

**Some Aspects of Industrialization and  
Development in South Korea 1960—80:  
State Intervention in Foreign Investment  
and Foreign Trade**

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**CERTIFICATE**

This dissertation, entitled "Some Aspects of Industrialization and Development in South Korea 1960-80: State intervention in Foreign Investment and Foreign Trade" by Mr. Mayank Raturi, which is submitted in partial fulfilment of the requirements of the Master of Philosophy degree, is an original work to the best of our knowledge. It has not been previously submitted for any other degree of this or any other university.

We recommend that this dissertation be placed before the examiners for evaluation.

*Mayank*  
(SUPERVISOR)

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*Deepak Nayyar*

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Sanjay Jain obviously earns a place in this page for carefully typing the manuscript.

However, the shortcomings in the text, if any, are entirely on my own and are regretted.

  
(MAYANK RATURI)

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## INTRODUCTION

The countries which threw off the shackles of colonialism in the present century felt an urgent need to industrialise and develop their economies at a rapid pace. The success of most countries was fairly modest, if we look at their growth performance in terms of broad economic parameters. There are, however, a few successful examples of rapid industrialization coupled with an impressive growth in terms of various economic variables. South Korea is one such example.

At the time of independence from the Japanese rulers, Korea revealed all the characteristics of an underdeveloped economy with a per capita income of a mere \$ 67 in 1953. Korea grew at a rate of just 0.3% per annum in the decade following independence. For its survival, South Korea had to depend largely on American Aid, with most of the industries and natural resource deposits having been lost to North Korea. Exports at that time were a mere one percent of Gross National Product.

After going through two decades of development, beginning in 1960, Korea's per capita income had increased to \$ 1,605 in (at 1971 prices) and the rate of growth of Gross National Product during the decade 1971-80 (per annum) was 8%, while that of per capita income was 6.1% (per annum). Exports grew at a rate of 36.4% (per annum) in the same decade, and reached a level where they were 31% of Gross National Product in 1980.

Korea, which imported most of the essential commodities in early the 1960's, was exporting a wide range of products including textiles, electrical machinery, ships, electrical products and so on, by 1980.

Such an extraordinary transformation achieved by South Korea during the first two decades after independence makes her experience worthy of study. The present study aims at analysing the Korean development experience and if possible to learn lessons from it. However, to attempt to understand all the facets of the development experience of a country like Korea would be a herculean task and beyond the scope of the study. Hence we would not cover the entire gamut of issues likely to

be thrown up in a detailed study of Korea development, but would rather limit ourselves to only some of the key aspects of Korea's extraordinary development experience, viz, role of State and Direct Foreign Investments (DFI) in the process of industrialization. The other equally important issues related to the Korean experience are, foreign capital (exclusive of DFI), agriculture sector, technology transfer etc.

The required statistical information for the study have been primarily collected from secondary sources and published documents and reports. The secondary nature of data has its limitations, but we feel that the data were adequate enough for the limited explorations aimed at, in the study.

The introductory chapter outlines the objectives of the study and situates the problems in a wider context. The second chapter outlines a brief overview of the Korean economy with special emphasis on the strategies adopted in the various periods. The third chapter specifically analyses the role of Direct Foreign Investment (DFI) in Korea. These chapters also emphasise the importance

of the role of the state .In the fourth chapter certain additional issues regarding the role of state have been considered. The last chapter provides some possible conclusions emerging from the study, and highlights certain important features observed out of the Korean development experience.

## CHAPTER - II

### AN OVERVIEW OF SOUTH KOREAN DEVELOPMENT

South Korea started by exporting finished products and importing raw materials. Gradually and often at an even faster rate, domestic production and import substitution of inputs took place. The reason why Korea had to rely heavily on exports for its development was the non availability of raw materials and limited size of the domestic market.

Let us first review what happened in South Korea. This is done in the following pages by dividing the development process into time periods, which depend on the types of policies followed by the government (State) in different periods.

## HISTORICAL OVERVIEW : BEFORE 1945

For thousands of years Korea (North and South) was isolated from the rest of the world (except China).

Modern Industrialisation in Korea began in the colonial period, when the Japanese government managed the peninsula's economy, which was an integral part of the Japanese Empire. The Korean Peninsula was rich in agricultural land and natural resources, compared to other areas under the Japanese rule. The south had the best conditions for growing rice, while the north had nearly all the major mineral deposits and sites for hydroelectric generation. Economic development was thus centred around production of crude and semi processed agricultural and mineral products for exports to Japan. A substantial amount of development of the manufacturing sector in South Korea occurred during this period.

Even before 1910, there was evidence of Japanese economic penetration into Korea. In the initial creation of modern economic infrastructures such as Banking and Railways, the Japanese played a crucial role. In the first decade of colonial rule, (1910-1920) Japan saw Korea

TABLE 2

Employment & Gross Output Value of Manufacturing Sectors : 1926 & 1939

	Output (A) (In million 1970 U.S. dollars)		Labour (In thousand Persons)		Output (B) (In million 1970 U.S. dollars)		Labour (In thousand Persons)		(B/A)
Food & Kindred	192.0	(45%)	27.0	(33%)	380.2	(27%)	49.4	(19%)	2.0
Textiles & Products	116.0	(27%)	17.4	(21%)	249.3	(18%)	57.8	(22%)	2.2
Misc. Manufactures	49.8	(12%)	14.3	(18%)	153.9	(11%)	64.8	(25%)	3.1
Chemicals	27.6	(6%)	2.4	(3%)	359.1	(26%)	27.3	(10%)	13.0
Non-metallic Minerals	21.7	(5%)	7.4	(9%)	41.8	(3%)	15.4	(6%)	1.9
Steel & Metal Products	16.2	(4%)	11.7	(14%)	136.4	(10%)	18.8	(7%)	8.4
Machinery	4.4	(1%)	1.0	(1%)	67.0	(5%)	28.6	(11%)	15.2
Total	427.7	(100%)	81.1	(100%)	1,387.8	(100%)	262.0	(100%)	3.2

Source : Wontack Hong, op. cit.

**TABLE 1**

Industrial Structure of Korea in Colonial Period

	1911	1921	1926	1932	1932	1940
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% Value Added in :						
Agriculture	62	57	56	52	45	40
Forestry	5	4	4	4	6	6
Fishery	1	3	3	3	4	5
Mining	1	1	1	2	4	5
Manufacturing	1	5	6	8	11	15
Social Overhead Capital & Services	(30)	(30)	(30)	(30)	(30)	(30)
-----						
Population (Million)	13.8	17.1	18.6	20.0	21.4	23.0
GNP (Million 1970 US\$)	1,082	1,634	1,946	2,471	3,169	3,383
Per Capita GNP (1970 US\$)	77	94	102	120	144	143
Exports/GNP (%)	5	17	23	25	29	31
Imports/GNP (%)	13	18	24	26	37	43
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**Source** : Wontack Hong, Trade, Distortions and Employment Growth in Korea (Mimeo), Korea Development Institute, 1977.

essentially as a supplier of food and agricultural material. Hence Japanese authorities initiated agricultural reforms in order to export food stuff from Korea to Japan. In 1914, rice, beans and other food stuff accounted for 63% of Korean exports, while cotton, cocoons, bulls, hides, furs and fish accounted for another 13%.

After the First World War, in response to rising wage costs in Japan, the Korean peninsula emerged in Japanese eyes as a possible geographic extension of the Japanese Industrial empire. With the attraction of cheap labour and cheap raw materials, certain light consumer goods industries like textiles and processed food, were set up in Korea by the Japanese. Slowly, Japan began to set up heavy industries such as iron and steel, machinery and chemicals amongst others in Korea essentially to cater to the needs of the Japanese home economy.

Between 1926 and 1939, the total employment in manufacturing factories increased from 81,000 to 2,62,000. The total output of manufacturing industries also trebled during the 13 year period (Table 2). Table 1 shows the changing structure of the Korean economy during the colonial period. Between 1911 and 1940, the share of manufacturing in

National Product rose from 1% to 15% of value added. During the same period GNP as well as PCY doubled in Real Terms [GNP increased from \$ 1082 million to \$3,382 million]. PCY increased from \$77 to \$143. Exports and imports as a percentage of GNP were 5% and 13% respectively in 1911. These ratios had increased to 37% and 43% in 1940, showing structural transformation of the economy from a relatively self sufficient (closed) economy to a highly trade dependent one (brought about by the policies pursued by the colonial rulers). From the two tables it appears that the share of exports in total manufacturing was more than 2/3rd.

Korea's foreign trade was largely conducted with the rest of the Japanese Empire, over 90% of exports went there, with the rest going to China and other Asian countries. About 90% of Korea's imports came from Japan. The deficits in the balance of payments were financed partly by exports of bullion, but mainly by capital inflows from Japan. During 1935-39 capital inflows from Japan accounted for about 20% of the total value of imports<sup>1</sup>.

Table 2 shows the changing structure of the manufacturing sector during the period. About 41% of gross

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1. Article of M.K. Datta Chaudhuri in Eddy Lee Volume ARTEP (1980)

output value consisted of iron and steel, machinery and chemicals, while 22% consisted of textile and textile products. Geographically, the metallurgically and chemical Industries were concentrated in the Northern Part of Korea, while the bulk of textile, food and machine tools and other light industries were concentrated in the south.

The Industrial structure was dominated by Japanese ownership, managers and technicians. The Japanese owned practically all of the large scale factories, although in small and medium scale Industries there was a steady growth of wholly Korean owned or joint Japanese-Korean enterprises. Almost all capital equipments of the more modern establishments were imported from Japan. Many entrepreneurs and most engineers and technicians employed in manufacturing were drawn from Japanese residents in Korea, whose number grew from less than 20,000 in 1910 to nearly 7,00,000 in 1940<sup>2</sup>.

Japanese residents also made a disproportionately large share of the labour force in manufacturing particularly among the skilled labour force. Although representing less than 3% of the Peninsula's population,  
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2. Suh 1978, p. 38.

they constituted 17% of the full time labour force in manufacturing (Suh 1978, p. 117). In addition because of discrimination in their favour, the average educational level of the Japanese resident was far above that of the local Korean. This was reflected in school enrollments. There were more than three times as many students per thousand of population for Japanese residents than for the Koreans. In 1939 the difference was 2.6 to 1 for primary students and much higher for post primary students<sup>3</sup>.

During the colonial period Koreans acquired, mostly, on the job substantial knowledge about how to operate modern Industries. Several hundred thousands of Koreans who returned after the war from having worked in Industry in Japan and Manchuria added to Korea's skilled labour pool. Based on the studies by Mason, Jones and Sakong,<sup>4</sup> one may conclude that the colonial bequest of human capital in trained manpower was considerable, especially in Korea's ability to operate Industrial plants on their own after the withdrawal of the Japanese.

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3. Suh, 1978. p. 153.

4. Mason (1980), Jones and Sakong (1980-ch.2).

Korea experienced very little destruction during World War II. Hence it inherited an impressive structure of manufacturing Industries supported by an adequate infrastructure of transport and communication, from the Japanese. Korean entrepreneurs, technicians and managers had by then acquired valuable experience in a highly open economy. Unfortunately, the Koreans could not take advantage of the above valuable assets of the state , because of the Korean War. The war caused partition, civil war, influx of refugees, massive damage and destruction and a threat of another war which dominated the later phases of Korean history

#### **1945-1960**

After the surrender of the Japanese Army, the American Military Government (AMG) took over the control of the southern half of the country, while the Soviet Army occupied the Northern half. After a brief period the AMG passed over the Civilian administration to the Syngman Rhee regime.

As a result of departure of all Japanese residents, the cessation of trade with all parts of the

former Japanese Empire, and the breakup of the Peninsula into two political entities, the Korean economy suffered a tremendous disruption at the end of Second World War. Much of the capital stock was physically inoperative and in need of extensive repairs and replacement parts. In South Korea, manufacturing production in 1945 was substantially less than a fifth of its level in 1940<sup>5</sup>. But in light of circumstances at that time, it really is remarkable that the Koreans were able, with relatively little foreign managerial or technical assistance, to operate nearly half of all manufacturing plants that had existed in 1944. With greater assistance from the U.S. military government, access to raw materials, replacement parts and technical help, the Koreans by 1948 were operating facilities to produce a wide variety of manufactured goods, including shoes, textiles, rubber tires, basic steel shapes and such engineering products as pumps, bicycles, tin cans and ball bearings<sup>6</sup>.

In 1950 the Korean war started. It took a heavy toll in terms of human casualties, refugee influx, the loss of productive capital and other assets and dislocation of the economy and the society. Civilian war casualties have

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5. Frank, Kim and Westphal (1975) p. 6.

6. See Westphal, Ree and Pursell (1981)

been estimated at almost a million in South Korea. According to government estimates, actual physical loss in the south, including damage to buildings and equipment, amounted to three billion US dollars equivalent to two years 'GNP of Korea'. This led to soaring inflation and decline in the already low level of living. The contribution of manufacturing fell to 6 percent of GNP in 1953. Exports came down to 1 percent of GNP and imports to 10 percent of GNP<sup>7</sup>.

After 1953 starts, what has been often called the Reconstruction phase. During 1953-61 South Korea was living on American handouts. The Government of Syngman Rhee at that period was solely concerned with the short term objectives of reconstruction and maintenance of minimum consumption standards, both of which were to be achieved by aid maximisation. Americans at the same time were exclusively concerned with ensuring the existence of Korea as a separate political entity. After the Korean war, military assistance continued to help assure Korea's Independence, most of the American non-food economic assistance was for maintenance and use of existing

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7. M.K. Datta Chaudhuri - Eddy Lee Volume

resources.<sup>8</sup> Behind the South Korean government always stood the military might of US. The continued importance of military and economic assistance in bridging the gap in south Korea's balance of payment in the two decades of surging growth has been pointed out by Mason and others<sup>9</sup>.

"South Korea has been one of the largest recipients of foreign aid in the world. The United states alone supplied \$ 12.6 billion in economic and military assistance between 1946 and 1976, the international financial institution an additional \$ 1.9 billion, and Japan approximately \$ 1 billion. The total of over \$ 15 billion for a country with population of 25 million at mid point of 1960 gave a per capita assistance figure of \$ 600 for the three decades. With the exception of South Vietnam and Israel no other country has received such a high level of military assistance".

Table 3 gives the value of economic and military assistance provided by the U.S. to South Korea.

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8. Roughly 80% of U.S. economic assistance to Korea, from beginning to end of concessional flows, was in form of program aid. About half of program aid was surplus agricultural Commodities, with much of remainder being Fertilizers and Petroleum products.

9. See Mason, 1980. Ch. 6.

The table shows that while military assistance kept on increasing, economic assistance fell sharply after 1970's. the figures in the table understate the military assistance in two ways. They do not include large values of equipment supplied to south Korea during the Korean war, nor do they include the expenditures incurred by the U.S. Army for maintaining its presence.

**TABLE 3**

Economic and Military Assistance to South Korea from US  
(in \$ million for US Fiscal years)

	1946-52	1953-61	1962-69	1970-76	Total
Economic assistance	666.8	2579.2	1658.2	963.6	5745.4
Military assistance	12.3	1560.7	2501.3	2797.4	5847.3
	679.1	4139.9	4159.5	- 3761.0	12492.7

**Source :** US Government, Agency for International Development "US overseas Loans and Grants and Assistance from International Organisation" Washington DC, July 1, 1945; Sept. 30, 1976 as quoted in Mason Kim and others : Economic and social modernization of Republic of Korea, p.82.

**TABLE 4**  
Educational Enrollment, by Level, 1950-75

	1950	1960	1965	1970	1975
<b>Primary</b>					
Total enrollment (thousands)	2,669	3,621	4,941	5,749	5,599
Rate of increase (percent)	-	3.1	6.4	3.1	-0.5
enrollment ratio (percent)	83.0	96.0	100	104	N.A.
Proportion of females in total (percent)	N.A.	45.0	46.0	48.0	48.0
<b>Secondary</b>					
Total enrollment (thousands)	436	875	1,201	1,935	3,176
Enrollment ratio (percent)	16.0	29.0	34.0	41.0	N.A.
proportion of females in total (percent)	19.0	26.0	35.0	38.0	41.0
<b>General secondary</b>					
Total enrollment (thousands)	381	749	1,005	1,634	2,675
Rate of increase (percent)		7.0	6.1	10.2	10.4
<b>Vocational secondary</b>					
Total enrollment (thousands)	55	126	196	301	501
Rate of increase (percent)	-	8.6	9.2	9.0	10.7
<b>Tertiary</b>					
Total enrollment (thousands)	36	101	142	201	297
Rate of increase (percent)	-	10.9	7.0	7.2	8.7
Proportion of females in total (percent)	11.0	17.0	25.0	24.0	27.0

Source : 'Korea' Rao and Hasan (ed.), World Bank Country Report 1979.

The average inflow of US aid per year plus purchases made by the U.S. Army stationed in Korea of about \$100 million per year, together constituted nearly 1/10th of the South Korean GNP (for the period 1953-61).

The relationship with the United States served to augment Korean resources both directly and indirectly. One of the most important effects appears to have been on the formation of human capital. American aid directly contributed to a rapid expansion of education which by 1960 led to a Universal primary education and nearly Universal Literacy, and it contributed to increasing higher enrollment rates at all levels of primary education<sup>10</sup>. (Table 4)

Aid also financed overseas education and training for thousands of Koreans. Also to be noted is indirect contribution from American Military advisors. They helped the Korean Military to learn about modern concepts and techniques of management and organisation, as well as how to operate and maintain all types of machinery and equipment. For virtually all the male labour force, military service seems to have been an important source of skill formation

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10. Kruger, (1978), also see Hasan and Rao World Bank Country Report (1979)

and general experience in an organization having many characteristics of Modern Industry.

The Koreans also gained some technological mastery from their relationship with the United States. Important channels for direct acquisition of Industrial technology included inflow of technical advisors and modest volumes of project assistance, which further added directly to Korea's capital resources. The US military was another channel. It's local procurement program afforded producers in a number of sectors with occasions for assisted learning by trying to meet exacting product specifications. Among those benefitting from military purchases were construction contractors, plywood producers, and the tire Industry. These very products became major exports of Korea in later periods.

Another important factor in this period were the land reforms. After the defeat of the Japanese, a large part of land earlier under Japanese landlords came under the United States Military Government. This land was redistributed among Koreans. On attaining Independence the Korean government introduced a wide range of Land reforms. The major aim of Land reforms was to redistribute tenanted

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land exceeding three chungbo<sup>11</sup>, owned by big farmers and absentee landlords. These land reforms changed radically the balance of social and political forces in Korea<sup>12</sup>. The reforms broke the power of rich farmers and the landlord class, whose traditional hold over the entire range of social organization stood in the way of Industrial development and the rise of the capitalist class. Once their power was destroyed, the ground was clear for the newly rising capitalist class to take over and shape the country with the vigour and dynamism associated with early phase of growth of this class. This step was crucial for the further development of Korean capitalism. Few of the countries in East Asia which experienced high growth rates are distinguishable from the slowly growing economies of Asia in that they had gone through successful land reforms at the end of Second World War<sup>13</sup>.

Throughout this period (1953-61) the government pursued a policy of import substitution of non-durable



- 11. One Chungbo = 0.9917 hectare
- 12. Land reforms have been dealt in detail in Moon Hwan Choi "A Review of Korea's Land reforms" as mentioned in Chauduri, M.K. Datta (1981).
- 13. M.K.Datta, Chauduri (1981).

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consumer and intermediate goods behind a protective wall of high tariffs and stringent quotas. However, the development strategy based on import substitution soon reached its natural limits, especially because of small size of the domestic market and the large capital requirements of this strategy.

The annual average growth rate of GNP during the nine year period (1953-61) was only 3.7% and that of per capita was a meager 0.7%. Commodity exports were negligible throughout the period, usually amounting to less than 1% of GNP.

Government revenue as percentage of its expenditure was 41.7 % in 1952 and had increased to 47.1 in 1962. It implied that government had to rely heavily on Foreign aid during this period. Most of the government expenditure was for reconstruction purpose. Between 1954 to 1959, 70% of all reconstruction was financed by American aid.

**TABLE 5**

## Key Indicators of the Korean Economy in 1950's

(75 Const Prices)

	1953	1962	Annual change (%)1952-62
Per capita GNP (thou.W.)	109	116	0.7
Per capita GNP \$ <sup>1</sup>	67	87	
GNP (bill W.)	2025	3071	3.7
USAid mill \$	194.2	232.3	2.0
Government Rev./ Expenditure %age	41.7	471	

**Note :** In current US dollars

**Source :** Economic Planning Board. Taken from 86 Business Korea page 1.

**PERIOD OF HIGH GROWTH : 1962 ONWARDS**

The period after 1960 can be further divided into two sub periods (a) 1962-1972 (b) 1973-1980 on the basis of policies pursued by the government.

**(a) 1962-1972**

Because of its poor natural resource endowment and small domestic market, Korea adopted an outward looking development strategy emphasising growth of exports. The essence of the outward looking development strategy in Korea was to make use of the nations comparative advantage in labour intensive manufactured goods

The new government, which came into power in 1962, shifted economic policy from the previous regime's emphasis on reconstruction to a program of growth maximization through export promotion. The policy shift reflected the changing economic conditions of the early 1960's. By 1960 the postwar reconstruction and the first stage of Import substituting Industrialisation was complete. Previous imports of non-durable consumer goods and intermediate goods used in their manufacture could now be replaced largely by domestic production.

The basic goal of the new strategy was to create the economic base for Industrialisation and self sustained growth. One consistent basic policy goal dominated all the plans : Export Oriented Industrialisation and growth

**TABLE 6(a)**

Investment and Savings in Relation to Gross National Product in Current Prices, 1962-76  
(percentages of GNP)

	1962	1964	1966	1968	1970	1972	1973	1974	1975	1976
Gross domestic fixed Capital formation	13.0	14.6	21.7	26.8	27.2	20.9	26.3	31.2	27.2	25.0
National savings	1.6	7.4	11.9	13.7	16.3	15.0	22.1	19.3	18.0	22.3
Private savings	3.0	6.9	9.1	7.4	9.4	11.1	17.5	16.3	12.7	15.6
Household savings	-4.3	0.2	1.6	-0.4	2.3	2.6	6.9	6.6	2.9	6.2
Corporate savings	7.2	6.7	7.5	7.8	7.1	8.5	10.6	9.7	9.8	9.4
Government savings	-1.4	0.5	2.8	6.3	7.0	3.9	4.6	3.0	5.3	6.7
Foreign savings	10.9	7.0	8.5	11.5	9.6	5.6	4.1	13.5	11.3	2.6
Current account deficit	2.0	0.7	2.7	7.6	7.5	3.8	2.5	12.2	10.1	1.2
Net transfers from abroad	8.8	6.3	4.8	3.9	2.2	1.7	1.5	1.3	1.2	1.4
Statistical discrepancy	0.6	0.2	1.4	1.6	1.2	0.3	0.1	-1.6	02.0	0.1
Gross national product	-11.8	10.1	27.3	20.3	11.4	16.8	48.6	11.8	14.3	N.A.

Source : Rao and Hasan, 1979, op.cit.

TABLE 6(b)

Investment and Savings in Current Prices, 1962-76 (billions of won)

	1962	1964	1966	1968	1970	1972	1973	1974	1975	1976
Gross domestic fixed Capital formation	48.6	81.4	208.7	411.7	620.2	780.2	1,165.4	1,755.0	2,331.9	2,829.1
Increase in stocks	-3.2	20.8	15.8	16.2	54.5	25.3	119.5	347.1	146.5	209.7
Gross domestic capital formation	45.4	102.2	224.5	427.9	704.7	805.5	1,288.9	2,102.1	2,478.4	3,038.8
National savings	5.5	51.9	122.5	218.3	423.2	577.3	1,083.6	1,302.2	1,635.9	2,708.4
Private savings	10.3	48.4	93.4	117.7	243.2	427.7	864.7	1,099.9	1,156.7	1,895.7
Household savings	-14.9	1.7	16.1	-6.2	58.5	99.3	340.8	444.8	264.6	750.2
Corporate savings	25.2	46.7	77.3	123.9	184.7	328.4	523.9	655.1	892.1	1,145.5
Government savings	-4.9	3.6	29.1	180.0	149.6	225.1	203.0	479.2	812.7	
Foreign savings	37.9	49.1	87.6	184.3	249.3	315.0	199.0	910.8	1,023.0	320.6
Current account deficit	7.2	5.1	28.1	121.8	193.4	148.3	123.2	820.4	913.3	151.8
Net transfers from abroad	30.7	44.0	59.6	62.5	56.0	66.7	75.7	90.4	109.7	168.8
Statistical discrepancy	2.0	1.2	14.4	25.2	32.2	13.1	6.4	-110.9	-180.5	9.9
Gross national product	348.9	700.3	1,032.5	1,598.3	2,589.3	3,860.0	4,901.6	6,747.1	9,080.3	12,143.4

Source : Rao and Hasan, 1979, op. cit.

maximisation. Most other government policy objectives were either consistent or considered secondary to it. In order to achieve the basic goal of export oriented Industrialisation and high growth, the government implemented a package of policy reforms between 1964 and 1967. The Won was devalued by almost 100% from 130 to 225 Won per US \$ in May 1964, and a unitary floating exchange rate system was adopted in March 1965. The government almost doubled the interest rates on bank deposits and loans in September 1965 in order to increase voluntary private savings, and as a result, deposits doubled every year for next three years<sup>14</sup>. Because of effective measures taken by the government the national savings which were 10% of GNP in 1962 increased to 13.7% in 1968, 15% in 1972 and finally 22.3% in 1976. (Table 6(a))

In absolute terms, National savings (at current prices) were 5.5 billions terms in 1962, they increased to 122.5 billion Won in 1966 immediately after the interest rate reforms. Within a span of two years in 1968 they were nearly double the 1966 figure i.e. 218 billion Won. By 1976 the National Saving were 2,708.4 billion Wons. (Table 6(b)).

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14. 86 - Business Korea Yearbook .

**TABLE 7**

Key Indicators of Korean Economy 1960s

	(75 Const Prices)		
	1962	1971	Annual change (%)1962-71
Per capita GNP (thou.W.)	116	212	6.9
Per capita GNP \$ <sup>1</sup>	87	278	
GNP (bill W.)	3071	6962	9.5
Exports (billions \$)	0.55	10.7	39.1
Export/GNP ratio	2.4	11.7	

**Note** : in Current U.S. \$

**Source** : Economic Planning Board Taken from 86 Business Korea Year Book.

The growth in real GNP for 1962-71 period was more than two fold, reflecting average annual growth rate of 8.7%. This is more than double the rate of growth experienced during 1952-62 period (3.7%). In per capita terms, the real growth for the period as a whole (1962-71) was 6.9%, much higher than 0.7% observed in the previous period (1952-62). The figures show that there is a distinct change in the growth performance of the economy after Korea started with it's outward looking development strategy.

## SECOND SUB PERIOD 1973-80

The favourable effects of this outward orientation were observed in 1960-73, a period that was characterised by a rapid growth of the world economy. The question often asked at that time was what would happen if the world economic situation deteriorated. Such deterioration in world economy did indeed come after 1973.

Oil prices quadrupled in 1973-74 and aggravated the world recession that was to follow the 1972-73 boom. The recession deepened further as all the major Industrial countries more or less simultaneously adopted anti-inflationary policies. As a result, the industrial countries GDP remained stationary in 1974 and 1975, compared to 4.6% rate of growth in 1963-73 period. (World Development Report 1978). Also between 1963-73 volume of the Industrial countries imports of manufactured goods from developing countries increased by only 4.2% in 1974 and declined by 1.5% in 1975 (Balassa 1981 p. 265).

Because of such unfavourable conditions in the world economy, the Korean planners modified their strategy. The "Discussion paper on the Development Strategy for

fourth five year plan (1977-81)" prepared by Korean Development Institute, suggests the need for defending the economy from various international instabilities. It states "In the past Korea had pursued a course which left foreign trade to reach any level achieved by comparative advantage in world market. It is only judicious to reduce Korea's Vulnerability to the trade effect of foreign contracyclical policies and to the growing imperfection in world market for basic commodities. In according with the proposed change in strategy, the Guidelines for fourth five year development plan envisaged 'The increase of import substitution and conservation of resources in order to reduce the growth rates of imports to level of GNP growth rate.

Hence there was a shift towards development of heavy and chemical Industries in this phase i.e. 1972-80. Development of these industries were seen as essential to balanced Industrial development, that is to a more sophisticated Industrial structure.

The two main objectives of this greater emphasis on the development of heavy and chemical industries were to promote import substitution of intermediate material and capital goods and to serve as new sources of strategic

TABLE 8

R & D Expenditures by Source and as a Percentage of GNP in South Korea, 1971-82

Year	Total R&D expenditure (million won)	Funds from government (million won)	Funds from private sources (mil. won)	GNP (billion won)	Percentage of (1) to (4)
	(1)	(2)	(3)	(4)	(5)
1971	10,666	7,285	3,380	3,151.55	0.34
1972	12,028	7,965	4,062	2,860.00	0.31
1973	15,628	8,271	7,356	4,428.67	0.32
1974	28,182	25,051	13,130	6,779.11	0.56
1975	42,663	28,458	14,204	9,792.85	0.44
1976	60,900	39,461	21,438	13,272.59	0.46
1977	108,285	51,705	56,580	17,021.37	0.64
1978	152,418	74,447	77,971	22,917.60	0.67
1979	173,038	94,790	79,247	29,072.08	0.60
1980	211,726	109,281	102,445	35,030.62	0.61
1981	293,131	127,906	165,226	42,397.12	0.69
1982	457,688	188,941	268,747	48,267.89	0.95

Source : Bagchi, A.K., Public Intervention and Industrial Restructuring in China, India and Korea, ARTEP (1987)

export Industries. Such Industries as shipbuilding, automobiles, steel products, non ferrous metals, and petrochemicals were especially favoured by government policies.

To achieve the necessary economies of scale in a limited domestic market, the government permitted monopolistic production in a few Industries, so as to overcome the problem of smallness of domestic market with economies of scale. There also was established a National Investment fund to provide funds at lower interest rates to meet large Investment requirements. At the same time the state set up and maintained high protective barriers to protect upcoming industries. The government also provided many incentives for training workers and for R and D expenditures. The figures of government expenditures on R and D are given in Table 8.

In the 1950's Korea had completed the first stage of import substitution for easy commodities. The 1970's signified Korea's pursuit of second stage of import substitution, replacing the imports of intermediate goods and consumer durables by domestic production. These commodities had rather different characteristics from those

placed in first stage. Intermediate goods such as steel, non-ferrous metals, petro-chemicals and durable consumer and producer goods such as automobiles, machinery, and equipment tended to be technology and capital intensive. They were also subject to important economies of scale, with efficient plant size being large compared to the domestic needs of Korea and costs rising rapidly at lower output levels. Moreover the margin of processing was relatively small and organisation and technical inefficiencies contributed to high costs. At the same time parts, components and accessories had to be precision made for consumer durables, particularly for machinery. This in turn, required the availability of skilled and technically trained labour and application of sophisticated technology.

In order to finance this ambitions heavy and chemical Industries development programme, the government was forced to scale down its export support for labour intensive industries. The 50% reduction of corporate and Income tax on export earnings was abolished in 1972. The system of tarif exemption for capital equipment imported for export production was changed to an installment payment system in January 1974. In July 1975, the tarif exemption on raw material imports for export production was dropped in

favour of a tariff drawback system with a three months grace period for actual payment<sup>15</sup>

The development program for heavy and chemical Industries did not succeed as expected because it had ignored the basic market principles. The adoption of comprehensive import substitution policies and excessive government price controls resulted in a distortion of the domestic price structure and widened the productivity gap between the protected and unprotected sectors.

In the 1970's Korean industries had become relatively more capital intensive as compared to the 1960's. Hence they were seriously hit by the two oil shocks which raised Korea's Import bill from 2.2% of GNP 1972 to 9.2% in 1980. The whole sale price Index increased by 19.4% at an average rate for the 1971-80 period<sup>16&17</sup>. In addition overinvestment in heavy and chemical industries also gave rise to adverse side effects on the economy including insufficient Investment in light industries, distortions in the capital market, and excessive real wage increases. By

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15. Business Korea - 1986.

16. Westphal and Kim, in Balassa, 1982.

the mid 1970s it was becoming apparent that Korea was losing its comparative advantage in many labour intensive Industries<sup>17</sup>.

A growing number of developing countries, with much cheaper labour than Korea, began to offer stiff competition in Korea's traditional exports as Korean Labour costs rose steadily in real terms throughout the 1970's mainly due to a shortage of skilled labour and acceleration of Inflation. Between 1976 and 1979 wage increases on unit dollar cost basis, averaged 23.6% compared with 8.0% for Taiwan, 11.7% for Japan and 0% for Singapore. Particularly during the period of 1976-78 Korean economy experienced double digit growth rates for three consecutive years. The increase in real wage in manufacturing sector amounted to 67%, twice increase in labour productivity.

The rate of growth of GNP was quite high in this Decade also (at 7.9% per annum), but it was slightly less than in the previous period (9%). Similarly the annual rate of growth of per capital Income was slightly lower in period 1971-80 (7.9%) than in period 1962-71 (9.5%) exports also -----

17. In the latter years of the decade inflation rate was much higher, decreasing export competitiveness in those years. Refer to table 9.

grew at exceptional rate of 36.4% per annum during this period. But price rise was significantly greater in period 1971-80 (19.4% annum) as compared to period 1962-71 at 12.3% per annum.

**TABLE 9**

International Comparison of Unit \$ labour Cost Index

	1976	1977	1978	1979	Annual Change (%) 1976-79
Korea	131.8	161.6	194.8	273.3	23.6
Taiwan	104.0	116.8	112.1	136.2	8.0
Singapore	89.3	88.9	102.1	100.1	0
Japan	104.6	132.2	166.3	155.7	11.7

**Source :** Business Korea, 1986

**TABLE 10**

Price Movements

(Unit % per annum)

	1965-69	1970-74	1975-79	1980	1981	1982	1983
WPI	8.0	16.2	15.6	38.9	20.4	4.7	0.2
CPI	11.4	13.6	16.7	28.7	21.3	7.3	3.4
Pim	-	18.7	5.8	27.6	4.0	5.1	4.4

Pim = Price of Imports

**Source :** Bank of Korea : Economic Statistics Yearbook 1986

**TABLE 11**

Key Factors of the Korean Economy 1970s

	(80 Const. Prices)		
	1971	1980	Annual change (%)1961-80
Per capita GNP (thou.W.)	572	976	6.1
Per capita GNP \$ <sup>1</sup>	285	1605	
GNP (bill W.)	18797	37205	7.9
Exports (billions \$)	10.7	175.0	36.4
WPI (1980-100)	20.3	100.00	19.4

**Source :** 86 Business Korea-Bank of Korea estimates.

The reason for the slight decrease in rates of growth in the latter periods are change in government policies, and unfavourable world economic situation. These rates of growth sustained over a period of two decades (1960-80) are by any standards quit significant and far exceed those achieved by other developing countries<sup>18</sup>. The period of rapid growth was one of strucural change in Korea, which transformed a backward primary product based economy

18. Comparable only to Singapore, Taiwan and Hongkong which with Korea form the Gang of Four Newly Industrialised Countries

TABLE 12

Principal Macroeconomic Relationships, 1960-80 (% in current prices)

	1960	1965	1970	1975	1980
Composition of GDP					
Private consumption	85.2	84.2	72.6	69.8	64.2
Government consumption	14.8	9.4	10.5	10.3	12.2
Total consumption	100	93.6	83.1	80.1	76.4
Gross fixed capital formation	11.1	14.9	24.5	25.6	30.9
Increase in stocks	0.0	0.3	2.4	3.4	-0.6
Total investment	11.1	15.2	26.9	29.0	30.3
Exports of goods & services	3.3	8.6	14.3	27.6	35.7
Imports of goods & services	12.8	16.0	24.1	36.3	42.7
Net foreign investment	9.5	7.4	9.8	8.7	7.0
Domestic savings	0.0	6.4	16.9	19.9	23.6
Share of trade in GDP					
Merchandise exports (fob)	0.9	5.8	9.7	24.7	29.6
Merchandise imports (fob)	8.2	14.0	21.0	32.8	34.9
Service exports	2.4	2.8	4.6	2.9	6.1
Service imports	4.4	2.0	3.1	3.5	7.8
Sectoral shares in GDP <sup>b</sup>					
Agriculture, forestry, & fishing	39.6	40.2	29.5	26	20
Industry	18.7	24.2	27.3	31.9	39
Manufacturing	12.1	17.3	18.2	23.4	27.0
Services	41.7	35.6	43.2	42.1	41.0
Export composition <sup>c</sup>					
Agriculture, forestry, & fishing	56	25.2	16.6	15.7	10.0
Minerals & nonferrous metals	30.0	15.4	6.7	2.8	1.0
Manufactured products	14.0	59.4	76.7	81.5	89.0

Source : Balassa, Development Strategies in Semi-Industrialised Economies  
(1982) John Hopkins Press

into a newly industrialised country. The transformation occurred following the adoption of an outward oriented development strategy, which permitted the exploitation of Korea's comparative advantage in international trade and contributed to rapid increase in productivity brought in Korean economy by pursuing an outward oriented strategy in the two decades.

### **STRUCTURAL CHANGES**

In 1960 Korea engaged in little foreign trade, had low rates of investment and generated practically no domestic savings. The exports of goods and services were about 3% of its gross domestic product and the share of merchandise exports did not even reach 1% of GDP. Services exports were 2.4% GDP and most of them were performed by The United States Military Forces. Imports of goods and services were about around 13% of GDP. Capital inflows in form of Net foreign investment was a little less than 10% of GDP in 1960. In spite of large capital inflows total investment was only 11% of GDP, indicating that domestic savings were negligible. In contrast, in most middle income countries in

1960, investment and domestic savings were around 20% and 19% respectively of GDP<sup>19</sup>. (Table 12)

In the same year agriculture including and fishing, accounted for 40% of Korea's GDP while the share of manufacturing was just 12% in 1960. For middle income countries figures were 24% and 12% respectively. (World Development Report 1966) Primary commodities dominated Korea's export structure, accounting for 86% of merchandise exports, out of which agricultural forestry, and fishery products represented 56%, and fuels, minerals and non-ferrous metals 30%.

After two decades of development the situation was quite different. The share of exports of goods and services in gross domestic product increased from 3% in 1960 to 14% in 1970 and reached 36% in 1980. The share of Merchandise exports rose from 1% to 30%, while that of service exports rose from 2% to 6%. The share of imports of goods and services in GDP rose from 13% in 1960 to 43% in 1980. The inflow of foreign capital declined from 10% in 1960 to 7% in 1980. Investment nearly tripled rising from 11% in 1960 to

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19. Balassa, 1982.

30% in 1980. This occurred as domestic savings reached 24% in 1980 from virtually zero in 1960.

As a result of these changes export, import, investment and domestic savings in Korea have come to exceed those of middle income developing countries, where respective shares averaged 25%, 27% 27% and 25% respectively in 1979<sup>20</sup>. Korea also surpassed these countries in relative importance of manufacturing sector, raising its share from 12% of GNP in 1960 to 27% of GNP in 1980. For middle income developing countries on an average there was a decline in share of manufacturing sector from 20% to 19% the same period.

In the two decades Korea did better than most middle income developing countries. Let us now see how the the composition of manufacturing output changed in Korea during these periods.

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20. Balassa in Walter Galenson, (ed.) 1985.

**TABLE 13**

Composition of Gross Manufacturing output

Commodity Group	1961	1966	1971	1975
Textile, clothing and footwear	28.5	23.9	25.6	32.1
Food beverages and Tabacco	33.8	27.6	25.0	17.0
Various light manufactures	15.4	17.9	16.0	15.3
Machinary and equipment	7.9	10.2	9.3	14.6
Chemical coal and Petroleum	7.1	11.6	15.5	12.0
Basic metals & metal Products	5.8	7.0	6.1	6.7
Miscellaneous	1.5	1.9	2.5	2.5
Total	100	100	100	100
Total manufacturing output (billion Won 1970 prices)	393.5	789.3	2041.7	4290.9

**Source :** Balassa (1982)

The share of food processing Industries in output declined from 33.8% of gross manufacturing output in 1961 to 17% in 1980. The share of heavy manufacturing sector rose considerably and the most striking increase in this sector was machinery and equipment after 1971. In 1971 it was 9.3% and in just 4 years it had risen to 14.6%. This sector

**TABLE 14**  
The Composition of Merchandise Exports (%)

	1960	1965	1970	1975	1980
Food & Live animals (0)	29.6	16.1	7.9	11.9	6.5
Beverages & tobacco (1)	1.5	0.5	0.7	1.3	0.7
Inedible crude materials (2)	48.2	21.1	12.0	3.0	1.9
Mineral fuels (3)	3.3	1.1	1.0	2.1	0.2
Animal & vegetable oils & fats(4)	0.6	0.1	0.0	0.0	0.1
Chemicals (5)	1.2	.2	1.4	1.5	4.4
Manufactured goods by Material (6)	11.9	37.9	26.4	29.2	35.2
Nonferrous metals (68)	2.8	1.7	0.7	0.2	0.6
Wood & cork products (63)	0.0	10.4	11.2	4.5	2.3
Textiles (65)	0.0	6.0	10.2	12.8	12.4
Nonmetallic mineral manufactures (66)	0.0	1.6	0.8	2.1	2.5
Iron & Steel (67)	0.0	7.3	1.6	4.6	9.3
Manufactures of metal (69)	0.0	1.3	1.5	2.4	4.2
Others (61+62+64)	0.0	9.6	0.4	0.6	3.9
Machinery & transport equipment (7)	0.3	3.0	7.4	13.8	21.2
Nonelectrical machinery (71)	0.0	1.4	1.0	1.5	2.0
Electrical machinery & appliances (72)	0.0	1.1	5.3	8.7	12.2
Transport equipment (73)	0.0	0.6	1.1	3.6	6.5
Miscellaneous manufactured articles (8)	0.3	19.7	42.2	37.1	29.9
Clothing (84)	0.0	11.8	25.6	22.6	16.7
Footwear (85)	0.0	2.3	2.1	3.8	4.9
Miscellaneous (89)	0.0	5.1	13.7	7.5	4.9
Others (81 82+83+84)	0.0	0.5	0.8	3.2	3.4
Unclassified (9)	3.0	0.1	0.0	0.2	0.4
Primary Products (0+1+2+3+4+68)	86.0	40.6	23.3	18.5	10.0
Manufactured goods (5+6+7+8+9-68)	14.0	59.4	76.7	81.5	90.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Value of merchandise exports (US\$ millions)	33	175	835	5,081	17,685

Source : Balassa in Walter Galenson (ed.), 1985, Op. Cit.

include electronics, one of the leading commodities in growth of exports. The share of chemicals, coal and petroleum also rose from 7.1% to 12% in 1975. Growing exports also sustained the share of textile and light manufacturing, which increased their share from 28.5 to 32.1%.

### **MERCHANDISE EXPORTS**

Korean economic development, to a large extent depended upon Korea's exports. Let us now see the change in the composition of korean merchandise exports over the period of two decades (1960-1980). (Table 14)

The data indicates that the largest drop occurred in exports share of Inedible crude materials from 48.2% in 1960 to around 2% in 1980. The declining importance of tungsten ores and concentrates, raw silk and Ginseng were largely responsible for this. The exports of seaweed, which accounted for 4% of merchandise exports in 1960 also greatly declined in importance. By 1980 these four products, taken together represented less than 1% of korean exports.

During the sixties, Korea's major exports were relatively simple manufactured goods. In 1970, wigs were the largest single export, accounting for 12% of the total, followed by plywood and veneer (11%) cotton yarn and fabrics (5%) electronic parts and components (4%) non cotton fabrics and clothing (3% each) and footwear 2%. Plywood, veneer and wigs increasingly lost their importance during seventies, altogether they accounted for less than 3% of Korean exports in 1980. Clothing assumed first place in 1975 with 23% of exports, followed by cotton yarn and fabrics (8%), non cotton fabrics (6%), electronic parts and components (5%) and footwear (4%). The relative share of textiles and clothing declined after 1975, although these products continue to have an important place in Korea's exports.

With a shift occurring from cotton to non cotton fabrics and increasing exports of footwear, the 1980 share in merchandise exports were : Clothing 17 percent, non cotton fabrics and cotton yarn 6%, footwear 5%. The share of machinery and transport equipment in total exports, 7% in 1970, doubled by 1975 and tripled by 1980. This category continued to be dominated by relatively simple products with radio and Television sets accounting for 5%, and electronic parts and components for 4% of total the Korean exports. Korea's exports of non electric machinery increased slowly

not exceeding 2% of merchandise exports in 1980, while exports of ship, accounted for over 3% of the total, incorporated largely Japanese machinery Korea has been unsuccessful in gaining foothold in world market for passenger automobiles<sup>21</sup>. The exports of iron and steel declined from 7% in 1965 to 2% in 1970. It rose to 5% in 1975 and finally touched 9% in 1980, reflecting the effects of large investments undertaken during seventies. The combined export shares of fertilizers and cement reached 3% in 1980, while investment in petrochemicals and chemicals did not increase as expected.

One thing needs to be emphasized again. In 1960, 86% of Korea's merchandise exports were primary products, while only 14% of manufacturing origin. Two decades latter 90% of merchandise exports of Koreas were manufactured products and only 10% were primary products such an transformation in only two decades is indeed remarkable.

## CONCLUSION

In the pace of its industrialization and diversity of its manufacturing activities, Korea was well ahead of

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21. N.K. Chandra, (1984)

other countries of comparable size, income and other structural characteristics<sup>22</sup>. The share of chemical and metal sectors in Korean manufacturing were relatively high given the dominance of exports (Table 13), while export orientation had a dominant influence on the structure and rate of expansion of manufacturing sector relative to GNP, the basic intermediate sector also expanded in response to growth of domestic demand and selective substitution of imports by domestic production. As a result, aggregate dependence upon imports of intermediate inputs and investment goods was maintained at roughly the same level for 1965-75 period<sup>23</sup>.

A break up of the growth of manufactured output by sources of direct demand shows that direct contribution of exports increased from 5% in 1960 to 36% in 1973 and averaged 26.8% for the entire period. Import substitution on the other hand contributed little, and its low share is striking. Import substitution appears to have generated indirect demands on sectors having higher than average requirements for imported intermediate inputs. Import substitution nevertheless played a significant role in

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22. The conclusion is also based on a cross country regression study done by Westphal in Rao and Hasan (1979) World Bank Country Report.

23. Refer back to table 13.

certain time periods. In the early 1960's domestic production substantially replaced imports of light consumer goods such as textiles, apparel and accessories, sewing machines and paper products - and those of some products in metal and chemical sectors. By 1968 and 1973, import substitution was significant in synthetic fibres, fertilizers, iron and steel, finished metal products transport equipment, non electrical machinery and chemicals. Much of the import substitution resulted from production of basic steel products and petrochemical derivatives, which also figured prominently in expansion of exports during this period.

**TABLE 15**

Direct Contribution to Growth in Manufacturing 1960-73

	(Percent)				
Sources of Growth	1960-63	1963-66	1966-68	1968-70	1970-73
Export Expansion	4.8	14.2	12.4	15.1	35.9
Import Substitution	-2.8	0.2	11.4	7.2	-4.0

**Note :** These estimates, in current domestic prices are obtained from 38 sector level data for production of all goods and services

**Source :** Larry E. Westphal and Kwang Suk Kim "Industrial policy and development of Korea" World Bank staff paper no. 263 (Washington D.C., World Bank 1977). Import substitution on the other hand contributed

The pursuit of backward linkages, usually from exports was the strategy underlying these changes in Industrial structure<sup>24</sup>. The most striking examples is textile, where domestic activity moved through synthetic fibre to production of basic petrochemicals. Other examples are backward integration from television assembly to production of basic component and from automobile assembly to the production of various components. With the possible exception of automobile assembly and petrochemicals, where investments were probably too small to capture economies of scale, import substituting investment generally proved efficient<sup>25</sup>. Nevertheless the scarcity of such raw materials as petroleum, iron ore, and certain agricultural products placed limits on the extent to which industrial growth could rely on backward integration. Thus the Driving force of expansion of manufacturing in Korea continued to be export demand. But a number of sectors had further scope for expanding the share of domestic value-added in without violating the principle of comparative advantage. Part of the production of electronics exports continued to be largely an assembly operation with little infusion of

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24. Westphal in Hasan and Rao "Korea" World Bank Country Report, 1979.

25. D.C. Rao in Hasan and Rao "Korea" World Bank Country Report, 1979.

sophisticated technology. In Shipbuilding and machinery Korea had not realised the full advantage of having a local design capacity. In Metals, the output concentrated on high volume, standardized products, and not on sophisticated speciality or precision products<sup>26</sup>.

Direct contribution of export demand to expansion of manufacturing sector became increasingly significant during the period 1960-1973 (Table 15). Adding Indirect output effect, that is demands placed on other sectors for supply of intermediate inputs almost doubles the contribution of export sector and reduces the contribution of domestic demand and import substitution<sup>27</sup>. There are two additional benefits effects from export expansion.

One is a multiplier effect arising out of increased consumption and investment of additional income, which shows up as contribution to domestic demand expansion. Second is the contribution of foreign exchange, which relaxes import bottlenecks and enables increased production.

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26. Hasan P. "Problems and Issues in a Rapidly growing economy - Korea" World Bank Country Report (1976). Also see Westphal and Kim, Balassa (1982).

27. Rao in Hasan and Rao (1979).

One can end the chapter by saying that given the limited size of Korean Market and scarcity of natural resources, exports of labour-intensive manufactured products provided the best means for achieving faster economic growth.

## CHAPTER III

### DIRECT FOREIGN INVESTMENT IN KOREA

Much of DFI in Korea has been by small and medium sized Japanese firms, whose overseas investments are limited to a single undertaking in Korea. Many large Multinational Corporations (MNCs) have not invested in Korea, but a number of them have licenced technology to local Korean firms or marketed Korean exports overseas, and some have done both.

DFI provides a bundle of complementary resources, typically including capital, technology and management, and sometimes including access to specific intermediate inputs and to overseas markets. Each one of these resources could be independently provided. The general explanation for their being bundled, is that the total return to the resources provided in combination, exceeds the sum of return provided separately. The investor provides all these together because in this way he maximises his profits<sup>1</sup>

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1. "Korea's Industrial Competence, where it came from" - Westphal, Rhee and Pursell - World Bank Staff Working Paper No. 469.

Let us first briefly review the Korean government's policies relating to foreign investment during the two decades 1960-1980. Since the government policy appears to be one of the most important factors influencing DFI in a country, we will examine DFI in Korea in terms of countries where it originated and to industries in which it was distributed. The effects of DFI on the recent economic growth of Korea will then be examined, through its influence on employment, the balance of payments, and technological developments.

#### **POLICIES REGARDING DIRECT FOREIGN INVESTMENT**

Until the late 1950s, Korea was a war devastated country, with very few opportunities for foreign investors, the economy was dependent on foreign aid mostly from The United States. At the same time domestic savings were negligible.

In 1959, Investment rate was 11% of G.N.P. and most of the investment was financed by U.S. Aid.

The first attempt by the Korean government to provide a legal basis for the attraction of foreign capital

was made in 1960 through the enactment of the Foreign Capital Inducement Promotion Act . The act provided various incentives, including equal treatment with domestic firms, tax holidays, guarantees of profit remittances and withdrawal of principal and tax rebate for technology licenses.

In 1962 the first five year plan was made and government adopted measures to encourage the inflow of foreign capital. Between 1962-1966 those foreign investments were welcome, which were considered conducive to objectives of five years plans. Foreign capitals was to receive government protection and relevant support. Participation of domestic firms in form of joint ventures was not required , provided that their absence did not adversely effect the national interest, Foreign technologies were also encouraged.

Upto 1965, not much foreign investment came because of uncertainties regarding the political climate. In 1965, the relation between Korea and Japan normalised, which was followed by Japanese investment in Korea. To encourage Japanese investment the government passed "comprehensive measures for rationalization of foreign

capital inducement " in 1967. This act was the government's attempts to regulate the quality of foreign capital, though mainly the law was directed towards foreign loans.

In 1969, government announced "Measures to promote the inflow of direct foreign investment and to foster the activities of foreign subsidiaries ", improved administrative procedures , and reinforced the support system for foreign investors. In 1970 the first Free Trade Zone was established in Masan.

As a result of these various incentives, considerable foreign investment came to Korea during the early seventies. However, the government began to feel that unlimited approval of foreign investment might create adverse affects on the domestic economy such as

- (1) control of domestic industry by foreign firms and the resultant problem of implementing development strategies.
- (2) an increae in vulnerability in terms of external shocks
- (3) hinderance to development of indigenious firms.

To avoid the above and maximise the contribution of direct foreign investment to economic growth, the government made some major changes. Joint ventures were to receive higher priority than firms wholly owned by foreign investors. A specific general guideline for direct foreign investment was adopted in the same year. These guidelines consisted of criteria for project eligibility, foreign ownership and investment scales.

According to them the followings projects were ineligible:

- (a) those that disrupted domestic demand and supply of raw materials and intermediate products.
- (b) those that competed in overseas markets with domestic firms
- (c) those aimed solely at financial support for existing enterprises
- (d) those which sought to profit solely from land use

The foreign participation rate was basically limited to 50% except in the following cases:

- (1) entirely export oriented projects, which did not compete with domestic firms in overseas markets
- (2) Technology-intensive projects that produced or induced production of important exporting or import substituting products.
- (3) Multinational projects that invested only in form of wholly owned subsidiaries in other countries.
- (4) Projects that contributed to the rationalisation of domestic industrial structure and were beyond the capacity of domestic investors, because of large capital or advanced technological requirements.
- (5) Projects from a country that had made little investment in the past but which was expected to increase investment in future.
- (6) Projects by Korean residents abroad
- (7) Projects in free trade zones

Local participation of more than 50% was required in following types of projects:

- (1) Purely labour intensive
- (2) Purely bonded processing

- (3) Depended on domestic resources for major raw materials
- (4) Oriented towards local market sales.

The minimum amount of investment was set in 1973 at USDollars 50,000 per project and was gradually raised to U.S. Dollar 100 thousand 1974 and to dollar 500 thousand in 1979 basically to discourage small investors trying to utilize low cost labour.

With such detailed and comprehensive regulations, government was able not only to influence but to large extent control the pattern of foreign investment. Korea is an example of a country with very stringent foreign investment regulations.

In 1980, the Korean Government, liberalised foreign investment guidelines, allowing foreign investment in many new areas permitting firms to be majority owned or wholly owned by foreign investors in many additional cases. The limit for foreign investment was reduced to U.S.Dollar 100,000 to induce the small but technology intensive investors.

This reversal in policy had two objectives

- (1) To improve a deteriorating Balance of Payment situation
- (2) To provide increased competition for domestic firms to enhance the efficiency and productivity of protected firms, and to promote technological development of sophisticated industries.

#### **CHARACTER OF DIRECT FOREIGN INVESTMENT IN KOREA**

##### **Magnitude and relative importance of D.F.I.**

Investment in Korea increased rapidly between 1962 and 1981. Because of a low domestic savings rate in the initial stages, the investment had to be financed by foreign savings. In 1962 foreign savings accounted for more than 3/4th of total investment in Korea. Gradually the dependence on foreign savings was reduced and by 1977 it was just 2 percent of the total investment in Korea (refer to table 37). The massive investment in heavy and chemical industries, added to the second oil crisis, again increased Korea's dependence on foreign savings. In 1981, foreign savings accounted for 30% of total saving of Korea.

**TABLE 16**

## Outstanding Foreign Loans in Korea (US\$ millions)

Characteristic of Loan	1972	1977	1981
Long-term (3 years and over)	2,834	8,583	20,127
Public & commercial loans	2,671	7,477	14,349
Bank loans	155	602	4,174
IMF credit	8	341	1,246
Bonds	0	163	358
Medium-term (1 to 3 years)	116	350	623
Trade credit	114	335	564
Cash loans	2	15	59
Short-term (less than 1 year)	559	2,923	8,465
Trade credit	253	1,492	3,454
Refinance	164	695	3,892
Others	142	736	1,119
Foreign banks A account	40	792	3,275
<b>Total</b>	<b>3,549</b>	<b>12,648</b>	<b>32,490</b>

**Source:** Balassa in Walter Galenson(1985)

Foreign borrowings to supplement deficit domestic resources took a variety of forms(refer to table 16). Public and commercial loans were the major source throughout the period, but in later parts of the period(near 80s) importance of other loans, such as bank loans, IMF credit and short term trade credit increased, as Korea's balance of payment situation deteriorated in 1979.

Compared to the magnitude of foreign borrowings, the amount of Foreign Direct investment has been very small. At the end of 1980, a total of 1,421 separate foreign investments had been made in Korea, amounting to U.S.Dollars 1,610.6 Million on approval base, or U.S.Dollar 1,096.4 Million on arrival base. Among these 559 projects were either cancelled or localised , leaving 862 companies in operation at the end of 1980, with remaining amount of Dollar 971.2 Million<sup>2</sup>. (refer to table 17)

The amount of annual direct foreign investment has fluctuated throughout the period depending on such factors as general economic condition in Korea and around the world, Korean government policies and size of individual investments in each year.

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2. B.Y. Koo, "New forms of Foreign Investment in Korea" Working Paper Series 8202, Korea Development Institute.(1982).

TABLE 17

Trend of Foreign Direct Investment in South Korea 1962-80

Year	Number of Firms		Amount of investment (US\$ million)				
	Approved	Remaining	Approved	Arrived	With	Reimburse	Remain-
1962	1.0	1.0	0.6	0.6	2.1	4.8	0.6
1963	3.0	1.0	56.0	2.1	-	4.8	7.5
1964	4.0	2.0	0.7	3.1	-	-	10.5
1965	10.0	5.0	21.8	10.7	-	-	21.2
1966	19.0	6.0	14.1	0.2	-	-	21.5
1967	25.0	13.0	23.5	12.7	-	-	34.2
1968	51.0	20.0	25.4	14.7	0.0	1.4	50.2
1969	48.0	26.0	47.1	7.0	0.2	-	57.0
1970	115.0	56.0	67.4	25.3	0.2	0.4	82.3
1971	108.0	64.0	43.0	36.7	0.6	0.4	118.8
1972	189.0	120.0	122.4	61.2	2.9	0.4	177.4
1973	385.0	217.0	316.9	158.4	4.2	2.4	334.1
1974	176.0	90.0	148.5	162.6	6.2	6.1	496.6
1975	45.0	29.0	203.5	69.2	5.9	6.1	566.0
1976	50.0	39.0	80.5	105.6	4.4	7.6	674.7
1977	52.0	42.0	79.1	102.3	11.0	1.8	767.8
1978	53.0	48.0	151.7	100.5	11.8	26.9	888.5
1979	50.0	47.0	117.6	127.0	90.9	3.7	923.2
1980	37.0	36.0	141.3	96.6	90.2	41.5	971.2
Total	1,421.0	862.0	1,610.6	1,096.4	228.4	103.2	971.2

Source: Bohn-Young Koo: New forms of Foreign Investment, Working Paper Series 8202 Korea Development Institute, 1982.

Until 1973 (table 17) there was a general upward trend in the scale of annual investment flows. The annual flows increased from a meager U.S. Dollar 600 thousand in 1962 to U.S. Dollar 317 Million in 1973 on approval base. The scale dropped sharply after that and fluctuated widely showing no apparent trend either upward or downwards. Several factors appear to have been behind this relative stagnation in the inflow of direct foreign investment into Korea after 1974.

First, the Korean (refer to section on government policy towards direct foreign investment) government tightened up entry regulation for foreign investors in 1973, particularly regarding ownership restrictions and export requirements. Thus the potential foreign investors who wanted to retain management control or to develop a domestic market went to other countries where restrictions were more lenient.

Secondly, the Korean wage rate began to rise sharply in the middle of the 70's, particularly in relation to competing countries such as Singapore, Hong Kong and Taiwan. Foreign investors who wanted to utilise low cost labour went to these countries. Hence, the annual direct foreign investment flow into Korea stagnated during 1974-81,

**TABLE 18**

Comparative Data on Direct Foreign Investment

Country	Population, mid-1976 (millions)	GNP, 1976 (billions of dollars)	Net direct foreign investment <sup>a/</sup>				Profit repatriat- ions from direct foreign investment 1972-76	
			Millions of dollars		Percentage of net foreign capital inflow <sup>b</sup>		Percentage of GNP	Percentage of exports
			1967-71	1972-76	1967-71	1972-76		
Korea	35.9	25.3	120.1	460.2	3.7	7.9	0.1	0.4
Brazil	110.1	143.0	1,483.5	6,158.3	33.8	22.9	0.5	6.5
Colombia	24.3	15.6	232.1	148.3	21.4	10.2	0.7	3.9
Mexico	62.0	65.4	1,283.9	2,617.5	36.6	16.6	1.2	12.5
Taiwan	16.3	17.1	222.1	274.9	32.9	12.9	0.5	1.1
Thailand	43.0	16.3	236.1	499.0	26.1	28.0	0.2	0.9
Turkey	40.9	41.3	261.1	390.3	9.6	6.6	0.2	2.0

Source : Table Taken From Westphal, Rhee and Purseu (1981)

a/ Net of capital repatriations but not of profit (plus dividends) repatriations.

b/ Net of principal repayments but not of interest payments.

particularly in terms of new entrants. The table shows that on approved base, number of firms were 115 in 1970, 108 in 1971, 189 in 1972, 385 in 1973 and 176 in 1974. After this number of firms on approved base decreases drastically to 45 in 1975, 50 in 1976, 52 in 1977 and finally 37 in 1980.

Only a small proportion of inflow of foreign capital into Korea has been in form of DFI. During 1962-71 DFI contributed a mere 4% of net inflow of foreign capital. If we exclude grant assistance, the contribution of DFI rises to about 11% of the total capital inflow in 1972-76. Around 80% of direct foreign investment went into the manufacturing sector. But the contribution of DFI to gross investment in manufacturing sector was no more than 5% in 1962-71 and 11% in 1972-76.

Comparing DFI in Korea in relation to DFI in other developing countries, one finds that the DFI has not been relatively large in Korea (refer to table 18). The cumulative per capita inflow of direct foreign investment into Korea during the decade 1967-77 was about a quarter of that into Brazil and Mexico, and roughly half that into

Taiwan<sup>3</sup>. It was same as that of Turkey, Thailand and Columbia. If we consider net direct foreign investment as a percentage of net foreign capital inflow, the figure for Korea is less than that of any other country (of our group ) for the period 1967-71. In the second period the Korean ratio is slightly higher than that of Turkey. Profit repatriation from direct foreign investment (for the period 1972-76 ) as a percentage of GNP and exports is least for Korea among the countries considered.

All these figures strengthen the contention that direct foreign investment has not been relatively large in Korea.

Before winding up this section, one needs to look into what motivated foreign investors to invest in Korea.

In a survey done in 1968<sup>4</sup>, The Federation of Korean Industries tried to find motives for foreign investment. The findings were as follows:-

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3. Using the table these figures calculated for different countries were as follows - rough estimates. Brazil - \$70, Mexico - 62\$, Turkey - 13.47\$ Columbia - 15.6\$, Korea - 16\$, Taiwan - 30.5\$ Thailand - 17\$.
  4. Bachi - 1987 - ARTEP, New Delhi.

Main motive of majority of firms surveyed was to take advantage of expected growth of South Korea's local market. In 1974 when a Korean university team conducted another survey, they found that more than 1/3rd of firms wanted to take advantage of low wages of unskilled and semi-skilled workers. The motive of another 15% was to secure overseas export markets through Korean production. In the case of other groups, high growth and local markets counted the most, but a definite shift had been taking place towards low wage based production for export markets. On the domestic side, nearly one half of the partners of joint ventures in Federation of Korean Industries survey stated that they had entered into joint ventures with foreign firms in order to export their product directly to foreign partners and utilise foreign brand names and management for export purposes. Vast majority of firms with foreign investment were in joint ventures.

#### COUNTRYWISE DISTRIBUTION OF DFI

There was no DFI in Korea between 1945-60<sup>5</sup>. The first instance of DFI in post World War period was in 1962.

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5. Westphal, Rhee, and Pursell, 1981.

Between 1962-66 the total DFI in Korea was 43 Million dollars, out of which 75% came from The United States. In 1966 and 1970 the legislations regarding DFI were relaxed in Korea. Also around 1965 Korea normalised its relations with Japan, after which Japanese investors were responsible for massive inflow of DFI into Korea.

Reasons for high Japanese investment in Korea

- (1) Korea is nearer to Japan not only geographically but also historically
- (2) Korea has an abundant and relatively well educated labour force, with wages considerably lower than those in Japan. Japan utilised this advantage of Korea to rescue its declining industries by shifting them there.
- (3) Japan had more than 600,000 Korean residents who had emigrated before World War II. These people invested heavily in Korea.

In response to the generous legislative incentives DFI into Korea increased by more than four and a half times for the period 1967-1971, (compared to the previous period 1962-66) to dollar 206 million. Out of this 45.3 % of the

total was from Japan (in previous period the Japanese share was only 21% ),while the American share had declined to 39.8 percent compared to 75% in the earlier period(refer to table 19).

In the next period 1972-76 , DFI into Korea had increased by three times (the 1967-71 investment) to 872 Million dollars. Japanese share had increased to 75%, while American share had gone down to a mere 11% .

During 1977-81 Japanese share declined to 36.8% while American share increased to 34.2% . The European share in total DFI had increased from 1.8% in 1962-66 to 18.6% in 1977-81. One notes that after mid 1970s Japanese investment declined in relative terms, while U.S. and European investments gain importance. This is because of the very nature of U.S and Japanese investments. Japanese investment was concentrated in labour intensive export industries, while U.S. investment was largely in import substituting heavy and chemical industries. As labour costs began to rise in Korea after the middle of the 70's, there was a geographical dispersal of labour intensive industries away from Korea to other Asian countries with lower wages. The rise in labour cost did not become a

serious obstacle for development of heavy and basic industries.

**TABLE 19**

Distributiion of investor countries:%age in total investment Period Japan U.S.A. Europe Others

	Total Amt.		No.of		(\$MIL) firms		
1962-66	21.1	75.0	1.8	2.1	100	43	37
1967-71	45.3	39.8	4.9	10.0	100	206	347
1972-76	72.2	11.0	8.8	8.0	100	872	845
1977-81	36.8	34.2	18.6	10.4	100	636	235
Avg/Total	55.0	24.3	11.6	9.1	100	1757	1464
Amt(US\$ MILL)	966.0	427.0	206.0	158.0	1757		
No.of firms	1108.0	235.0	68.0	53.0	1464		

**Source:** Minsitry of Finance Taken from B.Y.KOO "Direct foreign investment in Korea" in Walter Galenson, John Hopkins Press,1985

## INDUSTRYWISE DISTRIBUTION

Most of the foreign investment in Korea is concentrated in the manufacturing sector. In 1980-81 only one percent of the total investment was made in the primary sector. The manufacturing sector accounted for 75% of investment, while the service sector accounted for 24% of the investment (table 20). The main reason for low foreign investment in the primary sector is that Korea is not very well endowed with natural resources (most of the DFI in other developing countries is concentrated in primary sector activities like mining, extraction, plantation etc). The DFI in the service sector was controlled by the government. In service sectors it was allowed only on very special circumstances, like in the promotion of tourism. Direct foreign investment in the hotel industry was approved with restrictions. In the remaining areas several data processing companies, computer companies, other leasing companies and special purpose storage companies were allowed foreign collaboration.

The distribution of investment in the manufacturing sector was also greatly influenced by government policies. At early stages of Korean

TABLE - 20

Distribution of Direct Foreign Investment Inflow by Industry, 1962-81 (%)

	1962-66	1967-71	19672-76	1977-81	Average/ Total (US\$ millions)	Amount
Agriculture,						
fishery, & forest	0.3	0.9	1.4	1.1	1.2	21.4
Mining	0.0	0.2	0.4	0.2	0.3	5.5
Manufacturing	98.5	84.9	75.5	68.3	74.6	1,310.2
Food	7.9	1.5	0.9	4.7	2.2	44.5
Textile & garments	2.2	10.	18.9	0.6	22.1	191.0
Chemical	0.9	10.9	19.5	19.4	18.2	306.1
Pharmaceuticals	0.7	1.4	0.2	1.5	0.6	14.7
Fertilizer	57.2	0.0	2.4	0.0	2.7	46.0
Petroleum refining	11.7	18.3	3.7	1.3	4.6	85.3
Metal	0.0	10.0	4.0	3.8	4.6	79.4
Machinery	4.7	8.0	5.7	10.0	7.6	132.0
Electrical & electronics	8.7	13.5	11.9	17.9	14.2	249.3
Transport equipment	0.4	1.2	4.9	4.2	4.2	72.0
Service	1.2	14.1	22.7	30.4	23.9	420.4
Banking	0.0	1.3	1.4	8.2	3.8	67.0
Constuction and business services	0.0	6.8	2.2	5.9	4.1	70.8
Hotels	1.2	3.1	18.6	11.9	13.9	244.7
Total	100.0	100.0	100.0	100.0	100.0	1,757.5
Amount (US\$ millions)	42.8	206.3	871.8	636.6	1,757.5	

Source : B.Y. Koo in Walter Galenson (1985). op.cit

industrialisation, foreign investment was concentrated in areas like fertilizers, petroleum refining and chemicals, to substitute for import of major raw materials. At the next stage of import substitution direct foreign investment expanded to such areas like synthetic fibres and petrochemicals.

As Korean exports gained momentum, a large amount of the DFI also began to flow into areas like garments, electronics and machine tools. In the later half of the 70's the DFI also came into heavy electricals and non-electrical machinery industries, as Korea began her second stage of import substitution. Around that time the DFI in the textile industry had almost ceased, since Korea was beginning to lose its comparative advantage in that industry. The DFI continued in chemicals and electronics industries for further import substitution and for development of more sophisticated products.

In 1960's and 70's, very few DFI entrants were allowed to compete with domestic firms in the domestic consumer goods market. Relatively small investments were made in areas like food processing, pharmaceuticals, cosmetics, and distribution services. Those foreign

TABLE - 21

Industrial Distribution of Direct Foreign Investment by Country (%)

	Japan	U.S.A.	Europe	Others	Average/ Total
Agriculture, fishery, & forest	1.2	0.9	0.5	0.9	1.0
Mining	0.3	0.0	0.1	0.0	0.2
Manufacturing	67.5	82.8	85.7	60.5	72.7
Food	1.8	3.7	0.0	5.6	2.5
Textile & garments	10.6	0.2	0.7	1.3	5.6
Chemical	16.4	21.0	64.9	3.7	22.0
Pharmaceuticals	0.2	1.7	3.8	1.4	1.1
Fertilizer	0.1	7.5	0.0	11.1	3.3
Petroleum refining	0.0	0.2	0.5	18.5	2.5
Metal	7.2	0.8	1.7	5.9	4.8
Machinery	8.9	3.4	7.9	7.0	7.2
Electrical & electronics	16.4	26.8	4.5	4.5	16.0
Transport equipment	1.1	12.7	0.0	0.0	3.7
Service	27.6	16.3	13.8	38.6	26.2
Banking	0.2	1.4	13.7	24.3	5.2
Construction & business services	4.6	8.1	0.0	0.6	4.4
Hotels	25.1	1.3	0.0	9.2	14.1
Total	100.0	100.0	100.0	100.0	100.0
Amount (US\$ millions)	645.2	314.7	157.7	158.6	1,276.1

Source : B.Y. Koo in Walter Galemson (1985). op.cit

producers of consumer goods which were allowed entrance, were asked to export their entire produce or to substitute for imports. (Table 21 shows industrial distribution of investment by countries). Japanese investments were relatively heavy in textile machinery and in the hotel industry. U.S. investment was dominant in transport equipment and business services. Both U.S. and Japan invested heavily in chemical and electronic industry while European investment was mainly in machinery industries.

Japanese investment was relatively more concentrated in export oriented industries, while U.S. and European investment was more of the import substitution type.

#### **FOREIGN OWNERSHIP PATTERNS**

Korea was one of the few countries which till recently strictly enforced local participation in the form of joint ventures. Table 22 shows the ownership distribution of foreign firms in Korea by investor countries dividing ownership into four categories, minority owned (less than 50%), co-owned (50%), majority owned (more than 50% but less than 100%) and wholly owned (100%).

Reflecting the government's strong enforcement of local participation, the proportion of wholly owned subsidiaries among all approved firms remained 14.6% in 1981. If free export zones are excluded (where there is no restriction on foreign ownership), the proportion is further reduced. The proportion of less than majority owned (minority owned & co-owned) firms amounted to 73% of all foreign firms.

The U.S. had the lowest proportion of less than majority owned firms, and Japan the highest proportion of minority owned firms. Feldman<sup>6</sup> has given the following reasons to explain the reluctance of U.S. firms to form joint ventures, particularly among less than majority owned ones :

- (1) A large United States home market gave U.S. firms a viable alternative to overseas investment and these firms also enjoy greater access to capital than their foreign competitors, decreasing the need for joint ventures.
- (2) More U.S. than Japanese or European firms possess proprietary technologies, and they do not need to share

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6. See Feldman 1978 "Coping with new Challenges to Investment Ventures abroad" Commerce America (July 3 and 17).

such assets with firms in other countries, which they will have to do in joint ventures.

- (3) The long tradition of arms length relationship between the government and the business community in U.S. predisposes U.S. Managers to resist the host government's pressures more strongly than do Japanese or European Managers.
- (4) The management system of U.S. firms particularly the multi-nationals, is more centrally oriented than those from other foreign countries. Minority owned firms create management difficulties for such (U.S.) firms.

Mason points to the less sophisticated nature of Japanese technology. The Japanese had fewer economic rents to be appropriated from superiority of technology, compared to U.S. and European firms. This could be one of the major reasons explaining the greater receptiveness of Japanese firms to joint venture agreements with host country firms. Mason<sup>7</sup> mentions that Japanese manufacturing firms are on the average more likely to be in direct competition with local firms, and joint venture forming may serve the purpose of protective collaboration.

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7. Mason, 1980.

Lee (1980-H. Chung "U.S. and Japanese direct investment in Korea)<sup>8</sup> points out that difference in characteristics of intangible assets possessed by U.S. and Japanese firms may be the main reason for differences in their behaviour. U.S. firms invest abroad with greater advantages in production and management techniques, while Japanese firms invest more with marketing advantages in home and world markets. When the purpose of investment is to sell in the home and world markets, rather than host country markets, the investor enjoys more leverage in pricing of both imported inputs or exported outputs, so the need for the majority ownership becomes less compelling.

**TABLE 22**

Ownership distribution of foreign firms in 1981( %age)

Country	Minority owned	Co-owned	Majority owned	wholly owned	Total	No. of firms
Japan	45.3	27.9	11.9	14.9	100	612
U.S.A.	38.5	29.6	14.8	7.0	100	1351
Europe	36.5	40.4	11.5	1.5	100	521
Others	50.0	33.3	11.1	5.6	100	36
Ave/Total	43.8	29.2	12.3	4.6	100	8351

Note : The distribution has been calculated using remaining firms as sample Taken from B.Y.Koo "Direct foreign investment in Korea in Walter Galenson (1985).

8. As quoted B.Y. Koo in Walter Galenson (1985).

## SCALE OF INVESTMENT

There have been many small scale investors particularly from Japan. During the early seventies, many small and medium size Japanese firms moved their plants to East Asian countries, including Korea, to utilise low cost labour. Therefore the average size of the DFI in Korea is quite small. In terms of number of firms, those with investments of less than US \$ 1 million constituted 75% of foreign investment. The big multinationals with investments of over US \$ 5 million accounted for 60% of direct foreign investment inflows ( in terms of magnitude of investment).

**TABLE 23(a)**

Distribution of investment by scale

Scale (US \$ Million)	Number of firms	%age	Amount (US \$ Millions)	%age
0.5	516	61.8	83.0	6.5
0.5-1	111	13.3	78.5	6.2
1-5	155	18.6	344.5	27.0
5	53	6.3	770.0	60.9
<b>Total</b>	<b>835</b>	<b>100.0</b>	<b>1276.0</b>	<b>100.0</b>

**Source :** Ministry of Finance

**Note :** Sample based on firms existing at the end of 1981.  
Taken from B.Y. Koo's article in Walter Galenson(1985)

Over time, the average scale increased for investments from every country both because governments had continued to increase the minimum scale of investment until 1980 and because the DFI by small and medium sized Japanese firms had declined relatively in importance in recent years. In addition, several large investments in heavy industries and chemical industries during the latter half of the seventies have contributed to the trend of increasing average size of investments. The scale of Japanese investment however remained the smallest among the major investing countries in Korea.

**TABLE 23(b)**

Changes in average scale of investment (US \$ millions).

Country	1962-66	1967-71	1972-76	1977-81	Aveg./Total
Japan	1.5	0.4	0.9	1.8	0.9
U.S.A.	1.5	1.0	1.4	3.4	1.8
Europe	0.2	1.3	3.3	3.7	3.0
Others	0.2	1.4	3.2	5.5	3.0
All Countries	1.2	0.6	1.0	2.7	1.2

**Source** : Bank of Korea Handbook, 1985.

## EFFECTS OF FOREIGN INVESTMENT IN KOREA

### Cost of Foreign investment

Direct costs of foreign investment consists of profit remittances, reinvestment earnings, royalties and other service fees and foreign claims on undistributed profits. Reinvested earnings and foreign claims on undistributed profits are not true social costs from a national economic viewpoint, since both funds can be assumed to be used for productive activities in host countries, and no real transfer of resources occurs until profits are remitted abroad. So only profit remittances and royalties and other service fees sent by foreign firms are included as direct costs of foreign investment. Indirect costs would include reduced competitiveness of domestic firms, reinforcement of dualistic social structures and distortion in financial resource allocations, because of privileged position of foreign firms among others. The political loss of independence in decision making of the host country is partly because of pressures exerted by MNC's. Also there is a possibility of overcharge of imported inputs in intra company transactions. These indirect costs are hard to ascertain or quantify, and hence will not be considered here.

TABLE 24

Cost of Direct Foreign Investment in Korea (US\$ millions)

Year	Cumulative Arrivals (A)	Cumulative Withdrawals (B)	Remaining Balance (C)=(A-B)	Profit Remittance (D)	Royalties (E)	Profit Ratios	
						I (D)/(C)	II ((D)+(E))/(C)
1966	16.7	0.0	16.7	0.2	N.A.	1.0	3.0
1967	29.3	0.0	29.3	0.2	0.5	1.0	3.0
1968	44.1	0.0	44.1	0.6	0.4	1.6	2.8
1969	51.0	0.2	50.8	5.5	0.7	11.7	13.2
1970	76.3	0.4	75.9	8.1	5.1	12.8	20.8
1971	113.0	1.0	112.0	8.3	3.1	8.9	12.2
1972	174.3	3.9	170.3	6.7	4.1	4.7	7.6
1973	332.7	8.1	324.6	15.4	7.0	6.2	9.1
1974	495.3	14.2	481.1	26.8	7.9	6.7	8.6
1975	564.5	20.1	544.3	24.0	12.6	4.7	7.1
1976	670.1	24.6	645.5	37.7	14.8	6.3	8.8
1977	772.4	35.6	736.8	49.3	30.1	7.1	11.5
1978	872.8	47.3	825.5	44.1	27.7	5.6	9.2
1979	999.8	138.2	861.6	54.7	N.A.	6.5	N.A.
1980	1,096.4	228.4	867.5	46.8	N.A.	5.4	N.A.
1981	1,206.5	231.8	974.7	49.0	N.A.	5.3	N.A.

Source: B.Y Koo, op.cit

Table 24 shows cost of foreign investment as a ratio of profit remittances (and royalties) sent abroad by foreign firms, to the total remaining balance of foreign investment in Korea. The ratio does not show a definite trend, which is a result of instability of profit rates. Profitability of foreign firms is not only influenced by general business conditions, but also by such factors as exchange rates, the host government's trade and industrial policies and new foreign entrants.

A reduction in profit rates in 1971, 1972, 1975 and 1980 is observed. This might be a result of the worldwide recession and the devaluation in Korea in mid 1971, the end of 1974, and early 1980s.

Royalties constituted about a third of the total remittances, but their proportion has been rising in recent years, implying an increasing use of licensing agreements by foreign firms. Profitability of foreign firms differed among countries due to different industrial distributions and different motives for DFI. Table 25 shows that the ratio of profit remittances sent abroad by firms from individual countries to the average remaining balance of investment by these firms in Korea,

**TABLE 25**

Profitability of Foreign Firms

Year	USA	Japan	Europe	Others	Average
1977	23.8	2.7	7.4	2.6	7.1
1978	12.0	3.9	6.8	3.7	5.6
1979	14.7	3.9	4.5	7.3	6.5
1980	11.2	2.8	5.2	8.8	5.4

Source : B.Y. Koo (1982) Working Paper 8202, Korean Development Institute Seoul.

for years 1977-81. The profit remittance ratios have been the highest for US firms, followed by European firms, and least for the Japanese firms. These differences are due to differences in market orientation. (Table 26)

Japan invested in export industries with advantages in marketing skills, either in Japan or abroad, while US investment was more towards domestic market oriented firms. So to Japanese investors, who imported most of their inputs and exported most of their products either to Japan or the world market, the retention of profits in Korea was neither desirable nor profitable. US investors who sold their products in Korean markets had to earn a return in form of either profits or royalties. In addition there were cases at the earlier stages of development, where, higher profits were guaranteed by the Korean government to induce US investors in such key industries as fertilizers and petroleum refining. These factors appear to explain the relatively high profit ratios for the US firms.

One needs to compare the costs of the DFI with those of commercial loans. It is sometimes argued that the DFI is a more desirable form of foreign capital since

it does not entail prefixed cost to the host country, as in case of commercial loans, and exerts less pressure on the balance of payment to the host country.

**TABLE 26**

Average Costs of Commercial Loans and Foreign Investment (%)

Year	Commercial Loans	Foreign investment	
		ratio I	Ratio II
1967	3.5	1.0	3.0
1968	2.9	1.6	2.8
1969	3.5	11.7	13.2
1970	5.4	12.8	20.8
1971	6.0	8.9	12.2
1972	6.8	4.7	7.6
1973	7.8	6.2	9.1
1974	8.4	6.7	8.6
1975	8.1	4.7	7.1
1976	7.6	6.3	8.8
1977	8.1	7.1	11.5
1978	8.6	5.6	9.2
1979	9.5	6.5	n.a
1980	11.3	5.4	n.a
1981	12.8	5.3	n.a

Source : Same as Table 24.

## LINKAGE EFFECTS

To Measure the contribution of DFI to economic growth, one should take into account not only the activities of foreign firms themselves but the activities of domestic firms as well, which are directly or indirectly affected by foreign firms. If the foreign firms had not existed, the activities of those domestic firms would have been either considerably reduced or non-existent.

According to Sanjay Lall, (1978, Transnationals, Domestic Enterprise and Industrial Structure) local Linkage creation depends on such diverse factors as stage of Industrial development, technological capabilities, trade and industrial policies in the host countries and host country's bargaining power vis-a-vis Multinationals.

One can measure linkage effects by calculating domestic raw materials purchased per unit of production by foreign firms as illustrated in the following table.

TABLE 27

Linkage effects of Foreign Firms in Korea (US \$ millions)

	1974	1975	1976	1977	1978
1.0 Production	2,895	3,541	5,106	6,541	8,630
2.0 Raw material purchased	2,375	2,725	3,749	4,471	5,958
2.1 From Domestic firms	431	472	793	995	1,786
3. Linkage effect (2.1/1.0)	0.149	0.133	0.156	0.153	0.207
4. Share of domestic Raw Material (2.1/2.0)	0.181	0.173	0.212	0.223	0.300
5. Raw Material Ratio (2.0/1.0)	0.820	0.770	0.734	0.684	0.690

Source : Calculated by B. Y. Koo & Direct Foreign Investment in Korea' (1982) KDI working paper-8202

The linkage effect measured this way overstates the true magnitude of linkages because of several factors :

1. Some of the raw material might have been produced even without foreign investment;
2. Many of the foreign firms have minority foreign ownership;
3. Some of the transactions are between foreign.

The first round backward linkages create additional backward linkages, and there should have been some forward linkages too, through supply of better quality components and parts by foreign subsidiaries to local firms. These two effects cancel each other out. The estimates presented in the table though quite rough, may reveal the probable magnitude of linkage effects.

The table - 27 shows that by 1978, one unit of production by foreign firms in Korea, was generating 0.2 units of additional production in other domestic firms for the whole economy. The table also indicates that linkages have been increasing during the period, mainly because of increasing procurement of domestic raw materials by foreign firms. The proportion of raw materials purchased from foreign firms by domestic firms has increased from 18% in 1974 to 30% in 1978. Even though the raw material ratio decreased, the dependence increased.

#### **DIRECT FOREIGN INVESTMENT AND CONTRIBUTION TO EXPORTS**

Much of DFI was approved on the condition that it would involve exports. In 1978, 331 foreign firms were required to export all their output, of the 526

remaining foreign firms which were allowed to sell a portion of their output in domestic market , 144 had to export at least 50% of their output, while only 245 had no condition regarding exports attached to their approval.

The initial inflows of DFI into Korea were for import substitution and thus almost exclusively oriented towards the domestic market. DFI's contribution to export expansion during the period (1962-66) was not significant. DFI began flowing into export sectors in the period 1967-71, but only in modest volumes.

Cohen (1973) did a study of manufactured exports in 1971. He calculated that at least 15% of S.Korea's manufactured exports in 1971 were undertaken by TNC's operating there. His analysis is criticized for having considered too small a sample. Also he left out foreign firms in plywood, cloth and clothing, petroleum and chemicals, ie. products which significantly contributed to overall exports. His aggregates were based partly on his own sample and partly on incomplete published and unpublished materials ( Cohen 1975 page 61-62).

Another study (as reported in N.K. Chandra's paper) done by The Economic Planning Board, Seoul, has its own figures. According to them, foreign firms shares rose steadily from 6.2% of total exports in 1971 to 10.7%, 10.8%, 17.3% and 17.6% in subsequent years till 1975.

Westphal, Rhee and Pursell (1979) say that the scope of this paper is quite narrow. These authors provided their own estimates for 1975. Foreign firms accounted for 10% of exports in textile and garments, 75% in case of electrical machinery and 10% in remaining sectors. The percentage contribution of these sectors was 40%, 10% and 50%. They came to the conclusion that the share of foreign firms comes to 16.5%.

In another empirical study, WestPhal, Rhee and Pursell (1981) found that the foreign firms accounted for only six percent of Korea's total export in 1971 (see table - 28).

After 1970's an increasing inflow of DFI led to a rise in proportion of exports by foreign firms, as most of the DFI was export oriented. In 1975, wholly or partly foreign owned firms were responsible for 17.6 of Korea's exports.

TABLE 28

Commodity Exports by Foreign Firms (1971-75)  
(in \$ ml.at current prices)

Items	1971	1972	1973	1974	1975
I Commodity Exports (at current prices)	1,067	1,624	3,225	4,460	5,081
II By foreign firms	66	174	348	771	892
III Percentage share of II in I	6.2	10.7	10.8	17.3	17.6

Source : Westphal, L.E., Y., Rhee, and G. Pursell. 1981. " Korean Industrial Competence : Where It Came From, " World bank Staff Working Paper No. 469 (July).

Given the share of foreign firms in capital stock in manufacturing as less than 10%, the foreign firms appear to contribute a relatively higher share of manufactured exports.

The aforesaid analysis depicts a disproportionality, which largely results from disproportionate representation of foreign firms in principal export sectors, rather than their having higher propensities to export than do domestic firms in the same sectors.

In 1978, 30% of DFI was in Korea's principal export sector, textile apparel and electrical machinery (consisting primarily of electronic products). During the mid 1970's textile and apparel constituted nearly 40% of total exports while electrical machinery was roughly 10%. These sectors respectively accounted for about 20 and 60 percent respectively of manufacturing exports by foreign firms. These firms were responsible for about a tenth of exports of textiles and apparel and three quarters of the exports in electrical machinery.

Rapid changes in technology within the industry the world-over were responsible for Korea's dependence on MNC's, in exporting electronic goods. Many of the exports are intra-firm transactions or based on sub-contracting, with MNC'S providing the production knowhow and critical inputs.

In case of textiles and apparel the situation appears to be quite different. Marketing rather than technological factors appear to be responsible for MNC'S involvement.

Another study was conducted by B.Y. Koo in an OECD sponsored study on TNC's in S.Korea. The study gave a detailed commoditywise breakdown of their exports of manufactures in 1974 and 1978.

**TABLE 29**

Manufactured Exports by TNC's in 1974 and 1978. (\$ millions)

	1974	1978
Food products	21.2	154.6
Textiles and garments	81.5	290.4
Leather and footwear	5.2	50.3
Chemicals	120.4	525.4
Refined petroleum	146.6	100.5
Plastics	5.4	56.6
Metals	22.9	56.7
Machinery, Non-Electrical	20.6	47.0
Electrical machinery	345.5	887.2
Transport equipment	1.3	54.0
Other equipment	9.4	27.7
Sub total	.7	2394.4
Massan FTZ	180.2	416.0
Total	1011.9	2810.4

**Source** : B.Y. Koo, cited in CTC (1983<sup>a</sup>), page - 300

**Note :** In case of commercial loans, the average costs of of capital have been calculated as the ratio of interest payments in the year, to the average of the remaining balance of total commercial loans at the beginning and end of the year : and the costs of foreign investment are the same as profit ratios reflected in table 24.

Table (26) shows average cost of commercial loans, expressed as ratio of interest payment to the average remaining balance of commercial loans in the year. The cost of commercial loans rose steadily from 1967 to 1981. It was 3.5 in 1967, 5.4 in 1970, 8.1 in 1975 and finally it reached 12.8 in 1981. The increasing cost reflected interest rate changes in the international capital market. The table shows that the average cost of foreign investment in terms of the average remittances ratio fluctuated widely.

The ratio of profit remittances alone to the average remaining balance (ratio I) have been lower than the average cost of commercial loans. When royalties are added to profit remittances the combined ratio (ratio II) is higher.

Thus one cannot unequivocally say that DFI is less expensive than foreign capital, in terms of financial burden.

The aggregate value of these two years in billions of Dollars was 1.01 and 2.81 respectively, amounting in both years to around 24% of total manufactured exports.

The studies discussed above reach the following consensus :-

1. Importance of TNC's within South Korean manufacturing sector increased over the period of time.
2. In some branches that attracted foreign investment a very high proportion of output is exported. In 1972 foreign subsidiaries and minority capital participation companies in electronics sector were exporting around 54% and 18% respectively, of their gross output.
3. Exports by foreign firms were heavily concentrated in commodity clusters ie. textiles and apparel, electrical products etc.. Foreign firms had a limited involvement in most product categories that were among Korea's important exports in the earlier period. The products are, plywood (in the later period), transport equipment (especially ships), footwear, iron and steel (particularly steel plates), manufacture of

metals, non-metallic mineral manufactures (notably cement), tins and precision instruments. Foreign firms helped to initiate production of some intermediate inputs in exports.

4. Since 1960 much of DFI has gone into sectors producing indirect exports, particularly petrochemicals and their derivatives, synthetic fibres and resins.

#### **EFFECT OF DIRECT FOREIGN INVESTMENT ON BALANCE OF PAYMENT**

If we refer to the table 30, it shows DFI annual withdrawals, profit remittances and royalties sent by foreign firms usually, and compares their net effect on Balance of payments with total foreign exchange expenditures of the economy for the year.

Net direct effect on balance of payment is calculated by subtracting investment withdrawals, profit remittances and royalties from investment annuals. Table 30 shows that the net direct effect on balance of payment was \$ 12.0 million in 1967. It increased substantially by 1972, when it was \$ 47.5 million. After that it decreased and was \$ 11.9 in 1977 and later increased to \$ 16.9

**TABLE 30**

Direct Balance-of-Payments effects of Foreign Firms in Korea (US\$millions)

Year	Investment Arrivals	Investment Withdrawals	Profit Remittance	Royalties <sup>a</sup>	Net Direct Effect on Balance of Payments	Current Foreign Exchange Expense of Whole Economy <sup>b</sup>	Proportional Effect of Foreign Firms
	(A)	(B)	(C)	(D)	(E)=(A-B-C-D)	(E)	((G)+(E)/(F))
1967	12.7	0.0	0.2	0.5	12.0	1,060.0	1.1
1972	61.2	2.9	6.7	4.1	47.5	2,767.8	1.7
1977	102.3	11.0	49.3	30.2	11.9	13,284.1	0.1
1978	100.5	11.8	44.1	27.7	16.9	18,717.5	0.1
1979	126.0	90.9	54.7	N.A.	N.A.	24,120.8	N.A.
1980	96.6	90.2	46.8	N.A.	N.A.	28,347.3	N.A.
1981	105.4	3.4	49.0	N.A.	N.A.	32,946.9	N.A.

**Source** Koo. B.Y. "Direct Foreign Investment in Korea's Recent Economic Growth" in Walter Galenson (ed.) University of Wisconsin Press (1985).

million in 1978. In spite of a 67% increase in investment arrivals by 1977 ( compared to 1972), the net direct effect decreased by 75% (compared to 1972). This could be accounted for by a 635% increase in profit remittances (from \$ 6.7 million in 1972 to \$ 49.3 million in 1977) and a similar increase in royalties. (from \$ 4.1 m to \$ 30.1 million)

After 1978, the net direct effect on balance of payments can not be calculated because of insufficient data on royalties. Even if one does not consider royalties, and calculates rough net direct effect (i.e. investment arrivals minus investment withdrawals minus profit remittances ) for later years , one realises that the net direct effect will be negative. Rough net direct effect is -18.7 for 1979 and -40.4 for 1980. These figures are underestimates of the negative net direct effect, as royalties have to be subtracted from these figures. The negative effects in 1979 and 1980 are caused by large withdrawals by a few large investors. They cannot be considered as normal years since the situation stabilised in 1981. ( Net withdrawals decrease to \$ 3.4 million).

TABLE 31

Export and Import Activities of Foreign Firms in Korea (US\$ millions)

	1974	1975	1976	1977	1978
1.0 Total exports by foreign firms (excluding petroleum)	1,024 923	1,135 1,040	1,962 1,830	2,332 2,232	2,899 2,869
2.0 Domestic sales by foreign firms (Excluding petroleum)	1,853 801	2,406 1,007	3,144 1,473	4,209 2,047	5,731 3,075
3.0 Total imports by foreign firms (Excluding petroleum)	1,932 823	2,253 909	2,956 1,311	3,476 1,439	4,172 1,889
4.0 Balance-of-payments effects I (1.0 - 3.0) (Excluding petroleum)	-908 100	-1,118 131	-994 519	-1,144 793	-1,273 980
5.0 Balance-of-payments effects II (1.0 + 2.0 - 3.0) (Excluding petroleum)	945 901	1,288 1,138	2,150 1,992	3,065 2,840	4,458 4,005
6.0 Total current account expenditures	7,598	7,997	10,120	13,284	18,718

Source: B.Y. Koo, op.cit

The figures for proportional effect of foreign firms ( last column of table 30 ) show that the ratio of net direct effect on balance of payments to current foreign exchange reserves of the economy as a whole has been quite low and is decreasing . The figures show that DFI has no significant positive BOP effect, and it may even be negative for bad years (for example 1979-1980).

The picture changes if one takes into account the impact of DFI on balance of payments through export and import activities of foreign firms. ( Refer Table 31)

It shows estimated values of total exports and imports of foreign firms during 1974-78 . If one assumes that none of the domestic sales by foreign firms was import substituting, the balance of payment effect (I) of foreign firms appears to have been consistently negative.

On the other hand, if we assume that all domestic sales by foreign firms have been import substituting, the balance of payments effect (II) of foreign firms appears to be substantially positive and increasing . It was \$ 945 million in 1974, \$ 1,288 million in 1975, \$2,150 million in 1976, \$ 3,065 million in 1977 and finally \$ 4,458 million in

1978. Between 1974 and 1978 (i.e. in 4 years) it increased by 371 % , which by any measure is quite substantial. The second assumption (that domestic sales by foreign firms have been import substituting) appears to be more plausible, especially because the government, more or less, restricted foreign investment into export and import substituting industries., No foreign investment was allowed, where foreign firms would compete with domestic firms in the domestic market. The plausibility of the assumption can be verified by the figures if petroleum refining, an import substituting industry is excluded. In that case the balance of payments effect appears to be positive and increasing, even though none of the other domestic sales by foreign firms are regarded as import substituting.

Though the exact magnitude of the BOP effect is difficult to measure, the export-import figures show that the effect is substantial and is increasing.

**EFFECTS OF DIRECT FOREIGN INVESTMENT ON EMPLOYMENT  
GENERATION**

Most of the DFI was concentrated in export industries. Exports were responsible for five percent and seven percent of total manufacturing employment in the years 1960 and 1963. Their contribution to total manufacturing employment increased substantially after 1970s. It was 46.3% in 1970, 72% in 1975 and finally 68% in 1980<sup>9</sup>.

**TABLE 32**

Employment Creation by Manufacturing Exports (in 1,000)

	1960	1963	1966	1970	1975	1980
1. Export induced employment	26	43	148	549	1541	1810
2. Total Manufacturing employment	523	610	833	1188	2107	2648
3. 1/2 %age	5	7.1	19.0	46.3	71.9	68.3

**Source** : Cole and Westphal in Hong and Kueger (ed) Trade and development in Korea, (1975) Korean Development Institute Seoul.

If one tries to see the employment status of foreign firms, one finds that in 1978, the total number of

domestic employees in foreign firms was 3,15,000 (table 33), while total Korean employment was 13.5 million i.e. around 2.3% of the total labour force was employed in foreign firms in 1978.

As DFI was concentrated in the manufacturing sector, the weightage of foreign firms in total manufacturing employment would be considerably higher. The figures shows that foreign firms employed 10% of the labour force in the manufacturing sector. The importance of foreign firms has been increasing because of the continued inflow of new foreign investment and expanded activities of the existing firms. If indirect employment effects through linkages is taken into account the figure would be higher.

**TABLE 33**

Employment Status of Foreign Firms in Korea (1,000 persons)

	1974	1975	1976	1977	1978
Employed by foreign firms <sup>a</sup>					
Total	159	180	225	257	315
Manufacturing Industries	153	174	218	245	288

Total Korean employment<sup>b</sup>

Total	11,586	11,830	12,556	12,929	13,490
Manufacturing Industries	2,012	2,205	2,678	2,798	3,016
-----					
Weight of foreign Firms					
Total	1.4	1.5	1.8	2.0	2.3
Manufacturing Industries	7.6	7.9	8.1	8.8	9.5
-----					

<sup>a</sup> Number of employees in foreign firms refers only to domestic employee expatriate foreign workers.

<sup>b</sup> Data for total employment from Bank of Korea (1982).

**Source :** Same as table 22.

Between 1974 and 1978, employment in foreign firms increased by about 100%, while total employment in Korea increased by only 16%. The result was that the share of foreign firms in total employment in Korea increased from 1.4% to 2.3% in 1978. In the case of manufacturing, where most of DFI is concentrated, the employment in foreign firms increased from 153,000 in 1974 to 288,000 in 1978 that is by 88%. In the same period, employment in manufacturing industries as a whole in Korea increased from 2,012,000 to 3,016,000 i.e. by 50% only. Hence the share of foreign firms in manufacturing employment increased from 7.6% in 1974 to 9.5% in 1978.

TABLE 34

Industrial Distribution of Employment by Foreign  
Firms in Manufacturing Industries 1978 (1,000 persons)

Industry	Total Employed <sup>(a)</sup>	Employed by foreign firms <sup>(b)</sup>	proportion emp- loyed by foreign firms (%age)
Textiles and garments	635.8	38.2	6.0
Industry and other chemicals	101.7	24.5	24.1
Petroleum refining	3.7	3.7	100
Metals	83.3	9.7	11.6
Non-Electrical machinery	336.3	43.3	12.9
Electrical and Electronics	332.2	82.2	35.4
Others	718.9	55.5	7.7
<b>Total</b>	<b>2,111.9</b>	<b>257.1</b>	<b>12.2</b>

Source : Same as table 33.

(a) The number of employees in manufacturing industries in this table 2,111.900 differs from previous table (3,016,000) because only firms with more than five employees are accounted for in the manufacturing census.

(b) The numbers employed by foreign firms in this table (257,100) differs from numbers employed in manufacturing industries in the previous table (2,88,000), because The Masan free export zone has been excluded from this table because of an insufficient breakdown of data.

The figures show that the maximum contribution to employment was made by foreign firms in electrical and electronics (82,200), non-electrical machinery (43,300), textiles and garments (38,200) and industrial and other chemical industries (24,500). These four sub-headings together accounted for more than two thirds of the total employment in foreign firms.

#### **EFFECTS OF DIRECT FOREIGN INVESTMENT ON GRWOTH PERFORMANCE**

One can calculate (rough estimates) of the effects of DFI on growth. We assume that total sales minus total raw material purchases represents a rough estimate of value added. After calculating the total value added created by foreign firms, we compare it with the GNP.

Table 35 shows that the value added ratio of foreign firms increased during the period 1974-78, from 18% in 1974 to 31% in 1978. Value added ratio in manufacturing increased from 16.6% in 1974 to 29% in 1978. This appears to have been the result of several factors : the weight of petroleum refining, where the value added ratio is very small, decreased in relative importance because of the inflow of other DFI's, the relative importance of off-shore assembly type DFI's decreased because of wage increases; and DFI in high value-added industries increased as Korea began to pursue it's second-stage of import substitution.

Because of an increase in the value added ratio and the new entry of foreign firms, the weight of foreign capital in the economy in terms of value added increased considerably during the period. It increased from 2% in 1974 to 5.6% in 1978. In the case of manufacturing, the ratio increased from 9.9% in 1974 to 18.9% in 1978.

According to the estimates presented in the table, DFI's contribution to Korea's growth decreased from 13.9% in 1975 to 5% in 1978 (DFI's contribution to the manufacturing sector's growth decreased from 44.5% to 15.9% in 1978)

Multiplication of these contributions to Korea's economic growth rates during the period indicate that about one percent of Korean growth is explained by contribution of DFI, which is quite substantial considering the DFI share in total investment. Two things should be noted here:

1. These calculations give very rough results and hence should not be overemphasized
2. Indirect effects of DFI could be as important if not more than direct effects, but are not reflected in these figures. If indirect effects are also included, the DFI's explain more than one percent of Korea's annual growth.(as calculated)

**TABLE 35**

Value added by Foreign Firms (US\$ millions)

	1974	1975	1976	1977	1978
1. Total sales by foreign firms (manufacturing)	2,895	3,541	5,106	6,541	8,630
	2,829	3,462	5,009	6,309	8,311
2. Total raw material purchases by foreign firms (manufacturing)	2,375	2,725	3,749	4,471	5,958
	2,360	2,707	3,721	4,422	5,897
3. Value added created by foreign firms (1-2) (manufacturing)	520	816	1,357	2,070	2,672
	469	755	1,288	1,887	2,414
4. Value added ratio (3/1) (manufacturing)	18.0	12.0	26.6	30.6	31.0
	16.6	21.8	25.7	29.9	29.0
5. Gross national product (manufacturing)	18,062	20,234	27,424	35,167	47,351
	4,704	5,351	7,566	9,492	12,798
6. Weight of foreign firms (3/5) (manufacturing)	2.0	4.0	4.9	5.9	5.6
	9.9	14.1	17.0	19.9	18.9
7. Contribution to growth by foreign firms(%age) (manufacturing)		13.8	7.5	9.2	5.0
		44.5	24.1	31.2	15.9

**Source :** Same as table 34.

**Note :** Contribution to growth by foreign firms is calculated by dividing change in 3 by change in 5 and converting it into %age.

## CONCLUSION

The contribution of Direct Foreign Investment in total inflow of Foreign Capital fluctuated between 5 and 10%, but the contribution of Direct Foreign Investment to Korea's development is not insignificant. Though the exact magnitude of Direct Foreign Investment's effect on Balance of Payment cannot be measured, it appears that the effect is positive, substantial and increasing over the years. Direct Foreign Investment was responsible for at least 20% of Korea's exports and accounted for around 10% of employment in manufacturing sector. Finally, Direct Foreign Investment was responsible for at least 1% of Korea's economic growth. As far as costs of Direct Foreign Investment are concerned, it cannot be concluded that Direct Foreign Investment were more expensive than commercial borrowing.

## CHAPTER IV

### ROLE OF STATE : CERTAIN ISSUES

Korean development did not take place through the medium of Laissez fair or free trade. The state played a dominant role in the process of development by creating a highly interventionist regime, where the nature of development was a mixture of direct and indirect controls as well as a combination of formal and informal mechanisms of coercion and compliance.

We have seen the active role of the state in controlling and changing the overall strategy of development in chapter 1. In chapter 2 while studying DFI, we have observed how the state influenced its magnitude, direction (towards various Industries) and ownership control.

Let us try to see the role of state regarding:

1. Government control of savings and Investment
2. Certain aspects of Industrialisation not considered earlier

## SAVINGS AND INVESTMENT, AND THE ROLE OF STATE

One of the main elements of the Korean strategy was to put the state in control of the commanding heights of the economy. For this it was needed that the state should be capable of influencing large parts of the savings and investments of the economy.

The government of Korea took over The Bank of Korea and other major Banks in 1962. After this, it brought about a number of reforms to increase the deposits within the banking sector.

In 1962 a radical interest rate reform was introduced in order to mobilize domestic resources. The government raised the interest rate on savings from 12% to 20%. As a result of interest rate reforms, deposits with the banks more than doubled in the first year and increased twelvefold by 1972. This gave the government the much needed leverage for directing investment capital towards export promoting industries. This reform was partly responsible for more effective allocation of investment funds to more efficient firms and for subsequent reduction

in the rate of inflation from 19% to 14%. The government gave subsidised credit to priority sectors only.

According to Hong,<sup>1</sup> in Korea, the allocation of massive subsidised credit has become one of the most important policy measures used since the early 60's for the promotion of industrialisation and export promotion.

The crux of the subsidised credit mechanism was that commercial banks and government Central Bank subsidised loans to selected entrepreneurs at a rate of interest which was less than the rate of return on private capital investment. An example of this mechanism, is during the period 1962-66, the average real interest rate of Bank loans was low and sometimes even negative. The estimated average real rate of return on capital was as high as 17%<sup>2</sup>. To a large extent this policy was followed throughout the period considered.

As a result of interest rate reforms households savings increased from 0.1% of GNP in 1963 to 3.3% of GNP, immediately after the interest rate reforms. The ratio

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1. Wontock Hong, (1981).

2. Lawrence R. Alschuler, (1987)

TABLE 36 Contd...

## Public Savings and Related Factors, 1962-76

Item	Percentage of gross national product				
	1972	1973	1974	1975	1976
Central Government taxes	12.3	11.7	13.5	15.3	16.7
Local government taxes	1.2	1.5	1.6	1.7	1.7
Total taxes	13.5	13.2	15.1	17.1	18.3
Central government nontax revenue	0.7	0.6	0.5	0.6	0.7
Total current revenue	14.2	13.8	15.6	17.7	19.0
Central government general expenditure	7.4	5.9	6.2	6.8	7.5
Defense	4.5	3.7	4.4	4.9	6.1
Total	11.9	9.6	10.6	11.7	13.6
Investment and loans	6.3	3.6	4.4	5.6	5.3
Public savings	18.2	13.2	15.0	17.3	18.9
	3.9	4.6	3.0	5.3	5.6

Source : From "Korea" Rao and Hasan, World Bank Country Report (1980)

TABLE 36

## Public Savings and Related Factors, 1962-76

Item	Percentage of gross national product				
	1962	1964	1966	1968	1970
Central Government taxes	9.3	6.0	9.2	13.2	14.1
Local government taxes	1.5	1.3	1.6	1.2	1.3
Total taxes	10.8	7.3	10.8	14.4	15.4
Central government nontax revenue	1.9	0.8	1.0	1.2	0.8
Total current revenue	12.7	8.1	11.8	15.6	16.2
Central government general expenditure <sup>b</sup>	12.6	4.8	5.8	7.3	7.3
Defense	5.9	3.6	3.9	4.1	4.0
Total	18.5	8.4	9.7	11.4	11.3
Investment and loans <sup>c</sup>	6.8	2.3	4.0	5.0	5.7
Public savings	35.3	10.7	13.7	16.4	17.0
	-1.4	0.5	2.8	6.3	7.0

declined to 1.9% of GNP in 1971 but rose again to 5% in 1975-76<sup>3</sup>. The ratio declined in 1971 because the economy entered a recession in 1970. The decline in household savings was arrested by reforms brought about in 1972. Inflation was controlled by active state role, Curb market loans were frozen and new assests in which households could invest their savings were introduced. After 1972, the ratio of household savings to GNP increased, with mild fluctuations depending on economic activity.

During 1960's, Public savings were negative, (table 36) after which there was an uninterrupted improvement till 1970 when the ratio of public savings to GNP reached 7%. Most of the increase was concentrated in 1965-68, when the ratio moved up from 1.7 percent to 6.3%. After 1970 public savings markedly declined falling to a low point of 3% in 1974. The ratio has since moved up again, and the estimate for 1976 is 5.6%. The deterioration of Public saving during 1971-74 was principally rooted in the weakness of the economy, the rising subsidies on foodgrains and fertilizers, and slowdown of economic growth amongst other factors The recovery of public savings

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3. Fiugures quoted from BOK Economic and Statistical year book 1976.

from 1975 onwards reflect the reversal of these three trends.

Tight control over government Current expenditure and a rapid increase of domestic revenues after 1964 made possible the spectacular rise of Public savings in the 1960's. Because prices rose by more than 60% between December 1962 and May 1964, absolute priority was given to eliminating the high rate of inflation, even at the cost of a severe temporary decline of current expenditure and public investment. Between 1962 and 1964 government spending was cut from 25% of GNP to only 11%. The rise in domestic revenue came largely from a higher tax burden imposed by the central government. The tax effort of local governments remained minor. Internal taxes which are exclusive of custom duties and monopoly profits, represent the largest share of central government revenue. Although the new government introduced major tax reforms in 1962 a substantial breakthrough in tax efforts+ occurred only in 1965-68 when the internal tax ratio rose from 5.2% of GNP to 9.8%. The dramatic improvement in tax administration was probably among the most important factors in the above breakthrough<sup>4</sup>.

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4. For detailed description See G.T.Brown "Korean Pricing Policies and economic development in 1960's". (John Hopkins press 1973).

The decline in the tax ratio during 1972-73 was the result of a relative decline in revenue from income and corporation taxes, selective excise and custom duties. The decline in revenue was in turn the result of a slowdown of business activities and increased tax incentives. Indirect taxes and customs duties recovered after 1973. This recovery reflected the combined effect of inflation and increase in various indirect taxes in 1974-75. The total tax to GNP ratio increased from 9.3% in 1962 to 18.3% in 1976 which nearly doubled in 14 years (increased by 97%).

Current civil government expenditure, as recorded in the budget, seems to have been kept well under control. The result was that public savings increased from (-)1.4% of GNP in 1962 to 5.6% of GNP in 1976. The performance of the government in this regard was also quite remarkable.

Because of various reforms to increase domestic savings (including interest reforms mentioned) the private savings increased from 4.8% of GNP in 1962 to 20.9% of GNP in 1978. At the same time government savings increased from (-)1.5% of GNP to 5.6% of GNP in 1978<sup>5</sup>. Hence the

5. Note there is a slight difference in the figures of the two tables, this is because of different sources of the two and statical discrepancy. This slight difference does not make any change in General observations.

**TABLE 37**  
Financing of Investment (% of GNP at Current Market Prices)

	Investment	National	Marginal Saving Rate	Household	Private			Total investment	Foreign		Statistical Discrepancy
					(Household net of grain inventories)	Corporate	Total private		Total foreign savings	Foreign savings % of investment	
1953	15.4	26.4	30.0	10.0	8.0	10.0	20.9	6.5	3.3	10.6	1.5
1954	11.9	6.6	0.8	4.7	-	4.6	9.3	-2.7	5.3	44.6	-
1955	12.3	5.2	3.3	3.6	-	4.0	7.6	-2.3	7.1	57.6	-
1956	8.9	-1.9	-24.2	-2.6	-	3.6	1.0	2.9	10.9	121.8	-
1957	15.3	5.5	30.3	4.8	-	3.8	8.6	-3.0	9.8	64.0	-
1958	12.9	4.9	-12.5	3.6	-	4.4	8.0	-3.1	8.0	62.1	-
1959	11.2	4.2	-5.6	1.7	-	5.3	7.0	-2.7	6.9	62.1	-
1960	10.9	0.8	-26.3	-1.8	-1.4	4.7	2.9	-2.0	8.6	78.8	1.5
1961	13.2	2.8	12.9	0.2	-1.4	4.5	4.7	-1.8	8.6	65.3	1.7
1962	12.8	3.3	5.3	-1.0	0.6	5.8	4.8	-1.5	10.7	83.4	-1.1
1963	18.1	8.7	21.8	3.4	-0.2	5.7	9.1	-0.4	10.4	57.5	-1.0
1964	14.0	8.7	(8.9)	3.5	0.6	4.8	8.3	0.5	6.9	48.6	-1.6
1965	15.0	7.4	-3.6	0.2	0.2	5.5	5.7	1.7	6.4	42.6	1.2
1966	21.6	11.8	27.4	4.1	3.3	5.0	9.1	2.8	8.5	39.1	1.3
1967	21.9	11.4	9.4	1.3	2.8	6.0	7.3	4.1	8.8	40.2	1.7
1968	25.9	15.1	27.9	2.9	3.9	6.1	9.0	6.1	11.2	43.1	-0.4
1969	28.8	18.8	31.2	7.1	4.9	5.8	12.9	5.9	10.6	36.9	-0.6
1970	26.8	17.3	11.2	4.5	2.6	6.3	10.8	6.5	9.3	34.7	0.2
1971	25.2	15.4	6.7	3.6	1.7	6.4	10.0	5.4	10.7	42.7	-0.9
1972	21.7	15.7	17.3	4.2	2.4	7.9	12.1	3.6	5.3	24.2	0.7
1973	25.6	23.6	49.6	9.1	8.2	10.3	19.4	4.2	3.8	14.8	-1.8
1974	31.0	20.5	12.8	7.0	5.8	11.2	18.2	2.3	12.4	40.0	-1.9
1975	29.4	18.6	13.1	4.1	3.0	10.5	14.6	4.0	10.4	35.5	0.4
1976	25.5	23.1	35.6	6.7	5.6	10.2	16.9	6.2	2.4	9.5	-0.0
1977	27.3	25.1	32.4	9.1	8.0	10.4	19.5	5.6	0.6	2.2	1.6
1978	31.2	26.4	30.0	10.9	-	10.0	20.9	6.5	3.3	10.6	1.5

Source : Park Y.C. "Export Led Development" The Korean Experience 1960-78, in Eddy Lee (1981) ARTEP.

total domestic savings increased from 3.3% of GNP in 1962 to 26.4% of GNP in 1978 (refer to table 37). If we see the Investment figures we realise that the ratio of Investment to GNP was 12.8% in 1962 which increased to 31.2% of GNP in 1978. A look at Table 37 shows that In 1962 foreign savings accounted for 83.4% of the total investment. This ratio had fallen to 35% in 1970 and finally to 10.6% in 1978 which implies a substantial proportion of domestic investment was financed by foreign savings.



Various incentives were given by the government to attract foreign capital. We have already mentioned some of them in the previous chapter while discussing direct foreign investments (DFI). But DFI was less than 5% of the total capital inflows during 1955-80<sup>6</sup>. One of the reasons for the low DFI flow is government's preference for other types of capital inflows. During 1960s, government preferred foreign loans (instead of DFI) so as to minimise Japanese ownership and control of Korean businesses and even in 1970's the approach towards foreign direct investment was adverse especially towards Japanese

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6. The composition and relative importance of different sources of Foreign capital has been discussed in previous chapter

investors<sup>7</sup> because of the fear generated out of the colonial past. Other reasons for low share of DFI in foreign capital inflows are :

1. With poor resource endowment, Korea lacks one of the most important inducements for foreign investments;
2. Until mid 1970's the country's exports consisted mostly of labour-intensive industries. These industries did not require sophisticated technology to sustain rapid expansion of exports. The standardised products such as textiles, clothing, footwear and simple electronics constituted the bulk of exports and did not require sophisticated marketing in terms of an overseas network and servicing. For these reasons Korean planners and businessmen did not seek foreign partners to gain marketing expertise.
3. Planners preferred overseas borrowing to DFI because foreign debt financing had been much more attractive than equity financing. Throughout the 70's real interest rate of foreign loans was consistently negative<sup>8</sup>, largely because of an overvalued exchange rate under an inflationary climate. However in case

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7,8. Calculated by Y.C.Park - World Development Vol. 4, 1986.

of DFI, the implicit subsidies associated with negative real interest rate were repatriated in the form of interest earnings.

In 1950's and 1960's foreign finance was used to create the infrastructure, mostly in the form of grants and safe loans in the earlier period, which were slowly replaced by commercial borrowings.

Various incentives were given to attract foreign capital. The necessity of government approval for foreign capital inflows gave the state effective control over a large proportion of total investment (given that a large proportion of total investment was financed by foreign savings).

The above discussion shows that a large proportion of total savings was controlled by the government. These savings were channelised into areas considered by government as priority areas. M.K. Datta Chaudhuri<sup>9</sup> is of the view that government directly or indirectly controlled two thirds of the investible surplus  
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9. M.K. Datta Chaudhri "Export led Industrilization In case of Korea" (1979).

in the economy. Thus, the government could intervene directly in the allocation of investible resources without having to take recourse to restrictions in product market. Few states outside the Socialist Block could have this measure of control over the economy's investible resources. It would be appropriate here to quote from M.K.Datta Chaudhuri's article<sup>10</sup>.

"The state used its enormous market power to create a highly differentiated market. The cost of credit varied from 8 to 33% per annum depending upon priorities attached to different lines of economic activities. Its important to note in this connection that in a number of under developed countries, governments often take recourse to restrictions in commodity markets with a view to inducing investment into desired directions. This is usually an inefficient and often unproductive method of intervention. The Korean state did not require such a round about method of influencing the private sectors behaviour, it had sufficient muscle in the capital markets to intervene directly in allocation of investments".

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10. In Eddy Lee (ed.) ARTEP (1981).

## ROLE OF STATE IN PROMOTING INDUSTRIALISATION AND THE EXPANSION OF MANUFACTURED EXPORTS

Modern industrialisation in Korea can be traced back to the period of Japanese colonialism. Withdrawal of the Japanese, and the Korean War were great setbacks to the Korean process of industrialisation. After 1953 the period of reconstruction started.

During the second half of the 1950s, industrialisation took the form of import substitution. The aim was to increase production of light manufactures and non-durable consumer goods such as textiles to meet domestic demand. Import substitution was expected to be concentrated in non-agricultural activities particularly power generation and chemical fertilizers, which had formerly been produced chiefly in Northern Korea, and other inputs lost with liberation and partition. The reaching of the limit of import substitution coincided with the period of economic recession of 1958-62. The Rhee regime was replaced by a series of governments which eventually selected promotion of manufactured exports as the main vehicle for economic development by the time of formulation of the first plan under Park Chung Hee.

Policies were being formulated to expand manufactured exports<sup>11</sup>.

Kuznets<sup>12</sup> notes that strong export promotion programs could only be implemented by a strong government, which the authoritarian Park regime proved to be.

The reasons favourable for an export strategy being selected were as follows. (according BOB VOS (1982))<sup>13</sup>

1. Limited scope for import substituting industrialisation given the size of the domestic market.
2. Large labour force available for industrial production at low wages.
3. Relatively high educational levels of the labour force.

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11. Main source of government policies in this section is Westphal and Kim. "Industrial policies and Development in Korea". World Bank Staff Working Papers - 263.

12. Paul Kuznets (1977). Economic Growth and Structure in ROK.

13. VOS "External dependence, Capital accumulation and Role of state : South Korea 1960-77 Development and Change".

4. External factors such as sharp rises in labour costs in U.S. and Japan, which are the main markets for Korean labour-intensive manufactured exports.
5. Sustained foreign aid and other capital flows to finance changes in economic strategies.

Incentives were given not only to exporters to increase volume of exports but also to import substitutory firms to begin exporting.

During the 1960's, the protectionist policies of import substitution created in the 1950's were gradually reduced. The early phase of import substitution successfully created domestic industries in food processing, textiles and apparel by 1960. The deepening of import substitution in the period 1962-67 required some continued protection against competing imports. Most of tariff and import controls were relaxed after 1964, still there continued to be a list of prohibited imports, some import quotas and some special custom duties. Import restriction during this period of trade liberalization also included mandatory registration of the foreign trade firms which had to meet minimum export levels in order to be

permitted to import. Imports were further controlled by limiting access to foreign credit for imports. Access in this case refers to the Korea Exchange's Bank's guarantees of foreign loans. During this period import substitution industries in wollen yarn, chemical fertilizers, oil refining, and car assembly were established under protection.

The main export promotion policies are summarised by Westphal (1978-republic of Korea's experience with export led industrial development)

The most important incentive to exporters by 1967 included unrestricted access to and tariff exemption on imported intermediate and capital goods, exemption from payment of indirect taxes both on major intermediate inputs, whether imported or purchased domestically, and on export sales, generous wastage allowance in determining duty and indirect tax free raw material imports, which permitted the use of some of these imports in production for the domestic market, reduced prices of several overhead inputs including electricity and railroad transport, which were intended at least in part to compensate for payment of indirect taxes included in normal charges for these

inputs, a 50% reduction in direct taxes on income earned in exporting, along with accelerated depreciations, and immediate access to subsidized short and medium term credit to finance working capital and fixed investment respectively.

There appears to be a relationship in the Korean experience between export incentives and growth of exports in the period 1962-66. 1961- devaluation of Won by 50% was followed by increase in exports. In 1964 the exchange rate was unified and Won was further devalued.

The trade liberalisation which began after the first plan continued from 1967 to 1971. The tariff reforms of 1967 were moderate because of protests from many exporters. Incentives given in first period (1962-66) were increased in several cases Freight and power rate discounts were given to large exporters, wastage allowances were expanded, interest rate subsidies on loans to exporters grew very rapidly. Tariff protection to import substitution industries was reduced by 1967 when import controls passed from a positive capitalist system( listing of items imported duty free) to a negative capitalist system (list of dutiable items only). Under the 1967 tariff reform, the old

exemptions remained largely unchanged for the benefit of exporters.

When various incentives are combined (tax reduction, credit preferences, wastage allowances, preferential rates of electricity and transportation) the effective subsidy rate on exports was 12% while rate on domestic sales was (negative) 8.9%<sup>14</sup> (i.e. selling in the domestic market was penalised given the structure of incentives). This implied that export industries were being favoured over import substitution industries viewed in a slightly different manner, these incentives encouraged import substitution industries to orient their sales increasingly to export sales. Some industries like textile, wood products, metal products and electric machinery which before 1963 were mainly import substituting industries started exporting large parts of their output.

After 1972, in pursuit of the goal to create a more balanced and integrated industrial structure, the balance of incentives shifted from exporters to producers for the domestic market. Some of the export incentives which were reduced.

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14. Refer to Westphal (1978), to see the Calculation of effective subsidy rate.

- (a) The 50 percent reduction in direct taxes on profits earned in export activity was abolished.
- (b) The preferential interest on short term export related credit was increased.
- (c) The benefits of lower direct tax rates and automatic tariff exemption on imported capital goods were withdrawn, wastage allowances and interest subsidies declined.

A number of policies were implemented after 1972 in order to integrate better the export and import substitution industries. Given the high import content of exports, a definitive advantage was to be had from efficient replacement of imported inputs by domestic production or developing backward linkages. To promote the backward linkages, the complete package of export incentives was extended to domestic firms supplying intermediate inputs to exporters. By 1976, the time of export related credit had changed such that the regulation thus favoured the purchase of domestically produced inputs through lower interest rates and a greater proportion and longer period of financing.

In 1974 the National Investment Fund was

established with the purpose of strengthening the heavy and chemical industries. The fund was to supplement, through self financing and foreign loans, ship building, heavy machinery, steel, non ferrous metals, petro chemicals and electronics industries

The first three plans represented continuity in concerted effort to generate rapid economic growth, principally based upon labour intensive manufactured exports policies for export led growth were established. The two succeeding plans strengthened these policies, and at the same time:

- (a) adjustments were made to deepen import substitution and than create background linkages to export production
- (b) attempts to create a more balanced economic growth in which benefits would be more widely shared by all sections and social classes.

We have seen upto now broad government policies. But quite often government directly intervened in the working of the private sector and sometimes its intervention

was particularistic. The following examples will illustrate<sup>15a</sup>.

(a) around the early sixties "special Law Dealing with illicit wealth accumulation" was made. Under this Law, most of the contry's businessmen were arrested and threatened with confiscation of their assets. Ten of the leading businessmen were brought before President Park and a deal was struck whereby the government, withdrew criminal prosecution in return for businessmen's paying off their obligations by setting up some of the basic industries and donating these to the government. Later three people were sent abroad to negotiate for foreign loans for a number of investment projects. They also formed the Federation of Korean industries under gvernment patronage.

(b) Particular firms could be directed to do certain things or alter their behaviour in a particular way. Otherwise they would find their bank credits cut-off, their foreign exchange allocations stripped or tax-returns scrutinized with unwarranted zeal<sup>15b</sup>.

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15a. Bagchi, 1987

15b. Bagchi, 1987

In 1981, government forced KIA(International group in Korea) out of the passenger car business as a part of heavy industry reorganization. In return the debt-ridden KIA was given a monopoly in 1 ton - 4.5 ton trucks.

This example shows how government gave directions to a private sector as to what it should do.

### **AGRICULTURAL AND WAGE POLICIES**

Korea as a low wage manufactured exports economy could benefit greatly from growth of agricultural sector. The manufactured exports of 1960s were labour intensive and did well in world markets because Korean wage levels were low by international standards. Low cost exports depend on low cost labour which is dependent on low cost wages and an abundant supply of labour. Food production contributes to low-cost wage goods for urban labour while rural migrants expand supply of urban labour. Its in light of these two contribution that agricultural policies in Korea may be understood.

Policies were such as to improve the rate of industrialization throughout the period Korean government agricultural policies were trying to maintain low cost of

labour by producing low cost wage goods. These were expected to maintain the advantages enjoyed by Korea because of its cheap labour.

Government also followed a policy of Repressed wages. Reasons why it tried to keep wages down are as follows

- (1) To attract foreign capital(DFI)
- (2) Make exports more competitive
- (3) Keep domestic production costs low.

The policies adopted by the government to keep domestic wages low were :

- (A) Government has hindered the growth of an independent Union movement in Korea by various rules and regulations.
- (B) Government offers practically no social security such as unemployment insurance. This decreases the bargaining power of the workers.
- (C) Govt has issued guidelines about wage increases to labourers. These guidelines for wage restraint are likely to be needed by employers not only as bargaining points against the workers, but also because

government might threaten to freeze loans or disallow prices based on wage increase

(D) Industrial Workers are expected to put on an average 53 hours per week, which could be the highest anywhere in the world.

(E) Strikes are banned in foreign managed firms in Masan Export Processing Zone, wage demands are met with instant dismissal.

## **CONCLUSION**

The role of state is one of the most important factors in Korea's economic development. Most of the regimes after 1960 were repressive, but one can say that what ever the repressive character of the regimes, their commitment to economic development cannot be questioned

The basic strategy of the state (in pursuance of its goal of fast economic development) can be summarised as, (a) reforming economic structure in order to put the state and public sector in control of commanding heights (b) forging a close collaboration between the state and private sector so that the developmental priorities are defined in

consonance with the entrepreneurial interests and that in the process of implementation of developmental programmes, both formal and informal machinery of enforcement could be used, and (c) creation of an efficient discretionary and selective regulatory system to guide the allocation of resources in desired directions.

The policies regarding mobilisation of savings and their channelisation into priority sectors and the Industrialisation policies must be seen in the light of the above strategy. The state controlled the economy by an appropriate mixture of incentive mechanisms and coercion, whichever was whenever necessary.

One should note that throughout the phase of rapid industrial growth, the conscious aim of the government has been to promote output growth rather than employment or equity. If any other objective came in the way of maximizing the rate of growth of the economy, it was given a secondary place. One remembers that in the initial phase of development, Korea's domestic savings were quite low. Hence the government did not mind borrowing large sums to maintain the high rate of investment necessary for growth (At one time about 80% of investment was financed by foreign

governments). Not much thought was given to the fact that such a policy may be inflationary, or may create balance of payments (BOP) difficulties in the long run. The result was 20 percent debt servicing during 1970's.

## CONCLUSION

The present chapters attempt to integrate the conclusions drawn at the end of preceding chapters, and enables us to draw possible inferences out of Korea's developmental experience.

One notable characteristic of economic development in Korea is the rapid acceleration of industrialization. Macro economic indicators of industrialization, such as the ratio of capital formation, the share of manufacturing in Gross National Product, and the percentage of heavy industries in manufacturing, all grew at a pace unprecedented in the historical experience of most of the developed countries.

In 1953, capital formation ratio was 7% in Korea, but it rose to 33% in 1980, a growth of 17% per annum in real terms. This ratio was 32% for Japan in 1982, which took much more than the 30 years taken by Korea for her development. Share of manufacturing rose from 9% in 1953 to 28% in 1980, comparable to 29% in Japan in the same year. Hence Korea's industrialization manifests the processes

undergone by many industrialized countries. Of course behind such a development lies the advantage of backwardness which Korea could muster for its development such as financing, technology transfer and direct private foreign investments from the developed countries. The Newly Industrialising Countries (NICs) are those which have succeeded in neutralising the disadvantages of backwardness by closely following the developed capitalist countries and taking advantage of their development experiences. Korea successfully steered its rapid export oriented industrialization by taking full advantage of standardized nature of technologies, as well as capital from developed countries and by focussing its thrust upon labour intensive manufactures, which had been on decline in the latter countries because of increased wage levels. Korea's export oriented industrialisation policy was most effective in making the industrial structure more sophisticated by expediting the growth of heavy and chemical industries. It was effective in transforming the traditional agricultural sector by absorption of rural surplus labour into industries and thereby underscoring the rapid modernization of agriculture.

The export oriented industrialisation drive successfully increased exports of final consumer goods, which in turn eventually expanded demand for producer goods. This backward linkage effect culminated into the development of heavy and chemical industries. Korea is one of the very few countries which managed to redirect the orientation of industrialisation from import substitution to export promotion of consumer goods, within a short period of time. Rapid growth of consumer goods export generated a strong backward linkage pressure towards producer goods. One such case is of industries like petroleum, whose growth was induced by industries like synthetic fibres and their products, and plastics and plastic goods. Another example could be Iron and Steel which grew by backward linkages from exports of shipbuilding, electrical appliances, and so on.

The Government in Korea directly or indirectly controlled the allocation of nearly two thirds of investible resources of the economy, which it directed towards the priority sectors. Given the overwhelming power of the government to intervene in the process of investment allocations, the need for intervention in commodity market was correspondingly reduced. It is important to note in this

connection that in a number of underdeveloped countries, governments often take recourse to restrictions in the commodity market with a view of inducing investments into desired directions. This is usually an inefficient and unproductive method of intervention, as can be observed in case of many other Third World countries.

Furthermore, we may state that the Korean policy makers do not make any strategic differentiation between an import substitution and an export promotion strategy. They seem to select priority areas based on demands in the domestic market as well as the long term possibilities of penetrating overseas market.

Most of the developing countries initiated their heavy and chemical industries when the pace of import substitution in final consumer goods began to slow down due to the smallness of their domestic market. They attempted to develop heavy and chemical industries primarily as a new policy target for import substitution and not because of growing demand. In such cases it is hardly possible to expect full effects of scale economies. The growth of chemical industries in Korea was in contrast, propelled by

rapidly increasing demand which had been generated by expansion of final consumer goods exports. Industrialization in Korea had been carried out by the domestic entrepreneurs, led by few large industrial combines and the presence of Multinational Corporations (MNCs) did not amount to much.

The role of state had been by far the most important factor in Korean economic development. Once an industry had been accorded priority status, it received protection in the domestic market, government support with investible funds and various kinds of subsidies and organisational support for promotion of sales abroad.

The crux of South Korea's rapid growth is due to the government's consistent pursuit of expansionist policies to manage the excess demand generated through exports. Rapid industrialization growth in Korea was not possible without such an expansionist policy. However, the question is whether growth remains inflationary within manageable bounds. In the case of Korea, inflation as a part of the costs of growth is judged to have been moderate and reasonable during the period before the late 1970's. Inflationary growth became a built-in-mechanism of the

Korean economy, growth accelerated in ever-expanding circles without many mishaps. But during the late 70's, the rate of inflation jumped due to a concentration of large scale investments for development of heavy and chemical industries, with long gestation periods. Moreover, the inflationary trend was further exacerbated by increased remittances from the Middle East and rapid rises in prices of imports after the second oil crisis, and it became unmanageable. Even repeated devaluations were insufficient to counter the high inflation during this period and Korea's export competitiveness decreased accordingly. Such an inflationary trend might create policy problems in the near future.

Korea's trade balance had been consistently in deficit since the beginning of the 1960's. The country's industrialisation was characterised by its aggressive export drive but this was more because of necessity than of choice. Since the beginning, Korea has been driven in the urgency to increase exports in order to finance runaway imports.

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