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Volume Title: Developing Country Debt and Economic Performance, Volume 3: Country Studies - Indonesia, Korea, Philippines, Turkey

Volume Author/Editor: Jeffrey D. Sachs and Susan M. Collins, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-30455-8

Volume URL: <http://www.nber.org/books/sach89-2>

Conference Date: September 21-23, 1987

Publication Date: 1989

Chapter Title: An Overview of Korea's External Debt

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Chapter URL: <http://www.nber.org/chapters/c9033>

Chapter pages in book: (p. 170 - 182)

accounted for just 11 percent of GNP, with over 45 percent of output concentrated in the primary sector. The next chapters examine Korea's transformation into a rapidly growing economic miracle.

3 An Overview of Korea's External Debt

In 1962 Korea's external debt stood at \$58 million, only 2.5 percent of GNP. By 1982 Korea had accumulated over \$37 billion in external debt, or 52.7 percent of GNP, ranking it fourth in the list of debtor countries. After an impressive turnaround, Korea began to reduce its external debt in 1986. This chapter presents and discusses a number of debt statistics. The objective is to identify the key trends to be examined in detail in subsequent chapters. In addition to the tables in the text, we refer extensively to debt tables from the Data Appendix.

3.1 Korea's External Debt

Table 3.1 traces the accumulation of Korean debt from 1961 to 1986. As shown, the debt stock rose steadily until 1985, with an average annual increase of \$2 billion. Over 75 percent of the increase between 1962 and 1982 occurred during three periods of rapid debt accumulation. From 1966 to 1969 the debt rose from \$0.35 to \$1.8 billion, or from 9.6 percent to 27.2 percent of GNP. A second jump followed the 1973 increase in oil prices. The debt stock increased by \$4.2 billion from 1973 to 1975, pushing the debt/GNP ratio to 40.6 percent. As debt accumulation slowed during the recovery period from 1975 to 1978, the debt/GNP ratio fell back to 28.6 percent. The third period of rapid accumulation began in 1979. Over the next three years, the debt stock rose from \$14.9 to \$37.3 billion, while the debt/GNP ratio jumped to 52.7 percent. During the subsequent recovery (1982–85), the debt/GNP ratio averaged 53.8 percent before falling below 47 percent in 1986. The three periods of accumulation will be examined in chapters 4 and 5. We return to the recent debt decumulation in chapter 13.

Table A2.1 in the Data Appendix provides a more detailed breakdown of external debt by maturity and borrower. It identifies two other aspects of Korea's external debt history. It shows that there have been considerable shifts in the term structure of the debt. There have also been shifts in the composition of the debt between the public sector and the bank and nonbank private sector.

Table 3.1 Korea's External Debt, 1961–86 (in millions of U.S. dollars)

Debt	1961	1962	1963	1964	1965	1966	1967	1968	1969
Total foreign debt	83	89	157	177	206	392	645	1,199	1,800
Foreign direct investment	—	1	3	6	16	21	34	49	56
Foreign debt/GNP	3.9	3.8	5.8	6.2	6.9	10.7	15.1	22.9	27.2
Foreign debt plus direct investment/GNP	3.9	3.9	5.9	6.4	7.4	11.3	15.9	23.9	28.0
Debt service ratio ¹	0.6	0.8	1.0	2.6	5.0	3.2	5.4	5.4	8.6
Debt	1970	1971	1972	1973	1974	1975	1976	1977	1978
Total foreign debt	2,245	2,922	3,589	4,257	5,933	8,443	10,520	12,649	14,823
Foreign direct investment	81	117	175	329	486	549	650	741	830
Foreign debt/GNP	28.7	31.2	34.0	31.5	32.0	40.5	36.7	33.8	28.5
Foreign debt plus direct investment/GNP	29.7	32.4	35.6	34.0	34.6	43.1	38.9	35.8	30.1
Debt service ratio ¹	18.5	21.0	18.7	14.8	14.4	14.4	12.1	11.1	13.9
Debt	1979	1980	1981	1982	1983	1984	1985	1986	
Total foreign debt	20,287	27,170	32,433	37,083	40,378	43,053	46,762	44,510	
Foreign direct investment	866	873	975	1,044	1,112	1,222	1,456	1,891	
Foreign debt/GNP	32.5	45.0	49.0	53.5	53.1	52.3	56.3	46.8	
Foreign debt plus direct investment/GNP	33.9	46.5	50.4	55.0	54.6	53.7	58.0	48.8	
Debt service ratio ¹	16.3	18.5	20.1	20.6	18.8	20.4	21.7	22.7	

¹Includes interest on short-term debt.

In the table, debt is divided into three maturities. Long term refers to over three-year maturity, while medium and short term refer to one-to-three year and under one year, respectively. In 1962 medium-term trade credits amounted to over 80 percent of Korea's total debt. The next decade saw a consistent decline in the share of medium-term debt to 3.8 percent by 1971.

Although the share of medium-term debt remained more or less constant during 1971–85, there have been significant changes in the relative importance of short- and long-term debt. Short-term debt increased dramatically during each period of rapid accumulation and fell, after a lag, during the subsequent recovery. The share of short-term debt jumped from 16.4 percent in 1973 to 28.5 percent in 1975. In 1978 it declined to 21.2 percent. By 1980 the share had soared to 34.5 percent. Since then, it has been substantially reduced to less than 21 percent in 1986.

There have also been shifts in the distribution of the debt between the public sector, the nonbank private sector, and financial institutions. In

interpreting these numbers, it is important to bear in mind that the typical distinctions between public, private, and bank debt are somewhat misleading in Korea. First, external debt is overseen by the Ministry of Finance (MOF), and all borrowing requires prior approval. In effect, all loans are “publicly guaranteed” in the sense that they are ultimately backed by the Bank of Korea. Second, bank debt comprises loans to the banking system. These are treated as below-the-line, or accommodating flows, in Korean balance-of-payments statistics. The funds are then lent out to the private sector.

During 1961–67 all long-term Korean debt was either public or private borrowing, except for some usage of IMF facilities beginning in 1965. From 1966 to 1971 private debt substantially exceeded public debt. During 1971–78 the two remained of comparable magnitudes. Since 1978 the importance of public debt has risen substantially relative to private debt. However, private and bank debts together have consistently exceeded public borrowing.

Public and private borrowing continued to constitute 90 percent of the total until 1978. These items had fallen to 70 percent of the total by 1982 and to only 52 percent by 1985. From 1978 to 1982 the declining importance of public and private debt is attributable to the growth in bank loans, foreign bank “A” accounts,¹ and IMF facilities. After 1982 bonds were increased dramatically.

3.2 Korean Corporations with Foreign Branches

Borrowing by Korean enterprises with branches abroad is not included in external debt statistics. However, these figures are monitored by the MOF and are subject to the regulations of the Foreign Exchange Control Act. As shown in table 3.2, this borrowing doubled between 1979 and 1982, reaching \$5.4 billion. Since 1984 this borrowing by foreign branches has exceeded the total of private long-term loans.

Table 3.2 Foreign Financing of Korean Companies with Branches Abroad, 1979–86
(in millions of U.S. dollars)

	1979	1980	1981	1982	1983	1984	1985	1986
Total	2,447	3,712	4,463	5,377	5,710	5,976	6,076	5,619
Trade companies	1,404	1,863	1,711	1,791	1,885	2,167	2,175	2,534
Construction companies	964	1,758	2,649	3,456	3,672	3,631	3,560	2,722
Other	79	91	103	130	150	178	341	363
<i>Memo:</i> Foreign finance as a percentage of long-term private loans	0.44	0.60	0.69	0.85	0.93	1.01	1.06	1.04

Source: Ministry of Finance.

3.3 Indicators of Debt Burden

In absolute terms, Korea is one of the most heavily indebted countries. Among the twenty largest debtor countries in 1983, Korea was fourth in terms of the level of its gross debt. However, the gross volume of debt can be a misleading indicator of the real burden of external borrowing. In 1983 Korea was eleventh in terms of its debt/GNP ratio and fifteenth in terms of the ratio of debt service to exports.²

Table 3.3 presents a number of measures of the burden of Korea's debt. The debt/GNP ratio is given in the first column. The second and third columns show the ratios of total debt service to GNP and to exports. The final column shows the ratio of foreign exchange reserves to external debt.

From the table it can be seen that the ratio of debt to GNP jumped in 1975 and again in 1980 after an intermediate period of decline. The ratio continued to rise after 1980. The table also shows that, despite rapid debt accumulation over the period from 1970 to 1982, service payments fell as a proportion of foreign exchange earnings. Although debt rose from 34 to 53 percent of GNP, rapid growth of exports has meant that the share of export revenues needed to service the debt has risen much more slowly. Also, receipts from invisibles have grown very quickly since the mid-1970s. By 1982 service payments accounted for 21 percent of export receipts, but for less than 16 percent of total current revenues. Thus, the rapid growth of foreign exchange earnings plays a critical role in Korea's experience with

Table 3.3 Debt Burden Indicators, 1966-86 (in percentages)

Year	Debt/GNP	Service/GNP	Service/Exports	Reserves/Debt
1966	10.7	0.4	3.2	60.6
1967	15.1	0.8	5.4	54.3
1968	22.9	0.9	8.6	32.6
1969	27.2	1.5	18.5	30.7
1970	28.7	3.3	21.0	26.1
1971	31.2	3.6	18.7	18.4
1972	34.0	3.9	14.8	20.6
1973	31.5	4.5	14.4	25.7
1974	32.0	3.8	14.4	17.8
1975	40.5	4.1	12.1	18.3
1976	36.7	4.0	11.1	28.1
1977	33.8	4.2	13.9	34.0
1978	28.5	4.6	16.3	33.2
1979	32.5	5.1	16.0	27.8
1980	45.0	6.9	18.5	24.0
1981	49.0	8.2	20.1	21.2
1982	53.5	8.2	20.6	18.7
1983	53.1	7.6	18.8	16.8
1984	52.3	8.3	20.4	17.7
1985	56.3	8.6	21.7	16.5
1986	46.8	10.0	22.7	17.9

external debt. Table 3.3 also shows that Korea accumulated foreign exchange reserves relative to debt during the recovery from the first and second crises, but did not replenish the reserve stock in the first few years after the most recent crisis.

How does Korea compare to other debtor countries? Table 3.4 provides comparison debt/export and debt/GNP figures for three groups of countries. In 1980 Korea's debt to export ratio was high relative to both the group of fifteen heavily indebted countries and the group which has not experienced debt servicing difficulties. The debt to output ratio was considerably higher than even the average for countries that did experience servicing difficulties.

By 1986 Korea's relative position had improved considerably. Its debt to export ratio had declined by 12 percent. In contrast, the ratio had risen by 44 percent for countries without difficulties and 164 percent for those with difficulties. Korea's debt to output ratio had fallen below the ratio for the countries having difficulties, but remained significantly higher than the ratio for the countries without difficulties.

It is useful to consider all of these indicators because none is an ideal measure of the debt burden. The debt to GNP measure relates the total amount owed abroad to total domestic output, but does not indicate a country's ability to transfer domestic into foreign resources so as to pay external debts.

The debt to export ratio does focus on access to foreign exchange earnings. However, this indicator is also problematic because countries would differ in their foreign exchange requirements even if they had no external debts. In particular, Korea relies heavily on imported intermediates and raw materials for domestic production. The import requirements for exportables and for investment were 35 percent and 42 percent, respectively, in 1980. Over 1980–83 imports averaged 39.8 percent of GNP. In contrast, imports averaged 18.7 percent of output for the ten principal Baker

Table 3.4 Cross-country Comparisons of Debt Burden

	1980	1982	1984	1986
A. Long- and Short-Term External Debt Relative to Exports of Goods and Services				
Korea	120.3	130.8	127.9	106.1
135 heavily indebted countries	109.3	178.7	178.9	288.1
Countries with recent debt servicing problems	151.2	241.5	247.2	302.4
Countries without recent debt servicing problems	79.1	92.8	96.3	114.0
B. Long- and Short-Term External Debt Relative to GDP				
Korea	45.1	53.5	52.2	46.8
15 heavily indebted countries	30.8	41.7	46.8	48.4
Countries with recent debt servicing problems	33.6	45.5	51.1	54.8
Countries without recent debt servicing problems	20.5	24.9	27.3	32.5

Source: IMF, *World Economic Outlook*, April 1987, for all countries except Korea (uses new SNA).

countries. The figure was 22–25 percent for Chile, Ecuador, Nigeria, Peru, the Philippines, and Venezuela and just 9–12 percent for Argentina, Brazil, and Mexico.

3.4 Usage of External Debt

The balance of payments accounts imply that increases in the stock of gross external debt must be equal to the current account deficit plus acquisitions of official foreign exchange reserves plus capital inflows. A useful way to write the identity is given below.

$$\Delta \text{ Gross External Debt} = \text{Current Account Deficit} + \Delta \text{ Official Reserves} + \text{Short-Term Private Capital Outflows} - \text{Long-Term and Direct Capital Inflows}$$

The equation points out that current account deficits, reserve accumulation, and short-term capital flows (capital flight if it leaves the country) must be financed either by long-term capital movements and direct foreign investment, or by accumulation of external debt.

Exactly how foreign borrowing has been used has an important bearing on the ease with which a country can repay its debts. There are two key issues. The first is that debt which financed private capital outflows can be extremely difficult to repay because it does not increase domestic resources. Instead, a few private citizens hold assets abroad—the counterpart to the country's external debt. To repay its liabilities, the government must mobilize and transfer domestic resources to the rest of the world. This is typically accomplished through subsidy cuts and tax increases to improve the government budget, and through real exchange rate depreciation and real wage reductions to increase competitiveness and to shift resources into the production of tradable goods. The transfer may well lead to a deterioration in the standard of living and/or in the distribution of income.

The second issue concerns the sources of the current account deficit. National income accounts imply that a current account deficit is the foreign savings counterpart to the difference between domestic savings and investment. Countries can run large current account deficits because of high investments which will pay off through increased future productive capacity. They can also run large deficits with low investment when domestic savings are small, perhaps because of government budget problems or because of a spurt in imports of consumer goods.

To the extent that external borrowing goes to finance a current account deficit which reflects strong investments (particularly in the traded goods sectors), a country should have little difficulty in repaying its obligations. Although there may be problems of liquidity in the short to medium term, resources should eventually become available to transfer abroad. However,

countries that borrow abroad to substitute for low private and/or government savings are likely to face the same difficulties of repayment as those that borrowed to finance capital flight.

Korea's use of debt distinguishes it from many of the other large debtor countries. For example, Dornbusch (1985b) points out that external debt accumulated in Argentina during 1978–82 went primarily to finance capital flight. In Brazil the debt financed current account deficits, but these reflected government dissavings and not high investments. The public sector had not adequately adjusted to the severe external shocks. Table 3.5 breaks down the use of external debt for Korea. The seven time periods include the three periods of rapid debt accumulation and the subsequent recoveries, as well as the 1986 developments.

During each of the three accumulation periods the current account deficit accounts for the bulk of the increase. The current account deficit, together with reserve accumulation and errors and omissions from the balance of payments, accounted for at least 78 percent of the debt in all six periods.³ In 1983–85 much of the large discrepancy was due to an increase in exports on credit. Finally, about half of the huge 1986 current account surplus went to reducing external debt.

Debt accumulation has not gone to finance capital flight. Except for the increased reserves (and more recently the increases in other assets), the primary usage of external borrowing has been to finance the imbalance between investment and domestic savings. In fact, Korea has maintained consistently high and rising investment rates, and domestic saving rates rose substantially during 1965–85. Unlike for either Argentina or Brazil, investment has played a central role in Korea's debt accumulation. Chapter 8 on savings and investment behavior explores these issues in more detail.

3.5 The Cost of Foreign Borrowing

Why was the private sector willing to borrow so much, so rapidly? Table 3.6 gives a variety of interest rates, in addition to inflation and exchange rate

Table 3.5 Use of External Debt, 1966–86 (in billions of U.S. dollars)

	1966–69	1970–73	1974–75	1976–78	1979–82	1983–85	1986
Debt	1,594	245	4,186	6,380	22,260	9,679	-2,252
Current account deficit	1,285	2,150	3,910	1,387	16,768	3,866	-4,617
Foreign exchange accumulation	411	484	507	3,396	2,047	796	207
Errors and omissions (-)	1	-57	94	585	2,406	2,716	544
Direct foreign investment (-)	-40	-281	-232	-308	-430	-522	-477
Discrepancy	-63	161	-93	1,320	1,469	2,893	-2,091

Table 3.6 The Cost of Foreign Capital, 1966–86 (annual average percentages)

Item	1966–70	1971–75	1976–80	1981–83	1984–85	1986
1. Domestic bank lending rate ^a	24.4	17.4	18.0	13.8	10.0	10.0
Curb market interest rate	54.2	40.1	41.4	30.5	24.4	23.2
2. Foreign interest rate ^b	7.2	7.9	9.5	13.0	9.5	6.7
3. Exchange rate depreciation ^c	3.1	9.3	4.7	8.5	5.9	1.3
4. Domestic inflation rate (GDP deflator)	15.4	18.8	20.9	8.5	4.0	1.4
5. Interest rate differential between home and foreign markets [(1) – (2) – (3)]	14.1	0.2	3.8	–7.7	–5.4	2.0
6. Real private cost of borrowing abroad [(2) + (3) – (4)]	–5.1	–1.6	–6.7	13.0	11.4	6.6

Source: BOK, *Monthly Bulletin*, various issues, and IMF, *International Financial Statistics*, various issues.

^aDiscounts on bills of Deposit Money Banks.

^bNinety-day Euro-dollar rate.

^cPeriod average.

depreciation. The figures show that there were strong reasons to borrow abroad instead of domestically, even for those firms that had access to credit from the official banking system. The incentives were even stronger for those firms that could only borrow domestically through the unorganized (curb) markets. (Korean financial markets are discussed in chapter 11.)

The interest differential between domestic and foreign borrowing was a full 14 percent during 1966–70, the first period of rapid debt accumulation. It fell to about 1 percent during 1971–80, however, the real cost of foreign borrowing remained negative as domestic inflation outstripped depreciation of the won. During 1981–85 the incentives reversed dramatically. The interest differential between domestic and foreign borrowing had turned negative. The slowdown in domestic inflation, combined with a substantial depreciation, made the real cost to foreign borrowing jump from –6.7 percent in 1976–80 to 13.0 percent in 1981–83 and then to 11.4 percent in 1984–85. During 1986 the exchange rate began to appreciate, while domestic inflation and foreign interest rates continued to fall. Despite little change in domestic nominal rates, borrowing abroad once again became relatively less expensive than borrowing from domestic banks.

3.6 Foreign Aid and Concessional Lending

We have seen that virtually all of Korean imports and gross investment was financed by foreign aid during the 1950s. However, the importance of foreign aid declined precipitously during the 1960s, becoming a negligible source of funding by the mid-1970s.

Table 3.7 summarizes aid flows to Korea during 1948–83. (A more detailed breakdown of foreign aid is given in the Data Appendix.) As shown, the United States is by far the largest donor. The flows rose to a high of 16

Table 3.7 Average Annual Aid Received, 1948–83 (in millions of U.S. dollars)

Period	Total	U.S.
1948–55	150.9	84.4
1956–60	299.7	290.3
1961–65	185.8	185.8
1966–71	91.2	91.2
1972–77	2.0	2.0
1978–83	0.2	0.2

Source: BOK, *Economics Statistics Yearbook*, 1972, 1984.

percent of GNP in 1957, averaged 8–9 percent during 1959–62, 2 percent during 1966–68, 1 percent during 1969–71, and have been negligible since 1972. The majority of the flows were nonproject assistance used to finance imports of raw materials and capital goods. The magnitude of these flows implied that the United States had a critical influence over Korean investment decisions during this period.⁴

After the overthrow of Syngman Rhee in 1960, Korean policies increasingly encouraged foreign borrowing from private sources. By 1967 foreign loans and foreign direct investment each played a more important role than foreign aid.

However, these figures underestimate the effective amount of aid because some of Korea's public loans during the 1960s and 1970s were on concessional terms and the grant element of these loans has not been included. As Krueger (1982, 154) points out, almost all public borrowing between 1966 and 1969 came from either the United States or Japan, so that one sensible correction focuses on public debt from these sources. In fact, PL 480 and development loans came almost exclusively from the United States during 1961–75. The magnitude of these loans increased as other U.S. aid tapered off, implying that the total remained approximately constant in nominal terms through 1972. In 1965 the Japanese Settlement (treated as a reparations settlement and not as aid by Korean authorities) called for \$500 million in grants and public loans to be disbursed over the next decade.

An alternative approach to estimating the grant element in Korea's foreign loans is to examine the terms of the borrowing. Table 3.8 shows interest rates and terms of repayment for (committed) foreign capital during 1959–74. There is a marked difference between public and commercial loans. Taking the weighted average figures, public loans enjoyed a 3 percent reduction in interest rates, a 4.7 year increase in the grace period, and a repayment period almost 16 years longer than that for commercial loans.

Strictly comparable data is not available for the more recent period. To provide an updated indication of the amount of Korea's concessional lending, table 3.9 computes the average interest rates for public, commer-

Table 3.8 Foreign Loans by Interest Rates and Terms of Repayment, 1959–74 (commitment basis, weighted averages)

	Commercial	Public
Interest rate (%)	7.1	4.1
Grace period (years)	2.5	7.2
Repayment period (years)	10.1	26.0
Total (millions of U.S. \$)	4,166.5	2,764.4

Source: Krueger (1982, 156–57, table 45).

Table 3.9 Average Interest Rates on Long-term Loans, 1972–86

Year	Public	Commercial	Bank	LIBOR ^a
1972	6.0	7.1	8.5	5.4
1973	4.7	8.5	11.1	9.4
1974	3.3	9.4	23.4	10.9
1975	4.5	9.3	16.2	7.0
1976	5.3	8.4	12.0	5.6
1977	5.7	9.2	15.7	6.0
1978	6.6	10.0	17.8	8.9
1979	6.5	10.0	27.9	12.1
1980	7.1	12.0	16.9	14.2
1981	6.8	12.7	19.8	16.9
1982	7.8	12.4	15.2	13.3
1983	6.2	10.0	11.4	9.7
1984	6.6	10.8	11.3	10.9
1985	5.8	9.5	8.8	8.4
1986	6.9	10.1	8.4	6.9

Source: EPB, *Major Statistics*; MOF, *Fiscal and Banking Statistics*; and IMF, *International Financial Statistics*, various issues.

Note: Average interest rates are computed as total interest payments divided by debt outstanding at the end of the preceding year.

^aLIBOR = London interbank offer rate for dollar deposits.

cial, and bank long-term loans from 1972–86.⁵ The figures show that interest rates on bank loans are higher and more variable than rates on other private sector loans and that public loans have enjoyed the lowest rates. This component includes the public long-term debt originally lent at concessionary terms. Also, the majority of the fixed interest loans are public loans, while commercial and bank borrowing is typically at variable interest rates (see table 3.10). During 1980–84 approximately 70 percent of public debt was at fixed interest rates as compared to only 7 percent of bank debt and virtually no private debt.

3.7 The Process of Borrowing and Repayment Guarantees

Finally, we turn to another aspect of Korea's debt which distinguishes it from borrowing in many other debtor countries. As we mentioned earlier, the

Table 3.10 Fixed versus Variable Interest Rates as a Percentage of Total Debt, 1980–84

	1980	1981	1982	1983	1984
Fixed rates	34.0	34.1	32.8	31.6	31.2
Public	30.5	31.2	30.1	28.8	27.8
Private	0.0	0.1	0.1	0.3	0.6
Bank	3.5	2.8	2.6	2.5	2.8
Variable rates	66.0	65.9	67.2	68.4	68.8
Public	16.2	12.8	12.1	11.9	11.6
Private	18.0	14.8	12.5	14.6	11.9
Bank	31.8	38.3	42.6	41.9	45.3

Source: MOF, *White Book*, 1986, p. 36.

MOF monitors and oversees all borrowing activities in Korea. In practice, all loans require prior approval and can be considered “government guaranteed.”

Debt monitoring has had important implications because it has meant that Korean authorities have kept up to date about the volume of external borrowing. In fact, as discussed further in part 2 (see esp. ch. 8), borrowing has figured prominently in the five-year plans as a means of financing investment, and a large portion of the debt accumulation was anticipated. The very strict borrowing process has also played an integral part in Korea’s industrial and development policy by directing the allocation of foreign funds to particular industries and to particular firms, focusing on successful exporters.

In describing the loan application process it is useful to distinguish between three types of loans. First, there are loans which are directly controlled by MOF. These include public sector loans, financial credits to special banks (Korea Exchange Bank [KEB], Korea Development Bank [KDB], and Korea Export Import Bank [KEXIM] and import credits of less than three years original maturity. The second category is borrowing by financial institutions. These loans are subject to the foreign exchange regulations administered by the Bank of Korea (BOK).

The third category requires application to the Economic Planning Board (EPB) for appraisal. These include loans to nonfinancial private borrowers and import credits of more than three-year maturity. The application includes a report on the firm’s creditworthiness and on the desired usage of the funds. Projects are selected depending on whether they are judged to be consistent with developmental goals specified in the current five-year plan—expanding targeted industrial sectors and improving the balance of payments. The EPB is responsible for choosing among competing projects, typically favoring solicited ones.

One example of government influence resulted from the shifts in loan allocation that came with the priority shift of the Big Push toward heavy and chemical industry. Table 3.11 shows that the share of foreign loans going to

Table 3.11 Foreign Loans by Destination, 1966–82 (shares of total)

Destination	1966–70	1971–75	1976–80	1981–82
Agriculture, forestry, and fisheries	11.4	13.0	6.7	9.2
Mining	1.0	—	0.1	0.2
Manufacturing	39.8	38.8	39.4	15.2
Heavy and chemical	(22.7)	(26.3)	(30.8)	(12.8)
Light	(17.1)	(12.5)	(8.6)	(2.4)
Social overhead	39.5	29.8	38.8	55.5
Services	6.5	13.4	14.5	14.4
Other	1.8	5.0	0.3	5.3
Total (million U.S. \$)	1,693.2	4,523.2	11,810.5	5,734.1

Source: EPB, *Economic Indicators of Korea*, 1983.

Note: Dash indicates that data were not available.

this sector rose from 23 percent in the late 1960s to 31 percent during the Big Push and fell to just 13 percent once the Big Push had ended in the 1980s. Allocation of domestic loans has also been an important issue in Korean development. As discussed in chapter 11, rankings of priority industries and loan ceilings have been used to ration credit.

Virtually all foreign loans require repayment guarantees. Originally (1963–66), the KDB issued foreign loan guarantees (in won) to the BOK which issued a guarantee of convertibility directly to the foreign lender. The guarantees had to be authorized by the National Assembly, often involving special bargains and inducements from the EPB and MOF.⁶ Since 1966 commercial and specialized banks have been allowed to issue repayment guarantees for private foreign loans without prior authorization from the National Assembly. They guarantee the loan (in won) to the BOK, which assures convertibility. (Guarantees issued by the Foreign Exchange Bank are secondary acceptances on the guarantees of other banks.) Loans which are judged to be difficult for commercial banks to guarantee (for example, large loans to public enterprise) receive government guarantees through the KDB.

All commercial banks in Korea were government owned until the early 1980s. Since 1982, five large commercial banks have been transferred to private ownership. In practice, the banks usually acted as passive partners in issuing repayment guarantees. They did not actively examine the loan applications once they had been arranged between the borrower and lender and approved by the EPB or MOF. Thus, when faced with the problem of whether to bail out the banks during difficult periods in which firms, and therefore banks, were unable to pay, the government found it hard to hold the banks responsible.

3.8 Summary

Foreign capital inflows have played a central role in Korean economic development. We have already emphasized the importance of foreign aid

during the initial recovery stages. This chapter has documented the rapid accumulation of external debts beginning in the early 1960s.

The chapter has made four main points. First, most of the debt accumulation took place during 1966–69, 1974–75, and 1979–82. Second, growth of the nominal debt stock overstates the burden of the debt because of the very rapid growth rates of GNP and exports. As we shall see in chapter 7, a substantial portion of Korean growth is attributable to investments financed by foreign borrowing.

Third, Korea's debt has been used primarily to finance current account deficits. For this reason, subsequent chapters will focus on the behavior of domestic savings and investment, recognizing that the excess of domestic savings over investment is the counterpart to a current account imbalance.

Finally, Korea, unlike many other developing countries, has carefully monitored foreign borrowing. Up-to-date and accurate statistics are maintained. In fact, the allocation of foreign (and domestic) credit has played a central role in Korea's growth strategy, facilitating the rapid growth of exports. Comprehensive and current information has also enabled policy-makers to react relatively quickly to external and internal economic developments.

4 Three Cycles of Debt Accumulation, 1960–86

This chapter examines Korea's macroeconomic performance and experience with external debt from 1960 to 1986. As pointed out in chapter 3, most of Korea's debt was accumulated during one of three periods: 1966–69, 1974–75, or 1979–81. Each period can be characterized as a cycle in which an initial phase of economic difficulty and growth slowdown was followed by a subsequent recovery with resumed growth. As we shall see, only the economic downturn during the third cycle was severe enough to be classified as a crisis by international standards. However, all three declines in performance were viewed with concern by Korean policymakers. Each of the three cycles also involved important shifts in economic policy as domestic authorities responded to external developments and to changes in domestic macroeconomic performance.

While it is convenient to discuss each cycle separately, it is also important to identify the broad trends which developed throughout Korea's recent history. In particular, when we pick up the story, Korea has a war-devastated economy, heavily dependent on foreign aid. By 1986 it has successfully