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Foreign Capital and Economic Growth in Korea: 1970-1990*

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The aim of this paper is to quantify the contributions various types of foreign capital have made towards the growth of individual Korean industries during the last 20 years. However, some discriptive analysis on the changing pattern of foreign capital inflows in Korea is also presented in the paper. A model is dedived to estimate the productivity elasticities of FDI, commercial loan and public loan. The analysis suggests that the success of Korea's manufacturing sector, the engine of economic growth, owes very much to foreign capitals. FDI alone accounts for almost 20 percent of the manufacturing growth. Although the exact figure is most likely to be incorrect, the importance of foreign capital cannot be denied.

I. Introduction

The role of foreign capital in developing countries has been discussed in a number of studies. Some economists have pointed out the negative effects of foreign capital on economic developments of these countries. For example, Griffin (1970) argued that foreign capital could reduce domestic savings, while Bhagwati and Grinols (1976) also raised the possibility of decapitalization through the increasing dependency on foreign capital.

However, many other economists believe that foreign capital plays a positive role in economic development. Abramovitz (1986) and Maddison (1984) argue that the greatest advantage late-comers have in economic development vis-a-vis front-runners is the technological gap between them. Late-comers can increase the productivity by adopting advanced technology so that they can catch up with front-runners.

There have been few studies on the effects of foreign capital on Korea's economic growth. However through the estimation of production functions Choi and Hyun's (1991) study shows a very positive effect of foreign direct investment on Korea's manufacturing sector. A recent study by the Korean Development Bank (1993) based on a survey of firms with foreign financing also concludes that foreign capital played a positive role on Korea's economic growth.

The aim of this paper is to quantify the contributions various types of foreign capital have made towards the growth of individual industries in Korea. Before preceeding to this difficult task, some descriptive analysis on the changing pattern of foreign capital inflows in Korea is presented in Section II. A model is derived to estimate the productivity elasticities of FDI, commercial loan and public loan in Section III and the regression data is explained in Section IV. Section V analyzes the regression results and provides quantified figures on FDI's contribution towards the growth of manufacturing industries. Finally, some concluding remarks are provided in Section VI.

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II. Foreign Capital Inflow in Korea from 1962 through 1992

1. Overview

The Korean government launched a series of Five Year Economic Development Plans to modernize its war-torn economy, the first in 1962. To attract foreign capital to supplement its inadequate domestic savings, the government enacted the "Foreign Capital Inducement Promotion Act" in 1961 which provided tax-benefits to foreign investors and guaranteed remittance of their principal and earnings. Since then, a substantial amount of foreign capital has entered Korea; the amount of medium and long-term foreign capital inflow totalled 80.2 billion dollars from 1962 through 1992 (Table 1).

Table 1 Foreign Capital Inflow

(Unit: million U.S.$, %)

	1962-65	1966-72	1973-78	1979-85	1986-92	Total
FDI	13 (8.8)	227 (6.5)	704 (6.4)	1,157 (3.3)	5,684 (18.7)	7,785 (9.7)
Commercial Loans	70 (48.3)	1,950 (55.5)	5,858 (52.2)	7,937 (22.7)	5,206 (17.1)	21,022 (26.2)
Public Loans	62 (42.9)	1,130 (32.2)	3,431 (30.6)	10,105 (28.9)	4,688 (15.4)	19,417 (24.2)
Bank Loans	-	205 (5.8)	1,007 (9.0)	11,892 (34.1)	4,318 (14.2)	17,422 (21.7)
Bonds-Financial Institutions	-	-	219 (2.0)	2,989 (8.6)	5,978 (19.7)	9.186 (11.5)
-Private Firms	-	-	-	834 (2.4)	4,515 (14.9)	80,181 (6.7)
Total	147 (100.0)	3,512 (100.0)	11,219 (100.0)	34,914 (100.0)	30,389 (100.0)	80,181 (100.0)

Source: Ministry of Finance, *Fiscal and Financial Statistics*, various issues.

As indicated in Table 1, a trend in foreign capital inflow emerged over the 30 year period. Public and commercial loans were the main source of foreign capital, accounting for more than 80 percent of the foreign capital inflow before 1978. However, Korea's sources of foreign capital were significantly diversified after the early 1980s. Bank loans increased sharply during this period, which was followed by the increase in bonds issued by financial institutions and private firms after the mod-1980s. By the end of 1992, the share of bank loans and bonds reached almost 50 percent, while the share of public and commercial loans had shrunk to 32 percent. As for foreign direct investment, it remained relatively small before increasing drastically in the mid-1980s.

Of course, such developments in foreign capital inflow in Korea resulted from underlying macroeconomic conditions and ensuing changes in the government's foreign capital policies. During the earlier stage of economic development of the 1960s, with its poor credit rating, the main

source of foreign capital was through public loans from international development institutions such as the IBRD and the Asian Development Bank. Private funds were available mostly in the form of commercial loans to Korean firms with the government guarantee. During the late 1970s, the Korean economy experienced increasing deficits in the balance of payments caused, in part, by the second oil shock and, subsequently, had to secure even more foreign funds for the repayment of previous foreign loans. In fact, Korea became the world's fourth largest debtor following Brazil, Mexico, and Argentina. Consequently, the government was forced to alter its foreign capital policy so that more readily available funds like bank loans and bonds were promoted.

With the help of favorable international economic environments, i.e., low oil prices and interest rate, and the rapid appreciation of the yen, the balance of payments in Korea turned into a substantial surplus in the mid-1980s. As Korea's international credit rating improved, the government restricted commercial and bank loans while encouraging foreign direct investment and the issuance of favorable equity-related corporate bonds. Finally, in 1992, the Korean government opened its stock market to nonresidents, allowing foreigners to directly participate in the Seoul Stock Exchange for the first time. The government is also scheduled to open its bond market in the very near future. Having come from an isolated and underdeveloped beginning, the Korean financial sector has since come a long way to becoming an internationally integrated and developed one.

2. Foreign Capital Inflows by Industry

Based on a series of development plans, the Korean government regulated the foreign capital inflow on an industrial basis. In fact, the Korean foreign capital policy was subject to industrial policies until the Korean government switched its development strategy from a target-based one to an indicative one in the late 1980s.

Table 2 Foreign Direct Investment

(Unit: million U.S.$, %)

	1962-69	1970-80	1981-92	1962-92
Agriculture	1(1.1)	15(1.2)	26(0.4)	42(0.5)
Manufacturing	82(91.1)	909(75.7)	4,318(67.3)	5,309(68.9)
Food Processing	0(0.0)	14(1.2)	319(1.2)	333(4.3)
Textile & Apparels	5(5.6)	140(11.7)	94(14.7)	239(31.0)
Wood Products	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Petroleum & Chemicals	49(54.4)	336(28.0)	1,659(25.9)	2,044(26.5)
Nonmetallic Products	4(4.4)	20(1.7)	113(1.8)	137(1.8)
Metal Products	2(2.2)	59(4.9)	92(1.4)	153(2.0)
Machinery	4(4.4)	81(6.7)	447(7.0)	532(7.0)
Electrical & Electronics	13(14.4)	157(13.1)	956(14.9)	1,126(14.6)
Transport Equip.	1(1.1)	52(4.3)	622(9.7)	675(8.6)
Service	7(7.7)	275(22.8)	2,066(32.2)	2,348(30.4)
Total	90(100)	1,201(100)	6,416(100)	7,707(100)

Source: Ministry of Finance, *Fiscal and Financial Statistics*, various issues.

Table 3 Commercial Loan Inflow

(Unit: million U.S.$, %)

	1962-69	1970-80	1981-92	1962-92
Agriculture	71(7.2)	181(1.8)	25(0.1)	277(1.3)
Manufacturing	547(55.6)	6,625(63.4)	5,366(52.8)	12,178(57.9)
Food Processing	5(0.5)	21(0.2)	7(0.1)	33(0.1)
Textile & Apparels	160(16.2)	1,024(10.3)	88(0.1)	1,272(6.1)
Wood Products	37(3.8)	87(0.9)	51(0.5)	175(0.8)
Petroleum & Chemicals	135(13.7)	1,515(15.3)	801(7.8)	2,451(11.6)
Nonmetallic Products	97(9.9)	531(5.4)	141(1.4)	769(3.7)
Metal Products	59(6.0)	2,251(22.7)	2,348(23.1)	4,658(22.2)
Machinery	10(1.0)	238(2.4)	270(2.7)	518(2.5)
Electrical & Electronics	5(0.5)	103(1.0)	755(7.4)	863(4.1)
Transport Equip.	20(2.1)	467(4.7)	877(8.6)	1,364(6.5)
Service	365(37.1)	3,488(35.3)	4,746(46.7)	8,599(40.9)
Total	983(100)	9,877(100)	10,162(100)	21,022(100)

Source: Ministry of Finance, *Fiscal and Financial Statistics*, various issues.

Table 4 Public Loan Inflow

(Unit: million U.S.$, %)

	1962-69	1970-80	1981-92	1962-92
Agriculture	78(17.2)	1,433(21.1)	645(5.7)	2,156(11.6)
Manufacturing	76(16.9)	254(3.7)	893(7.9)	1,223(6.6)
Food Processing	1(0.2)	4(0.1)	61(0.5)	66(0.4)
Textile & Apparels	10(2.2)	0(0.0)	0(0.0)	10(0.1)
Wood Products	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Petroleum & Chemicals	56(12.4)	33(0.5)	0(0.0)	89(0.5)
Nonmetallic Products	7(1.6)	0(0.0)	0(0.0)	7(0.1)
Metal Products	0(0.0)	96(1.4)	0(0.0)	96(0.5)
Machinery	2(0.4)	110(1.6)	452(4.0)	564(3.0)
Electrical & Electronics	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Transport Equip.	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Service	283(62.7)	5,081(74.9)	9,710(86.1)	15,074(81.5)
Total	451(100)	6,781(100)	11,272(100)	18.504(100)

Source: Ministry of Finance, *Fiscal and Financial Statistics*, various issues.

Table 2 through 4 shows how FDI, commercial loans and public loans had been distributed among various Korean industries during the last 30 years. It shows very little foreign capital received by the agricultural sector whereas the manufacturing sector was its largest recipient. The termination of the rice loan agreement in 1981 contributed to reducing the share of public loan in the agricultural sector from 21 percent in the 1970s to 5 percent in the 1980s.

On the other hand, more than 60 percent of FDI and commercial loans combined went

to the manufacturing sector. In the 1970s, the share of commercial loans in the manufacturing sector jumped to 63 percent from 55 percent, then dropped to 52 percent in the 1980s. In the early 1970s, the Korean government decided to push for the development of heavy and chemical industries. Foreign commercial loans were actively sought to meet the huge capital needs of those industries throughout the 1970s. This explains the fact that among the manufacturing sectors, the metal products industry which includes iron and steel introduced the largest amount of commercial loans, followed by the petroleum and chemical products industry. The textile and apparel industry utilized more than one billion dollars of commercial loans in the 1970s. But the amount dropped to less than 90 million dollars in the 1980s and 1990s, which is indicative of the textile and apparel industry's loss of international competitiveness. In contrast, the electrical and electronic appliances industry as well as the transport equipment industry rapidly increased their introduction of commercial loans. The same trend can be found in foreign direct investment, which shows, that these two industries are the growing industries in Korea.

As for public loans, the service sector is by far the largest recipient with share of public loans exceeding 80 percent. They were used mainly for infrastructure expansion such as power plants, railroads, telecommunication and highways. Furthermore, the shares of all three categories have increased rapidly.

In 1993, the Korean government revised its foreign capital law to strengthen the effectiveness of foreign capital management. Under the new law, a negative list system for FDI approval was introduced, where any industry not specified on the list was opened to foreign investment. In the old system, foreign investment was allowed only in the sectors specified on the FDI list. As the government continued to loosen the remaining sectors on the negative list, FDI and commercial loans were invested in many firms involved in the service sector, such as hotels and financial companies.

III. The Model

To analyze the effect of foreign capital on economic growth, I start with the following standard aggregate production function (Griliches (1988)).

$$Q = Tf(K, L), \tag{1}$$

$$T = g(F, A, R, U), \tag{2}$$

where Q is output, K is capital input, L is labor input, T is present technology level, F is technology transfer through foreign capital investment, A is directly imported technology from foreign countries, R is domestic research and development and U is other exogenous factors affecting present technology.

Obviously, capital input and labor input also include foreign capital investment as well as domestic research and development. However, it is impossible to separate these variables from each other. Another problem is the unavailability of data on the domestic R & D level.

Considering these obstacles, the following Cobb-Douglas type production function is widely used (Griliche (1988), Choi and Hyun (1991));

$$Q_t = B e^{at} K_t^b L_t^c F_t^d A_t^e, \tag{3}$$

where B is a constant, t is time, a is exogenous rate of technological progress, and b, c and d are the elasticity of output with respect to K, L, F and A, respectively. To identify the different effects among various foreign capital inflows, substitute F_t^d, with $D_t^{d_1}$, $C_t^{d_2}$ and $P_t^{d_3}$. Then, rearranging these terms, we get the following equation.

$$FP_t = Q_t / K_t^b L_t^c = B e^{at} D_t^{d_1} C_t^{d_2} P_t^{d_3} A_t^e, \tag{4}$$

where FP_t is total factor productivity, D_t is foreign direct investment, C_t is foreign commercial loan, P_t is foreign public loan. Taking the logarithm of both sides of the equation (4), we finally get the regression equation.

$$\ln FP_t = B_0 + at + d_1 \ln D_t + d_2 \ln C_t + d_3 \ln P_t + e \ln A_t. \tag{5}$$

Using the Korean data for the 1970-1990 period, we estimated this equation for agriculture, manufacturing and service industries as well as manufacturing sub-sectors.

IV. Data

To calculate the total factor productivity, FP_t, the industry-specific value-added from the national account are used for the output, Q_t. Capital elasticity (b) and labor elasticity (c) were assumed to be capital income share and labor share respectively, calculated from the industry-specific factor income data from the national accounts.

Labor input, L_t was calculated by adding up the number of employees from the annual industrial survey which contains a very detailed micro-level industry data. The capital input, K_t is assumed to be proportional to net capital stock. We used the industry-specific net capital stock data calculated by Pyo (1991).[1]

$$K_t = I_t + (1 - d_t) K_{t-1}, \tag{6}$$

where K_t and K_{t-1} are capital stocks at t and $t-1$ respectively, I_t is investment at t, and d_t is a depreciation rate at t.

As for the foreign capital inputs, D_t, C_t, P_t, we also used their stocks in the regression. As in the case of capital stock, the foreign capital stock at t was calculated by adding the new inflow of foreign investment to the depreciation adjusted stock at $t-1$. However, as the actual values of foreign capital stock at benchmark years were not available, we could not apply the polynomial-benchmark year method for calculating the depreciation rates. Alternatively, we used

1. Pyo (1991) used a polynomial-benchmark method to link three benchmark year (1968, 1977 and 1987) estimates of durable and reproducible tangible assets from the national wealth survey with gross capital formation data from the national accounts.

the depreciation rates calculated for net capital stock by Pyo (1991). The foreign capital inflows in Korea were negligible prior to 1962, thus we simply added up the foreign capital flows starting 1962. The same method was used for obtaining the stock of foreign technology imports.[2]

V. Regression Results

Table 5 shows the regression results of equation (5) for the agriculture, manufacturing, service industries as well as nine manufacturing subsectors. Using the annual data for the period of 1970-1990, the equation was estimated using the OLS method.

Table 5 Coefficients of Productiving Equation Estimated by OLS for 1970-1990

	Constant	t	log Dt	log Ct	log Pt	log At	R^2	D.W
Agriculture	10.26 (2.86)	-0.07 (-3.01)	0.14 (0.89)	2.01 (4.62)	-2.09 (-9.73)	-	0.93	1.67
Manufacturing	-10.57 (-12.04)	0.04 (5.38)	0.36 (6.88)	0.22 (5.16)	-0.15 (-3.60)	-0.13 (-3.49)	0.97	1.99
Food Process	-8.42 (-5.41)	0.05 (1.57)	0.06 (0.89)	0.29 (1.99)	-0.03 (-1.11)	0.01 (0.07)	0.91	2.08
Textile & Apparel	-9.11 (-14.45)	0.01 (0.17)	0.17 (4.22)	0.03 (0.55)	-	0.07 (1.39)	0.86	1.39
Wood Product	-5.26 (-2.84)	0.04 (4.95)	-	-0.11 (-0.67)	-	0.05 (2.76)	0.96	1.23
Petroleum & Chemicals	-15.24 (-3.75)	-0.01 (-0.10)	0.61 (2.47)	-0.05 (-0.40)	0.17 (0.79)	0.11 (0.61)	0.53	1.52
Nonmetallic Products	-10.71 (-12.06)	0.05 (7.72)	0.10 (2.40)	0.28 (5.67)	-	-0.03 (-1.66)	0.85	2.00
Metal Products	-14.25 (-4.45)	-0.04 (-1.39)	0.69 (1.85)	0.10 (0.39)	-0.07 (-0.46)	0.11 (0.33)	0.93	1.34
Machinery	-8.54 (-12.61)	0.07 (1.45)	0.42 (4.63)	0.03 (0.52)	0.10 (1.43)	-0.39 (-1.67)	0.87	1.40
Electrical & Electronics	-11.33 (-5.63)	0.27 (3.74)	0.89 (4.26)	0.29 (1.66)	-	-1.05 (-4.17)	0.76	1.23
Transports Equip.	-10.96 (-7.34)	0.04 (1.88)	-0.03 (-0.81)	0.46 (3.62)	-	-0.02 (-0.22)	0.92	2.76
Service	-3.91 (-3.90)	-0.01 (-0.43)	0.05 (1.81)	-0.37 (-3.68)	0.17 (3.40)	-	0.80	1.76

In general, the coefficients of foreign direct investment are more statistically significant than those of either commercial loans or public loans as shown in their t values. As mentioned earlier, there was a major shift in the composition of foreign capital inflow in Korea in the early 1980s as Korean firms diversified the source of their foreign financing. Companies began to

2. The depreciation rate for imported technology stock is assumed to be 15 percent according to Choi and Hyun (1991), Kim and Cho (1989).

import foreign machinery and build factories using funds financed through foreign related bank loans and bonds instead of commercial and public loans. This partly explains the these variables' inconsistency with the total factor productivity, especially in the manufacturing sector. For our purpose, it is desirable to have data on foreign related bank loans and corporate bonds by industry. Unfortunately, this data is not available. The coefficients of foreign technology import are widely varying and most of them are negative. This might have been caused by unreliable data on foreign technology imports.[3]

Before moving to the manufacturing sector, let's briefly review the coefficients in the agricultural and service sectors. Public loans have significant and very large negative elasticity, namely, -2.09 in the agricultural sector. It is not surprising given Korea's use of import food staples, mainly on rice through public loans until it became self-sufficient in the mid-1980s. The less rice Korea produced due to poor harvest, the more it relied on rice imports through public loans. On the other hand, in the service sector, the coefficient of public loan is 0.17 which is fairly large. This reflects the fact that the construction of social overhead capital such as power plants, highways, subways and hydro-electric dams have heavily relied on foreign public loans.

Table 6 Annual Growth Role of Value-added and Various Stocks for 1970-1990

(Unit: %)

	Value -added	Capital Stock	FDI	Com. Loan Stock	Pub. Loan Stock
Agriculture	1.9	8.7	11.1	-4.2	3.0
Manufacturing	13.7	14.9	9.9	5.7	6.5
Food Processing	8.7	11.8	21.5	-6.1	5.3
Textile & Apparels	10.9	12.6	5.8	-1.9	-12.0
Wood Products	12.0	11.0	-	-3.0	-
Petroleum & Chemicals	12.8	12.1	6.1	3.5	-9.2
Nonmetallic	12.4	14.7	5.9	-0.3	-12.0
Metal Products	20.3	16.7	8.8	13.6	-
Machinery	19.4	19.3	20.6	11.5	22.6
Electrical & Electronics	24.7	24.5	11.3	15.8	-
Transport Equip.	20.9	18.2	29.4	11.9	-
Service	8.3	11.3	17.6	10.9	4.2
Total	8.7	11.9	12.2	7.4	11.4

Note : See the data section in page 8 and 9 for calculation of Capital Stock, FDI Stock, Commercial Loan Stock and public Loan Stock.

Sources : Bank of Korea, *National Accounts*, various issues.
Ministry of Finance, *Fiscal and Financial Statistics*, various issues.
Bureau of Statistics, *Annual Survey of Mining and Industrial Statistics*, various issues.

The manufacturing sector has been by far the fastest growing sector. Its annual growth rate was 13.7 percent for the 1970-1990 period whereas those of agricultural and service sectors were

3. Choi and Hyun (1991) suggest that many items in foreign technology imports have been double counted in Korea.

1.9 percent and 8.3 percent, respectively (Table 6). The coefficient of FDI in the manufacturing sector is 0.36, meaning that a 1 percent increase in FDI raises factor productivity by 0.36 percent (Table 5). During the 20 year period, the stock of FDI in manufacturing increased by 9.9 percent annually (Table 6). By multiplying the elasticity by the growth rate of FDI for the entire period of 1970-1990, we found the figure which represents a part of manufacturing growth rate resulting from FDI's productivity enhancement. Then, dividing that figure by the manufacturing growth rate of the same period, we obtained FDI's share of the manufacturing growth, which was 17.0 percent during the period. Moreover, FDI is a new addition to the existing capital stock, we found that FDI contributed to another 2.5 percent in manufacturing growth. To sum up, the total share of FDI in manufacturing growth was 19.5 percent. In essence, the Korean manufacturing sector would have grown by 19.5 percent less without FDIs (Table 7).

Table 7 Contribution of FDI to Growth Rate[1]
(Calculated for 1970-1990)

(unit: %)

	Productivity[2]	Capital Formation[3]	Total
Food Process	-	3.1	3.0
Textile & Apparel	5.1	0.6	5.7
Wood Product	-	-	-
Petroleum & Chemicals	13.7	3.0 16.7	
Nonmetallic	2.3	0.4	2.7
Metal	7.5	0.5	8.0
Machinery	21.9	2.5	24.4
Electrical & Electronic	8.3	5.7	14.0
Transportion	-	2.4	9.5
Manufacturing	17.0	2.5	19.5

Notes: 1. See page 10 and 11 for calculation.
2. Percentage shared FDI in growth rate through increase in Productivity.
3. Percentage Share of FDI in growth rate through increase in capital formation.

Using the same method, the shares of FDIs in the growth rate of manufacturing subsector are calculated in Table 7. Among the manufacturing industries, the machinery sector with an annual growth rate of close to 20 percent received the largest FDI's contribution for its growth, followed by other fast growing industries such as the petroleum and chemical industry, electrical and electronics equipment industry, and the metal products industry. However, the productivity elasticity of FDI in the machinery sector, namely 0.42, is far less than those other industries such as electrical and electronics industry whose elasticity is 0.89. But the machinery sector along with the food processing and transport equipment industries were one of the three manufacturing subsectors in which the stock of FDI grew quickly at the annual growth rate exceeding 20 percent. Therefore, even with a relatively small productivity elasticity, FDI could contribute to a lion's share of the growth in the machinery sector. On the other hand, textile and apparel, wood products, and nonmetallic products industries least benefitted from FDIs due to their small productivity elasticities as well as FDI's slow inflow.

Two interesting cases are the petroleum and chemical products, and transport equipment industries which exemplify contrasting roles of the different types of foreign capital. For the petroleum industry, the productivity coefficient of FDI is 0.62, statistically significant and large whereas that of the commercial loan is insignificant and negative. However, the story is completely opposite in the transport equipment industry. For the transport equipment industry, FDI has an insignificant and small negative coefficient whereas the commercial loan has a significant and large coefficient in the regression equation (Table 5). Thus, FDI's contributing shares to growth are strikingly different in the two industries with 16.7 percent in the petroleum and chemical product industry in contrast to 2.4 percent in the transport equipment industry (Table 7). This finding is just another revelation of the Korean industrial policy concerning the two industries. Joint ventures with foreign multinationals were allowed in petroleum and chemical industries while permissions for joint ventures were rarely given in the transport equipment industry. Thus, Korean transport equipment manufacturers such as automakers and shipbuilders relied heavily on foreign capitals financed through commercial loans.

To summarize, FDIs had more statistically significant effects on the factor productivity than either commercial or public loans. The manufacturing sector was the largest beneficiary of FDIs and this was particularly true for the capital intensive industries such as petroleum and chemicals, metal products, machinery, and electrical and electronics products industries. However, commercial loans played an important role in some manufacturing sectors including transport equipments and nonmetallic products industries while public loans raised the productivity of the service sector, especially in conjunction with social overhead capital.

VI. Concluding Remarks

Foreign capital has been an essential part of the Korean's economic development from the beginning. There is no doubt that it has greatly enhanced Korea's productivity through the transfer of technology as well as managerial skills. To prove such assertions, I have attempted to quantify the contributions of foreign capital to the growth of the various Korean industries during the last 20 years.

My analysis suggests that the success of Korea's manufacturing sector, the engine of economic growth, owes very much to foreign capitals. FDI alone accounts for almost 20 percent of the manufacturing growth. Although the exact figure is most likely to be incorrect, the importance of foreign capital cannot be denied.

As the sources of Korea's external financing are diversified and balance of payments stabilized, the need for FDI is declining. In actuality, there has been a steady drop in the arrival of FDIs in Korea during the last three years. This declining trend in FDI is alarming considering that FDIs are still very import to industries such as machinery, and electrical and electronics appliance industries whose growth are essential for the future development of the Korean economy.

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