs in other sectors. Policies for this sector include encouragement of replacement of obsolete plants in textiles, and promotion of new, higher value-added, product development through improved information services.

f. Energy policies

High priority is assigned to the rationalization of energy policies through conservation measures and diversification of sources of supply. On the demand side, the elasticity of energy demand with respect to GNP is to be reduced from 1.2 during 1972-79 to about 0.9 for the Plan period, through a combination of changes in the industrial structure toward less energy-intensive activities, incentives for energy-saving innovations, and a realignment of energy prices to encourage greater efficiency in energy use. On the supply side, an extensive program of nuclear power station construction is under way, and government support will be provided for expansion and increased mechanization of the coal industry. As a result of these measures, the proportion of energy consumption supplied by oil imports is to be reduced from 59 per cent in 1981 to 50 per cent by 1986.

g. Agricultural policies

The major objective for the agriculture sector is increased production of staple foodgrains, with the aim of attaining self-sufficiency in rice by the end of the Plan period. Grain production is to be raised through increased mechanization, greater irrigation, and extension of cultivated areas; in addition, increased production of livestock and cash crops will be encouraged by modernization of marketing and distribution systems. Rural living standards will also benefit from improvements in basic amenities and social services.

II. Balance of Payments Projections of the Fifth Five-Year Plan (1982-86) 1/

1. Overview

The principal balance of payments objective of the Plan is to reduce the current account deficit/GNP ratio from 7.5 per cent in 1981 to 2.5 per cent by 1986. A deficit of 2.5 per cent of GNP would correspond approximately to the current account position in the years immediately preceding the first and second oil shocks (Chart 1). The envisaged reduction in the current account deficit would result in a substantial lowering of the debt service burden, leaving adequate room for maneuver to deal with unexpected external shocks. The projected path of adjustment provides for a reduction in the current account deficit/ GNP ratio of about 1.5 percentage points per year in 1982-83 followed by an annual decline of less than 1 percentage point in 1984-86. As the adjustment is to be effected mainly through exports, a key assumption of the Plan is that the volume of world non-oil imports will rise at an annual average rate of about 5 per cent during 1982-86. Furthermore, to achieve the Plan's export target, it is essential that adequate incentives to exports be provided.

In view of the lower actual imports in 1981 than expected at the time the Plan was drawn up, a smaller increase in import volume in 1982 than originally projected (resulting from a downward revision of the targeted GNP growth from 8 per cent to 7 per cent), and the recent weakening of international oil prices, the current account deficit in 1982 is now expected to be lower than envisaged in the Plan: equivalent to 5.5 per cent of GNP, compared with the Plan estimate of 6.2 per cent. If this lower deficit were actually realized, and assuming no change in the other assumptions and targets of the Plan, the objective of reducing the current account deficit to the equivalent of 2.5 per cent of GNP could in fact be achieved before the end of the Plan period.

2. Exports

The Plan's current account objectives are based upon continued strong export performance. Growth of export volume is projected at 11.4 per cent per annum, close to the average of 12 per cent recorded in the Fourth Plan period, 1977-81 (Table 5), though well below the 34 per cent growth rate achieved during 1972-76. The export projections are based on a 5 per cent per annum growth of the non-oil volume of world trade during 1982-86, implying an elasticity of about 2 for Korea's exports with respect to world trade; in the period 1977-81, the annual rate of increase in the volume of non-oil imports of Korea's major trading partners was about 6 per cent and the elasticity of Korea's export volume with respect to market growth was close to 3. The lower elasticity projected for the period 1982-86 reflects the much larger size of Korea's export base now than in earlier years, increased competition from developing countries in the markets for labor-intensive manufactures, and the highly competitive conditions prevailing in the

1/ Prepared by Ulrich Baumgartner.

Table 5. Korea: External Indicators, 1977-86

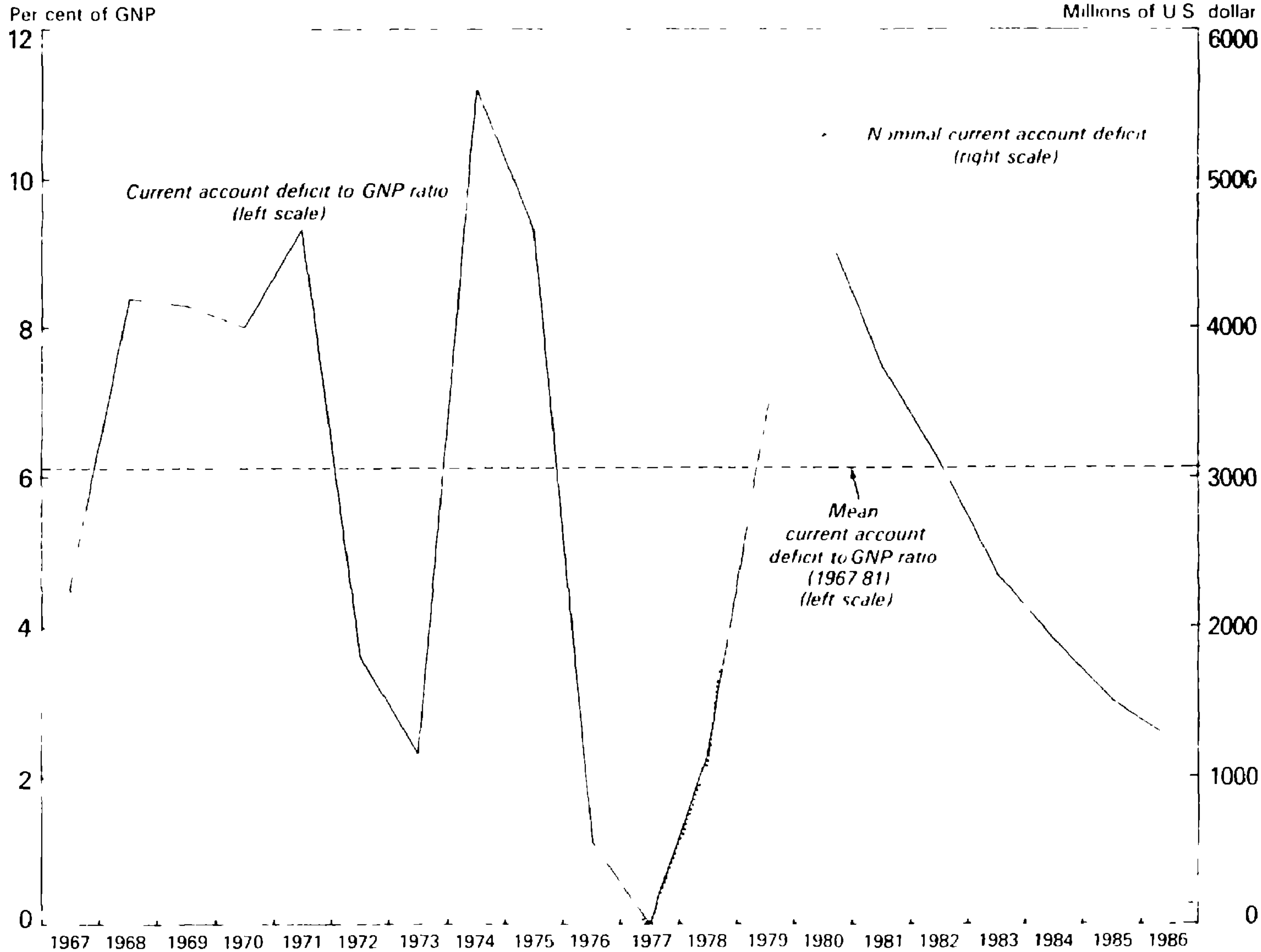
	1977	1978	1979	1980	1981	Average 1977-81	Plan Average 1982-86	Plan 1986
Exports								
Goods								
Change in volume	19.0	14.2	-0.9	10.6	18.7	12.3	11.4	...
Change in unit value	9.5	10.7	19.5	5.3	2.0	9.4	8.0	...
Services								
Change in value	82.5	47.0	8.5	11.1	22.5	34.2	17.9	...
Imports								
Goods								
Change in volume	20.5	31.2	11.8	-13.8	6.3	11.2	8.4	...
Change in unit value	2.3	5.6	22.1	26.9	5.0	12.4	8.0	...
Services								
Change in value	61.4	53.1	18.8	34.4	26.9	38.9	14.9	...
Terms of trade	122.0	128.0	125.3	104.0	100.9	116.0	100.9	100.9
Current account deficit								
In US$ billion	--	-1.1	-4.2	-5.3	-4.7	-3.1	-4.2	-3.6
In per cent of GNP	--	-2.3	-6.9	-9.4	7.5	-5.3	-4.6	-2.5
Interest rates (annual average)								
Three-month LIBOR (US$ deposits)	6.0	8.7	12.0	14.4	16.5	11.5	10.6	10.0
External debt (end-of-year)								
Total (US$ bn.)	13.9	15.8	21.2	27.4	32.8	...	...	64.2
Medium- and long-term	9.2	11.3	14.3	16.5	20.5	...	...	42.4
Short-term	4.7	4.5	6.9	10.9	12.3	...	...	21.8
Total in per cent of GNP 1/	39.5	33.4	35.3	48.5	51.8	41.7	47.5	44.8
Debt service ratio								
On total debt 2/	11.3	13.2	15.2	18.4	19.9	15.6	16.3	14.3
On medium- and long-term debt 3/	10.4	12.0	13.2	13.1	13.3	12.4	12.4	11.2
International reserves								
In months of imports of goods and services	3.9	3.2	2.8	2.8	2.5	3.0	2.0	1.8
World market growth 4/	6.8	9.5	5.3	1.6	5.0	5.6	5.0 5/	...

Sources: Fifth Plan; data provided by the Korean authorities; and staff estimates.
1/ Total external debt at end of year in per cent of GNP of the same year.
2/ Interest payments on all debts and amortization of debt with maturities of more than one year.
3/ Debt service on debt with maturities of more than one year.
4/ Weighted average of growth in partner countries' non-oil import volume.
5/ Growth in the volume of world non-oil imports.

CHART 1

KOREA

CURRENT ACCOUNT DEFICITS, 1967-86



Source Economic Planning Board Fifth Five Year Plan 1982 86 markets for more sophisticated industrial products which are to lead Korea's export growth in the 1980s. Nevertheless, the Plan projections still imply a considerable further increase in Korea's share of world trade in manufactures, which had increased from less than 0.1 per cent in 1965 to an estimated 1.3 per cent in 1981. Since this share is projected to reach about 2.0 per cent by 1986 1/, the provision of adequate export incentives is a key assumption of the Plan.

A central feature of the export projections is the expected increase in the relative share of exports of ships and other transport equipment, electric and electronic machinery, and general machinery from about 21 per cent of total exports in 1981 to about 33 per cent by 1986 (Table 6). Exports of these products are expected to rise by 31.5 per cent per annum, or twice the growth rate projected for light industrial products, with exports of general machinery and transport equipment (including ships) rising by 43.5 per cent and 35.5 per cent, respectively. This projection reflects the anticipated shift in Korea's comparative advantage away from light manufactures to more capital-intensive commodities.

The export prospects for Korea's shipbuilding sector--Korea has become the second largest shipbuilding nation in the world--appear to be favorable. Exports of ships rose at an average annual rate of 70 per cent in the period 1977-81, and the shipbuilding industry offers sufficient capacity for rapid export growth through both new ships and ship repair. Exports of automobiles and trucks will probably not account for a significant share of exports in the near future, but exports of rolling stock for railways and of trailers and containers are likely to rise substantially. Attainment of the export targets for electric and electronic machinery will depend largely on the infusion of new technologies and rapid adaptation to new product applications. Recent technological advances in the electronics industry have reduced the degree of labor intensity of production and have thereby adversely affected the relative position of low-wage producer countries.

In recent years, the development of a competitive general machinery sector has been impeded by insufficient attention paid to specialization, appropriate scale and technology. However, steps recently undertaken by the Government should provide considerable help to the machinery sector in the long run. These measures include the recent restructuring of some key heavy industries, the easing of restrictions on licensing agreements and foreign direct investment to improve technology, and a review of industrial incentives currently carried out. The envisaged import liberalization should also stimulate an improvement in the efficiency of the machinery sector.

1/ Based on the assumption of an average annual rate of growth of world trade of manufactures of 13.4 per cent (composed of volume growth of 5 per cent and a rate of price increase of 8 per cent) during 1982-86; this is somewhat below the average growth rate of 14.3 per cent recorded during 1977-81.

Table 6. Korea: Exports, 1977-86

	1977-81	1981 1/		Plan Estimates		
				1982-86	1986	
	Average Annual Growth Rate in Per Cent	Value (US$ bn.)	Share in Per Cent	Average annual growth rate in per cent	Value (US$ bn.)	Share in per cent
Primary products	16.5	1,850	8.7	10.2	2,900	5.5
Light industry products	19.7	9,450	44.5	16.1	20,900	39.5
Textile yarn	21.7	2,500	11.8)	)	)	
Clothing	16.9	3,940	18.5)	14.6)	12,400)	23.4
Footwear	21.6	1,040	4.9	16.9	2,200	4.2
Other	17.3	1,970	9.3	26.2	6,300	11.9
Chemicals	49.2	700	3.3	15.9	1,400	2.7
Steel and steel products	38.4	2,975	14.0	18.1	7,000	13.2
Machinery	29.6	4,550	21.4	31.5	17,300	32.6
General machinery	29.1	445	2.1	43.5	2,200	4.1
Electric and electronic machinery	21.7	2,170	10.2	25.3	6,900	13.0
Transport equipment	70.5	1,935	9.1	35.5	8,200	15.4
Other	9.0	1,725	8.1	26.0	3,500	6.6
Total value	22.2	21,250 2/	100.0	20.3	53,000	100.0
Memorandum item:						
Export volume (1975 = 100)	12.3	240.2		11.4		412.0

Sources: Fifth Plan; data provided by the Korean authorities; and staff calculations.

1/ Staff estimate based on figures for January-September 1981.
2/ Including re-exports.

In view of the time required to improve the export potential of the general machinery sector, a larger share of export growth may have to come from other branches of the manufacturing sector. Given the important new entrants at the lower quality end of the market for light manufactures and the existing protective barriers in the markets of industrial countries, Korea would have to move into high-quality product lines. This applies in partilar to textile exports, Korea's most important export category. There seems to be sufficient scope in this sector for improving quality and fashion design and exploiting recent technological advances.

3. Imports

The volume of imports is projected to increase by 8.4 per cent per annum implying an elasticity of about 1.1 with respect to growth of real GNP (Table 7); the average elasticity in the period 1965-81 was about 1.8, though it has been declining in recent years. The projected further reduction in the import elasticity is to be brought about by import substitution in the intermediate and capital goods industries, a change in the pattern of investment, energy conservation measures, and oil substitution. Increased substitution of domestically produced steel and other important intermediate goods is expected to reduce the elasticity of the volume of imports of intermediate goods with respect to manufacturing output from about 1.5 in recent years to close to 1 during 1982-86. Similarly, larger domestic production of capital goods, together with a projected shift toward less import-intensive investment in housing and social infrastructure, is expected to reduce the elasticity of the volume of capital goods imports with respect to domestic investment expenditure from 1.5 in recent years to an average of 1.2 in 1982-86. Meanwhile, energy conservation efforts and the substitution of coal and nuclear power for oil are expected to reduce the elasticity of oil imports with respect to GNP from about 1 prior to the second oil shock to 0.6 by 1986.1/ The elasticity of imports of consumer goods with respect to private consumption, which has on average been close to 3 in recent years, is projected to increase moderately as a result of import liberalization measures.

4. Terms of trade

The Plan projects no change in the external terms of trade during 1982-86, as both export and import prices are projected to rise by about 8 per cent per year in U.S. dollar terms (Table 5). The price of oil is projected to rise by about 10 per cent per annum, while other import prices are expected to rise more slowly (about 7 per cent per year). These projections imply that Korea's terms of trade in the first half of the 1980s will be more than 40 per cent less favorable than prior to the first oil shock and 25 per cent worse than prior to the second oil shock. However, unless the recent weakening of oil prices is reversed, developments in the terms of trade may well be more favorable than projected.

1/ Details on Korea's energy policies are provided in the Recent Economic Developments report, SM/82/70, 4/9/82, pp. 15-17.

Table 7. Korea: Imports, 1977-86

	1977-81	1981		Plan Estimates		
				1982-86	1986	
	Average Annual Growth Rate in Per Cent	Value (US$ bn.)	Share in Per Cent	Average annual growth rate in per cent	Value (US$ bn.)	Share in per cent
Grain	39.2	2,080	7.9	3.7	2,760	4.7
Consumer goods	41.3	1,750	6.6	21.7	4,036	6.8
Crude oil	34.4	6,510	24.7	16.8	15,200	25.6
Raw materials, excluding crude oil	21.3	9,900	37.6	18.5	23,310	39.3
Total (c.i.f.)	25.1	26,340	100.0	17.1	59,350	100.0
Memorandum item:						
Import volume (1975 = 100)	12.6	202.3		8.4	302.8	

Sources: Fifth Plan; data provided by the Korean authorities; and staff calculations.

5. Services

Exports of services, mainly from overseas construction activity in the Middle East, have emerged as an important complement to merchandise exports since 1974. Prospects for a further increase in receipts from overseas construction in 1982-86 are good, and the Plan projects an increase in such receipts from about US$2 billion in 1981 to US$4 billion by 1986.

The Plan's projections for interest payments are based on a reduction in the average LIBOR for three-month U.S. dollar deposits from 16.5 per cent in 1981 to 13.0 per cent in 1982 and 10 per cent in 1983; thereafter, interest rates are expected to remain at 10 per cent. In view of the recent large fluctuations and the relatively high level of interest rates in world money markets, considerable uncertainties exist with respect to the projected interest payments (Table 8).

6. Foreign borrowing and debt service

The Plan objective of reducing reliance on foreign savings reflects the authorities' concern at the burden of external debt which has been heightened by the sharp increases in the cost of borrowing during the past two years. Despite the planned reduction in the current account deficit, the external borrowing requirement is expected to remain large in nominal terms: gross external borrowing, which amounted to about US$7 billion in 1981, is projected to rise to over US$10.0 billion by 1986 (Table 8). About one third of the capital borrowed will be absorbed by amortization of debt. In addition, a growing proportion of the capital borrowed will be onlent to foreign buyers to support the exports of ships and heavy machinery, so that export credit as a proportion of total external borrowing is expected to rise from 5 per cent in 1982 to over 15 per cent in 1986.

Medium- and long-term borrowing is expected to account for more than 80 per cent of total gross foreign borrowing during the Plan period, compared with about two thirds in 1979-81. As a result, the maturity distribution of external debt will improve somewhat, since debt of over one-year maturity (with only a small proportion having maturities of less than five years) would account for two thirds of total debt compared with 62 per cent in 1981. Total external debt outstanding is projected to increase from about US$33 billion in December 1981 to approximately US$64 billion at the end of the Plan period (Table 5). Direct private foreign investment is projected to rise from an annual average of US$100 million in the period 1977-80 to US$550 million in 1986. This nondebt-creating source of finance is being promoted primarily through a liberalization of the investment code which will encourage the transfer of technology, and also serve to improve the financial structure of companies.

The above external borrowing and interest rate projections imply marked reductions in Korea's external debt service and external debt/GNP ratios (Chart 2). In 1981, the ratio of Korea's debt service to exports

Table 8. Korea: Balance of Payments, 1981-86

(In millions of U.S. dollars)

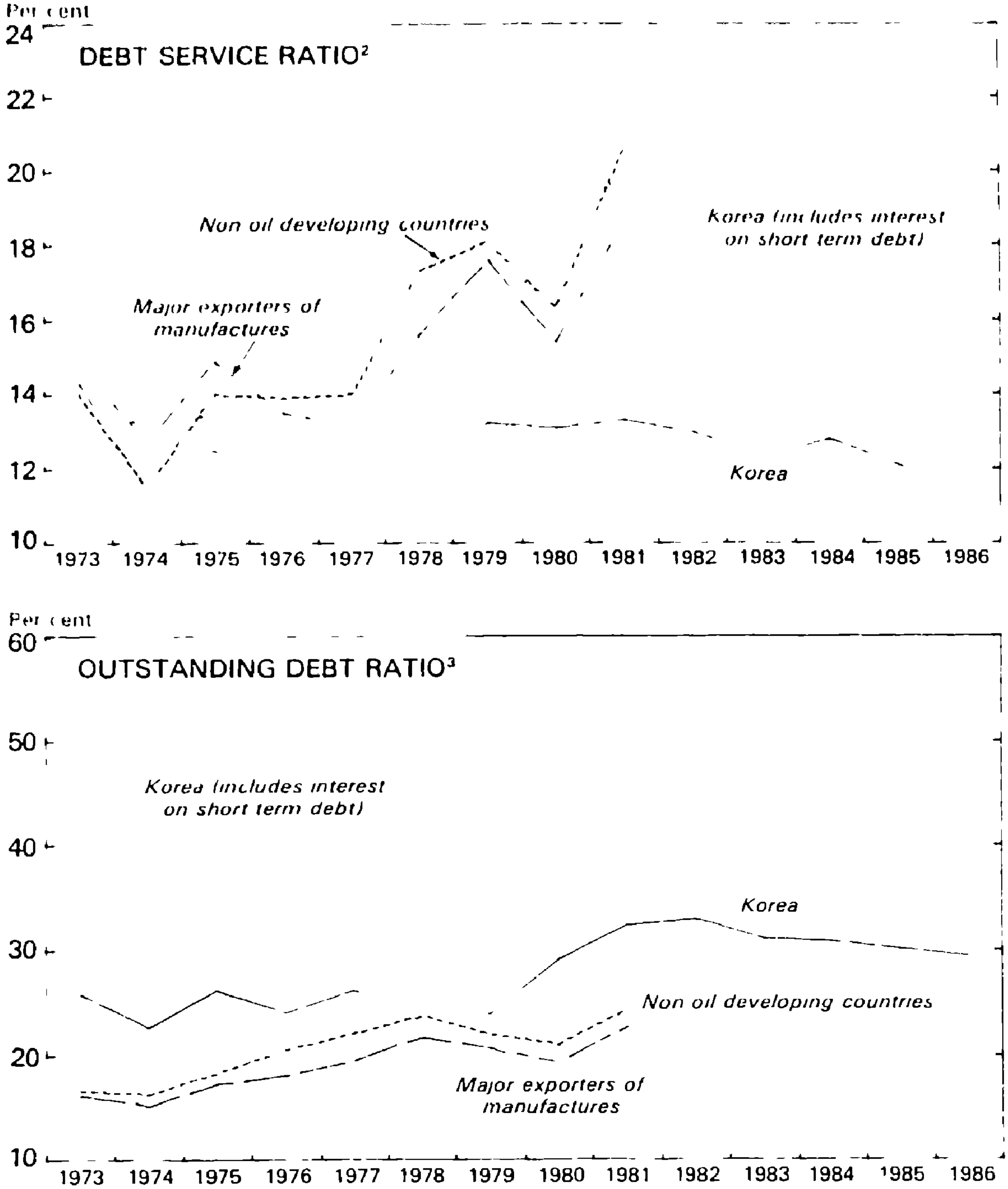
	1981	Revised Official Projection 1982	Plan Estimates 1982	1983	1984	1985	1986
Trade balance	-3,254	-2,700	-4,000	-3,700	-3,200	-2,800	-2,500
Exports, f.o.b.	20,850	24,400	25,300	39,500	36,500	44,000	53,000
Imports, f.o.b.	-24,105	-27,100	-29,300	-34,200	-29,700	-46,800	-55,500
Services	-1,998	-1,700	-1,400	-1,200	-1,400	-1,500	-1,600
Receipts	6,567	7,720	8,000	9,700	11,100	13,000	15,000
Overseas construction	(2,171)	(2,550)	(2,580)	(3,110)	(13,370)	(3,660)	(4,030)
Other	(4,396)	(5,170)	(5,420)	(6,590)	(7,730)	(9,340)	(10,970)
Payments	-8,565	-9,420	-9,400	-10,900	-12,500	-14,500	-16,600
Interest	(-3,661)	(-3,900)	(-3,600)	(-3,900)	(-4,450)	(-5,000)	(-5,600)
Other	(-4,904)	(-5,520)	(-5,800)	(-7,000)	(-8,050)	(-9,500)	(-11,000)
Transfers	512	500	500	500	500	500	500
Current account	-4,741	-3,900	-4,900	-4,400	-4,100	-3,800	-3,600
Medium- and long-term capital	4,240	3,600	3,760	3,660	3,550	3,470	3,540
Private direct investment (net)	96	250	250	350	400	500	550
Borrowing	5,947	5,750	6,290	6,715	7,585	8,160	8,890
Amortization	-1,861	-2,000	-2,120	-2,505	-3,335	-3,790	-4,150
Export credits	58	-400	-660	-900	-1,100	-1,400	-1,750
Short-term capital	1,093	900	1,590	1,390	1,350	1,230	1,260
Increase in reserves (-)	-326	-600	-450	-650	-800	-900	-1,200
Errors and omissions	-266	--	--	--	--	--	--
Memorandum item:							
Current account in per cent of GNP	7.5	5.5	6.2	4.7	3.8	3.0	2.5

Sources: Fifth Plan; data provided by the Korean authorities; and staff estimates.

CHART 2

KOREA

LONG-TERM EXTERNAL DEBT RATIOS[1], 1973-86



Sources Economic Planning Board Fifth Five Year plan 1982 86 and Fund staff estimates

[1] External debt with original maturities of one year or more

[2] Amortization plus interest payments on long term debt relative to exports of goods and services

[3] Outstanding long term debt relative to GDP (GNP in Korea)

of goods and services was 13.3 per cent for long-term debt 1/ and 20 per cent with interest on short-term debt included. Under the Plan assumptions, these ratios are to decline to about 11 per cent and 14 per cent, respectively, by 1986. Similarly, the ratio of Korea's long-term debt to GNP is expected to fall from 32 per cent in 1981 to less than 30 per cent in 1986; including short-term debt, the decline in the ratio of debt to GNP would be more pronounced--from 51 per cent in 1981 to 45 per cent in 1986--reflecting the expected lesser recourse to short-term borrowing than in recent years. Despite Korea's larger long-term debt in relation to GNP, its long-term debt service ratio has been, beginning from the mid-1970s, substantially lower than that of non-oil developing countries as a group and of the major exporters of manufactures 2/ among them (Chart 2).3/ In 1981, Korea's long-term debt service ratio was 13.3 per cent, while the corresponding ratios for non-oil developing counties and the subgroup of major exporters of manufactures were 20.6 and 18.6 per cent, respectively. The relatively low long-term debt service ratio in Korea is mainly a reflection of the greater degree of openness of the Korean economy.

1/ Debt with maturities of one year or more.

2/ The subgroup of major exporters of manufactures includes Korea.

3/ An international comparison of the debt service ratios including short-term debt is not possible because debt data available for other developing countries are generally less comprehensive than the data available for Korea.

III. Analysis of Fiscal Impact in Korea 1/

1. Introduction

Assessment of the macroeconomic impact of fiscal policy cannot be done solely with reference to the observed overall balance of eneral government operations. Instead, the actual balance must be compared against some standard of neutral balance which would have obtained under conditions of relatively full employment and stable prices. Deviations from this benchmark can then be interpreted as an expansionary or contractionary budgetary stance, with the actual impact depending on the short-run fiscal multipliers. Furthermore, in order to establish whether a given expansionary or contractionary budgetary position is countercyclical, it should be related to autonomous shocks emanating from the domestic private sector or from abroad. For this purpose, it is necessary to define and measure these autonomous shocks.

2. Conceptual framework

The stabilization effects of fiscal policy may be measured by reference to the "cyclically neutral deficit," a concept developed by the German Council of Economic Experts. 2/ To evaluate the fiscal impact, the method defines a base year, considered as a normative level of the general government budget balance, and then determines a "neutral" profile of the budget balance over time that allows for the effect of the economy on the budget. The base year is chosen on the criterion that there is some ratio of the overall budget balance to output that supports balanced-growth equilibrium of the economy, in which major macroeconomic targets such as employment, the rate of inflation, and the balance of payments are at satisfactory levels. Therefore, the base year selected will be a full-employment year in the recent past that was characterized both by "reasonable" stability and a budget that was judged neither excessively expansionary nor excessively contractionary. Ratios of revenue to actual output, and of expenditure to potential output, are computed for the base year. These ratios are then applied to the other years examined to determine the cyclically neutral budget (CNB). As the degree of capacity utilization varies and actual GNP deviates from potential GNP, the normative neutral balance profile will fluctuate, since neutral government revenue is defined to vary equiproportionately with actual GNP--i.e., assuming a unitary buoyancy of revenue with respect to GNP--while neutral government expenditure grows from its base-year level at the same rate as potential output. 3/

1/ Prepared by Michael Wattleworth.
2/ See T. F. Dernburg, "Fiscal Analysis in the Federal Republic of Germany: The Cyclically Neutral Budget," IMF Staff Papers (November 1975), pp. 825-57; and S. Chand, "Summary Measures of Fiscal Influence," IMF Staff Papers (July 1977), pp. 405-49. For a previous application to Korea, see SM/78/206. For a recent analysis of Spain, see SM/82/45, Appendix III; the approach and presentation here follows that of the Spanish application closely in places.
3/ S. Chand, p. 412.

According to these specifications, when actual GNP deviates from its potential level, the maintenance of actual revenue at its neutral level implies that the relative share of national income which accrues to the public and private sectors remains constant. If neutral revenue were defined as proportional to potential rather than actual GNP, growth of actual GNP at a slower rate than potential GNP would raise the proportion of national income accruing to the public sector. On the other hand, it seems appropriate to define neutral expenditure as proportional to potential rather than actual output. When actual output falls short of potential output, the government does not encroach on the share of output available to the private economy if the government follows its neutral expenditure path. Indeed, to decrease its expenditure at such a time would, because of multiplier effects, lower even more the output received by the private sector. Together then, the revenue and expenditure rules imply a position of proportionality between the public and private sectors. The former maintains constancy of the relative share of actual income that accrues to the respective sectors, while the latter ensures a constant fraction of potential output for public sector use. Moreover, this specification of the CNB model protects against fiscal drag, in the sense that it prevents a tendency for revenue growth to outstrip expenditure growth. Therefore the CNB has the important property that the budget itself cannot become a source of divergence between actual and potential output. 1/

The next step in the analysis involves comparing the observed general government balance 2/ in each year with the specified neutral balance of that year in order to derive the stance (CEB) and cyclical impulse (ΔCEB) of the budget. If the actual deficit were larger (smaller) than the neutral deficit, the stance would be judged expansionary (contractionary); furthermore, any positive (negative) year-to-year changes in the stance can be regarded as an expansionary (contractionary) impulse.

Symbolically, the model is specified as:

$$CEB_t = CNB_t - OB_t$$

where:

$$CNB_t = (GGR/GNP)_0 \cdot GNP_t - (GGE/GNP^*)_0 \cdot GNP^*$$

$$OB_t = GGR_t - GGE_t$$

and,

CEB = cyclical effect of the budget, or budgetary stance
CNB = cyclically neutral budget
OB = ordinary or observed balance
GGR = general government revenues

1/ T. F. Dernburg, pp. 827-29.
2/ All balances are computed as revenues minus expenditures.

GGE = general government expenditures
GNP = gross national product at current market prices
GNP* = potential GNP at current market prices
0 = base period.

To compare the budgetary impact as measured in the CNB model with autonomous shocks to the economy emanating from the domestic private sector and abroad, one can define analogous variables to measure the cyclical effect of private autonomous demand, comprised of fixed investment plus exports. 1/

$$CEA_t = AD_t - CNA_t$$

where:

$$AD_t = GFI_t + XGS_t$$

$$CNA_t = (AD/GNP^*)_0 \cdot GNP^*$$

and,

CEA = cyclical effect of private autonomous demand
AD = observed private autonomous demand
CNA = cyclically neutral private autonomous demand
GFI = private (including nonfinancial public enterprises) gross fixed investment less government capital transfers
XGS = exports of goods and services.

The cyclically neutral autonomous demand (CNA) concept corresponds exactly to that of the CNB in that in any year it reflects the base-year relationship between autonomous demand and potential output. Thus, any positive (negative) deviation (CEA) of actual from the cyclically neutral position suggests an expansionary (contractionary) stance; further, a positive (negative) change (Δ CEA) can be viewed as an expansionary (contractionary) impulse.

All variables in this exercise, including GNP*, are valued at current prices in national currency, implying that the inflation rate is taken as given by the fiscal authorities. 2/ Another aspect of the valuation approach used is that since all variables are computed at current rather than constant prices, they reflect in part fluctuations in relative prices

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1/ This method is developed in the recent application of the model to Spain, see Spain--Recent Economic Developments, SM/82/45, Appendix III.

2/ This appears to be the most reasonable and practical approach to what is a complex theoretical issue. The ideal deflator would show how the price level would have behaved if budgetary policy had actually been handled in a cyclically neutral manner. Computing such a deflator would be very complex and would imply making unusually arbitrary judgments, which may explain why most applications use the actual deflator; see T. F. Dernburg, p. 851.

of the various components of aggregate demand. Therefore, in this analysis, the domestic macroeconomic impact of a rise in exports is postulated to be the same regardless of whether it is due to an increase in the volume of exports or in the foreign prices of exports, or to an exchange rate adjustment. 1/

3. Application to Korea

The analysis of budgetary impact was applied to Korea over the period 1971-81, using 1973 as the base year. The selection of 1973 was made on the following considerations: (a) along with 1976 and 1978, it was a year in which the economy was operating at or near full capacity; (b) the inflation rate in 1973 was significantly lower than in either of the other two full-employment years; and (c) the balance of payments position was strong, with the current account deficit at about 2 per cent of GNP. The budget was defined in terms of the operations of the consolidated available public sector. 2/ Potential GNP estimates are presented in Table 9 and were derived as explained in the footnotes to that table. The results are summarized in Charts 3-6 and Table 10.

In interpreting these results, it must be emphasized that measurement of the fiscal stance is sensitive to the choice of the base year, whereas the impulse (year-to-year changes in the stance) is not. 3/ In assessing the cyclical appropriateness of fiscal policy it is therefore better to focus on the impulses rather than on the stance. Using this method suggests that fiscal policy generally has, on the whole, had a countercyclical effect during the 1970s. 4/

Analysis of fiscal policy during the period after 1973 can usefully be divided into three subperiods: (a) the recessionary period following the first oil shock (1974-75); (b) the period of overheating (1976-78); and (c) the period of adjustment to the second oil shock (1979-81). Fiscal policy during the 1974-75 recession following the first oil shock

1/ See Spain--Recent Economic Developments, SM/82/45, Appendix III, pp. 83-84.

2/ See Korea--Recent Economic Developments, SM/82/70, Section 7 and Annex I. The five entities constituting the available nonfinancial public enterprise (NFPE) sector in Korea are not managed as private enterprises, but are operated to pursue public policy goals and are major users of public sector credit. Two of these entities, the Supply and Grain Management Funds, are significant quantitatively, and their operations have been used actively during the period under analysis as discretionary policy instruments.

3/ This is demonstrated in a sensitivity analysis in unpublished work undertaken in the Fund's Fiscal Affairs Department as part of the fiscal analysis of the World Economic Outlook project.

4/ The correlation coefficient between ΔCEB and ΔCEA, 1971-81, is -0.42. When CEA is defined as investment only, the correlation coefficient is -0.42; defining CEA as exports only gives a correlation coefficient of -0.24.

Table 9. Korea: Estimates of Potential GNP, 1971-82

(In billions of won, at 1975 market prices)

Year	Agriculture 1/	Manu- facturing 2/	Mining 3/	Services 3/	Total
1971	2,118	1,787	106	3,366	7,377
1972	2,198	1,937	113	3,649	7,897
1973	2,281	2,389	119	3,955	8,744
1974	2,367	2,786	127	4,323	9,603
1975	2,457	3,254	139	4,768	10,618
1976	2,550	3,549	152	5,245	11,496
1977	2,646	3,928	160	5,727	12,461
1978	2,746	4,387	171	6,346	13,650
1979	2,849	5,186	179	7,063	15,277
1980	2,957	5,719	186	7,875	16,737
1981	3,069	6,004	193	8,718	17,984

Source: Fund and IBRD staff calculations.

1/ Applying the long-term trend growth rate of 3.776 per cent per annum from the mid-1960s (1965-67) to the late 1970s (1977-79).

2/ Assuming that capacity in manufacturing was fully utilized in 1978, so that actual output was equal to potential output in that year; for other years potential output was calculated as actual output adjusted for underutilization of capacity as compared with 1978.

3/ Applying the average actual sectoral ICOR for each five-year plan period to actual sectoral investment in each year. For the Fourth Plan period (1977-81), ICOR was calculated excluding the recession years 1980-81.

CHART 3

KOREA

CYCLICAL EFFECT OF THE PUBLIC SECTOR BUDGET AND OF AUTONOMOUS DEMAND

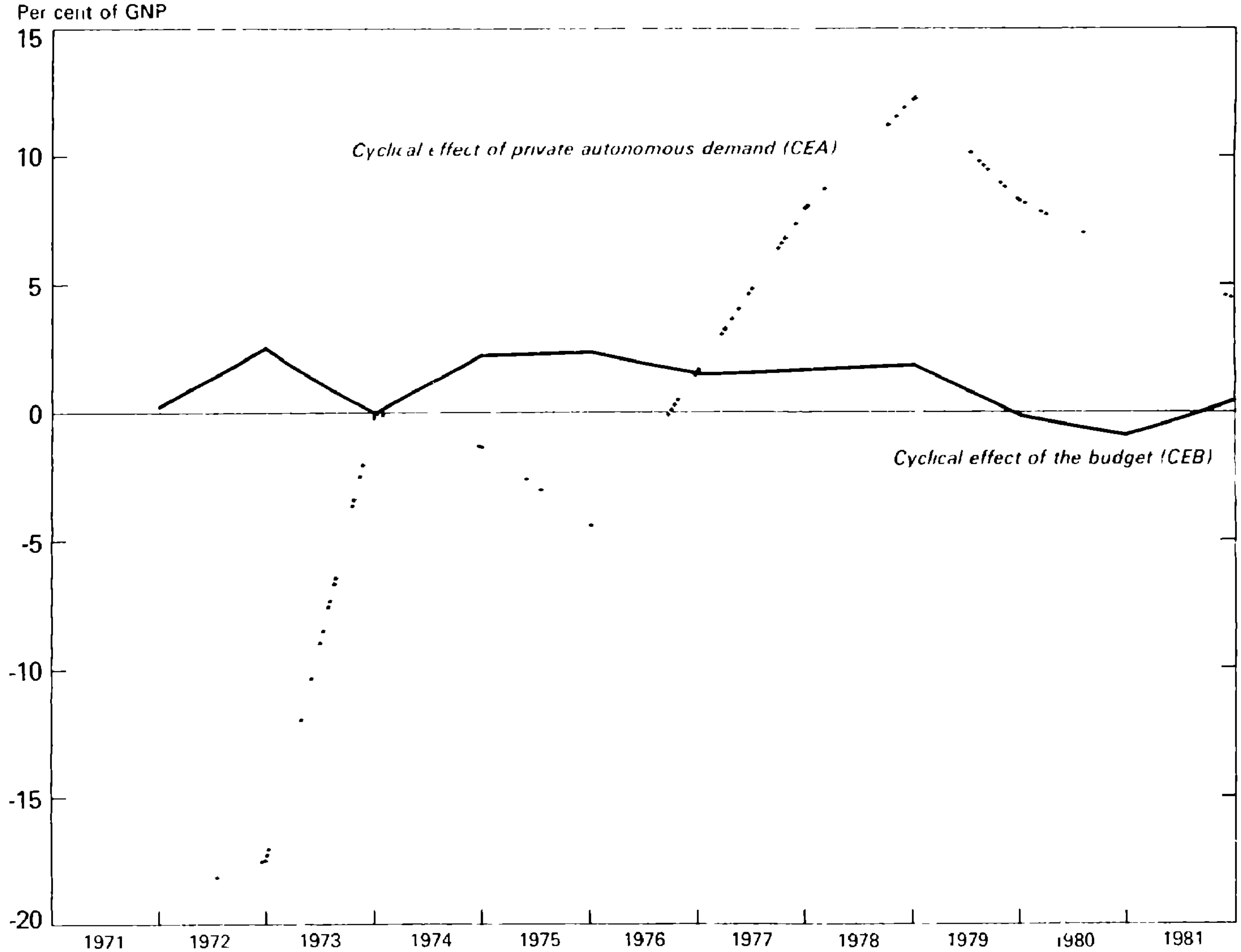

CHART 4

KOREA

CYCLICAL IMPULSES FROM THE PUBLIC SECTOR BUDGET AND AUTONOMOUS DEMAND

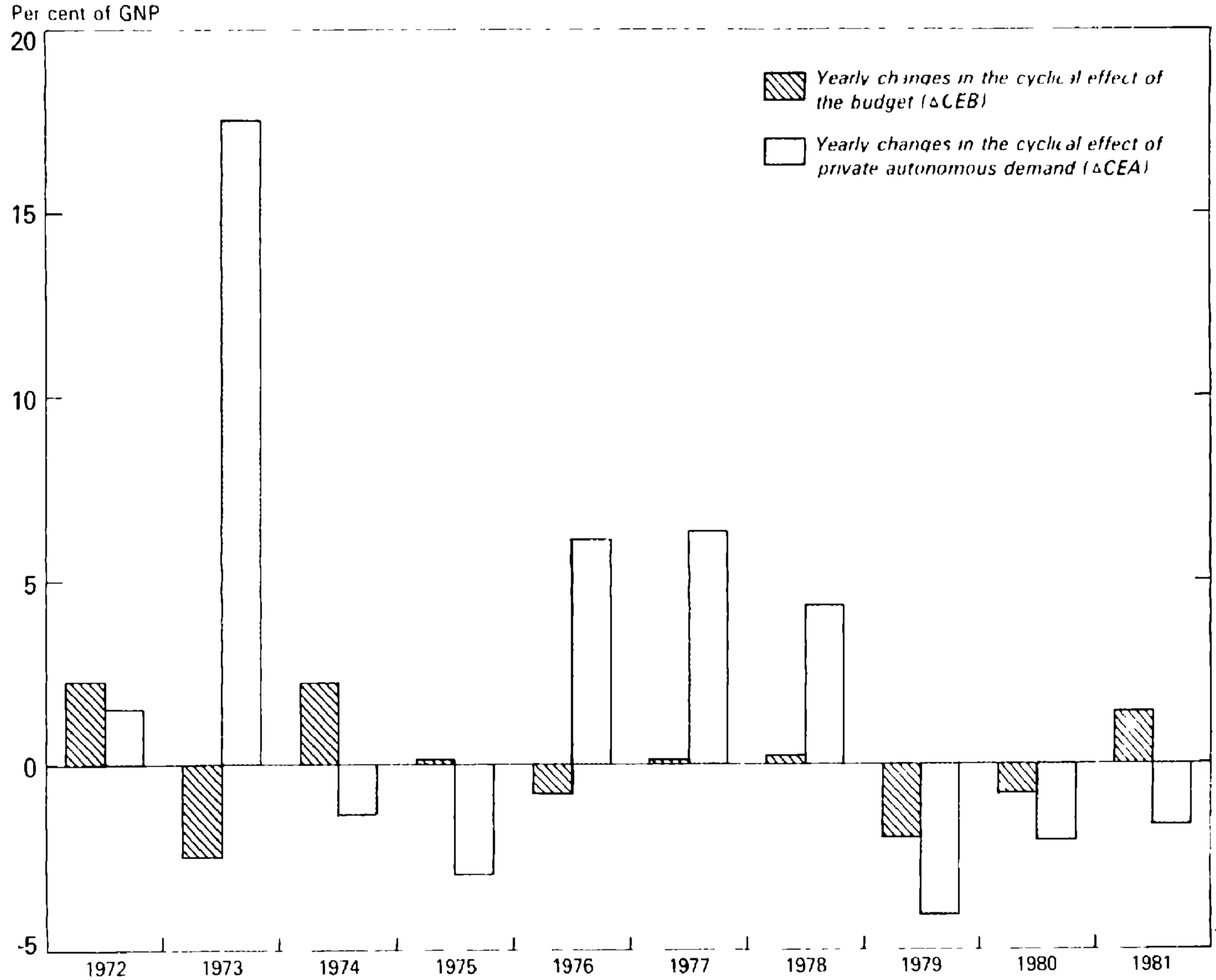

CHART 5

KOREA

CYCLICAL EFFECT OF THE PUBLIC SECTOR BUDGET AND OF INVESTMENT

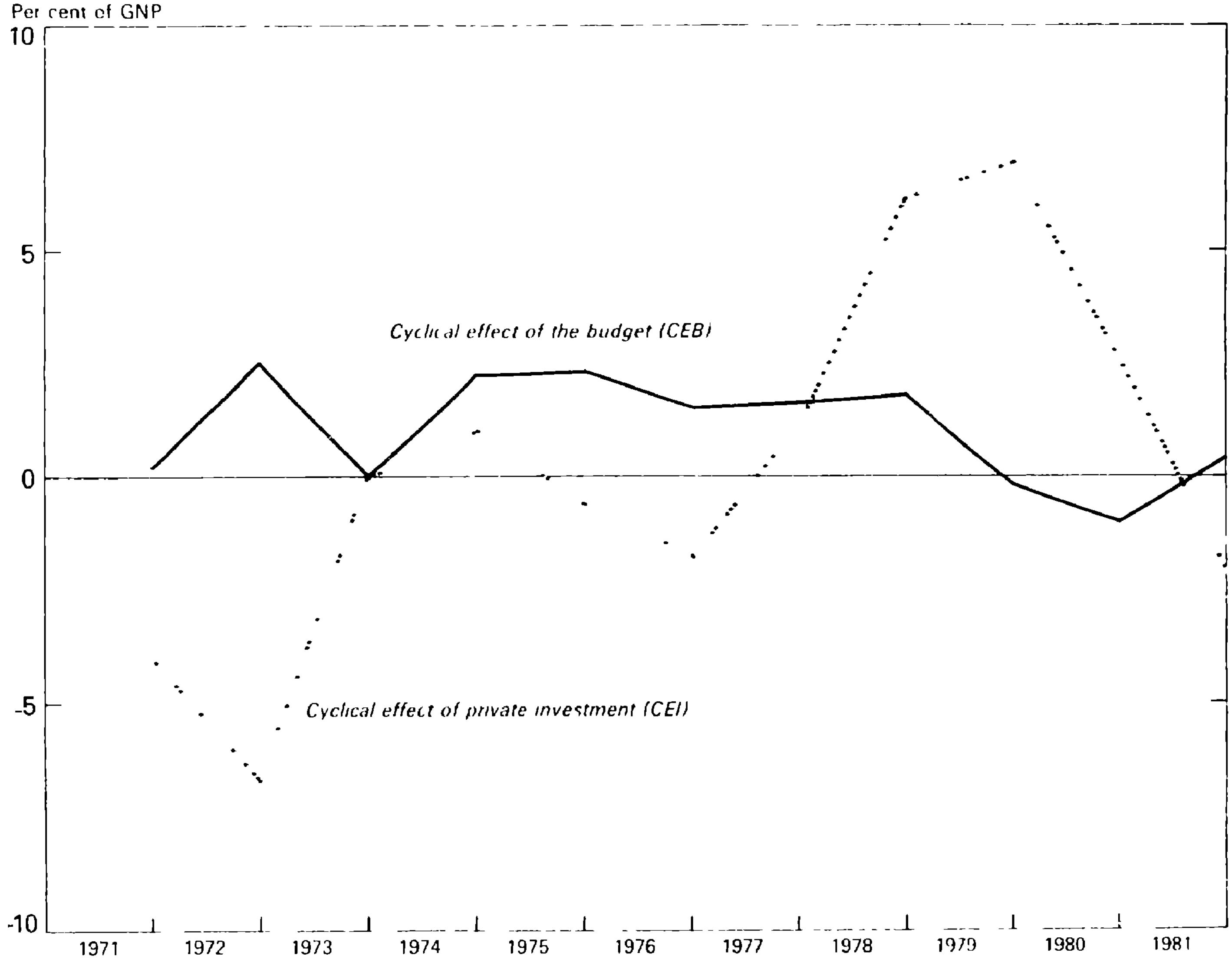

CHART 6

KOREA

CYCLICAL EFFECT OF THE PUBLIC SECTOR BUDGET AND OF EXPORTS

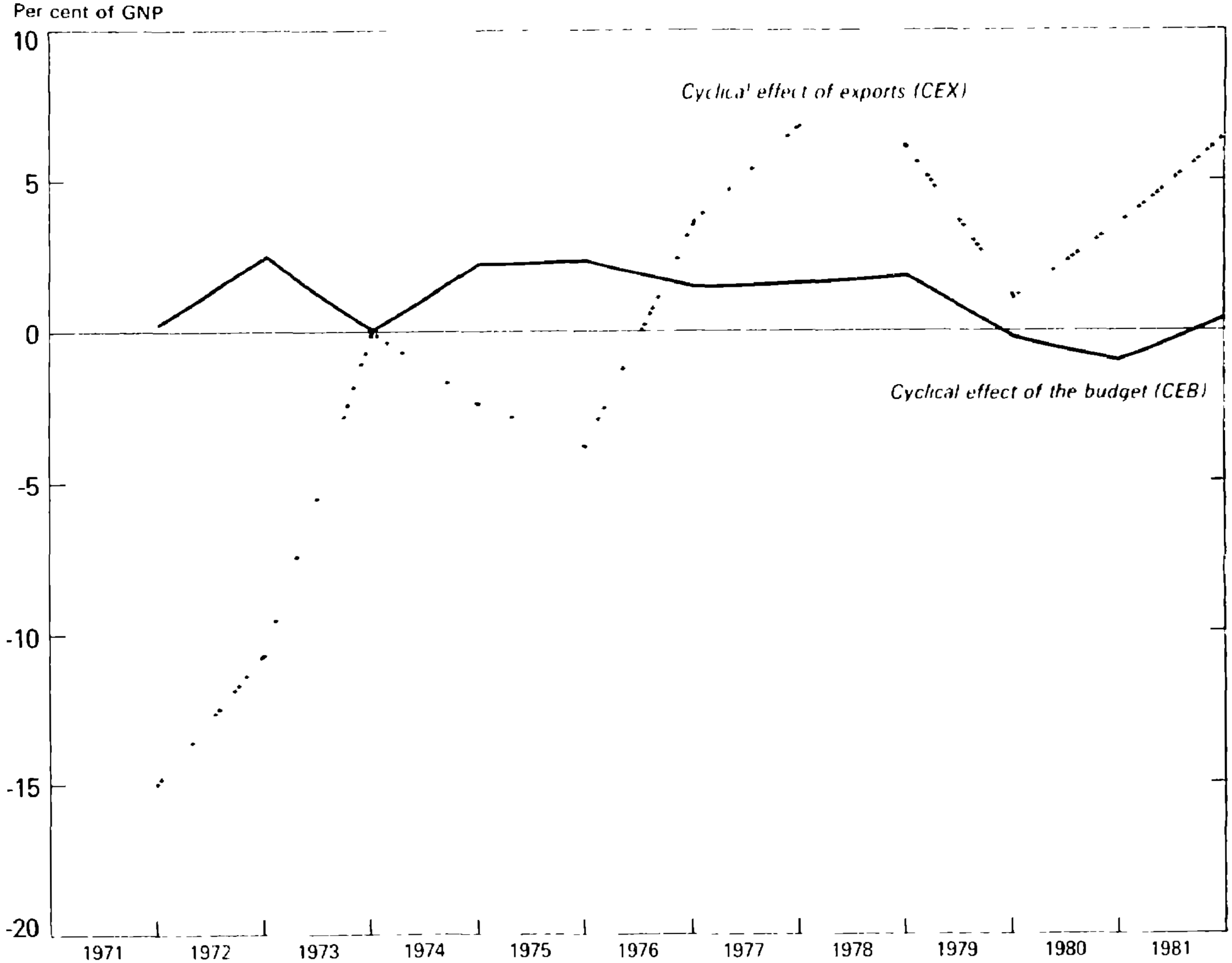

Table 10. Korea Cyclical Effect of Public Sector Operations, 1971-82 1/

(In per cent of GNP)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	Estimate 1981
Budget balance											
Cyclically neutral balance (CNB)	-2.1	-2.3	-1.7	-1.9	-2.5	-1.5	-1.2	-0.9	-1.7	[illegible]	-4.5
Observed overall balance (OB)	-2.3	-4.8	-1.7	-4.1	-4.8	-3.0	-2.8	-2.7	-1.5	-3.4	-4.9
Cyclical effect of budget (CEB)	0.2	2.5	0.0	2.2	2.3	1.5	1.6	1.8	-0.2	-1.0	0.4
Change in cyclical effect (ΔCEB)	--	2.3	-2.5	2.2	0.1	-0.8	0.1	0.2	-2.0	-0.8	1.4
Autonomous demand 2/											
Cyclical effect of autonomous demand (CEA)	-19.0	-17.5	0.0	-1.4	-4.4	1.7	8.0	12.3	8.2	6.1	4.4
Change in cyclical effect of autonomous demand (ΔCEA)	--	1.5	17.5	-1.4	-3.0	6.1	6.3	4.3	-4.1	-2.1	-1.7
Cyclical effect of investment (CEI)	-4	-6.7	0.0	1.0	-0.6	-1.8	1.2	6.2	7.0	2.6	-2.1
Change in cyclical effect of investment (ΔCEI)	--	-2.7	6.7	1.0	-1.6	-1.2	3.0	5.0	0.8	-4.4	-4.7
Cyclical effect of exports (CEX)	-15.0	-10.7	0.0	-2.4	-3.8	3.6	6.8	6.1	1.1	3.5	6.5
Change in cyclical effect of exports (ΔCEX)	--	4.3	10.7	-2.4	-1.4	7.4	3.2	-0.7	-5.0	2.4	3.0

1/ The cyclically neutral balance of the public sector and autonomous demand have been calculated using 1973 as the base year

2/ CEA defined as exports of goods and services plus private gross fixed investment, including fixed investment of nonfinancial public enterprises but excluding government capital transfers which are included in public sector expenditures Exports include factor income from abroad, which in Korea is significant, current transfers from abroad, while perhaps not an autonomous flow, are not very large, nor do they vary much, so their inclusion in exports has little effect on the analysis. Components may not sum to total due to rounding. The calculations of CEI and CEX are done on the assumption that each, in turn, is the only component of private autonomous demand.

was clearly countercyclical as the fiscal impulses moved in the opposite direction of the autonomous impulses (Chart 4); the stance of fiscal policy was moderately expansionary during this period. During 1976-78, the authorities initially pursued a slightly contractionary and countercyclical approach, but during 1977 and 1978 the budgetary impulses were mildly expansionary and procyclical. Fiscal policy, therefore, contributed to some extent to the excessive expansion of the economy in those years, particularly in the cumulative effect of its stance. During 1979 and 1980 fiscal policy was contractionary and procyclical; this occurred at a time when substantial external adjustment was needed requiring that fiscal policy also contribute to the adjustment process. After a significant amount of adjustment had been accomplished during 1980, fiscal policy became moderately expansionary and countercyclical in 1981, in particular to offset the precipitous fall in private investment (Chart 5). On the whole, therefore, fiscal policy during the period under review, with the exception of 1977-78, appears to have been determined by cyclical considerations, while also responding to the need for external adjustment.

IV. The 1982 Structural Changes in the Tax System 1/

Continuing their efforts to improve the elasticity, efficiency, and equity of the tax system, the Korean authorities introduced major reforms in 1981, which all take effect from 1982. These changes are aimed at making the tax system more neutral with respect to resource allocation and at increasing the tax effort in the 1980s as efficiently and equitably as possible; they are broadly in line with recommendations made by the Fiscal Affairs Department of the Fund as a result of technical assistance requested by the Korean authorities. Greater neutrality of the tax system would complement the industrial and financial reform program which is concerned with restructuring the Korean economy and improving efficiency, while an increased tax effort is needed to finance the ambitious spending targets of the Fifth Plan, particularly in the area of social development expenditure.

Section 1 provides an overall assessment of the purposes of the changes, as well as their estimated revenue impact, while Section 2 describes them in more detail. Very minor adjustments in the tax code have been omitted from the discussion here, but they have been integrated into the Tax Summary (Annex I).

1. Overall assessment

a. Corporate taxation

Major changes were made in the tax status of corporations, including reductions in rates to reduce disparities between open and closed 2/ corporations, changes in certain deductions and tax incentives to favor smaller and medium-sized companies, introduction of tax credits to encourage technology development, reduction in the number of "key" industries, and within these, a gradual shift toward indirect tax incentives; furthermore, a minimum tax on both public and private companies was introduced. These measures are aimed mainly at improving the efficiency and equity of the tax system. They are also motivated by supply-side logic, a desire to reduce tax evasion, and an intention to increase the elasticity of the structure and therefore the effectiveness of the automatic stabilizing function of the tax system.

b. Individual income taxation

Increases in the deductions available to wage and salary earners and in the spouse exemption, as well as reductions in tax rates with special emphasis on the middle-income brackets, are designed to offset part of the erosion of real income over the past two years due to inflation-induced bracket creep. They are also intended to increase interpersonal equity. At the same time, the level of personal exemptions, which has been subject

1/ Prepared by Michael Wattleworth.
2/ Open and closed corporations are defined in the Tax Summary (Annex I), Section 1.11.

to frequent increases in the past, has been left unchanged so that the number of wage and salary earners subject to the tax will increase over time as nominal incomes rise. At present, only 32 per cent of wage and salary earners pay taxes, partly because of the relatively high level of exemptions.

c. Capital gains, inheritance, special excise, and education taxes and surtax

The capital gains and inheritance tax schedules are to be reduced and rationalized to increase tax compliance, favor the middle-income classes, and foster continuance of the farming population at its present size. The special excise rates are being revised to reflect differences in income elasticities of demand by product as income grows. A five-year "education tax," a combination of tax and surtax measures earmarked specifically to finance the large educational expenditures during the Fifth Five-Year Plan (1982-86) was introduced; it taxes the relatively wealthy and the consumption of alcohol and tobacco.

d. Revenue impact of the 1982 tax changes

As shown in Table 11, the net revenue impact of the tax changes in 1982 is estimated to be positive, though small, at about 0.1 per cent of GNP. The estimated revenue effect of the individual income tax changes is negative, offseting all but W 31.3 billion of the additional revenue raised by the new education tax and changes in the selective excise taxes. The individual income tax changes will continue to have a negative revenue impact in 1983, although to a much smaller extent than in 1982, while the education tax is expected to increase revenues at an annual average of W 300 billion per year during 1982-86. The revenue impact of changes in the capital gains and inheritance tax schedules is expected to be negative, but so small as not to warrant inclusion in the estimates. The extensive changes in corporate taxation will have no revenue impact until 1983, i.e., until the 1982 income is taxed. The effect then will be positive, estimated at about 0.3 per cent of projected GNP, roughly 0.2 per cent of which is due to the newly introduced minimum tax of 5 per cent on income of public corporations. Considering the continued negative effects of the individual income tax changes, the net 1983 revenue impact of the 1982 tax changes should be in the range of 0.2 to 0.3 per cent of GNP. However, in 1983 and the years beyond, the authorities intend to make additional discretionary changes to rationalize the tax system further and to ensure that the tax effort rises continuously.

2. Tax system changes

a. Corporate taxation--changes in the corporate tax law

(1) Reduction in rates

Corporate tax rates were reduced in order to favor medium and small industries and to narrow the differences between the rates applicable to open and closed corporations (Table 12).

Table 11. Korea: Revenue Impact of 1982 Tax Changes

(In billions of won)

Tax	1982 Revenue Impact	
	Tax Reform measures	Education tax 1/
1. Taxes on income, profits, and capital gains		
1.1 Individual	-224.8	79.7
Decrease in tax rates	(-74.4)	
Introduction of tax credit for wage and salary income	(-29.5)	
Increase in deductions for wage and salary income	(-121.1)	
Abolition of temporary special tax credit for wage and salary income	(43.4)	
Increase in deductions for handicapped persons	(-0.3)	
Introduction of deduction for educational fees	(-12.8)	
Increase in spouse exemption	(-30.1)	
1.2 Corporate		32.7
5. Domestic taxes on goods and services		
5.2 Selective excises on goods and services	18.2	33.6
5.3 Profits of the fiscal monopoly		91.9
Subtotal	-206.6	237.9
Total	31.3	

Sources: Data provided by the Korean authorities; and staff estimates.

1/ Education tax receipts were classified as follows: individual based on interest and dividend income, corporate based on receipts of banking and insurance businesses, selective excises based on liquor surtax, profits of the fiscal monopoly based on cigarette manufacturers' tax.

Table 12. Korea: Old and New Corporate Tax Rates 1/

(In per cent)

Income Bracket	Open		Closed		Nonprofit	
	Old	New	Old	New	Old	New
Less than W 50 million	25	22	25	22	20	20
More than W 50 million	33 (43.7)	33 (43.7)	40 (53)	38 (50.5)	27 (35.7)	27 (35.7)

Source: Data in this and the subsequent tables were derived from documents provided by the Korean authorities.

1/ Figures in parentheses are inclusive of defense and inhabitant taxes.

(2) Deductions for paid-in capital

The period of applicability of deductions related to increases in paid-in capital has been extended by a year to the end of 1984, and the paid-in capital increases through 1982 will be recognized for deductions. Under the old law, only increases through 1981 could be taken up for deductions in the years through 1983.

(3) Entertainment allowance

The formula for the deduction of entertainment expenses has been changed in order to raise the deductions available to smaller companies and lower them for larger ones. Previously, the deduction was calculated as W 3 million basic entertainment allowance, plus 2 per cent of paid-in capital (within a limit of W 10 million), plus 0.2 per cent of sales receipts. The new method will permit W 6 million basic allowance, plus 2 per cent of paid-in capital (with the same limit of W 10 million), plus 0.1 per cent of sales receipts. By raising the basic limit, and at the same time lowering the percentage applied to sales receipts, it is hoped that smaller companies will benefit, while larger companies will face a cut in allowances. This is illustrated in Table 13.

(4) Payment method

Under the previous law, taxpayers who were not in a position to pay the full amount when due, incurred penalties, which particularly affected large taxpayers. In order to facilitate the payment of taxes

Table 13. Korea: Computation of Entertainment Expense Deduction 1/

(In millions of won)

Paid-In Capital (1)	Sales Revenue (2)	Old Deduction (3+0.02x(1)+ 0.002x(2)) (A)	New Deduction (6+0.02x(1)+ 0.001x(2)) (B)	B/A
50	350	4.7	7.3	1.56
200	1,400	9.8	11.4	1.16
1,000	7,000	37.0	33.0	0.89
10,000	70,000	243.0	176.0	0.72

1/ A proportional relationship between paid-in capital and sales revenue is assumed.

without penalties for large taxpayers, the new law will allow a grace period of one month. If the tax amount due exceeds W 10 million, but less than W 20 million, 50 per cent of the amount should be paid when due and the rest within one month. Tax amounts less than W 10 million should be paid when due.

b. Corporate taxation: changes in the tax exemption and reduction control law

(1) Key industries

The scope of "key" industries eligible for special tax favors will be reduced.

Previous List of Key Industries

1. Naphtha cracking
2. Iron and steel
3. Nonferrous metals
4. Machinery
5. Chemicals and fertilizers
6. Ships
7. Electronics
8. Aviation machinery
9. Power development
10. Equipment for environmental protection
11. Defense industries
12. Mining

New List

1. Naphtha cracking
2. Iron and steel
3. Machinery
4. Ships
5. Electronics
6. Aviation machinery

13. Livestock rearing
14. Industries locating in "Industrial Development Districts" (IDD)

(2) Investment allowances for "key" industries

The new law eliminates the formerly available favors to key industries--three-year tax holiday plus 50 per cent tax credit for two more years, or 100 per cent special depreciation, or 8-10 per cent investment tax credit. These are replaced by tax-free reserves for investment equivalent to 5 per cent of the value of fixed assets of the company and 100 per cent special depreciation. However, the electronics and machinery industries are given a choice between the above provisions and an investment tax credit equivalent to 6 per cent of the value of imported machinery plus 10 per cent of the value of domestic machinery.

(3) Transitional provisions

The companies who used to receive key industry favors but cease to belong to key industries under the new law are now subject to the following provisions: those companies which opted for direct tax exemption under the old law have to switch to special depreciation method and can continue with it until 1984, while those which opted for investment tax credit or special depreciation under the old law can continue with their chosen options until 1984. After 1984, they will stop receiving special tax favors (see Table 14 for clarifying example).

(4) Domestic companies dealing in international transportation

Under the old law, these companies received 100 per cent tax exemption. Following the amendment, they are treated like a "key" industry for tax purposes, and are eligible for tax-free reserves for investment and 100 per cent special depreciation. The tax-free reserves are limited to 5 per cent of the value of ships and aircraft in possession (i.e., not all fixed assets).

(5) Special favors to some industries taken o f the "key" industry list

Although certain industries--mining, livestock, defense, and those locating in development districts--were taken off the "key" industry list, they will receive special favors as follows: the mining industries will receive a 100 per cent special depreciation income deduction related to increase in production, tax-free reserves for mining investment, and tax-free reserves for mining security facilities; the livestock industry will receive a 50 per cent income deduction for five years; the defense industries will receive 5 per cent investment reserves plus a 100 per cent special depreciation, the same as that proposed for the legally classified key industry; the industries choosing a decentralized location will receive

Table 14. Korea: Key Industry Transitional Provision Alternatives

Items	Normal Company	Old Law Key Industry: Opting for special depreciation	Old Law Key Industry: Opting for investment tax credit	Revised Law Key Industry: Case A 1/	Revised Law Key Industry: Case B 2/
1. Income	60	60	60	60	60
2. Special expenditures	0	9	0	24	0
Investment	(0)	0	(0)	(15) 3/	0
Special depreciation	(0)	9 4/	(0)	(9) 5/	0
3. Taxable income (1)-(2)	60	51	60	36	60
4. Deductions	0	0	0	0	0
5. Tax base	60	51	60	36	60
6. Calculated tax amount 6/	22.8	19.4	22.8	13.7	22.7
7. Tax credit	0	0	9.0 7/	0	8 8/
8. Actual tax payment (6)-(7)	22.8	19.4	13.8	13.7	14.7

1/ Case A: Company opting for special depreciation and tax-free investment reserves.

2/ Case B: Company opting for investment tax credit.

3/ Five per cent of the value of fixed assets (300).

4/ One hundred per cent of ordinary depreciation which is 9 (=100 x 9 per cent), where 100 is the current investment.

5/ One hundred per cent of ordinary depreciation.

6/ Tax rate is assumed to be 38 per cent of tax base.

7/ Tax credit is 10 per cent of the value of domestic machinery (50), plus 8 per cent of the value of imported machinery (50).

8/ Six per cent of the value of imported machines (50) plus 10 per cent of the value of domestically produced machines (50).

investment tax credits of 6 to 10 per cent, tax-free reserves for decentralization equivalent to 10 per cent of the value of facility, and moreover, they will be exempt from capital gains taxation.

(6) Overseas construction business

Previously, overseas construction companies received 50 per cent tax credit for five years and a 30 per cent special depreciation on the purchases of heavy machinery. The new law eliminates the tax credit and instead grants for five years from 1982 an income deduction equivalent to 2 per cent of gross receipts. The scope of the special depreciation was extended to cover all machinery purchases (not just heavy equipment). In addition, the two separate tax-free reserves available to these companies--tax-free reserves for overseas market development and tax-free reserves for export losses--were merged into one single scheme entitled tax-free reserves for overseas construction. One third of such reserves is to be included in the revenue stream after four years, compared to only two years permitted under the old law.

(7) Minimum tax provision

The new law ensures that all corporations make some contribution to the tax revenue of the country by introducing a minimum tax of 5 per cent on corporate income plus the applicable defense tax. Including the defense surtax, the rate will work out to be about 8.1 per cent. Its main impact will be on the government corporations, which at present pay no taxes. 1/

In the case of Korea Teachers Association and International Tourism Corporation, the minimum tax (of 5 per cent) will apply only for three years and then normal tax rates will apply. Private university hospitals will be exempt from the minimum tax for three years and then the minimum tax of 5 per cent (or the then applicable minimum tax) will begin to apply.

(8) Limits on special expenditures, deductions, and tax credits

In order to prevent the possibility of many tax incentives becoming simultaneously applicable and thereby reducing the tax burden for some companies below equitable levels, the following limits have been imposed. Special expenditures (e.g., tax-free reserves, special depreciation allowance, etc.) have been limited to 60 per cent of gross income, income deductions to 50 per cent of taxable income, and tax credits to 40 per cent of the calculated tax amount. These limits will ensure that all nongovernment corporations also pay a minimum amount of tax.

1/ Foreign-invested corporations, covered under the Foreign Capital Inducement Law, will be exempted from the minimum tax provisions.

(9) Encouraging development of technology and manpower

A tax credit of 10 per cent of expenditure on technology and manpower development was introduced for all firms. For firms in the technology service business, 50 per cent of income in each business year for five years may be deducted, while royalties on patent and utility models made in Korea are exempt from corporate taxation or income tax for five years. Remuneration derived by foreign technicians in respect of employment in domestic companies is exempt from income tax for five years. Finally, reserves for development of technology were raised and the waiting period for including the reserves was extended:

Before Revision	After Revision
A. Within the limit of an amount equivalent to 20 per cent of the income amount.	A. Within the limit of an amount equivalent to 1 per cent (or 1.5 per cent) of gross receipts or 20 per cent (or 30 per cent) of the income amount thereof, whichever is more. 1/
B. Waiting period: two years.	B. Three years.

(10) Strengthening support to small and medium enterprises

Reserves for improvement and substitution of facilities were replaced by reserves for investment. Previous reserves for improvement and substitution of facilities which were granted to the small and medium enterprises up to an amount equal to 15 per cent of the price of machinery were replaced by reserves for investment up to 15 per cent of the price of business assets as of the end date of the taxable year. Therefore, the reserves can be now used for acquisition of new facilities as well as improvement and substitution of the existing ones. In the case of small and medium enterprises, reserves for export losses were also increased from 1 per cent to 2 per cent of foreign currency receipts.

1/ The limit of 1 per cent of gross receipts, or 20 per cent of income, applies to normal industries. The technologically intensive industries listed in the enforcement decree will receive 1.5 per cent of gross receipts or 30 per cent of income.

(11) Support to resources development business

(a) Improvement of suppo_t to mining:

Before Revision		After Revision
a. Full exemption of income tax a-d corporation tax for three years. And 50 per cent for two years thereafter.	-	Abolished
b. Reserves for mine exploration: 10 per cent of the gross receipts or 30 per cent of the income thereof, whichever is less.	-	Special depreciation: Fixed assets used for mining: 100 per cent. Housing for miners: 50 per cent.
	-	Reserves for mining investment: 5 per cent of the gross receipts. In the case of overseas resources development business: 10 per cent.
c. Reserves for coal mine safety facilities: 3 per cent of the gross re_eipts.	-	Extended as reserves for all mining safety facilities.

(b) Support for forest development business

(i) Income accruing from forest afforested for more than five years is exempted from income tax or corporation tax without time limit (previously exempted for 20 years).

(ii) Inheritance tax or gift tax on forest afforested for more than five years is exempt for the purpose of fostering the successors of farmers.

c. Individual income tax

(1) Personal income tax rates on global income have been reduced and the rate structure adjusted especially to favor middle-income earners (Table 15). Thus, the maximum marginal tax rate was reduced by 2 percentage points to 60, while the minimum tax rate remained unchanged at 6 per cent. The middle-income brackets (from W 3.0 million to W 5.4 million) now get reductions of 3 percentage points. All other brackets get 0 to 2 percentage point reductions.

Table 15. Korea: Old and New Individual Income Tax Schedule

Old Schedule		New Schedule	
Tax base (in millions of won)	Rates (in per cent)	Tax base (in millions of won)	Rates (in per cent)
Not more than 1.2	6	Not more than 1.2	6
1.2- 1.8	8	1.2- 1.8	7
1.8- 2.4	10	1.8- 2.4	8
2.4- 3.0	12	2.4- 3.0	10
3.0- 3.6	15	3.0- 3.9	12
3.6- 4.5	18	3.9- 4.8	15
4.5- 5.4	21	4.8- 6.0	18
5.4- 6.9	24	6.0- 8.4	22
6.9- 8.4	28	8.4-11.4	26
8.4-10.8	32	11.4-15.0	30
10.8-13.2	36	15.0-19.0	34
13.2-18.0	40	19.0-24.0	38
18.0-24.0	44	24.0-30.0	42
24.0-33.0	48	30.0-38.0	46
33.0-45.0	52	38.0-48.0	50
45.0-60.0	56	48.0-60.0	55
Exceeding 60.0	62	Exceeding 60.0	60

In addition, the middle-income wage and salary earners will benefit from the new tax credit formula:

Income Range	Tax Credit
Monthly incomes less than W 300,000	20 per cent of tax
Incomes more than W 300,000 but less than W 400,000	10 per cent of tax

(2) Basic exemptions

While there was no change in the basic standard exemption, the exemption for spouse was raised from W 300,000 per year to W 420,000.

(3) Income deductions

Special income deductions available to wage and salary earners underwent significant changes. Under the previous law, separate special deductions applied to wage and salary income (special deduction of W 540,000 per year) and to bonus income (a separate special deduction of 400 per cent of monthly wage within the limit of W 520,000 per year This led to differences in tax burdens, depending upon the composition of income between wages/salaries and bonuses. This is illustrated in the table below.

Table 16. Korea: Special Income Deductions Under the Old Law

(In thousands of won)

	Monthly Wage	Annual Bonus	Total Annual Income	Deductions for Wage	Deductions for Bonus	Taxable Income	Tax Paid
Case I	300	1,200	4,800	540	520	3,740	367
Case II	400	--	4,800	540	--	4,260	461

This calculation illustrates that, for the same total annual income, the tax payment would differ depending upon the bonus component of income. In order to avoid this outcome and to raise the allowable deductions, the new law introduces a new unified deduction scheme which allows a basic deduction of W 880,000, plus 20 per cent of all income in excess of W 820,000 for income up to W 3.0 million, plus 10 per cent of income in excess of W 3.0 million. However, the maximum permitted deduction will be W 1.5 million, compared to the maximum of W 1.06 million (W 540,000 + W 520,000) under the old scheme. The difference between the old and new schemes is illustrated in Table 17.

Table 17. Korea: Special Income Deductions Under the New Law

(In thousands of won)

Monthly Wage	Annual bonus	Annual Income	Standard Deductions: Old law	Standard Deductions: New law
225	900	3,600	1,060	880 + (3,600 - 820) x 0.20 = 1,436
300	1,200	4,800	1,060	1,436 + (4,800 - 3,000) x 0.10 = 1,616
375	1,500	6,000	1,060	1,436 + (6,000 - 3,000) x 0.10 = 1,736

At an annual income of W 4.8 million, with W 1.2 million in bonus, the old law allowed a standard deduction of W 1.06 million. The new formula will yield W 1.616 million. Therefore, the maximum limit of W 1.5 million will apply.

In addition, wage and salary earners will benefit from more liberal deductions related to insurance and medical expenses. Deductions related to insurance payments will be made available to all wages/salary earners, whereas under the previous law they were available only to those earning less than W 500,000 per month. Medical insurance payments will remain fully deductible as under the old law. However, for other forms of insurance, the new law clarifies that only insurance premiums which are not in the nature of savings will qualify for deduction within the limit of W 240,000 per annum (the same limit as in the old law). Also, medical expense deductions will be significantly increased. The amendment permits a minimum deduction of 5 per cent of annual income. If medical expenses exceed 5 per cent of income, the deduction limit is W 240,000, plus 5 per cent of income. Under the old law, the deduction limit was only W 240,000, minus the amount reimbursed by the medical insurance scheme.

Daily workers' income deduction of W 10,300 per day was changed to W 14,100 in line with the change in other deductions.

(4) Elimination of temporary tax credit for wage and salary income

The temporary tax credit for wage and salary income--20 per cent for wage and salary incomes of less than W 300,000 per month and 10 per cent for incomes in the range from W 300,000 to W 500,000 per month--available under the old law was eliminated.

(5) Treatment of education allowance

All education allowances received by an employee were treated as nontaxable income under the previous law. The new law considers only tuition fees for middle and high schools as nontaxable, and only up to two persons per family are recognized for this purpose. Only employees with income less than W 700,000 per month can qualify. For each person, an annual limit of W 120,000 applies. In the case of an employee who is himself a student, university tuition is also tax exempt.

(6) Donations

Previously, donations were not tax deductible from individual incomes. Under the new law, donations to Government and local authorities, contributions to defense, and donations to victims of calamities are fully tax deductible. Other donations of public interest are deductible up to 5 per cent of total income.

(7) Handicapped persons

The amount of special exemption for handicapped persons was raised to W 300,000 from W 120,000.

d. Capital gains tax

Capital gains tax was reduced by rationalizing the tax computation method and by treating all assets acquired prior to January 1, 1975 as having been acquired on that date. The old method was to apply the higher of the specified capital gains tax rates and the global tax rate that would obtain if the capital gains income were treated as regular income. Under the new law, the global tax rate for such comparison corresponds to capital gains income divided by the holding period of the asset.

e. Inheritance tax

The inheritance tax rates were reduced by 0 to 9 percentage points depending upon the taxable property value, and the rate structure was adjusted to favor middle-income brackets.

Table 18. Korea: Inheritance Tax Rates

Taxable Property Value	Old Rates	New Rates
	(in per cent)	
Not over W 1 million	7	7
Over W 1 million	10	9
Over W 3 million	13	11
Over W 5 million	17	13
Over W 7 million	21	15
Over W 10 million	25	17
Over W 13 million	29	20
Over W 19 million	33	25
Over W 25 million	37	30
Over W 35 million	42	35
Over W 50 million	47	40
Over W 70 million	52	45
Over W 100 million	57	50
Over W 300 million	62	55
Over W 500 million	67	60

In computing the tax base, the amendment will permit deduction of housing property up to the limit of W 40 million. In addition, the law allows deduction of agricultural land, grass land, and forest land up to a limit of W 50 million (including basic and housing deductions). The above deductions were not permitted under the old laws.

f. Special excise tax

The special excise tax system was rationalized in order to take into account the changes in the pattern of demand (in line with the increases in real incomes), and to include close substitutes of the items already subject to special excise. The adjustments to the changed pattern of demand consisted of (1) lowering the tax rates on some items which can no longer be treated as luxuries at the current level of income; (2) raising the rates on some luxury items; and (3) introducing special excise tax on new items of luxury consumption. Another element of rationalization was the introduction of a phased program of lower rates for items which have good technological development or export potential.

Under these general principles, the special excise tax rate (basic rate) on various consumer goods was reduced. Some examples are shown in Table 19. The basic excise rates were raised for some items, as shown in Table 20.

Table 19. Korea: Decreases in Special Excise Tax Rates 1/

	Rates		
	Old		New
	(ad valorem, per cent)		
Furniture costing more than W 200,000 per piece or set	20		15
Refrigerator (with capacity 250 liters or below)	40	(28)	28
Black and white television	30	(21)	10
Color television (18 inches or less)	40	(28)	28
Audio equipment			
Portable	30		10
Others	30		25
Home electric appliances	40	(28)	28
Silk products	30		20
Jeep	20		10

1/ Figures in parentheses are the previously applicable rates under the elastic rate system. The applicability of these rates expired at the end of 1981.

Table 20. Korea: Increases in Special Excise Tax Rates

	Rates Old	Rates New
	(ad valorem, per cent)	
Grand piano	20	30
Electric organ and others	10	20
Some wool (e.g., rugs)	30	40
Large motor boat and yacht	40	60
Nutritional tonics in tablet form	10	20

Several close substitutes or complements of items already subject to special excise were brought into the tax net, generally at the rates applying to the original product. For example, a special excise tax was imposed on substitutes for gasoline (160 per cent), sugar substitutes (10 per cent), home gas appliances (30 per cent), and items complementing a television set, projector, or movie camera (40 per cent).

Some new items made subject to the special excise are fruit drinks (10 per cent), admission fees to ski lodges (10 per cent), service charges in night clubs and cabarets (10 per cent), crystal ware (20 per cent), and projectors on television screen (20 per cent).

The new law permits temporary reductions in special excise tax rates on commodities which have good potential for technological development or exports. The temporary rates are 10 per cent of the basic rate over the first two years, 40 per cent for the following one year, and 70 per cent for an additional year.

g. Customs tariff changes

Import tariffs were adjusted and rationalized for 340 items, with rates reduced for 311 items and increased for 29 items. As a result, simple average tariff rate fell from 24.9 per cent to 23.4 per cent while the import-weighted average rate declined from 12.8 per cent to 12.4 per cent.

(1) Tariff reductions

(a) In order to assist textile and electronics industries, import duties on specific raw materials and capital goods were reduced temporarily.

Product	Old Basic Rate	Temporary Rate
	(in per cent, ad valorem)	
Circuit board	40	10
Silicon wafer	30	10
Lead frame	30	10
Weaving machine	20	15
Sauring machine	40	30
Synthetic organic dyestuff	30	20
Dyeing machine	20	15
Electropla*ing anode	20	15

(b) In order to improve export competitiveness, duties were reduced for some important raw materials for export industries.

	Old Rate	New Rate
	(in per cent, ad valorem)	
Hydrazine hydrate	40	30
Bovine cattle leather	40	30
Pig skin	40	30
Raw fur skin	40	30
Woven label	60	40
Paper label	60	40

(c) Some of the duty reductions were designed to help the health care industry, overseas resource development business, farm mechanization, and the communications industry.

	Old Basic Rate	New Rate	
		Basic	Temporary
	(in per cent, ad valorem)		
Artificial kidney	15	0	
X-ray film	20		
Raw material for contraceptive pills	40	40	0
Skin and bone graft	20	0	
Splints and fracture appliance	30	0	
Surgical lamp	60	30	
Television monitor for medical use	50	20	
Harvester combines	15	15	3
Tropical timber	20	20	10
Plywood sheet	30	30	10
Electronic switching system	10	10	0

(d) Basic customs rates of about 218 high-duty items were cut across the board in order to reduce the extent of protection accorded to these industries. In this process, the number of basic rate categories was reduced from 14 to 11 (Table 21).

Table 21. Korea: Basic Customs Rates

Change in Basic Rate (in per cent)	Number of Items Affected	Example	Exceptions Where Original Higher Rate Will Temporarily Apply
From 150 to 100	8	Tobacco	Luxury car, liquor
From 80 to 50	8	Tortoise shell, wood carving material	Hunting gun, car chassis, chocolate, instant coffee
From 60 to 50	202	Processed food, textiles, kitchen ware	Track, truck body, piano, p al, leaf tobacco

(2) Increases in tariffs

(a) In order to protect some infant industries and industries affected by the liberalization of import licensing, tariff rates were raised on eight items, either by continuing the higher emergency tariff rates (e.g., phenol, manganese batteries) or by suspending the temporary lower rate that previously applied (e.g., rails, drills).

(b) Specific duties on raw sugar and video films were raised.

	Current	New
Raw sugar	W 54/kg	W 77/kg
Video film	W 330 per minute	W 400 per minute

(c) Duties on some products were raised in the process of being shifted from specific to ad valorem basis.

	Old (in won/kg)	New (in per cent)
Molasses	12/kg	20
Banana	90/kg	50 basic, 60 temporary
Pepper ground	520/kg	40
Cocoa bean	870/kg	30 basic, 40 temporary

(3) Tariff rationalization

In order to rationalize the tariff structure by applying similar duty rates for similar items, duties were adjusted for a wide range of items. In the case of diesel engines for ships, the rate was raised from the previous 20 per cent to the 40 per cent rate which applies to general diesel engines. In most cases, duties were lowered; in the case of some quota items, the lower rate applying within the quota limit was made applicable without a quota limit.

h. Education tax and surtax

Education is one of the important sectors in the Fifth Plan (1982-86), and government estimates indicate that W 4,565 billion in constant 1981 prices is needed for educational investment over the period. Of this, the national budget, growing at a rate of 10 per cent annually in real terms, would be able to make up for roughly W 3,037 billion. Thus, more than W 1,500 billion needs to be financed from other sources. The new temporary (five-year) tax has been designed to fill this gap by providing an annual average of W 300 billion during 1982-86. Its specific provisions reflect moral (taxing consumption of alcohol and tobacco) and social (taxing the relatively well to do) motivations.

(1) Tax bases and rates

Tax Base	Rate
Education tax	
1. On taxpayer of interest and dividend income eligible for 10 per cent final withholding taxation prescribed in the income tax law	5% of income
2. On manufacturer of tobacco	10% of sales price
3. On banking and insurance business and on earnings from the curb market and other unorganized money market activities	0.5% of gross receipts
Education surtax	
4. On taxpayer of liquor tax	10% of tax

(2) Exemptions

Nonresidents are not liable to the education tax on interest and dividend income unless they have their domestic business places in Korea. Also, interest and dividend income which is entitled to nontaxation, exemption, or reduction under other laws is exempt from the education tax. Exported and relatively inexpensive cigarettes, as well as foreign cigarettes imported solely for foreigners, are exempt. Certain types of interest income are also exempt; for example, interest income from industrial reconstruction bonds, telephone bonds, etc. Two relatively inexpensive local liquors are also exempted.

Tax	Nature of Tax	Exemptions and Deductions	Rates

1 **Taxes on net income and profits**

1 11 **Corporation tax**

Nature of Tax

A tax on taxable income accruing to corporations and corporate-type enterprises including trusts Domestic corporations are taxable separately on their total net income and profits from both domestic and foreign sources arising under annual net income, liquidation income, and capital gains

a Net income income and profit except for payment of its capital or investment net of losses and expenses except for refund of capital or appropriation of surplus accruing from transactions which increase the net assets of corporations, including

(1) actual and presumptive intercorporate dividends and distributions of gains on dissolution or merger

(2) bonuses payable by a corporation to its directors who are stockholders or investors

b Liquidation income income arising to all corporations other than nonprofit corporations and foreign corporations on liquidation owing to dissolution or merger The tax base is paid-up capital less value of residual assets after dissolution or no merger

c Capital gains gains from revaluation of assets other than business assets revalued under the Asset Revaluation Tax, are taxed under the corporations profits tax and on transfer of lands, buildings, and associated rights under the Additional

Exemptions and Deductions

Exemptions

a The state and local autonomous bodies or their associations are exempt

b Liquidation income of foreign corporations and nonprofit domestic corporations

c Foreign navigation income of domestic corporations

d Bond interest on national and local bonds industrial financing bonds agricultural financing bonds medium and small industry financing bonds housing bonds national housing bonds electricity bonds foreign exchange financing bonds

e Interest on insurance policies of personal insurance and on deposits of national investment funds

f Income derived from property in charitable trusts

g Agricultural income because subject to Farmland Tax

h Korean Teachers Association and International Tourism Corporation pay minimum tax (5 per cent) through 1984 then normal rates apply

i Private university hospitals will be exempt from the minimum tax (5 per cent) through 1984, and it only will begin to apply thereafter

j Royalties on patent and utility models made in Korea for period of five years

k Income accruing from forest afforested for more than five years without time limit

l Foreign-invested corporations covered under the Foreign Capital Investment Law are exempt from the minimum tax provision

Rates

Basically various progressive rates apply to designated types of corporations and enterprises These are integrated below by reference to the standardized income tranches used However, all corporations, including government corporations are subject to a minimum tax of 5 per cent of income

Progressive Rate Applicable

(In per cent)

Nature of Corporation/ Enterprise	Less Than W 50 Million	More Than W 50 Million
All corporations (minimum tax)	5	5
Nonprofit corporations	20	27
Open corporations	22	33
Closed corporations	22	38

Note These rates are meant to be applicable to a full business year of 12 months Where the business year is less than 12 months, prorated tax rates are applied to a grossed up 12 months tax base to determine tax liability

Korea Summary of the Tax System 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
1 11 Corporation tax	Capital Gains Tax (ACGT) is collectible even if there is no liability under the corporation tax Definitions Open corporations A corporation listed on the stock exchange and continuously meeting the following conditions during a business year - at least 30 per cent of voting issued stock must be publicly subscribed or offered - average monthly stock sales transacted through the stock exchange must be at least 0 3 per cent of the total number of issued stocks owned by persons other than Government and foreigners - not more than 51 per cent of stocks may be held by one stockholder or persons related to or specially associated with him - at least 40 per cent of the total number of issued stocks, other than those owned by minor shareholders, i e , shareholders owning not more than 1 per cent of total number of issued stocks (other than government and foreign-owned stocks), - minimum of 300 minor stockholders Nonprofit corporations An association or foundation which is not a juridicial person is deemed to be a nonprofit corporation Closed corporations Corporations not classified is open or nonprofit corporations	Deductions Special expenditures (tax-free reserves special depreciation allowance, etc) limited to 60 per cent of gross income and income deductions to 50 per cent of taxable income Expenses incurred by transactions which decrease net assets of corporations including a Deficit carried over from previous three business years b Tax-free reserves (1) Retirement allowance 10 per cent of wage bill of employees with more than one year's service, subject to a ceiling of 50 per cent of total estimated retirement allowance which would be payable if all eligible employees had retired at business year-end The accumulation limitation is not applied in case of insuring group retirement of employees (2) Bad debts up to 1 per cent of credit sales Unused reserve to be included in gains of the following year (3) Overseas market development up to 1 per cent of foreign currency receipts from export businesses or overseas technical services, or 2 per cent depending on the area subject to a ceiling of 10 per cent of total exports Amounts appropriated to be added back to gains in three annual equal installments after two years (4) Export loss up to 1 per cen foreign currency receipts from export ness or tourist industry or 50 per ce t income whichever is less For smal medium enterprises, 2 per cent of fo n currency receipts Add back of amour	

Korea Summary of the Tax System 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
1 11 Corporation tax	**Small and medium enterprises** Corporations operating manufacturing or mining as their main business with total value of assets not exceeding W 30 million continuously during accounting year and not more than 300 employees. Expansion of assets changes the status only after two years	appropriated as in (3) above (5) Overseas investment loss: up to 10 per cent of annual overseas investments made. Add back to gains of amounts appropriated in four equal annual installments after three years	
	Presumptive dividend A system of deemed dividend applicable to closed companies not listed on the stock exchange computed as follows	(6) Overseas construction: for such companies the tax-free reserves for overseas market development and export losses merged into single reserve one third of which must be included in the revenue stream after four years	
	[(taxable income - distribution + all bonus payments + corporation tax + inhabitants tax + defense surcharge + compulsory profit reserve under commercial code of 1/20 income up to 1/2 capital + industry rationalization reserve relating to tax exemption of key industries and equity capital increase) less (taxable income)] - [(corporate tax + defense surcharge and inhabitants tax + profits reserve + industry rationalization reserve) + (taxable income - 60 per cent of corporate tax + defense surcharge + inhabitants tax + property reserve)]	(7) Stock transactions of security trading companies: 0.02 per cent of transactions. Appropriations net of actual losses included in gains after three years (8) Support of mining: reserves for mining investment of 5 per cent of the gross receipts, or 10 per cent in the case of overseas resources development; also reserves for mining safety facilities 3 per cent of gross receipts	
	Corporate/shareholder treatment **Prior to 1978**, a partially integrated system in force with dividend credit given at shareholder level	(9) Small and medium manufacturing and mining enterprises: 15 per cent of price of business assets for improvement or substitution of facilities or acquisition of new facilities. If no expense incurred and back after three years, if expense incurred, no appropriations included in gains after three years in three equal annual installments	
	Corporate shareholders: credit equal to 50 per cent of prorated tax liability applicable to dividend income Other resident shareholders - dividend received from closed corporations (other than securities	(10) Loss from equipment lease: 2 per cent of the value of facilities leased may be deducted as expense for the reserve but must be added back to the income in the following year	

Korea Summary of the Tax System, 1982 (continued)

	Tax	Nature of Tax	Exemptions and Deductions	Rates
1 11	Corporation tax	investment trusts and foreign corporations and included in global income 50 per cent of corporation tax on such income is creditable against global tax liability, - dividend received from open corporations and included in global income 65 per cent of corporation tax on such income is creditable against global tax liability Note that dividend income received by minor shareholders of open corporations and dividend income received by both major and minor shareholders from securities investment trusts and from stock dividends following asset revaluation are not included in global income because they are subject to schedular withholding rates of between 5 per cent and 20 per cent Since 1978, an almost complete "separate entity" system prevails Dividend credit for corporate shareholders and noncorporate shareholders in closed companies has been abolished A 15 per cent tax credit remains in force	(11) Movement of factory to local areas 10 per cent of the value of transferred facilities or equipment may be deducted as expense To be added back after three years in three annual installments (12) Price fluctuation of export goods up to 5 per cent of the value of specified inventory goods To be included in gains in the following year (13) Special repair of vessels and blast furnace estimated repair cost or 5 per cent (0 1 per cent for vessels) of acquisition value Net appropriation included in gain after repair (14) Finance and insurance reserve reserves approved by Ministry of Finance of amounts deposited by insurance and banking corporations for payments of dividends to insurance policy holders (15) Development of technology within the limit of amount equivalent to 1 per cent (or 1 5 per cent for technologically intensive industries listed in enforcement decree) of gross receipts or 20 per cent (or 30 per cent) of the income amount thereof, whichever is more Waiting period for including the reserves in gains is three years c Entertainment expenses Basic allowance W 6 million, plus 2 per cent of issued share capital (within W 10 million), plus 0 1 per cent of sales receipts d Technology service businesses 50 per cent of income in each business year for five years e Depreciation	

Korea Summary of the Tax System 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
I 11 Corporation tax		(1) Ordinary depreciation "Straight-line" method for tangible fixed assets and straight-line or declining-balance method for intangible fixed assets Service output Fixed-percentage or straight-line methods available for depreciation of mining rights and fixed assets Serviceable life and depreciation rates prescribed by Ministerial ordinance	
		(2) Special depreciation (As percentage of ordinary depreciation)	
		- housing for miners,	50 per cent
		- machinery and equipment used in separate mining manufacturing,	100 per cent
		- heavy equipment used in land construction more than 12 hours	20 per cent
		- fixed assets of mining, fisheries, or manufacturing industries used directly for foreign exchange earning depending on ratio of foreign income to total income	Up to 30 per cent
		- key industries defined in the Tax Exemption and Control Law,	100 per cent
		- research and development,	30 per cent
		- machinery and equipment of small and medium manufacturing/mining enterprises,	50 per cent
		- fixed assets incorporations at least 6 per cent of domestically produced inputs	
		manufacturing, construction, or fisheries industries,	80 per cent
		other industries	40 per cent

Korea Summary of the Tax System 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
1 11 Corporation tax		f Tax credits - *limited to 40 per cent of com*puted tax, including (1) Tax paid abroad Credit restricted to ratio of foreign income to total taxable income of domestic gross tax payable, (2) Disaster relief Credit equivalent to ratio of assets destroyed to total assets of domestic gross tax payable, (3) Temporary investment tax credit Where necessitated by economic situation, credit of 8 per cent (10 per cent if investment or part of its inputs domestically produced), - Credit of 10 per cent for investment expenditures on technology and manpower development, - Encouragement of key industries (1) Naptha cracking, iron and steel, machinery, ships, electronics, aviation machinery, defense, and domestic companies dealing in international transportation Under the Tax Exemption and Reduction Control Law these given tax-free reserves for investment equivalent to 5 per cent of the value of fixed assets of the company, - Livestock industry Full exemption from corporation tax for first four years and 50 per cent for next two years, - International transportation Full exemption of corporation tax - Foreign investment Full exemption of corporation tax for first five	

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
1 11 Corporation tax		years and 50 per cent for next three years under Foreign Capital Inducement Law, - Dividend credit Full exemption for first five years and reduction to 50 per cent for next three years under Foreign Capital Inducement law, - Interest on foreign loans Full exemption under Foreign Capital Inducement law - Promotion of tourism Full exemption of corporation tax on income and assets of development enterprises in designated tourist complexes - 1988 Olympics Corporation If the income from profit-making activities of the corporation is transferred to the original purposes of the corporation, such income is tax deductible g Green return corporations These are essential corporations which are "open" or listed on the stock exchange or which are officially approved as such or in which Government owns at least 40 per cent of shareholding They are entitled to the following concessions (1) All fixed asset costs for utility corporations and fixed asset costs financed from insurance payments for other corporations are treated as losses (2) Normal bad debts reserve allowance of 1 per cent of credit sales increased to 2 per cent (3) Additional special depreciation of 20 per cent of ordinary depreciation of fixed assets (4) Loss carry forward ceiling increased from three to four years.	

Tax	Nature of Tax	Exemptions and Deductions	Rates
1 11 Corporation tax		(5) Unutilized depreciation in any year is not lost but may be claimed in later years Additionally, green return corporations are not subject to field audit and where their tax liability exceeds W 10 million payment may be made in installments	
1 2 Taxes on individuals			
1 21 Income tax	a Tax is payable by individuals domiciled in Korea on income earned within and outside Korea and by nonresidents on income derived from sources within Korea b Taxable incomes are divided into "global" income subject to taxation at the global tax rate schedule (interest, dividends, real estate, business, wage and salary income, and other income) and the nonglobal income subject to separate taxation (retirement income, timber income, and capital gains on land, buildings, and other assets prescribed by Presidential Decree) c However, some types of interest, dividend, and wage income are subject to final separate withholding taxes and are not included in global income (as indicated in the Rate section) d There is an administrative waiver of the tax liability for interest income subject to separate taxation of less than W 18,000 for six months, dividend income of less than W 36,000 per year, and other income of less than W 5,000 per case e In addition to the types of income separately withheld and finally taxed,	Nontaxable incomes a Nontaxable incomes include income derived from lease of a rice or dry field, interest received by holders of national and local bonds, Industrial Financing Bonds, Agricultural Financing Bonds, Medium and Small Industry Bonds, Housing Bonds, Electricity Bonds, Foreign Exchange Bonds Export-Import Bank Bonds, Foreign Exchange Bonds denominated in won currency b Also nontaxable are interest from deposits in the National Investment Fund, National Savings Association, postal savings mutual installment deposits, mutual savings and loan deposits, and installment housing deposits c Side business incomes of farmers are nontaxable if they are less than W 1,560,000 per year d Other less significant forms of nontaxable income include fees on literary or other creative works, wages and salaries received by enlisted men, scholarship income, and employer-paid education fees Tax-exempt income a Certain types of income qualify as tax-exempt income The ratio of tax-exempt income to taxable global income is multiplied by the global tax liability on global	See rate schedules below

Global Tax Rates (in won)	Per Cent
Up to 1,200,000	6
1,200 001- 1,800 000	7
1,800,001- 2,400,000	8
2,400,001- 3,000,000	10
3,000,001- 3,900,000	12
3,900,001- 4,800,000	15
4,800,001- 6,000,000	18
6,000,001- 8,400,000	22
8,400,001-11,400,000	26
11,400,001-15,000,000	30
15,000,001-19,000,000	34
19,000,001-24,000,000	38
24,000,001-30,000,000	42
30,000,001-38,000,000	46
38,000,001-48,000,000	50
48,000,001-60,000,000	55
60 000,001 and above	60

Final Schedular Tax Rates	
Interest on bank deposits	10
Interest from securities and debentures floated by government or the NIF	10
Interest and discounted amount of commercial paper or instruments of short-term financing company	10
Interest on instruments of indebtedness floated by mutual loans and financing companies	10
Profit from joint operation trusts	10
Profit from Securities Investment Trust	10

Korea   Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates	
1 21 Income tax	there are other cases where the withheld tax is effectively the final tax liability f A resident who has (1) only wage and salary income and/or retirement income, (2) only capital gains income (and has filed a preliminary return) is not required to submit a final return g Similarly, a household member eligible for adding up taxation other than the main income earner who has only (1) assets income, (2) assets and wage and salary incomes, (3) retirement income and assets income, or (4) wage and salary income, retirement income, and assets income, is not required to submit a final tax return h Similarly, a person who has only the incomes enumerated in g (1), (2), and (3) is not required to submit a final tax return i This suggests that globalization applies only to the asset income (interest, dividend, and real estate income not finally and separately taxed) j Thus in deriving the global income tax base for a household, only the following components of potential household income are included (1) income of the main income earner other than income separately taxed (such as specified forms of interest, dividend and wage income, retirement, timber, and capital gains income) and (2) the asset income of other household members (again excluding forms of capital income that are separately and finally taxed)	income (inclusive of the tax-exempt income) This amount of tax is then exempt from income tax b Among forms of tax-exempt income are income derived from the operation of ships or aircraft in international traffic (on a reciprocal basis) and certain wages and salaries earned abroad by Korean nationals and in Korea by specified foreign nationals are tax exempt c Income accruing from forest afforested for more than five years without limit d Royalties on patent and utility models made in Korea for a period of five years e Remuneration derived by foreign technicians in respect of employment in domestic companies for a period of five years <u>Personal exemptions and deductions</u> a Personal exemptions are allowed as follows Basic exemption of W 300,000, spouse exemptions W 420,000, exemptions for dependents W 180,000 (with no limit on the number of elderly dependents but subject to maximum of two lineal descendants) exemption for a handicapped person W 300,000 1/ b Wage and salary earners receive a special deduction of W 880,000 (W 14 100 per day for day workers) plus 20 per cent of additional income up to W 3 000 000 plus 10 per cent of income over W 3,000,000 c Wage and salary earners are eligible for deductions for insurance premia of up to W 150,000 per year (for workers earning less than W 8 4 million per year) medical fees and education fees incurred for students who are employed	Interest on corporate debentures held by a minor debenture holder Interest on deposits in a credit cooperative Interest on debentures floated by corporation prescribed by Presidential Decree Other interest Dividends received by shareholders of an open corporation Dividends received from a credit cooperative Dividends received by a member of Employee's Stockholding Association Distribution of profits accruing from a securities investment trust Presumptive dividend Other dividends	10 10 10 25 10 10 10 10 10 25

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
1 21 Income tax		d For retirement incomes there is a basic deduction of 50 per cent of the retirement income (75 per cent for teachers) and a special deduction graduated according to the number of years of service (W 300,000 if less than five years, W 300,000 + (W 70,000 times number of years of service in excess of five) if less than 10 years, W 650,000 + (W 150 000 times number of years of service in excess of 10) if less than 20 years, and W 2,150,000 + (W 250,000 times number of years of service in excess of 20 years) if more than 20 years) e There is a special deduction of W 500,000 for timber income as well as a three-year loss carryover (four years for green return files) f Donations to the 1988 Olympics Corporation are fully tax deductible Tax credits a Tax credits are granted for bookkeeping (10 per cent), for dividend income received from an open corporation and included in global income (15 per cent), and for savings in the National Savings Association or an Employees' Stockholding Association (5 per cent of the savings) b Wage and salary earners not owning their own residence and earning less than W 2 4 million may take a tax credit of 5 per cent of the amount deposited in installment housing deposits of a bank c Recipients of real estate or business income who organize a taxpayers' savings association for the payment of taxes may take a 10 per cent tax credit on savings for tax payments deposited for more than three months	

Korea   Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
1 21 Income tax		d Tax paid abroad may be credited up to a certain limit against the tax due on the entire taxable income e A partial tax credit is also given for losses due to disaster, for wages and salary income earned overseas, or from the U S armed forces f Wage and salary earners earning less than W 1 million per month may receive a tax credit of 10 per cent of savings in form of securities up to a maximum savings of 30 per cent of wages and salaries g Wage and salary income where wage and salary income is withheld at the time of payment, the tax amount calculated as follows is deducted from the income tax amount (1) In case monthly wage and salary income is less than W 300,000 . 20 per cent of the tax amount (2) In case monthly wage and salary income is less than W 400,000 10 per cent of the tax amount	
1 3 Other			
Tax on capital gains of individuals and corporations	The tax is levied on the capital gains arising from the transfer by individuals or corporations of lands, buildings, or rights related thereto and other assets prescribed by Presidential Decree For individuals the tax base is computed as gross receipts less necessary expenses (acquisition costs, improvement expenses, and selling expenses) and allowable deductions	For both individuals and corporations capital gains from compulsory readjustment, annexation, expropriation by Government or local autonomous bodies, and transfer to them Also, capital gains from transfer of farmland cultivated for eight years or more or from transfer of lands and buildings for the purposes of moving a factory or ranch in existence at least two years, or five years respectively, real estate sold to the Korea Land Development Corporation Real estate sold to the private sector for residential construction is eligible for a 50 per cent deduction	See rates table below

Period of Possession	Rates (Other Than Real Estate) Individual	Corporation
Over two years	40	20
Under two years	50	25
Assets transferred without registration	75	35

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
1 3 Other Tax on capital gains of individuals and corporations	Corporate capital gains are treated as ordinary income subject to corporate tax Additionally capital gains on the transfer of lands, buildings, or rights related thereto are subject to an additional capital gains tax which is collectible even if there is no corporate tax liability	Additionally, for individuals capital gains from the transfer of one house per household (excluding houses valued at more than W 50 million) are nontaxable Capital gains are subject to a standard W 900,000 deduction	
	In tax computation all assets acquired prior to January 1, 1975 are treated as having been acquired on that date		
2 Social security contributions	Pension programs Civil servants, including public-rated teachers and regular military personnel get a pension or lump-sum payment at retirement Annual benefit is 50 per cent of the final year's salary plus 2 per cent for each year in excess of 20 years up to a maximum of 70 per cent of annual salary	Those with under 20 years' service	Employee pays 5 5 per cent of salary and employer 5 5 per cent
	Private school teachers get similar benefits to public school teachers		Employee pays 5 5 per cent of salary and employer 3 5 per cent and Government 2 0 per cent
	Severance payments After one year's service employers with 16 or more employees provide lump-sum severance payment equal to one month s wages for each year of service	Under one year's employment, establishments with less than 16 employees	Employer can claim tax-free reserve up to 10 per cent of wages with a limit of not more than 50 per cent of estimated retirement amount payable After this limit is reached benefits can be financed by insurance and premiums treated as a business expense
	Industrial accident insurance through central fund under Office of Labor Affairs	Establishments employing less than 16 employees	Effective rate of 1 0 per cent paid by employer
	Medical insurance scheme government employees, school teachers, military personnel		Employee contributions of 1 9 per cent of salary
	Regular employees of firms with 500 or more employees	Firms employing less than 500 employees	Employee contribution of 1 5-2 0 per cent of salary and equal contributions by employer

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates	
2 Social security contributions	Proposed (1973) National Welfare Pension System old age, death and disability to be covered Full benefits accrue at 65	Small firms, farm workers and casual labor self-employed may elect to join	Employees pay 3 per cent of earning and employers 4 per cent up to a maximum of ₩ 200,000 a monthly wage	
3 Payroll taxes (other than social security contributions)	None			
4 Taxes on property				
4 1 Real estate taxes	None			
4 2 Net wealth taxes	None			
4 3 Death and gift taxes				
4 31 Inheritance tax	Based on amount inherited but rates varied according to estate left The tax applies generally o all properties belonging to descendants domiciled in Korea and with respect to nondomiciled descendants, to properties situated in Korea Imposed on the total value of the properties under inheritance or bequest and the properties given to heirs during three preceding years and to others during one preceding year from the date of commencement on inheritance The aggregated tax liability is allocated to each legatee in proportion to the value of properties actually acquired by him	Estates contributed to the State or other public entities or to public organizations or religion or charity and other contributions or bequests as designated by Presidential Decree, are exempt In computation of the taxable amount there is a basic deduction of ₩ 8 000 000 besides other general deductions of funeral expenses public imposts, and liabilities Moreover dependent deductions are made for spouse (₩ 16 000 000), members of descendant's family who are less than 20 years old (₩ 240,000 for each year up to age of 20) or who are deformed (₩ 1,800,000) Deductions are also allowed for insurance proceeds (₩ 7,000 000) or retirement (₩ 1,000,000) In the case of a house for a family the value of the house inherited up to ₩ 40,000,000 is deducted from the value of properties inherited The same applies to agricultural land grass land, and forest land up to a deduction limit of ₩ 50,000,000 If the taxable amount allowance after basic and dependent deductions does not exceed	(In won)	Per Cent
			Up to 1,000,000	7
			1 000 001- 3,000,000	9
			3 000,001- 5,000 000	11
			5,000,001- 7,000,000	13
			7 000 001- 10 000 000	15
			10,000,001- 13,000,000	17
			13,000,001- 19,000,000	20
			19 000,001- 25 000,000	25
			25,000,001- 35,000 000	30
			35,000,001- 50,000,000	35
			50,000,001- 70 000 000	40
			70,000,001-100 000,000	45
			100,000 001-300,000,000	50
			300,000 001-500 000 000	55
			500,000,001 and above	60

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates	
4 31 Inheritance tax		W 200 000 inheritance tax shall not be imposed A reduction of 10 per cent of the computed tax amount is given for payment within the prescribed period Forested land afforested for more than five years is exempt		
4 32 Gift tax	The tax applies when persons domiciled in Korea acquire properties by gift from any other persons, and when undomiciled persons acquire by gift properties located in Korea The tax is paid by donee The taxable value is based on appraisal of properties involved at the time of acquisition The tax amount is normally computed separately for each individual gift but gifts in excess of W 2,000,000 from the same persons within three consecutive years are taxed on a cumulative basis	General deductions of W 1,500,000 are made for gifts from spouse or from lineal relatives and W 1,000,000 for gifts from other relatives Gifts valued at less than W 100,000 after deductions are exempt A reduction of 10 per cent of the computed tax amount is given for payment within the prescribed period Forested land afforested for more than five years is exempt	(In won)	Per Cent
			Up to 500 000	7
			500,001- 1,000,000	11
			1,000,001- 3,000,000	15
			3,000,001- 5 000,000	19
			5,000,001- 7,000,000	23
			7,000,001- 10 000,000	27
			10,000,001- 13,000,000	32
			13,000,001- 19,000,000	37
			19,000,001- 25,000 000	42
			25,000,001- 35,000,000	47
			35,000,001- 50 000 000	52
			50,000,001-100,000,000	57
			100,000,001-200,000,000	62
			200,000,001 and above	67
4 4 Property transfer taxes				
4 41 Stamp tax	The tax is levied on persons preparing documents or account books certifying establishment transfer, change, or lapse of rights on property or certifying ratification approval of such rights It is imposed at specified rates on the amount of money as stated in various documents or at a fixed amount on each copy of the documents concerned		Various rates as stated in documents	
4 5 Nonrecurrent taxes on property	None			

Korea Summary of the Tax System 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
4 6 Other			
Asset revaluation tax	Paid by individuals or corporations on the revaluation gain of their business assets Revaluation is voluntary Assets are revalued on the basis of the market price at the time of revaluation The tax base is the reappraisal gain derived as the difference between the reappraised value and the book value, minus the amount of carried-over losses as of the revaluation date Reappraisal gain is not included in taxable income for income tax and corporation tax		Three per cent
5 Taxes on domestic goods and services			
5 1 General sales taxes			
5 11 Value-added tax (VAT)	Payable on sale of goods, and services and imports of goods by a supplier Tax applies to gross receipts from the sale of goods and services within Korea or to the total of the c i f value, import duties, and special excises Net tax payable is that due on gross receipts less a credit for the amount of VAT paid on inputs The taxpayers submit returns every two months	Exemptions include unprocessed foodstuffs, livestock, marine and forest products produced in Korea (but not used for food), piped water, cultural services, academic research services, land and leases of real estate, monopoly goods, books and newspapers, medical services, education services, professional services (lawyers and accountants), finance and insurance transactions, passenger transportation services, and commodities imported by the 1988 Olympics corporation Exports are zero rated	The normal rate is 13 per cent, however, the rate can be changed within the limit of 3 percentage points upward or downward The rate currently applied is 10 per cent
VAT special taxation	For individual traders who supply goods or services the total of which is less than W 40,000,000 in a calendar year, the VAT is chargeable on the basis of turnover	If the Special Taxations taxpayer submits tax invoices received to the Government, an amount equivalent to 5 per cent of the input tax amount is deducted from the tax amount payable, subject to the limit of the tax amount payable	Two per cent Three and a half per cent in the case of a transaction through a proxy, agent, intermediary, consignee, or contractor

Tax	Nature of Tax	Exemptions and Deductions	Rates
5 2 Excise taxes			
5 21 Special excises	The tax is levied on manufacturers and importers of about 50 commodities The tax base is the price of the taxable commodities at the time of shipment from the manufactory or from the bonded area With respect to commodities received from a bonded area, the price is computed by adding a standard markup of 10 per cent to the c i f price plus import duties	Major exemptions include commodities to be exported or to be supplied to the U N forces in Korea, commodities provided for the development of atomic energy, commodities supplied to Korean forces abroad or to foreign charitable organizations, commodities directly imported or purchased for official use by foreign embassies, legations, etc , or directly imported for private use by foreign diplomats commodities donated by foreign countries to religious, charitable, research, and educational organizations, commodities donatd to the Government, and commodities imported to the 1988 Olympics Corporation	About 50 commodities have rates between 10 per cent and 130 per cent Some major examples are as follows 10-40 per cent Precious metal products furniture costing more than W 100,000, specific cosmetics, air conditioners and spare parts, refrigerat[illegible], washing machines, television sets, electric gramophones, gas and electr[illegible] appliances, passenger cars coffee and [illegible] soft beverages, ice cream and [illegible] ition preparations and stimulants [illegible] and its products, carpets, diesel oil 40-70 per cent Admission fee to horse races 70-100 per cent Jewels, pearls, etc , fur and its products, slot machines and similar recreational machines, billiard and golf requisites and hunting guns 130 per cent Gasoline 160 per cent Substitutes for gasoline
5 22 Liquor tax	Imposed on manufacturers and importers of liquors The tax base is the quantity or price of liquor shipped from manufactory or bonded area	Liquors for export or sales to U N forces in Korea, liquors directly imported for private use by foreign diplomats, and neutral spirits used for industrial or medical purposes are exempted from the tax	For spirits the tax rate is W 49,350 per kilo liter (W 525 is added per excess alcohol percentage) The rates by price range between 10 per cent (takju) and 200 per cent (whiskey), for beer the rate is 150 per cent With respect to some ty[illegible] of [illegible]uor (takju and yakju) manufactu[illegible] sweet potatoes produced in Korea, the ta[illegible] is reduced to 30 per cent
5 23 Telephone tax	Levied on the use of the telephone system and collected by the Offices of Communication Services, when they receive charges from the taxpayers	The state, local autonomous bodies, national or public schools, foreign embassies, and foreign diplomats are exempt from the tax	Fifteen per cent of charges

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
6 **Taxes on internatonal trade**			
6 1 ***Taxes on imports***			
6 11 Customs duties	Levied on 2 517 individual items recognized in the tariff schedule according to the Customs Cooperation Council Nomenclature (CCCN)	Imports of the latest facilities and machines for 14 major industries prescribed by regulation are exempt from customs duties Foreign embassies and foreign diplomats are also exempt from the customs duties Commodities imported by the 1988 Olympics Corporation are exempt	Tariff rates run up to 150 per cent with the higher rates applying to luxury items and lower rates to necessities The effective tariff rate (tariff revenue/imports) has risen from 5 1 per cent in 1975 to 7 3 per cent in 1979 and peaked at 8 9 per cent in 1978 The import-weighted average rate has risen from 12 4 per cent in 1975 to 16 per cent in 1979 and peaked at 18.8 per cent in 1978 in 1981 it stood at 12 4 per cent Specimen rates on broad categories of goods are as follows

	Per Cent
Food and beverages	
Live animals and meat	Free-30
Alcoholic beverages	150
Industrial supplies	
Crude materials	Free-20
Mineral fuels	Free-20
Industrial chemicals	Free-30
Metals	20
Textiles	20-60
Capital equipment	
Nonelectric machinery and tools	20-40
Electric machinery	20-40
Transport equipment	0-20
Consumer nondurable goods	
Household equipment	20-60
Domestic electrical goods	20-60
Passenger cars	60-150
Toys and musical instruments	60

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
7 Other taxes			
7 1 Temporary defense surtax	The temporary defense surtax is levied as an additional tax on the national and local taxes The tax base is the price of imported goods, tax amount due, telephone fee, or the price of farmland or forest land, etc Persons entitled to nontaxation, exemption, reduction or tax credit of customs duties, income tax or corporation tax are subject to the defense tax	Taxpayers who are exempted from taxes under the provisions of a treaty or the Foreign Capital Inducement Act are not liable to pay the defense surtax on those parts of exempted taxes In regard to duty-free or duty-exempt items under the Customs Duties law, the defense surtax is not levied on official goods used in foreign embassies, personal effects of foreign diplomatic officials and their families, goods for re-export, materials for scientific research and samples, etc Specific nontaxable income and income exempted under the Income Tax Law, e g , real estate (farmland) income, wages received by persons serving with foreign government or the U N and organizations thereof, and wages received by foreigners engaged in the foreign-invested enterprises, are also exempt from the temporary defense surtax	The rates range from 2 5 per cent to 30 per cent Some major examples are as follows Defense Surtax on Taxpayer of — Per Cent Customs duties — 2 5 per cent of [illegible] Income tax On taxable income — 10 of tax On income exempt from income tax — 15 [illegible]er W 700,000 per month; 30 over W 700 000 per month Corporation tax On taxable income — 20 or 25 of tax On income exempt from the corporation tax — 30-37 5 of tax Inheritance and gift tax — 20 of tax Liquor tax — 10-30 of tax Telephone tax — 10 of telephone charges Property tax — 20 of tax Registration tax — 20 of tax Special excise tax — 30 of tax Automobile tax — 30 of tax Horse race tax — 20 of tax
7 2 Temporary education tax	The temporary education tax includes both tax and surtax elements It was introduced in 1982 for a period of five years Its proceeds are earmarked for educational expenditure The tax base consists of four components interest or dividend income eligible for 10 per cent final withholding taxation prescribed in the Income Tax Law the liquor tax amount payable pursuant to the Liquor Tax Law the sales price of the manufactured tobaccos, and gross receipts of banking and insurance business, and by Presidential Decree, also earnings from the curb market and other unorganized money market activities	Nonresidents are not liable to the education tax on interest and dividend income unless they have their domestic business places in Korea Also interest on dividend income which is entitled to nontaxation, exemption or reduction of income tax under other laws is not subject to the education tax Exempted as well are tobaccos manufactured for export, cigarettes whose sales price before the tax is below W 280 per pack, and foreign-made tobaccos imported to Korea for the purpose of selling them to foreigners Interest income and an amount of discount of banking and insurance businesses are exempt if they are from industrial reconstruction bonds, requi-	Education Surtax on Taxpayer of — Per Cent Liquor tax — 10 of tax Education tax On taxpayer of interest on dividend income eligible for 10 per cent final withholding taxation prescribed in Income Tax Law — 5 of income On manufacture of tobacco — 10 of sales price On banking and insurance businesses and

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
7 2 Temporary education tax		sition compensation bonds, telegram and telephone bonds, subway bonds, water service bonds, or road bonds Also exempt is interest from national saving association deposits or on land development bonds, as are profits from property placed in charitable trusts Taxpayers of liquor taxes on "takju," "yakju," and "soju" are exempted from the education surtax	on earnings from the curb market and other unorganized money market activities: 0 5 of gross receipts
8 Local taxes			
8 1 Acquisition tax	Tax on acquisition of real estate, motor vehicles, heavy equipment, trees, and boats Where buildings acquired in installments, tax is levied on installments	Articles acquired a by state, local autonomous bodies and foreign governments, b by nonprofit traders (e g , religious educational bodies), c when acquisition value not more than ₩ 300,000	**Per Cent** Villa, golf course, high-class dwelling place, amusement place, sedan or boat, land for nonbusiness use of corporation: 15 Other articles acquired In a major city: 10 Elsewhere: 2
8 2 Registration tax	Tax on reported value of acquisition, creation, transfer of property rights	Nontaxable registration permitted to Government or local autonomous bodies, religious and educational, public relief and social welfare institutions (outside major cities), and corporations relocating to rural areas	Registration Charges — **Per Cent** a Real estate Acquisition: 0 3-3.0 Creation: 0 2 Preservation: 0 8 b Ships and aircraft Acquisition: 0 5-1 0, 0 01-0.02 Other: ₩ 5,000 per case c Incorporations Profit corporations: 0 4 of share value Nonprofit corporations: 0 2 of share value **Per Case** d Mining rights Creation: ₩ 60,000 Charge: ₩ 23,000-₩ 50,000 Transfer: ₩ 10,000-₩ 40,000

Korea Summary of the Tax System 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates	
			<u>Registration Charges</u>	<u>Per Cent</u>
8 2 <u>Registration tax</u>			e Fishing rights	W 15 000
			f Copyrights (transfer)	W 15,000
			g Patent rights	W 6,000
			h Trademarks Creation Transfer	 W 2,500 W 6,000
			i Mining or factory foundation	0 1 per cent
8 3 <u>License tax</u>	Licenses to carry out activities specified under Article 16 of Local Tax Law	Licenses obtained by government bodies, religious, academic and charitable businesses	Tax rates are divided into six classes applicable as follows	
			a Cities with population of 0 5 million or more	W 3,600-W 27,000
			b Other cities	W 1,500-W 18,000
			c Country	W 600-W 10,800
8 4 <u>Inhabitants tax</u>	Tax on individuals with domiciles and corporations with their offices in cities or provinces liable to payment of income tax, corporation tax, or farmland tax The tax is assessed annually on a per capita (number of inhabitants), per income (amount of tax paid) tax base	a Governmental bodies and foreign diplomatic missions b Household members living with head of household who pay this tax c Head of household with income less than W 360,000 per year	a <u>Per Capita Rate</u> (1) City with population of 5 million or more Individuals Corporations	 W 4,000 W 40,000
			(2) City with population of 0 5 million or more Individuals Corporations	 W 2,500 W 25,000
			(3) Other cities Individuals Corporations	 W 1,500 W 15,000
			(4) Counties Individuals Corporations	 W 800 W 8,000

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates	
			b Per Income Rate	7 5 per cent of income tax, corporation tax, or farmland tax of previous year
8 5 Property tax	Tax on value of land, houses, and vessels, and right holders of mining lots	a Properties of state, local autonomous bodies, or foreign governments b Properties used by nonprofit traders to furnish religious and educational services c Properties of a value less than W 120,000	a Land Housing lot	Progressive rates, depending on area, ranging from 0 3 per cent for 100 pyong (1 pyong equals 3 3058 square meters, or less) to 5 per cent for over 500 pyong
			Golf course, villa, amusement lot	5 per cent
			Idle land or land for corporate nonbusiness use	Progressive rates depending on duration of possession, less than three years 5 per cent to more than 10 years 10 per cent
			Rice field dry field, orchard	0 1 per cent
			Factory land	0 6 per cent
			Other lands	0 3 per cent
			b House Residential	Progressive rates depending on value ranging from 0 3 per cent for less than W 5 million to 5 per cent for over W 30 million.
			Golf course, villa, high-class amusement place	5 per cent

Korea Summary of the Tax System, 1982 (continued)

Tax	Nature of Tax	Exemptions and Deductions	Rates
8 5 Property tax			Other houses 0 3 per cent Factor building 0 6 per cent Vessels 0 3 per cent to 0 5 per cent c Mining lots W 50 per hectare d Newly built factories in cities W 250 per hectare for five years
8 6 Automobile tax	Tax on ownership of automobiles	Vehicles for national defense and public or community use (e g postal, telephone telegraph, fire service) Power tillers for agricultural use	a Automobiles (four cylinder or more), depending on wheel base and whether business or private use W 40,000-W 1,980,000 b Small-size automobiles (less than four cylinder) depending on business or nonbusiness use W 21,200-W 374,000 c Other small-size vehicles, depending on business or nonbusiness use W 16 800-W 67,000 d Buses, depending on size W 4,400-W 126,000 e Trucks, depending on cargo loading capacity and business or nonbusiness use W 4,000-W 87 000 f Special cars, depending on business or nonbusiness use W 2,200-W 11,500 g Cars (three wheel or less), depending on size and business or nonbusiness use W 1,100-W 12 000
8 7 Farmland tax	Tax on income from ownership of agricultural land distinguished between Class A farmland for rice production on which standardized income measures used, and	Deductions Basic deduction Class A W 740,000 Class B W 110,000	

	Class A (In per cent)	Class B (In per cent)
W 150,000 or less	6	10
W 150,000-W 300,000	8	15
Over W 300,000	10	20

Korea Summary of the Tax System, 1982 (concluded)

Tax	Nature of Tax	Exemptions and Deductions	Rates
8 7 Farmland tax	Class B farmland for other specific crops on which income was individually computed	Exemptions a Farmland owned by state, local autonomous bodies or foreign government b Reclaimed, filled, or waste land b Farmland used for education b Tax amount less than W 300	

Sources Data provided by Korean authorities and Ministry of Finance, Korean Taxation, 1982

1/ Dependents may also include sibling under 20 or over 60 years of age who are supported by the taxpayer in the same household