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Volume Author/Editor: Charles R. Frank, Jr., Kwang Suk Kim and Larry E. Westphal

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Chapter Author: Charles R. Frank Jr., Kwang Suk Kim, Larry E. Westphal

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Chapter 11

An Overview

In the preceding chapters we have examined the history and the complex details of foreign exchange and trade policy and have discussed quantitative measures of the effects of these policies on efficiency and growth. In this chapter we evaluate the influence of South Korea's economic growth on employment and income distribution. We also assess the main factors at work in the rapid growth of the South Korean economy since the early 1960s, particularly the role of foreign exchange and trade policy, by drawing as much as possible on our previous analysis. Then after summarizing the lessons of the two liberalization episodes, we shall caution against hasty generalizations from the South Korean experience.

EFFECTS OF GROWTH ON EMPLOYMENT

The rapid growth of the Korean economy was documented in Chapter 2. Before discussing the causes of this performance, however, it is appropriate to analyze its effects on employment and income distribution.

In fact, the rapid growth of the 1960s was accompanied by a steady decline in the rate of unemployment, particularly in the nonfarm sector (Table 11-1). In addition, the nonfarm proportion of the population was steadily rising, exceeding 50 percent by 1970. At the same time, farm population declined not only relatively but also absolutely from a peak of 16.1 million in 1967 to a low of 14.4 million in 1970.

Unemployment declined because job opportunities in the nonagricultural

TABLE 11-1
Farm and Nonfarm Population and Unemployment, 1957 to 1972

	Farm Population (millions)	Nonfarm Population (millions)	Nonfarm Population as Percent of Total Population	Unemploy- ment Rate (percent)	Nonfarm Household Unemploy- ment Rate (percent)
1957	13.6	9.4	40.8	5.9	na
1958	13.8	9.9	41.8	6.2	na
1959	14.1	10.2	41.8	5.8	na
1960	14.6	10.5	42.0	7.5	na
1961	14.5	11.4	43.9	7.9	na
1962	15.1	11.5	43.3	8.3	na
1963	15.3	12.0	44.1	8.2	16.4
1964	15.6	12.4	44.5	7.7	14.4
1965	15.8	12.8	44.8	7.4	13.5
1966	15.8	13.5	46.0	7.1	12.8
1967	16.1	13.8	46.1	6.2	11.1
1968	15.9	14.5	47.8	5.1	8.9
1969	15.6	15.4	49.7	4.8	7.8
1970	14.4	17.1	54.3	4.5	7.4
1971	14.7	17.4	54.2	4.5	7.4
1972	14.7	18.0	55.1	4.5	7.5

NOTE: na—not available. Since the coverage and method of labor force survey changed in 1963, the labor force statistics available for the period prior to 1963 were not consistent with those for the later period. All data other than total population given in this table for 1960–62 were therefore estimated by linking the old survey data with the new data (two different survey results were available for 1963).

SOURCE: Bank of Korea. *Economic Statistics Yearbook, 1973*, p. 6; Economic Planning Board, *Major Economic Indicators*, July 1973, p. 96; Economic Planning Board, *Korea Statistical Yearbook*, various issues prior to 1964.

sectors rapidly increased. Table 11-2 shows that the rate of growth of population dropped steadily throughout the 1960s. From a high of 3.2 percent per annum in 1961, it declined to 1.8 percent by 1970. The growth of the total labor force, however, showed a fairly high rate of increase from 1960 to 1972, although there were ups and downs reflecting moderate changes in participation rates. The farm labor force has declined since 1965, decreasing at a rate of 2.1 percent in 1971.

Job opportunities expanded rapidly, particularly in the manufacturing sector, the leading sector of the economy (Table 11-3). At the same time, growth in manufacturing stimulated rapid increases in output and employment in other nonagricultural sectors.

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TABLE 11-2
Population and Labor Force Growth, 1960 to 1972

Year	Growth Rate of Total Population (percent)		Growth Rate of Population 14 Years and Older (percent)		Growth Rate of Total Labor Force (percent)		Growth Rate of Farm Labor Force (percent)		Growth Rate of Nonfarm Labor Force (percent)	
	Total Population (millions)	Population 14 Years and Older (millions)	Population 14 Years and Older (percent)	Total Labor Force (millions)	Farm Labor Force (millions)	Total Labor Force (percent)	Farm Labor Force (millions)	Nonfarm Labor Force (millions)		
1960	24.70	14.16	—	7.74	4.93	—	2.82	—		
1961	25.50	14.50	2.4	7.94	4.85	-1.6	3.11	10.3		
1962	26.23	14.85	2.4	8.15	5.06	4.4	3.10	-0.3		
1963	26.99	15.09	1.6	8.34	5.09	0.6	3.25	5.0		
1964	27.68	15.50	2.7	8.45	5.17	1.6	3.28	0.9		
1965	28.33	15.94	2.8	8.86	5.23	1.2	3.63	10.7		
1966	28.96	16.37	2.7	9.07	5.28	0.1	3.79	4.4		
1967	29.54	16.76	2.4	9.30	5.20	-1.5	4.10	8.2		
1968	30.17	17.17	2.5	9.65	5.26	1.2	4.39	7.1		
1969	30.74	17.64	2.7	9.88	5.26	0.0	4.63	5.5		
1970	31.30	18.25	3.5	10.20	5.20	-1.1	5.00	8.0		
1971	31.85	18.98	4.0	10.54	5.09	-2.1	5.45	9.0		
1972	32.42	19.72	3.9	11.06	5.41	6.3	5.65	3.7		

SOURCE: Economic Planning Board, *Annual Report on the Economically Active Population, 1972*; *Major Economic Indicators, July 1973*, p. 96; and *Korea Statistical Yearbook*, various issues.

TABLE 11-3
Employment, Earnings, and Output in Nonagricultural Sectors, 1957 to 1972

Monthly Earnings of Production Workers in Manufacturing (won)	Seoul Consumer Price Index (1970 = 100)	Price Deflated Earnings (1970 prices)	Rate of Growth of Price Deflated Earnings (percent)	Employment in Manufacturing (thousands of persons)	Rate of Growth of Employment in Manufacturing (percent)	Value Added in Manufacturing (billions of won constant 1970 prices)	Growth of Value Added in Manufacturing	Non-agricultural Employment	Rate of Growth of Non-agricultural Employment	Non-agricultural Value Added (billions of won constant 1970 prices)	Rate of Growth of Non-agricultural Value Added
1957	2,030	7,778	—	409	—	94.65	—	2,086	—	564.29	—
1958	2,170	8,577	10.3	413	0.9	103.25	9.1	1,946	-6.7	589.03	4.4
1959	2,350	8,902	3.8	456	10.5	112.78	9.2	1,938	-0.4	635.80	7.9
1960	2,330	8,147	8.5	438	-4.0	122.00	8.2	2,149	10.9	663.15	4.3
1961	2,610	8,447	3.7	446	1.8	125.79	3.1	2,547	18.5	662.28	-0.1
1962	2,780	8,450	0	511	14.5	142.34	13.2	2,580	1.3	728.81	10.1
1963	3,180	8,010	-5.2	610	19.3	166.96	17.3	2,825	9.5	796.26	9.3
1964	3,880	7,549	-5.8	637	4.4	177.86	6.5	2,974	5.3	827.40	3.9
1965	4,600	7,877	4.3	772	21.2	213.35	20.0	3,396	14.2	927.05	12.0
1966	5,420	8,287	5.2	833	7.9	249.87	17.1	3,547	4.5	1,051.27	13.4
1967	6,640	9,159	10.5	1,021	22.6	306.77	22.8	3,906	10.1	1,218.23	15.9
1968	8,400	10,422	13.8	1,170	14.6	389.67	27.0	4,354	11.5	1,437.04	18.0
1969	11,270	12,706	21.9	1,232	5.3	473.03	21.4	4,589	5.4	1,669.01	16.1
1970	14,561	14,561	14.6	1,284	4.2	560.01	18.4	4,829	5.2	1,864.67	11.7
1971	17,349	15,449	6.1	1,336	4.1	659.21	17.7	5,190	7.5	2,078.36	11.5
1972	20,104	16,006	3.6	1,445	8.2	762.79	15.7	5,213	0.4	2,262.70	8.9

SOURCE: Bank of Korea. *Economic Statistics Yearbook*, various issues; *Economic Planning Board, Korea Statistical Yearbook*, various issues.

a. Since the coverage and method of labor force survey changed in 1963, the labor force statistics available for the period prior to 1963 were not consistent with those for the later period. All data other than total population given in this table for 1960-62 were therefore estimated by linking the old survey data with the new data (two different survey results were available for 1963).

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Growth in employment opportunities in manufacturing was rapid mainly because of large increases in investment and output which created a demand for workers. The growth in output was achieved through labor-intensive methods. In many other countries rapid growth in manufacturing output is accompanied by a rapid increase in labor productivity because of a trend toward more capital-intensive methods. In Korea, by contrast, manufacturing employment grew very rapidly between 1957 and 1967, at 9.6 percent per annum, while labor productivity lagged behind at an annual rate of increase of about 2.6 percent. From 1967 to 1972, however, productivity increased much more, at an average of 11.9 percent per annum. These changes were a function of variations in the growth in real wages. In 1959, real monthly earnings of manufacturing workers reached a peak of 8,902 won in terms of 1970 prices (Table 11-3). By 1964 real monthly earnings had declined to 7,549 won but they began to rise again in 1965. After surpassing the 1959 level in 1967, they registered spectacular growth until 1970. This increase continued, though at a somewhat slower rate, until 1972. By 1971, the 1964 level of earnings had doubled. The rapid growth in real wages since 1967 was the result of increasing tightness in the labor market and shortages of skilled labor. In contrast to the earlier period 1957 to 1967, it was correlated with much more rapid increases in labor productivity and slower growth in employment. Between 1967 and 1972, the growth rate of employment dropped to 7.2 percent a year.

Even though manufacturing employment grew less rapidly after 1967, the rate of growth from 1957 to 1972 averaged 8.8 percent per annum. Meanwhile, total nonagricultural employment increased by 6.3 percent per annum. One reason for this good performance was the government's willingness to allow wage rates to be set by competitive forces. Labor was not thoroughly unionized nor did the government press for minimum wages. Nonagricultural wages more accurately reflected the opportunity cost of labor in the traditional agricultural sector than they do in the typical less developed country where government policies combined with union pressures keep wages in the modern sector artificially high. Furthermore, by permitting the South Korean price structure to remain largely consistent with world prices, the government provided incentives to concentrate production in labor-intensive exports and home goods and to import capital-intensive goods rather than to substitute for imports. Labor absorption was rapid, at least until the very late 1960s when labor shortages began to appear and wages started to rise very rapidly.

GROWTH AND INCOME DISTRIBUTION

Though it is difficult to determine the effect of South Korea's rapid growth on income distribution, bits and pieces of evidence suggest that the distribution

has been quite even. In fact surveys reveal that among Korean households expenditure on consumption tends to be more nearly equal than it is elsewhere in the world and that from 1964 to 1970 this distribution seemed to improve.¹

Farm incomes are a notable case in point, thanks to a land-reform that was begun under the U.S. military occupation and completed by the Korean government in 1949. The net result seems to be a remarkably even division of land and income. Nor is there much disparity between farm and nonfarm income as the following table shows:²

	Average Monthly Wage for Farm Workers (won)	Average Monthly Wage for Manufacturing Production Workers (won)
1961	1,978	2,610
1964	3,657	3,880
1968	7,383	8,400
1971	13,432	17,349

Though manufacturing wages have generally been higher than farm wages, the cost of living is probably lower in the country where farm workers often till their own vegetable gardens. Of course most farm work is seasonal, but even so Korea appears to be free of the large differences between rural and urban income typical of other less developed countries.

This impression is reinforced by data on average farm household income.³ Farm income and manufacturing wages can be compared as follows:⁴

	Average Total Farm Household Income (won)	Farm Household Income per Worker (won)	Annual Manufacturing Wage Income (won)
1964	125,692	56,618	46,560
1968	178,959	87,297	100,800
1971	356,382	179,990	208,128

Total farm income, including income in kind, far exceeds annual wage income of production workers in manufacturing, but farm income per worker was somewhat greater than nonfarm income per worker in 1964, a good agricultural year. In 1968 and 1971 farm income per worker was probably a bit less

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than the average manufacturing wage. Even if these calculations are only very rough, they lead to the same conclusion that rural-urban income disparities are small.

Wages in nonagricultural sectors have tended to follow manufacturing wages. Market forces set the rates and because there are no great imperfections in the market disparities between sectors do not arise. In Korea where vast pools of the unemployed and the underemployed are unknown, the working class, both urban and rural, which forms the great bulk of the population, lives on an income that is nearly uniform. If data on income distribution were available they would probably show that even the conspicuous wealth of a few entrepreneurs in Seoul is not enough to reverse the apparent pattern.

FACTORS PROMOTING RAPID GROWTH

The South Korean economy has not suffered from any constant deficiency in effective demand. Except for 1958-61 and 1964 when effective demand was restrained by either deflationary monetary and fiscal policy or by political turmoil, investment demand since the Korean War has tended to be excessive relative to the supply of savings, and inflation has been acute. The rate of return on investment has tended to be high as may be inferred from the large demand for loanable funds that persisted despite very high interest rates after 1965. Borrowing at these high rates increased continually throughout most of the period from 1963 to 1971 and finder's fees for loans were common. Although many bank loans were subsidized in one way or another and the average interest paid on them was probably only about two-thirds the official rate, marginal borrowers had to pay the high rates which indicates that the rate of return on marginal investments was at least as great. This inference is corroborated by direct measurements. For example, Gilbert Brown has estimated from national accounts data that the average rate of return on new investment was 20 to 30 percent. He also cites direct estimates based on data from eleven firms that in late 1965 the average rate of return was about 28 percent.⁵

The South Korean economy has exhibited the characteristics that theory would predict for an underdeveloped country where labor is abundant and capital scarce—a high rate of return on capital, vigorous investment demand, and meager investable resources. The main constraints on growth are savings and foreign exchange. The factors that foster rapid growth are those that sustain and complement heavy investment demand, those that increase the requisite supply of savings, those that earn the foreign exchange needed when the level of effective demand is high, and, finally, those that foster efficient resource allocation, evidenced by a very low incremental capital-output ratio. The combination of these four factors produces a result that tends to be self-sustaining;

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for rapid growth stimulates demand in nearly all sectors of the economy. As investment proves ever more profitable, an accelerator effect comes into play. Growth generates still more growth and in the consequent enthusiasm, predictable setbacks turn out to be temporary as entrepreneurs become convinced that the resumption of growth is inevitable.

In addition to these factors, which in varying degrees influence the growth of most developing countries, there are some that are peculiar to Korea. Though they have not yet been analyzed in any detail, they ought to be mentioned for they contributed to a favorable environment for investors and helped sustain brisk investment demand. For example, the work force in Korea is highly educated by the standards of most less developed countries. In 1970 the adult literacy rate was 88 percent,⁶ and the proportion of primary-school-age children attending primary school was 97 percent.⁷ A highly educated work force, it might be argued, was more easily trained and was a factor in the high levels of efficiency and productivity achieved.

South Korea also has an abundant supply of entrepreneurial and managerial expertise. Although very few Koreans became managers under the Japanese colonial regime, it did not take them long to develop a managerial class after the liberation. A large proportion of them immigrated from North Korea, but many of the most successful entrepreneurs are of southern origin. No significant number of managers and entrepreneurs are foreign. Foreign direct investment has been exceedingly small, only about 7.4 percent of total foreign investments and loans between 1959 and 1971.⁸

Another advantage favoring Korea's economic development was the political stability that prevailed during the period of most rapid growth. Park Chung Hee has made economic development the symbol of his government's legitimacy.⁹ His efforts have been aided by Korea's cultural homogeneity. Disputes over language and among ethnic groups have not been important in South Korean politics.

South Korean development has also benefited from the weakness of the labor movement which so far has produced few powerful, organized unions. In the Korean system of industrial organization, which in many ways is similar to the Japanese, employees tend to remain with one firm for life, loyal to their paternalistic employers. Because the labor force is docile and unaccustomed to collective bargaining, upward pressure on wages is negligible except when manpower is scarce. Stable real wage rates helped to keep profits high and to stimulate investment demand.

Finally, ties with Japan encouraged growth. Although their colonial regime was extremely unpopular, the Japanese did manage to build a strong industrial base in Korea before the war. Much of it was destroyed during the war, and the subsequent departure of Japanese managers was temporarily crippling. Nevertheless, the Japanese had shown that industrialization was

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possible in Korea and they had provided an example for the Koreans to imitate. Imitation seemed all the more sensible since the Japanese, who had an economy of their own to rebuild, appeared to know how the job should be done. Accordingly, the Koreans adopted the technology, the approach to labor relations, the expansionary psychology, and many of the government policies that had worked so well for the Japanese. As a result, the emphasis on export promotion, the system of trade and foreign exchange controls, and the close cooperation between the public and private sectors that are reputed to be characteristic of Japan alone are typical of South Korea as well.

Investment demand, however voracious, cannot by itself sustain economic development. It must be matched by a rate of savings that is high enough to finance the investments desired. Ample foreign exchange is also important, for shortages can restrict realized investment by curtailing the supply of imported raw materials and capital goods. And if inefficiencies in production go uncorrected, an economy can suffer from progressive debility. Having analyzed these issues in the preceding chapters, we shall now present our conclusions.

SUPPLY OF SAVINGS

The supply of savings, both domestic and foreign, was abundant during the 1960s but not large enough to satisfy total investment demand because of an inflationary gap that has persisted throughout most of the period since 1963.

Foreign Savings.

We noted in Chapter 7 that foreign savings have remained about 10 percent of GNP since 1960 (Table 7-4), while over the years their nature has changed. In the post-Korean War period, most foreign savings took the form of foreign aid grants from the United Nations and from U.S. bilateral assistance programs. In the early 1960s, foreign aid loans began to replace grants and then, from 1966 onwards, commercial loans from a variety of countries became the dominant source.

In Chapter 7, we estimated that foreign savings might have been responsible for about 4 percent of total growth, assuming the average capital-output ratio between 1960 and 1970 was about 2.5. That is, what appeared to be an annual growth rate of 10 percent might have been closer to 6 percent without the contribution of foreign savings. By the early 1970s, foreign savings had declined in importance for two reasons. Domestic savings were becoming more plentiful and because the capital-output ratio has tended to increase, growth per dollar of imported capital had apparently deteriorated.

TABLE 11-4
Sources of Domestic Savings, 1953 to 1972
(billions of won, constant 1970 prices)

Year	Government Savings	Business Savings	Household Savings	Total
1953	19.47	39.30	-15.09	43.68
1954	4.67	44.13	36.93	85.73
1955	10.65	40.32	30.40	81.37
1956	52.47	40.56	8.77	101.80
1957	41.95	45.38	12.05	99.38
1958	39.43	52.58	22.42	114.43
1959	36.08	62.06	21.16	119.30
1960	54.63	59.91	0.55	115.09
1961	66.33	68.69	5.18	140.20
1962	67.03	88.29	0.59	155.91
1963	66.41	96.77	-17.50	145.68
1964	71.50	96.07	-18.02	149.55
1965	94.38	119.24	22.62	236.24
1966	103.48	128.57	80.65	312.70
1967	128.83	145.39	83.37	357.59
1968	174.90	161.81	86.24	422.95
1969	183.98	174.89	115.34	474.21
1970	206.43	182.85	92.67	481.95
1971	190.45	191.82	49.36	431.63
1972	132.69	241.24	99.73	473.66

NOTE: The estimates of savings include savings from transfers from abroad. Household savings include errors and omissions and exclude grain inventory changes.

SOURCE: Table 8-11A.

Government Savings.

Government savings and business savings have been about equally important in total savings since the Korean War (Table 11-4). Between 1953 and 1970, government savings grew quite rapidly, at an average annual rate of 15.7 percent. The growth was most substantial, however, after the 1964 tax reforms. From 1964 to 1970 government savings increased at a rate of 20.6 percent per annum.

Government savings multiplied both because of rapid growth in tax revenues and because of a slow rate of increase in current expenditures. Tax revenues rose sharply during the Korean War recovery, from about 5 percent

of GNP in 1953 to more than 10 percent in 1959. By 1964, however, they had declined to 7.3 percent. After the 1964 tax reforms, revenues reached a peak of more than 16 percent of GNP in 1971 before declining slightly in 1972.¹⁰ In addition, government monopolies contributed rapidly growing net surpluses which constituted almost 11 percent of central government revenues in 1972.¹¹

Government current expenditures grew less rapidly than total government revenues from 1962 to 1970, when current expenditures declined from 78 percent of current revenues to about 62 percent. Between 1970 and 1972, current expenditures rose more rapidly than revenues. Much of the government nonrecurrent expenditures went to directly productive assets. Between 1963 and 1971, about 14 percent of total government loans and investments went into mining and manufacturing, 39 percent into electricity, transport, and communications, and 25 percent into agriculture, forestry, and fisheries.¹² The remainder was invested in housing, education, and other services. Some government savings were channeled to the private sector through government-financed loan funds of development banking institutions such as the Korean Development Bank and the Medium Industry Bank. In 1963, government funds accounted for more than one-half of all outstanding loans of the banking sector. After the interest rate reform of 1965, the commercial banks greatly expanded their loan portfolios, but even in 1970, government funds accounted for more than one-quarter of total outstanding loans by banking institutions.¹³ In 1972, about one-sixth of total government savings was allocated to capital transfers of this type.¹⁴

SUPPLY OF FOREIGN EXCHANGE

One of the most striking features of the South Korean economy has been the rapid growth of foreign exchange earnings. Foreign exchange receipts on current account grew at an average annual rate of 26.2 percent between 1963 and 1972 (Table 11-5).

Invisible Earnings.

In the early 1960s, a high proportion of total foreign exchange receipts were invisibles and derived directly from the presence of a large contingent of UN (mostly U.S.) forces stationed in South Korea. Sales of local currency to UN forces, military procurement, and provision of electricity, transport, water, and other public utilities to UN installations accounted for almost one-half of,

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TABLE 11-5
Foreign Exchange Receipts on Current Account, 1961 to 1972
 (millions of dollars)

Year	Foreign Exchange Receipts ^a			Receipts from UN Forces and from U.S. Procurement			
	Total	Mer- chandise Exports	Other Current Receipts	Total	Won Sales	Pro- curement	Utilities
1961	166.2	42.6	123.6	79.7	35.7	38.4	5.6
1962	179.0	56.7	122.3	86.1	47.2	34.1	4.8
1963	177.2	85.2	91.8	58.3	30.5	22.1	5.7
1964	212.2	115.1	97.1	63.7	26.4	33.2	4.1
1965	298.0	172.2	125.8	74.0	34.1	35.7	4.2
1966	486.8	248.4	238.4	100.9	30.4	65.5	5.0
1967	695.4	320.2	375.2	147.1	35.3	106.7	5.1
1968	889.4	464.9	424.5	177.6	49.3	122.3	6.0
1969	1,102.0	604.9	497.1	207.0	43.1	155.7	8.2
1970	1,306.7	816.0	490.7	190.8	52.3	131.4	7.1
1971	1,523.4	1,036.8	486.6	173.5	61.3	106.0	6.2
1972	2,159.2	1,580.0	579.2	192.8	97.6	90.6	4.6

SOURCE: Bank of Korea, *Economic Statistics Yearbook, 1973*, p. 216; 1970, p. 282; Economic Planning Board, *Korea Statistical Yearbook, 1972*, p. 406.

a. These figures understate total receipts because they only include transactions conducted through banking channels. For example, in 1971 export receipts totaled \$1,132 million according to customs clearance.

and total invisibles about three-quarters of, all foreign exchange earnings in 1961. Receipts from UN forces and other invisibles were relatively stagnant between 1961 and 1965, however, so that by 1965 they accounted for about one-third of total earnings. The escalation of the U.S. effort in Viet Nam after 1965 brought more troops to South Korea and an increase in military procurement, both for troops in South Korea and for those in Viet Nam. South Korean goods were exported to Viet Nam under military procurement contracts beginning in 1967 and a number of Korean construction firms became involved in military projects in South Viet Nam. Receipts from UN forces increased rapidly between 1965 and 1969, but other foreign exchange receipts grew even more quickly. After 1969, receipts from UN forces declined, and by 1971, only 36 percent of invisible earnings and 11 percent of total foreign exchange receipts could be attributed to U.S. military procurement and other earnings generated by the presence of UN forces in South Korea.

Exports.

The major reason for the very rapid growth in foreign exchange earnings was the growth of exports. As we indicated in Chapter 6 exports in the 1950s were negligible and followed an erratic pattern, ranging from a high of \$40 million in 1953 to a low of \$17 million in 1958 (Table 6-1). After 1958 exports began a pattern of uninterrupted growth, exceeding the 1953 level by 1961. From 1962 until 1973, the growth rate of exports averaged 44.8 percent per annum every year and reached a high of 98 percent in 1973. Exports increased from less than one-third of total current foreign exchange receipts, about one-eighth of the total value of imports in 1962, to three-quarters of all current foreign exchange receipts and almost 65 percent of the value of imports in 1972.

In Chapter 6, we noted that exports of South Korea are relatively import intensive so that the *net* foreign exchange earnings are substantially less than the gross earnings. Even if a correction is made for this fact, the ratio of exports to GNP and the rate of growth of exports are exceptionally high by international standards.

The reasons for the rapid growth of exports are somewhat elusive. Actually exports grew rapidly from a very low level in 1958. But prior to 1964, our econometric analysis in Chapter 6 indicated that neither exchange rates nor export subsidies could explain the growth of exports. In 1964, the exchange rate was unified and the sensitivity of exports to exchange rates and subsidies increased markedly. The estimated elasticity of exports with respect to the purchasing-power-parity official exchange rate was 6.16 and the estimated elasticity with respect to subsidies is 4.69. These very high elasticities, however, are suspect because of the limited time period and the few degrees of freedom. Nevertheless, recent experience confirms the impression that Korean exports are highly sensitive to the exchange rate (the latest year for which data were used in the econometric work reported in chapters 6 and 8 was 1970). The purchasing-power-parity exchange rate adjusted for realignments in Japanese and European currency revaluations against the dollar, increased about 10 percent in 1972 and another 10 percent in 1973 (Table 5-7). This was the result of a float of the won in the first half of 1972, the dollar devaluation in early 1972 and 1973, and the float of other currencies against the dollar. Exports increased 52 percent in 1972 and 98 percent in 1973.

The increased sensitivity of exports to exchange rates and subsidies may be due to the unification of exchange rates and the relative stability of the purchasing-power-parity effective exchange rate from 1964 to 1970. The elimination of multiple rates removes the uncertainties and administrative costs to the private entrepreneur in dealing with an unstable, multiple rate system.

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The rapid growth of South Korea's exports cannot be explained simply in terms of those incentives subject to quantitative measurement. Other very important factors, perhaps even more important, are the government's attitudes and methods of operating. For example, government officials use moral and political suasion to urge private entrepreneurs to meet export targets. Firms who are successful in promoting exports receive favorable treatment by tax officials, an important incentive in a country where effective tax rates are set more by administrative procedures than by law. Entrepreneurs who are successful exporters are publicly acclaimed and feted by the President and other high officials.

With an atmosphere in which businessmen are certain that government will reward efforts to export, it is relatively easy to take the substantial risks of expanding production and capacity for export markets. A businessman cannot only expect tangible rewards for export performance, but knows that if he runs into financial difficulties, the government will provide some form of special treatment to help him out of his troubles.

Earnings on Capital Account.

The other major sources of foreign exchange were on capital account.

Official grant aid plus net capital inflows were many times greater than export earnings for some time after the Korean War. Capital imports reached \$373 million or almost twenty times the level of exports in 1957 (Table 11-6). By 1964, export earnings exceeded capital account earnings for the first time since the Korean War. The growth of foreign borrowing in the latter 1960s, however, exceeded the growth of exports so that until 1969, capital imports exceeded export earnings. In 1970, restrictions on capital imports again reduced them below the level of exports. By 1972, exports were three times as large as capital imports.

DEMAND FOR FOREIGN EXCHANGE

Gold and foreign exchange holdings of South Korea have been relatively ample compared with total imports. In 1960 they were more than 50 percent of the total import bill. Despite the rapid growth of the economy from 1963 to 1972, end-of-the-year foreign exchange reserves were never less than one-quarter of the annual import bill and were as high as 37 percent of imports in 1964, the year of the exchange rate reforms (Table 11-6).

During the same period, substantial liberalization of the import regime took place. The average tariff level declined and quantitative restrictions were much less important than before 1963. The demand for imports was held in

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TABLE 11-6
**Capital Account Transactions and Foreign Exchange Holdings,
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Year	Official Grant Aid (\$ million)	Net Loan Capital Inflows ^a (\$ million)	Net Capital Imports (\$ million)	Ratio of Net Capital Imports to Mer- chandise Exports	Gold and Foreign Exchange Holdings ^b	
					(\$ million)	Percent of Imports
1953	193	112	305	7.62	109	—
1954	139	28	167	6.96	108	—
1955	240	-3	237	13.17	96	29
1956	298	14	312	12.48	99	26
1957	355	18	373	19.58	116	30
1958	319	-7	312	18.35	146	42
1959	229	-17	212	10.60	147	54
1960	256	-1	255	7.28	157	51
1961	207	19	226	5.51	207	73
1962	200	-16	184	3.35	169	43
1963	208	-104	204	2.34	131	26
1964	141	-26	115	.97	136	37
1965	135	9	134	.77	146	35
1966	122	218	340	1.36	245	36
1967	135	299	334	1.00	356	39
1968	121	422	543	1.10	391	30
1969	104	631	735	1.12	553	34
1970	85	582	667	.76	610	34
1971	64	662	726	.64	568	27
1972	51	530	581	.35	740	33

SOURCE: Bank of Korea, *Economic Statistics Yearbook, 1973*, pp. 222-223 and various issues prior to 1973.

a. Loan capital, both private and government, short term and long term, net of amortization payments.

b. Includes reserve position in IMF and special drawing rights.

check, mainly by exchange rate policy. The large devaluation of 1964 raised the effective exchange rate on imports from 207.39 won to the dollar on a purchasing-power-parity basis in 1963 to 283.79 won to the dollar in 1965 (Table 11-7). From 1965 to 1970, although the average effective rate declined, it remained higher than at any time during the earlier period 1955 to 1963—except for 1961 when there was a sharp devaluation.

Imports into South Korea are very sensitive to exchange rate changes.

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TABLE 11-7
**Effective Exchange Rate on Imports on Purchasing-Power-Parity
 Basis, and Growth of Imports, 1955 to 1970**

Year	Official Exchange Rate ^a (won/dollar)	Tariffs and Tariff Equivalents ^a (won/dollar)	Purchasing- Power-Parity Effective Exchange Rate on Imports ^a (won/dollar)	Imports (\$ million)	Growth Rate of Imports (percent)
1955	99.71	11.67	111.38	327	—
1956	132.10	10.43	142.53	380	16.2
1957	118.12	12.74	130.86	390	2.6
1958	121.80	28.42	150.22	344	-11.8
1959	119.73	65.84	185.57	273	-20.6
1960	135.37	64.86	200.23	305	11.7
1961	244.79	34.42	279.21	283	-7.2
1962	226.57	28.39	254.96	390	37.8
1963	189.32	18.07	207.39	497	27.4
1964	232.22	23.35	255.57	365	-26.6
1965	265.40	28.39	283.79	420	15.1
1966	256.34	23.40	279.74	680	61.9
1967	243.12	23.48	266.60	909	33.7
1968	233.30	22.62	255.92	1,322	45.4
1969	234.53	20.60	255.13	1,650	24.8
1970	240.21	20.29	260.50	1,804	9.3

SOURCE: Tables 8-10C and 8-11B.

a. The first three columns are won/dollar rates deflated by a purchasing-power-parity index, and represent averages over the year. The third column is the sum of the first two columns.

This is vividly illustrated by even a cursory look at the data in Table 11-7. In 1958 and 1959, imports dropped sharply, even though GNP grew at 5.5 and 4.4 percent in those years. In 1958, there was no devaluation of the official exchange rate, but a foreign exchange tax was instituted and a price stabilization program implemented, both of which raised the effective exchange rate on imports (on a purchasing-power-parity basis) about 15 percent. The imposition of the foreign exchange tax was equivalent to a devaluation for imports. Imports fell by 12 percent in 1958. Part of the reduction in imports was due to a fall in grain imports as domestic grain production increased sharply, but imports of consumer goods fell by 25 percent and imports of capital and intermediate goods were also reduced. In 1959, foreign exchange

tax receipts quadrupled and the effective exchange rate was increased by another 23 percent. Imports fell by 21 percent. Although grain imports continued to fall, consumption goods imports fell by almost 50 percent and intermediate goods by almost 10 percent.¹⁵

In January and February of 1961 a large devaluation reduced the value of the won from 65 to 130 won to the dollar. Grain imports increased by 50 percent, but imports of consumer and intermediate goods imports were sharply reduced. The net result was a 7 percent decline in total imports even though GNP grew 4.2 percent.

In 1964, there was a very sharp reduction in imports of 27 percent. The official exchange rate was devalued almost 50 percent. The growth of GNP was 8.3 percent, but there were very substantial reductions in nearly all categories of imports, including a 50 percent decrease in consumer goods imports.

The evidence of the sensitivity of imports to exchange rates is corroborated by the regression analysis described in Chapter 8. The regressions which dealt with imports of consumption goods, capital goods, and intermediate goods, were stable regardless of the time period used. Linear regressions provided very good fits. The elasticities of imports with respect to the official exchange rate (*ORD*) and the level of tariffs and tariff equivalents on imports (*SUBM*) are shown in Table 11-8.

Consumption goods are by far the most elastic with respect to changes in exchange rates and tariffs. Imports of capital and intermediate goods are generally less than unit elastic with respect to the exchange rate, but imports of intermediate goods are fairly sensitive to changes in tariff rates. Since the supply of imports to Korea is probably close to infinitely elastic, it can be assumed that exchange rate changes have a powerful effect in reducing the dollar value of imports.

In the late 1960s, the demand for foreign exchange was augmented by the need to service foreign debt. Beginning in 1970 attempts were made to restrict the import of foreign capital. By 1971, debt service payments reached \$326.6 million on debt of maturity greater than one year. But debt service payments were still only a small fraction of the total use of foreign exchange before 1971.

South Korea succeeded in restraining the demand for foreign exchange during the period of rapid growth from 1963 to 1972. A less developed economy, growing at more than 10 percent per annum, can be expected to run short of foreign exchange because of the rising demands for imports. Although imports rose rapidly through much of this period, import growth would have been much greater had it not been for frequent devaluations and maintenance of the purchasing-power-parity effective exchange rate for imports at a constant level. Furthermore, the stable exchange rate helped stimulate export receipts, which were used to finance an increasingly large share of the total import bill.

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TABLE 11-8
Elasticity of Imports, Various Periods

Import Variable ^a (dependent variable)	Commercial Policy Variable ^b (explanatory variable)	Time Period			
		1955-59	1960-64	1965-70	1955-70
Imports of consumption goods (<i>MC</i>)	Effective exchange rate on imports (<i>ORD</i> & <i>SUBM</i>)	-2.09	-5.48	-1.43	-2.11
Imports of capital goods (<i>MK</i>)	Official exchange rate (<i>ORD</i>)	-0.86	-0.99	-0.21	-0.36
Imports of intermediate goods (<i>MI</i>)	Official exchange rate (<i>ORD</i>);	-0.57	-0.80	-0.33	-0.47
	Tariffs and tariff equivalents (<i>SUBM</i>)	-0.97	-1.36	-0.57	-0.79

NOTE: Elasticities based on regression equations (8-24), (8-25), and (8-26) in Chapter 8, and computed at the means of the variables.

a. In constant 1965 prices.

b. Purchasing-power-parity basis.

Although South Korean economic policies favored high effective exchange rates, especially for exports, these policies caused some loss in government revenues and savings. As our analysis in Chapter 9 indicated, less subsidization of exports and higher taxes on imports could have generated somewhat more growth. Nevertheless, the Korean performance was unusually good compared with the records of other less developed countries.

ECONOMIC EFFICIENCY

There is no conclusive way to determine whether the Korean economy has operated efficiently. Because the various empirical methods used in the literature all have their faults, caution is necessary in discussing measures of efficiency. It is clear, however, that in Korea inefficiency has not been sufficient to stifle very rapid growth over the decade beginning in 1963. Furthermore, most

of the conventional measures analyzed in Chapter 10 suggest a low level of inefficiency.

Prior to the 1964 exchange rate unification and liberalizing reforms, the system of exchange rates and trade policy probably did foster inefficiency. Quantitative restrictions were very important and the exchange rates were various and widely divergent.

Since 1964, however, the government has followed different policies. Although liberalizing trends have waxed and waned, the fluctuations have been minor, never approaching the chaos of the late 1950s.

In Chapter 10, we analyzed the restrictiveness of the trade policy and exchange rate regime in 1968. We saw that in Korea the average level of nominal protection is low. For manufacturing, the level of nominal protection estimated from information on comparative international and domestic prices was about 10.7 percent in 1968 and is probably much lower today because average tariff levels have steadily declined. Quantitative restrictions are not an important cause of large differences between international and domestic prices. The 77 commodity groups receiving significant protection through quantitative restrictions in 1968 accounted for only 11 percent of total domestic sales.

Unlike many other countries, Korea does not maintain large differences in nominal protection between industry and agriculture. Average nominal protection was 16.6 percent for agriculture and 10.7 percent for manufacturing. General variability of protection among sectors is quite low. When the Korean economy is measured in constant international prices rather than constant domestic prices, the total and sectoral rates of growth do not differ significantly. Emphasis on export promotion has led to rapid growth in the most labor-intensive sectors.

The observations made in Chapter 10 suggest an efficient pattern of growth. Such inefficiencies that do arise stem from the protection of agriculture and import-competing manufactures. The effective subsidy in 1968 to agriculture was 21.3 percent (Corden definition) and to manufacturing -4.7 percent. Effective protection is also much higher for import-competing industries than for export industries and for domestic sales than for export sales in industries that sell in both export and domestic markets.

Policies that affect the incentive to import foreign capital can influence efficiency just as much as policies that affect exports and import substitutes. In Korea, the incentive to import short-term foreign capital during the 1960s was excessive. Domestic inflation, high real and nominal domestic interest rates, and a failure to devalue smoothly and adequately all contributed to an exaggerated demand for foreign loan capital.

Policies governing credit, interest rates, pricing, the subsidization and management of government enterprises, and taxation also bear on efficiency.¹⁶

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Only partial allowance was made for these policies in our estimates of effective subsidy. It is clear, however, when they are taken into account, that both the total and the variability of effective subsidies increase.

ROLE OF THE LIBERALIZATION EPISODES

The major liberalization efforts in Korea took place in 1964 and 1965. Earlier attempts in 1961 and 1962 that had failed of full implementation prompted a return to the multiple exchange rate system in 1963.

There is no clear correlation between the liberalization of 1964-65 and the start of rapid growth. In fact, mining and manufacturing output, which had grown 14.1 percent in 1962 (constant 1970 prices), and 15.7 percent in 1963, registered a gain of only 6.9 percent in the first year of liberalization. Only a poor harvest made 1962 a bad year and only an excellent harvest made 1964 a good one (Table 2-4). The satisfactory performance of 1962 and 1963 was largely the result of expansionary fiscal policies whereas industrial performance suffered in 1964, despite liberalization, because fiscal and monetary stabilization were rigidly enforced.

Nor was the devaluation of 1964 associated with a sudden upsurge of exports. Having touched bottom in 1958, exports grew without interruption from 1959 on.

The main argument in defense of liberalization is that it laid the basis for a decade of sustained growth, whereas fiscal and monetary policies were responsible for brief deviations from a propensity for substantial real growth. It might also be argued that liberalization itself was less important as a direct influence on the economy than it was as the harbinger of a new approach to exchange rates and trade policy that favored rapid growth.

Since liberalization, the effective exchange rates on exports and imports have remained high (somewhat higher for exports than for imports—see Table 5-10) while foreign exchange has never become a severe constraint on growth. The devaluation of 1964 was followed by many others over the next eight or nine years, both floating devaluations and discontinuous changes in the value of the won. Exchange rates had great effect on export performance, particularly after the reforms of 1964, and as Chapter 6 demonstrates, the growth of exports has been the dominant factor in the growth of the economy as a whole. We conclude, therefore, that the unification of the exchange rates and the stability of the effective exchange rate were powerful stimuli to subsequent growth.

By contrast, the interest rate reform of September 1965 was probably of more intrinsic importance in its effect on the rate of growth. The interest rate reform greatly encouraged household savings which having been negative in

1964 became about one-quarter of total domestic savings in 1969. Business savings, which had been nearly stagnant from 1962 to 1964, more than doubled between 1964 and 1970. Even more important than this boost for savings was the effect of the interest rate reform on incentives to hold assets in different forms. Commercial bank time deposits became the more favored way to hold savings; the increase in commercial bank deposits far exceeded the increase in total savings.¹⁷ Most loanable funds were controlled by the commercial banks. Though some of their lending was done at subsidized interest rates, thus encouraging inefficient use of resources, the commercial banks could lend in much greater volume than the unorganized money markets and operate with much lower overhead. The cost to large borrowers was also much lower if they borrowed from the commercial banks instead of from a myriad of small operators in the unorganized money market.

The reforms of August 1972 took a different tack. After 1965, no serious effort had been made to reduce the rate of inflation. Rather, high nominal interest rates and frequent devaluations were supposed to compensate for rapid inflation. With the reforms of 1972, low nominal interest rates, stability of the exchange rate, and less rapid price inflation were to be the basic elements of policy. According to McKinnon (1973), there are important flaws in this new policy. A major factor in increasing the money supply in Korea is the discount of export bills at very low rates of discount and low rates of interest on the bills themselves to exporters. The low rate of interest on the bills increases exporters' demand for this form of credit and the even lower discount rate encourages commercial banks to discount the bills at the Bank of Korea, thus increasing commercial bank reserves. In fact, in the first six months of 1973, the discount of export bills exceeded the increase in commercial bank reserves, the other sources of reserve creation having undergone a net decline. Because of the discount of export bills, which has become the main source of reserve creation, the Bank of Korea has lost effective control of the money supply. Under such conditions, it is unlikely that inflation can be held within reasonable bounds. Added to the inflationary difficulties is the rapid increase in prices of petroleum products and grains, both of which Korea imports in large amounts. The success of the new policies in the long run, however, will depend on finding ways to bring the money supply back under control.

CONCLUSIONS

The Korean experience over the decade since 1963, remarkable as it seems to have been, does not necessarily provide a model for other less developed countries. There have been a number of special factors operating which are not likely to be replicated in other countries. It was the confluence of those

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factors, no one of them separately, that led to successful growth. First, abundant foreign assistance, particularly during reconstruction after the Korean War, helped build the infrastructural base for subsequent growth, although the periods of high levels of foreign aid are not coterminous with the periods of most rapid growth. Only a few other countries, having special relationships with the United States because of U.S. foreign policy objectives, received as much per capita foreign aid.

Second, Korea was able to maintain high and growing levels of government savings. Rates of taxation and public enterprise profits rose sharply while the growth of current expenditures remained moderate. Probably such a performance is only possible in countries where political leaders are powerful and secure. In many less developed countries political power is fragmented, the political process is highly competitive, and ethnic and regional differences are acute. Policy-makers in such circumstances are unlikely to be able to control revenues and expenditures to the necessary degree. To maintain themselves in power, they must use government expenditures as a means of gaining the support of particular interest groups. Public enterprises are rarely profitable because staffing them becomes a form of dispensing political patronage and top management posts are filled according to political criteria. Costs are high and productivity low. Prices tend to be kept unrealistically low for fear of injuring powerful interest groups by allowing prices to rise. Higher rates of taxation yield returns only if they are accompanied by greater expenditures contrived for the benefit of particular interest groups.

Third, frequent devaluations, either of the discontinuous type or of the gliding peg variety, are seldom feasible where resistance is intense. Discontinuous devaluations typically raise prices sharply for many imported goods, particularly for nonluxuries which had not been subject to stringent import controls. Consumer groups and industrial end-users who would suffer in consequence may resist efforts to devalue. Even gliding devaluations, which raise prices of imported goods more gradually, are not always popular. When the Allende regime came to power in Chile, it abolished the gliding exchange rate and fixed the foreign-exchange value of the domestic currency, partly because the gliding peg was politically unpopular. Even Korea abandoned the gliding peg in 1972 because considerable resistance to devaluations had gathered among a wide variety of industrialists. Many Korean firms had accumulated large foreign debts and were financially precarious. Continuous devaluations increased the amount of their dollar-specified liabilities in terms of won. Other firms producing mainly for the domestic market saw the costs of imported inputs rising and joined the resistance. Exporters, always favored by subsidies of various sorts as well as by frequent devaluations, have not organized an effective counterforce, possibly because they feel they can always count on enough subsidization to make up for losses caused by a failure to devalue.

Fourth, government policies toward labor in Korea prevented real wages from rising except in response to labor shortages in the late 1960s. This affected growth in two ways. Profit rates and returns to capital were high, stimulating high levels of investment. Wage disparities did not arise among sectors; labor was efficiently allocated among sectors; and there were no large and growing pools of wasted labor in the form of unemployed workers. On the contrary, unemployment rates declined throughout much of the 1960s.

The lack of pressure from organized labor in South Korea is partly historical accident. During industrialization under the Japanese, labor organizations were suppressed and suppression has continued to the present day. In many other less developed countries, organized labor is powerful and political regimes are dependent on it for support. The demands of labor cannot be ignored in such circumstances and it would be foolish of the government to insist that wages be set by market forces.

Fifth, South Korea underwent a thoroughgoing land reform first under the U.S. military government and later under an indigenous Korean government. Japanese landowners were expropriated and the subsequent redistribution of land was evenhanded. This meant that no large numbers of landless laborers streamed into the cities in response to slight differences in urban and rural wage rates. No doubt workers migrated from country to city, but they did not overburden the system, since there were more jobs available in the cities than there were migrants to fill them, as the decline in urban unemployment rates reveals. The even distribution of land also meant that the organization of agricultural production could easily be made labor intensive. The result was an efficient use of resources where land and capital were scarce and labor superabundant.

A land reform like South Korea's is not easily duplicated in other countries. Large landholdings, which were in the hands of one group of foreigners, the Japanese, were expropriated initially by another group of foreigners, the Americans. But when an indigenous government attempts to expropriate land from major landholders who are politically powerful, the reforms are not likely to be so sweeping.

Sixth, Korean culture places a very high value on education. Since parents are willing to spend large amounts of their own funds for the education of their children, they support a vigorous system of high-quality private schools throughout the country. Thus, even though public expenditures on education in Korea are low by international standards, South Korea's literacy rate is one of the highest in the world. Korea also has a very high proportion of secondary school and university graduates. Because this large investment in human capital did not require a commensurate public expenditure, more public resources could be channeled instead into economic overheads and directly productive investments.

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These special factors are lacking in many less developed countries and the combination of any number of them is rare indeed. Taiwan is the only less developed society where strong similarities to Korea are found.

These special factors, however, are not sufficient in themselves to explain the success of the South Korean economy. Economic policies made an important contribution: tax and government expenditure reforms, the interest rate reforms, the exchange rate reforms, and the general emphasis on export promotion and reliance on international prices were some of the most critical. There is some evidence that export promotion was a bit overdone—greater reliance on tariffs particularly as a source of revenue may have generated slightly more growth—but the bias toward exports was far preferable to a strong bias in favor of import substitution. The export bias allowed efficient industries to establish themselves without being limited in size by the domestic market. The export bias led to an increasingly open economy and generated a growing share of the foreign exchange that lessened the economy's dependence on foreign capital imports. The subsidization of exports led to some inefficient resource allocation but did not result in the same distortion of incentives which is often the result of import substitution. Quotas on imports or prohibitive tariffs can distort the structure of product prices much more than the instruments typically used to promote exports. Exports are subsidized by tax exemptions and rebates, subsidization of credit, and subsidization of inputs. The effect of these instruments on costs and prices is limited. For example, income tax exemptions can be applied only if a firm is profitable and only to the extent that profits are made. Subsidized electricity and transportation rates typically affect only a small proportion of costs. In theory a direct export subsidy could be made to have as large a distorting effect as any tariff or import quota. In fact, direct subsidies have rarely been used. There has always been a reluctance to use direct subsidies, partly because they must be appropriated as a specific government expenditure and the effect on the budget is obvious and direct. A tax exemption, however, does not appear directly in the budget either as an expenditure or as negative revenue. An import quota has no obvious impact on the government budget. An import tariff except when prohibitive makes a positive contribution to revenue.

Unfortunately, South Korea's economic gains have been accompanied by a great deal of political repression. Labor unions have been very much discouraged, and there exist many cases of employer abuse of unskilled workers, reminiscent of nineteenth century sweatshops in Western nations. The South Korean experience does illustrate, however, the effectiveness of price-oriented economic policies in initiating and sustaining rapid economic growth. The poor performance in the area of human rights and in the labor policy is tempered by a favorable performance in terms of income distribution and the existence of many benevolently paternalistic employers. The relevance of the

Korean experience to other less developed economies, however, is questionable at best because it was probably the combination of political, historical, and cultural circumstances found only in South Korea that made these policies succeed. In other circumstances they might not work.

NOTES

1. See Chenery, Duloy, and Jolly (1973), Chapter 2.
2. Economic Planning Board, *Major Economic Indicators, May 1972*, pp. 88-89. Farm wages are reported in terms of a daily wage rate. To get monthly earnings, the daily wage rate was multiplied by 23.
3. Bank of Korea, *Economic Statistics Yearbook*, various issues.
4. Average total farm household income is from Ministry of Agriculture and Forestry, *Report on the Results of Farm Economy Survey and Production Cost Survey of Agricultural Products (1972)*. Average total farm household income is divided by 2.22 workers per household in 1964, 2.05 workers per household in 1968, and 1.98 workers in 1971. These figures were estimated from the farm labor force estimates in Table 11-2 and the total number of farm households in Bank of Korea, *Economic Statistics Yearbook, 1973*, p. 104. Manufacturing wages are from p. 254 of the same publication.
5. Brown (1973), p. 205.
6. Literacy rate for population aged 13 and over from Economic Planning Board, "Briefing Materials to the President," June 11, 1973.
7. Ministry of Education, *Statistical Yearbook of Education, 1970*, pp. 138-139.
8. *Major Economic Indicators, 1961-1971*, Seoul, Economic Planning Board, May 1972, p. 81.
9. See Cole and Lyman (1971).
10. Bank of Korea, *Economic Statistics Yearbook, 1973*, pp. 258-259 and 288-289.
11. Bank of Korea, *Economic Statistics Yearbook, 1973*, pp. 290-291.
12. Economic Planning Board, *Major Economic Indicators, 1961-1971*, p. 33.
13. *Ibid.*, p. 35.
14. Bank of Korea, *Economic Statistics Yearbook, 1973*, pp. 288-289.
15. For data on grain imports and the breakdown of imports into consumption goods, capital goods, and intermediate goods, see Table 8-10C and definitions and sources in Table 8-8.
16. See Brown (1973) for an analysis of the efficiency aspects of a number of these policies.
17. Commercial bank deposits increased from 28 billion won in 1964 to 636 billion won in 1971; time and savings deposits increased from 9 to 467 billion won over the same period. See *Major Economic Indicators, 1961-1971*, p. 35.