South Korea in the Fast Lane

ECONOMIC DEVELOPMENT AND CAPITAL FORMATION

Young-Iob Chung

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Economic Development and Capital Formation

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OXFORD
UNIVERSITY PRESS
2007

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UNIVERSITY PRESS

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Oxford New York
Auckland Cape Town Dar es Salaam Hong Kong Karachi
Kuala Lumpur Madrid Melbourne Mexico City Nairobi
New Delhi Shanghai Taipei Toronto

With offices in
Argentina Austria Brazil Chile Czech Republic France Greece
Guatemala Hungary Italy Japan Poland Portugal Singapore
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Published by Oxford University Press, Inc.
198 Madison Avenue, New York, New York 10016
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Library of Congress Cataloging-in-Publication Data
Chung, Young-Iob.
South Korea in the fast lane: economic development and capital formation /
Young-Iob Chung.
p. cm.
Includes bibliographical references and index.
ISBN 978-0-19-532545-4
1. Korea (South)—Economic conditions—1948–1960. 2. Korea (South)—Economic
conditions—1960– 3. Korea (South)—Economic policy. 4. Saving and investment—
Korea (South)—History. I. Title.
HC467.9.C48 2007
338.95195—dc22 2006035252

1 3 5 7 9 8 6 4 2

Printed in the United States of America
on acid-free paper

To professors Ragner Nurkse and Robert F. Burns
of Columbia University

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PREFACE

Post–World War II South Korea is a divided half of a small, densely populated country with rugged terrain and few natural resources.[1] Until the end of World War II, Korea languished politically and culturally in the shadow of the major powers of Asia—namely, China and Japan—having been ruled by Japan for nearly all of the first half of the twentieth century and having traditionally attracted little interest from the outside world. In recent decades, however, both South and North Korea have attracted the world's attention: South Korea has gained a reputation as an underdeveloped country that has successfully undergone spectacular economic growth since the Korean War, while North Korea remains as one of only two or three surviving communist countries, isolated from the outside world, and has become a focus of many controversies and concerns.

The so-called miraculous economic growth in the southern half of the peninsula has, in a very short time period, transformed South Korea from basically a dependent, colonial, agrarian economy into a major independent and industrial power that is now considered one of a dozen or so top industrialized countries in the world. As a result, an increasing number of scholars and journalists have begun to study and write about South Korea's phenomenal success in economic development in recent decades. There have been a number of significant publications and technical studies related to some aspects of South Korea's economic success and capital formation. However, there has been little comprehensive analysis, either in English or Korean, of South Korea's post–Korean War economic development and capital formation. This book attempts to fill the void and examines how South Korea and its people have succeeded in saving their income and investment, enabling the country to industrialize and develop its market-oriented economy.

Along with the previous volume dealing with capital formation and the economic transformation of Korea during the 70-year period between 1876 and 1945,

this book has been in the making for many years. Although there remain areas in which thorough analysis with more reliable data would make this study more definitive, I am pleased that this volume is ready for public scrutiny at this time.

Over the years, in completing this book, I have become indebted to many people, including the pioneers in the field. I am particularly grateful to the late professors Ragnar Nurkse and A. R. Burns of Columbia University, who instilled in me, as well as in many other scholars and students, the importance of the subject of capital formation and economic development in less developed countries and who motivated me to undertake this project. Among many who have given me encouragement and support for this project over the years, I am particularly grateful to my mentors and longtime friends Jaison Kim, Sunki Baik, Hyun Joon Yoo, Poong Shik Park, Jin Chun Ko, Kyu Hyeong Choi, and Eung Mo Cho, who have assisted me in a variety of capacities, particularly while I was in Korea conducting research for this book. Likewise, my gratitude goes to colleagues, staff, and numerous former students, especially those from Korea and Thailand, at Eastern Michigan University, who have shown keen interests and assisted me in numerous ways. Also, I wish to convey again my gratitude to Eastern Michigan University, the Korea Foundation, and the Academy of Korean Studies for their support and financial assistance.

I am also indebted to many people for their assistance in the publication of this book: Janet Opdyke and John Donohue, who have meticulously edited the entire manuscript with patience, care, and a critical eye that made the manuscript clearer and more readable; In Song Kim, who has devoted his precious time to assisting me with this as well as the previous publication; and Terry Vaughn and Catherine Roes of Oxford University Press, for making publication a satisfying experience. Of course, I alone bear the full responsibility for any errors, omissions, misinterpretations, or misapprehensions in the text.

Last but not least, I wish to express my gratitude again for the understanding and encouragement of my daughters, Jeewon and Jeanie, and especially of my wife, Oke, who has paid a heavy price for the writing of this book for so long. I cannot begin to speak of what I owe to her support and affection.

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ABBREVIATIONS AND WEIGHTS AND MEASURES

ADB	Asia Development Bank
AID	Agency for International Development
DLF	U.S. Development Loan Fund
EPB	Economic Planning Board
EU	European Union
FDI	foreign direct investment
FOA	Foreign Operations Administration
GARIOA	Government Appropriation for Relief in Occupied Areas
GDP	gross domestic product
GM	General Motors
GNP	gross national product
HCI	heavy and chemical industry
ICA	International Cooperation Administration
IDA	International Development Association
IMF	International Monetary Fund
KDI	Korea Development Institute
KFDI	Korean foreign direct investment
KIST	Korea Institute of Science and Technology
Kosdaq	Korea Stock Exchange
LG	Lucky-Goldstar
NACF	National Agricultural Cooperatives Federation
NBFI	nonbank financial institution/intermediary
NIF	National Investment Fund
OECD	Organization for Economic Cooperation and Development
PL	Public Law
POSCO	Pohang Iron & Steel Company

R&D	research and development
SERI	Samsung Economic Research Institute
SME	small and medium-sized enterprise
SOC	social overhead capital
TFP	total factor productivity
UNKRA	United Nations Korea Relief Administration
UOFM	unorganized financial market

jeong or *jeongbo*	2.45 acres
pyeong	35.6 square feet or 3.3 square meters
seok	5.1 U.S. bushels

South Korea in the Fast Lane

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1

INTRODUCTION

Economic development is a complicated and multifaceted process involving the entire spectrum of human life and its economic, political, social, cultural, and technological environments. To achieve rapid and sustained economic growth, a developing country must overcome many obstacles, which result from a complex set of internal and external forces. Economic development, therefore, involves the right mixture of all of the necessary ingredients: the will to develop; the requisite quality of labor; appropriate changes in human skills, attitudes, values, and institutions; and a solid economic structure. Economic development also entails the transformation of a society over a long period of time, which enables a society to overcome its obstacles and achieve economic progress.

The process of economic development also requires capital for the development of infrastructure. Capital, along with technological change, is one of the necessary, though not the only or sufficient, requirement for economic development. It includes not only physical but human capital as well. It is generally believed that at least 12 percent of a nation's income should be set aside or saved for investment annually.[1] Not only has South Korea met this challenge, but it far exceeded the goal and achieved the first significant surplus in its balance of payments in the mid-1980s. The fulfillment of this requirement is especially significant in Asian countries, as demonstrated, in retrospect, by the development experiences of the three so-called Asian tigers, South Korea, Singapore, and Taiwan, as well as Japan. More recent examples are economic development in China and Ireland.

This study examines South Korea's capital formation and its contribution to economic development and structural changes after World War II. Although it covers the entire post–World War II period, the greatest attention is given to the period after 1953, which marked the end of Korean War, until about 1997. There are at least two reasons for focusing primarily on this period. First, it represents South

Korea's dramatic transformation from an underdeveloped economy to a dynamic industrial power in the fast lane. By 1986, the country had attained a more or less self-sufficient economy, with a surplus balance of trade (the ratio of export/gross domestic product [GDP] to import/GDP at about one), and had ended its military dictatorship (see chapter 2). South Korea is the most wired country in the world, with broadband Internet in 72 percent of all households as of 2005.[2] Second, South Korea's economy entered a new stage or era after the boom of the 1980s in terms of the growth of GDP and the control of inflation.

This study is organized into four broad areas. The first part examines the records of South Korean economic development from the end of World War II to the present, in terms of aggregate and sectoral economic performance, followed by a brief dissection of factors that have affected the development of the economy during this period (chapter 2). The second part examines the record of investment in the country during the period relative to aggregate and sectoral investment, including human capital, and their orientation; for example, scale and capital and technological intensities (chapter 3).

The third part examines the government's fiscal and financial policies and how they affected investment, such as tax incentives, subsidies (chapter 4), credit allocation, and interest rates. The examination of domestic financing investment includes equity and business borrowing and the role of banks and the government in mobilizing resources and allocating loans to business. The scrutiny of bank loans to business includes the purpose for which loans were made, the sectors and nature of investment that bank loans targeted, and the beneficiaries of the loans (chapter 5). In chapter 6, the economic impacts of government financial policy on capital formation and economic development are investigated. These include the impacts on investment, economic growth, resource allocation, the financial burden on lenders (both banks and the government), and financial discipline.

The fourth part of the study examines the sources of the resources or savings that financed investment. They are examined in two separate groups, domestic and foreign. It is generally believed that in order to achieve sustained economic growth, adequate domestic saving is essential. This part of the study examines the sources of domestic saving and the channeling of savings into real investment (chapter 7). Domestic sources of financing investment are traced to domestic incomes and the savings of different income groups in the private sector, as well as the examination of savings in the public sector. Also scrutinized are the income and wealth transfer effects from the benefactors to the beneficiaries stemming from the government economic policies. Foreign sources of financing investment, which comprised foreign aid, foreign loans, foreign direct investment, foreign portfolio investment, and others are investigated in chapters 8 and 9. Chapter 8 examines aggregate net foreign savings and foreign direct investment with respective to their magnitude and impact on the South Korean economy, especially capital formation. A similar assessment is made in chapter 9 of foreign aid and loans, as well as other forms of imported savings.

These examinations reveal the unique experience of capital formation and economic development in South Korea compared with other countries of similar backgrounds. The examination of South Korea is important not only for understanding the

country's capital formation and its patterns of economic development and structural changes but for illuminating its experience as contrasted especially with those of Japan, China, and other Asian countries. Many scholars cite the similarities between Korea and Japan, for instance, yet there are many differences between the two.[3] It is hoped that this study will provide insight into South Korea's approach to capital formation and economic progress and that it will be useful to other countries in their quest for economic growth.

The data in this book come from three main sources. The first consists of the published official data, including statistical yearbooks, industrial censuses, and annual reports of sample surveys of businesses and households. The second is made up of increasingly available published studies. The third is information gathered from newspapers and other nonacademic publications. Unfortunately, the statistical data, including those of the government and public banks, often vary from year to year, and sometimes lack continuity, consistency, and adequate explanations of the bases on which series were changed and/or discontinued. When the necessary definitions and explanations fail to reconcile seemingly conflicting statistical data, I have attempted to rectify such discrepancies in conformity with other available data. However, in some situations this was not possible. Also, readers may find what appear to be inconsistent and confusing terms used to describe essentially the same measurement, as in the case of gross national product (GNP) and GDP. This reflects the changes in the official statistics in the mid-1980s.

The approach in this book is more a blend of the behavioral and analytical orientations than the traditional historical narration. There are many articles and books in Korean utilizing the narrative technique.[4] In view of the lack of behavioral and analytical inquiries on the subject, it is hoped that this study will not only make a contribution to the literature in the field but will also become a basis for further exploration of this crucial but underexplored or unheeded subject. Such an evaluation should be illuminating and instructive not only to scholars in economics, political science, and history but also to governments and foreign investors as a means of assessing the role of capital in economic development both as a policy tool and as a stimulus to economic growth.

Lastly, a brief mention is in order to minimize confusion regarding the romanization of Korean words and personal names in this book. Excepting proper pronouns—in particular, personal names—Korean words are alphabetized following the newly revised official romanization developed by the National Academy of the Korean Language of the Ministry of Culture and Tourism in the year 2000. Also, because of the various ways in which Asian names, including those of Koreans, can be and are written by different authors, the names of all persons, including Koreans, have systematically been written in the English rather than the Korean tradition, that is, the given name first followed by the surname. For example, the name of one of the prominent presidents is written as Chung Hee Park, instead of Park Chung Hee, in order to be consistent with a name such as Syngman Rhee, the first president of the Republic of Korea, so that newcomers (and sometimes even nonnative Korean studies specialists) to Korean sources will avoid identifying Hee as the family name.

Also as a means of avoiding unnecessary confusion, this study has, wherever useful, employed today's most common terms for concepts, even when the new term is not technically synonymous with the old. In the case of national income data, for instance, the published data in GNP in the earlier times are treated as equal to GDP throughout the text. As to figures in currency values shown in this book, they are all in current value unless specified otherwise.

2

ECONOMIC DEVELOPMENT AND STRUCTURAL CHANGES

To gain the necessary perspective on South Korea's economic progress following World War II, this chapter examines the growth of the overall economy in several stages, focusing on the increases in GDP and the structural changes that transformed the economy. The structural changes studied in this chapter include the analysis of sectoral expansions and shifts, changes in the extent and pattern of trade, and alterations in the scale of business enterprises. Following the analysis of these transformations, the factors that affected economic development and structural changes in South Korea after its liberation from Japanese colonial rule are briefly listed at the end of this chapter.

ECONOMIC DEVELOPMENT BEFORE 1945

The fundamental transformation of the Korean economy began when the peninsula's economy was an integral part of the Japanese empire as a colony before 1945.[1] Its real GDP and population under colonial rule approximately tripled and multiplied twofold, respectively, resulting in a rise of per capita GDP of about 52 percent, from $745 to $1,094 in year 2000 prices, which was about one-third of that of Japan at that time.[2] The average annual increases in aggregate and per capita GDP during the 40-year period were about 3 and 1.2 percent, respectively. The rates of increase were not spectacular, but they certainly showed solid gains in comparison to the earlier traditional (before 1876) and transitional (1876–1904) periods, as well as to many underdeveloped economies at that time.

Accompanying the economic growth were substantial changes in the nation's economic structure during the shift from an agrarian to a semi-industrial economy during the period. Agriculture under colonial rule dominated the South Korean

economy, since more than two-thirds of the labor force was engaged in it as late as the end of the colonial period, though the country had become increasingly "modernized" and industrialized. Led by the industrial sector, the economy grew at what, for that time, was a rapid pace. It is estimated that from 1910–12 to 1939–41, the real value added in manufacturing grew by more than 10 percent per year on average. Small businesses sprang up and were pervasive, but the size of businesses, too, slowly increased under the 40 years of Japanese rule. Included among the large-scale businesses were a few towering combines (Japanese *zaibatsu*), which dominated the economy. The country's foreign trade also expanded and changed over time. By 1936–40, manufactured goods accounted for more than 40 percent of exports, which in turn comprised well over a quarter of commodity production. At the same time, Korea slowly developed its own trade network, although its economy became increasingly dependent on Japan. Japanese colonialism left a rich legacy of capital, including human capital, and institutions more substantial than those typically found under Western colonialism.

When Korea was liberated from Japanese rule after World War II, it had yet to realize its full economic potential. The South Korean economy in 1945 was in a shambles, a situation hardly conducive to further development as an independent nation. There were numerous obstacles to economic expansion similar to those that many underdeveloped economies faced. The first was the collapse of the Japanese economy, in which the Korean economy had been highly integrated. The collapse meant not only a loss of vital spare parts, capital, human resources, and other necessities but also a loss of markets. Moreover, what the Japanese left the Koreans after World War II were deteriorated plants, machinery, equipment, and other capital goods that had been cannibalized and overused in the final phase of the Japanese struggle against the Allies. In manufacturing and construction, the number of operating establishments in South Korea fell from 10,000 in 1943 to 4,500 in 1947–48. In addition, the Japanese left the country with an inappropriate economic structure and untrained Koreans who lacked the requisite experience in managing an independent economy.

Second, a further blow to the Korean economy was the partitioning of the nation into two separate and independent countries, South and North Korea, founded on two fundamentally different economic systems: a marketed-oriented economy in the south and a centrally planned economy modeled after Stalinist Russia in the north. There was a vast difference between their industrial structures, with mainly light industries in the south and heavy and chemical industries (HCIs) in the north. South Korea was completely cut off from North Korea's coal, electrical, fertilizer, and heavy industries. In 1940, the area that became North Korea produced about 54 percent of Korea's industrial output and had 86 percent of the heavy industries. These included nearly 90 percent of chemical (including fertilizer), 85 percent of metal, 70 percent of cement and ceramics, 85 percent of gas and electricity, nearly 80 percent of coal, practically all of iron ore, and 100 percent of phosphate, magnesite, and pyrite. Immediately after World War II, as a result of the economic separation and dislocations, production in South Korea plummeted. Levels of production in the principal industrial sectors in 1946 were well below what they had been in 1939, ranging from a mere 17.1 percent in the food-processing industry to 80.1 percent in the wood products industry, with an

overall average level of 28.8 percent. Manufacturing output in 1947–48 was only 15 percent of what it had been in 1939.

Third, into this orphaned and disoriented economy of South Korea entered a large number of Koreans from the north and abroad. Approximately 1.7 million additional people poured into the southern half of the peninsula, increasing the population by 27 percent in the six years between 1944 and 1949. This rapid expansion of the population strained the country's food, housing, and other resources. The average daily calorie intake was reported to have fallen from a little over 2,000 in 1932–36 to a little under 1,500 in 1946–47, more than a 25 percent.

Fourth, in addition, the country went through the catastrophic Korean War. The period from 1948 to the start of the Korean War in 1950 was one of generally improving economic conditions. It was reported that by early 1950 much of South Korea's prewar standard of living had been restored, and normal economic conditions had been reestablished. But the Korean War suddenly changed all that, and the progress gained during the post–World War II period under U.S. occupation was completely wiped out. Not only were most of the gains lost during the Korean War, but the destruction of buildings and equipment was extensive. The physical destruction to property in South Korea during the war has been estimated at a quarter of its infrastructure and $3 billion (in 1953 prices), more than 2.3 times its GDP ($1.4 billion) in 1953 (Table 2.1) or more than 10 times its annual fixed capital investment.[3] The destruction of fixed capital alone ranged between $1.5 billion and $2 billion, which was more than South Korea's 1953 GDP.[4] The cost of the war damage was estimated to have been as high as $6.9 billion at the market rate, which was equivalent to nearly five times the 1953 GDP. The nation's production in all sectors was estimated to have declined by 48 percent between 1949 and 1951,[5] while the per capita income plunged by nearly a third. Real GDP per capita during the height of the Korean War probably was one-third that of 1940, or about $626 (in year 2000 prices) in 1951.

The war destruction extended to all sectors. About 40 percent of it was in housing. More than 600,000 units, or one-fifth or more of the total, were destroyed or suffered major damages.[6] Also destroyed during the war were 46.9 percent of the railroads, 1,656 roads (a total of 500 kilometers), and 1,453 bridges (49 kilometers).[7] The damage to power plants was even more devastating, with nearly 80 percent destroyed. Within two months of the start of the war, power production plummeted to a miserable 11,000 kilowatt-hours in the whole country, which was one-tenth of the power consumption level in 1945. Such massive destruction of electrical facilities brought about a drastic decrease in productive activity.

Together with the destruction of social overhead capital (SOC), such as transportation and utilities, the war caused heavy losses of manufacturing capacity and output. By August of 1951, 44 percent of factory buildings and 42 percent of production facilities lay in ruins. By the time of the armistice in 1953, about 51 percent of the industry had been destroyed. The estimated amount of damage was as high as $549 million, accounting for 23.3 percent of all industrial damage. A total of 68 percent of all factories (4,700) had been destroyed, bringing numbers to below 1949 levels.[8] Destruction ratios of major industries during the first four months of the war were estimated to be as high as 70 percent of the textile and chemical industries, 40 percent

TABLE 2.1 Aggregate and Per Capita GDP between 1943 and 2004 (in current and 2000 dollars and percent)

	Current GDP		*Real GDP Based on*			*Real Per Capita GDP Based on*		
				U.S. Price Indexes			*U.S. Price Indexes*	
Year	Aggregate ($ billion)	Dollar per Capita	International Price Index[1]	Consumer Price Index[2]	GDP Deflator	International Price Index[1]	Consumer Price Index[2]	GDP Deflator
1943	—	—	—	—	—	1,140	—	—
1944	—	—	—	—	—	1,094	—	—
1945	—	—	—	—	—	930	—	—
1946	—	—	—	—	—	791	—	—
1947	—	—	—	—	—	830	—	—
1948	—	—	—	—	—	855	—	—
1949	—	61	—	—	—	908	—	318
1950	—	57	—	—	—	835	—	291
1951	—	50	—	—	—	626	—	243
1952	—	60	—	—	—	701	390	287
1953	1.4	67	16.3	9.0	6.6	778	432	316
1954	1.5	70	17.3	9.6	7.0	808	449	326
1955	1.4	65	15.7	9.0	6.3	730	417	291
1956	1.5	66	16.0	9.5	6.5	706	418	287
1957	1.7	74	17.4	10.4	7.1	758	454	311
1958	1.9	80	18.7	11.3	7.8	785	476	329
1959	1.9	81	18.5	11.2	7.6	789	479	325
1960	1.9	79	17.8	11.0	7.5	739	459	310
1961	2.1	82	19.2	12.1	8.0	751	471	314
1962	2.3	87	20.1	13.1	8.3	760	497	314
1963	2.7	100	22.9	15.2	9.3	848	562	346
1964	2.9	103	23.9	16.1	9.5	847	572	338
1965	3.0	105	23.5	16.4	9.2	821	574	323
1966	3.7	125	27.2	19.7	10.7	917	665	361
1967	4.3	142	30.3	22.2	12.1	1,002	732	400
1968	5.2	169	35.9	25.7	14.0	1,168	837	454
1969	6.6	210	44.4	31.0	17.2	1,413	986	547
1970	8.1	253	51.0	36.0	21.1	1,593	1,124	659
1971	9.5	289	55.7	40.4	23.9	1,694	1,230	728
1972	10.7	319	59.2	44.0	25.6	1,764	1,313	763
1973	13.5	396	70.0	52.3	30.5	2,052	1,535	896
1974	18.8	541	88.6	65.7	42.7	2,550	1,892	1,230
1975	20.9	594	89.7	67.0	47.6	2,551	1,904	1,353
1976	28.7	802	111.7	87.0	62.0	3,120	2,430	1,732
1977	36.8	1,011	128.6	104.2	76.0	3,533	2,864	2,089
1978	51.6	1,400	163.8	136.1	100.4	4,444	3,694	2,724
1979	61.6	1,647	182.5	146.0	116.9	4,878	3,903	3,125
1980	60.6	1,597	158.0	126.5	115.2	4,164	3,334	3,036
1981	67.1	1,741	156.0	127.1	124.5	4,049	3,297	3,230
1982	71.7	1,834	153.6	128.0	135.5	3,929	3,275	3,467
1983	80.0	2,114	157.3	138.4	144.9	4,157	3,657	3,830
1984	88.1	2,187	160.4	146.1	148.8	3,982	3,627	3,694
1985	91.1	2,242	154.5	145.8	147.6	3,802	3,587	3,634

TABLE 2.1 (*continued*)

Year	*Current GDP*		*Real GDP Based on*			*Real Per Capita GDP Based on*		
				U.S. Price Indexes			*U.S. Price Indexes*	
	Aggregate ($ billion)	Dollar per Capita	International Price Index[1]	Consumer Price Index[2]	GDP Deflator	International Price Index[1]	Consumer Price Index[2]	GDP Deflator
1986	105.4	2,568	171.5	165.7	165.2	4,178	4,038	4,025
1987	133.4	3,218	208.2	202.1	202.1	5,024	4,876	4,876
1988	179.8	4,295	265.2	261.7	261.7	6,336	6,252	6,252
1989	220.4	5,210	305.5	306.1	310.0	7,222	7,236	7,328
1990	251.8	5,883	315.9	331.8	347.3	7,381	7,751	8,114
1991	290.2	6,757	333.0	366.9	401.4	7,755	8,542	9,346
1992	305.7	7,007	343.0	375.1	409.2	7,861	8,598	9,380
1993	330.8	7,513	354.6	394.3	431.3	8,054	8,955	9,795
1994	376.9	8,467	395.4	437.7	472.3	8,882	9,834	10,610
1995	489.4	10,037	500.7	553.0	598.3	10,269	11,341	12,270
1996	557.4	12,197	567.7	611.9	657.3	12,422	13,389	14,383
1997	516.4	11,176	523.1	554.1	582.2	11,322	11,991	12,600
1998	346.1	7,355	351.2	365.5	374.6	7,463	7,767	7,960
1999	445.2	9,438	449.6	460.4	461.3	9,531	9,760	9,780
2000	511.8	10,841	511.8	511.8	511.8	10,841	10,841	10,841
2001	482.0	10,160	470.5	468.9	478.2	9,918	9,883	10,079
2002	546.9	11,499	522.6	523.3	533.0	10,988	11,004	11,208
2003	608.0	12,720	570.0	568.8	575.2	11,925	11,899	12,034
2004	680.1	14,162	—	—	—	—	—	—
Averages								
1953–61	1.7	74	17	10	7	761	451	312
1962–71	4.8	158	33	24	14	1,106	778	447
1972–86	53.8	1,400	134	112	99	3,544	2,957	2,589
1987–97	332.0	7,433	374	400	425	8,412	8,979	9,541
1998–04	517.2	10,882	479	483	489	10,111	10,192	10,317
1953–94	70.5	1,705	119	112	108	3,085	2,815	2,662
1953–04	156.6	3,484	186	182	182	4,397	4,237	4,176

[1]*Statistiska Centralbyrain* (Statistics Sweden), www.scb.se. Data before 1919 are based on the Myrdal-Bouvin Consumer Price Index.

[2]U.S. Consumer Price Index figures for some earlier and recent years were interpolated and extrapolated, and inconsistencies in the original data are adjusted to be consistent.

Sources: This table is constructed on the basis of data from: Bank of Korea, *Economic Statstics Yearbook*, various years; Hanguk Eunhaeng 1995: 174–75; U.S President, *Economic Report of the President*, various years; Korea Economic Institute 2004: ii.

of the agricultural machinery industry, and 10 percent of the rubber industry.[9] Private industry received about 20 percent of the physical damage. Manufacturing production fell by about 75 percent between 1949 and 1951 to a level below that of 1940.[10] Net commodity production in 1953 was 25 percent lower than the 1940 level, and per capita net commodity production was 44 percent lower. The decline in rice production

was somewhat less than that in other sectors. Rice production levels fell to 65 percent of what they were in the 1945–50 period.[11]

Likewise, there were great human casualties. A total of 1.3 million (and some estimates run as high as 2.5 million) people were either killed, missing, wounded, or kidnapped, out of a population of 20 million in 1950.[12] The unemployment rate during the war was estimated to have been as high as 45 percent of the total labor force, if a 20 percent level of disguised employment was included. A Japanese survey team found that conditions in South Korea resembled those in Japan immediately after World War II.[13] South Korea's per capita consumption dropped about one-third, from $71 in 1949–50 to $50 in 1952–53, before recovering to $60 in 1953–54, placing South Korea among the poorest nations in the world.[14] Conditions were so bad that many would have starved to death had food not been supplied by aid programs from abroad.

Before 1964, most foreigners, as well as many Koreans, were pessimistic about the country's future or speculated that South Korea would be doing well if it could achieve a 2 percent per annum increase in real per capita income, the approximate rate attained by the United States between 1870 and 1929.[15] In the decade after the Korean War, the country was thought to have no chance, as measured by common standards, for success in climbing out of economic stagnation. When it was receiving massive amounts of economic aid from the United States in the 1950s, the recipient country was, in the eyes of many American taxpayers, "a hopeless and bottomless pit."[16] In 1963 and 1964, South Korea was regarded as a "basket case," and donors talked about pouring money down a Korean "rathole."[17] It is thus clear that without the foreign aid, the South Korean economy would not have remained viable, especially in the early years of independence following the Korean War.[18]

STAGES OF ECONOMIC DEVELOPMENT

After the armistice in 1953, South Korea continued to experience many economic and other difficulties, both political and social. It has undergone seven political revolutions: the students' revolution in 1960 that overthrew Syngman Rhee's government; the military coup d'etat in 1961; the Yushin Reformation in 1972; the establishment of the Fifth Republic in 1980; the formation of the Sixth Republic in 1987; and, finally, the founding of a democratically elected government.[19] The political and social turmoil, in addition to the political and military tensions between North and South Korea, built up boundless uncertainties and insecurities in peoples' minds, including those of businessmen.

In addition, South Korea experienced near total economic chaos. Severe shortages hampered daily life and stymied the economy up and down the peninsula. Manufacturing facilities had been all but destroyed, and a shortage of electricity left many industrial plants that did survive the war unable to produce. Per capita GDP in 1953 was only $67 (equivalent to about $778 in year 2000 prices), as shown in Table 2.1, and its net commodity production level was estimated to have been 27 percent lower than it was in 1940. Moreover, heavy defense expenditures drained resources away from investment and development. It was calculated that South Korea's defense

spending during the postwar period was as high as 16 percent of GDP—47 percent of total government expenditures in 1954 and 9.5 percent in 1956. Thereafter, the South Korean government continued to carry a heavy burden of expenditures related to national defense (6 percent of its GDP and 20 to 25 percent of the government budget). Given a limited amount of resources, such a high level of defense spending made the allocation of resources for investment and economic development extremely difficult, if not impossible. Moreover, the maintenance of a large army drained the labor force of civilian workers. American and international aid organizations were responsible for bringing in tons of food and essential supplies to begin the country's long path back to civilization and nationhood.

In spite of these obstacles, the South Korean economy gradually shifted onto the road to recovery and eventual economic success. South Korea's economic growth during the 50-year period that followed the Korean War has become a rags-to-riches story. It has gone through five clearly discernible stages of economic development. The first was the nine-year period between 1953 and 1961, when the economic recovery and growth were rather modest at 3.3 percent per annum and a per capita GDP growth rate of 1 percent. Few advances were made beyond prewar levels. Most economists agree that the war-torn economy had more or less recovered by about 1958, and industrial production reached the prewar level in about 1960. In the 1960s, South Korea dispatched a delegation of business representatives to Pakistan to learn about the operation and technology of a steel plant there. Today, Pakistani workers can easily be found working as industrial trainees at the Ansan Industrial Complex. In 1960, seven years after the armistice was signed, the per capita GDP of South Korea was $79, less than one-third of the GDP of the Philippines, one of the underdeveloped countries in Asia that had been exposed to Western industrialization for a much longer period than Korea.

About a decade after the cessation of Korean War hostility, the 1962–64 period may be characterized as the "turning point," or the "takeoff " of rapid economic growth that initiated the second stage (1962–71). Most economists agree that the decade of the 1960s spanned the transition from a dislocated, stagnant, subsistence economy to a dynamic and semi-industrialized one and that the new economic foundation was established by the mid-1960s. After periodic political convulsions, once the military government took power in 1961 through a military coup, the nation's energies were directed toward economic growth. The new military government undertook a series of ambitious five-year economic-growth plans aimed at converting the still overwhelmingly agricultural economy into an industrialized one. The economic development plans had better than expected results. Annual economic growth typically outpaced the plans, with annual GDP growth under the first plan, from 1962 through 1966, averaging 8.5 percent, compared with a goal of 7.1 percent.

The second five-year economic growth plan (1967–71) was even more successful. Average annual economic growth was 9.7 percent over the period, compared with a planned 7 percent. During the period, South Korea also began to venture into overseas markets while attracting foreign capital and expanding its social infrastructure. In 1971, exports topped the $1 billion mark, more than tripling the $320 million recorded in 1962 and providing the Korean economy with a chance to stand on its own. To demonstrate that the country could withstand the world competition, it joined the

General Agreement on Tariffs and Trade before undergoing the changes in the industrial structure and while experiencing sharp increases in imports, which resulted in widening trade deficits.

South Korea's development strategy after 1960 thus achieved extraordinary growth rates. According to national income data, during the 10-year period between 1962 and 1971, the average annual growth rate of South Korea's GDP was 11.5 percent. Economic growth during the 1960s and the 1970s was extraordinary, putting South Korea in the ranks of the world's fastest growing economies. This growth rate compares with the high growth period of the Japanese economy from 1950 to 1970, when its real GDP growth averaged 10 percent annually. Likewise, annual average per capita GDP in South Korea for the same period almost tripled in real terms. By 1968, South Korea's per capita GDP exceeded the pre–World War II level, and by 1970 South Korea had ascended in the world aggregate and per capita GDP rankings to 30th and 68th, respectively. The per capita GDP of South Korea caught up to that of North Korea. It was about even, $105–$108 ($821–$845 in year 2000 prices) in 1965, and overtook that of North Korea in 1968. After the dislocation of the South Korean economy following its severance from Japan and North Korea and the destruction from the Second World War and the Korean War, it took the South Korean people more than a quarter century and an entire generation to recover.

In the meantime, employment increased by about 3 percent per year during the 1963–71 period, even though some noted that this figure was seriously understated, since disguised unemployment prevailed in the early years. If the unemployment estimates were corrected, the realistic growth rate of total employment may have been as high as 3.5 to 4.0 percent per annum. If such estimates are accurate, this in turn implies a rapid increase in productivity of more than 5 percent per year during this stage of economic expansion. This is favorable compared with the estimates of less than 2 percent per year for the United States during the same period.

The third stage of development, extending between 1972 and 1980, was an industrial catch-up period. With the government emphasis on developing the so-called strategic HCIs, the economy continued to expand. Some believed that during the late 1970s, South Korea was one of the world's most productive economies. Then, a big external shock to the South Korean economy, as well as the world economy, took place in the 1970s and the early 1980s in the form of the oil shocks. South Korea devalued its currency and absorbed the oil price increases, leading to a jump in price levels. A soaring inflation rate resulting from the oil crisis, coupled with a surge in consumer demand and continuing investments in heavy industry, haunted the economy in the late 1970s and early 1980s. During this time, the growth rate of South Korea's economy slackened considerably, largely because of the worldwide oil crisis. According to national income data, the average annual growth rate of South Korea's GDP during the period was 4 percent, which was high compared with many other countries in the world but much slower than the growth rate of the country in the earlier period.

During this period, greater attention was also placed on the agricultural sector. In 1971, the government inaugurated the *Saemaeul Wundong* (New Village Movement), a campaign to improve living standards, raise incomes, and promote "spiritual enlightenment." Yet, by the end of the 1970s, the government was living on borrowed time. Economic growth was bought at the cost of political repression, social dislo-

cation, and a destabilizing bout of inflation. Many Koreans began to oppose the government's policies. The economy on the whole grew at 7.5 percent per year on average between 1972 and 1980, and per capita GDP surged from $289 in 1971 to $1,597 in 1980. In the meantime, by 1980, South Korea's GDP became twenty-seventh in the world and fifty-third in terms of per capita GDP.

The fourth stage of economic growth (1981–96) brought another big leap forward. The South Korean economy went through ups and downs between 1981 and 1996, but it eventually made a comeback that was largely attributable to the 1988 Olympic Games and the roaring flow of exports that followed. The September 1986 Plaza Accord, under which five major economies agreed to drive the U.S. dollar lower, partly contributed to the unprecedented export boom. Because Korean *won* valuations were closely pegged to the dollar, the depreciation of the dollar made Korean export goods attractive on the global market. Growth also picked up strongly on the back of a strong demand for semiconductors and the strengthening of the Japanese yen. South Korea's exports doubled between 1985 and 1988, moving the country surely and steadily into the ranks of the world's top 12 trading nations.

The period between 1983 and 1988 witnessed historically high levels of growth. The real average annual growth rate of South Korea's GDP during this period was 10.6 percent, peaking at a record annual high of nearly 12 percent during the three-year period between 1986 and 1988.[20] The country climbed rapidly in the world GDP ranking to 18th and 40th in terms of per capita GDP in 1985. By 1987, the nation's GDP reached $136.3 billion and a per capita GDP of $3,218 ($5,024 in year 2000 prices). This was the period when South Korea realized an even faster growth rate than that of Japan in the 1950s, which ranged between 8.1 and 8.6 percent per annum.[21] When South Korea hosted the Olympic Games in 1988, it attained the level of per capita GDP when Japan had hosted its Olympic Games in 1964. Seeing its accomplishment, many concluded that South Korea was Asia's next economic giant.[22] In terms of per capita income, South Korea then was about a quarter century behind Japan, however.

A throbbing Olympic hangover, however, dragged economic growth rates down to 6.7 percent in 1989, well below Korean standards, and growth slowed to 5.2 and 5.8 percent in 1992 and 1993, respectively, the lowest in more than a decade, as a result of the rapid growth years of the late 1980s. This called for a change in the country's politics and society. In June 1987, South Korea's middle class took to the streets, as a wave of antigovernment sentiment gripped the country. On the whole, the economic growth rate during the 16-year period between 1981 and 1996 averaged 8.2 percent, with per capita GDP swelling from $1,749 in 1981 to $11,385 in 1996, and reaching $16,291 in 2005, although trade balances were negative between 1989 and 1996. South Korea also became a member of the Organization for Economic Cooperation and Development in 1996, joining the ranks of the richest countries in the world. The performance of the South Korean economy was truly outstanding until it hit the financial crisis of 1997.

During the fifth stage, the six-year period between 1998 and 2003, the South Korean economy experienced serious economic difficulties. The early 1997 collapse of the Hanbo Group, one of the 10 largest conglomerates in the country, heralded an unprecedented financial meltdown. Indeed, the corporate bankruptcy revealed an

accurate picture of what the Korean miracle really was. A chain of corporate bankruptcies and foreign capital flight ensued, setting off alarm bells among policymakers and businessmen. Eventually, South Korea was forced to resort to external aid from the International Monetary Fund (IMF) in late 1997.

As a consequence of the financial crisis, the economy suffered a sudden sharp decline. During the crisis of 1997–98, South Korea experienced a decline in its GDP in current value from $557.4 billion in 1996 to $516.4 billion in 1997, and $346.1 billion in 1998, decreases of 7.4 and 33 percent, respectively. South Korea's economic growth has slowed considerably since the financial crisis. In real value, economic growth in 1998 was negative 6.9 percent. The so-called IMF crisis also triggered a shift in South Korea's political landscape. A dissident rose to power in 1998, vowing complete corporate and financial restructuring during his term. The new president assured foreign investors that South Korea would change everything, thus enticing apprehensive foreign investors back to the country.

His crusade for more efficient and open market systems paid off somewhat. Notwithstanding its financial crisis in 1997–98 and the economic downturn and recession, the industrial progress has continued with growing exports in a broad range of manufactured goods, including such sophisticated ones as electronic products and automobiles. The country's economy has recovered with relatively high growth rates, which rebounded to 9.5 and 8.5 percent in 1999 and 2000, respectively, on the back of robust exports. Economic growth in the following years, however, was mixed: 7 percent in 2002, 3.1 percent in 2003, and 4.7 percent in 2004. The unemployment rate increased to 3.1 percent in 2002, 3.4 percent in 2003, and 3.5 percent in 2004, while the consumer price index gradually increased to 2.7 percent in 2002, 3.6 percent in 2003, and 3.6 percent in 2004. Per capita gross national income increased to $11,499 in 2002, $12,720 in 2003, and $14,162 in 2004. South Korea's annual growth rate between 1998 and 2004 on average was 6.1 percent and had recovered fully by 2003.[23] It was ranked 13th in the world in 2001 in terms of gross domestic income and 36th in terms of per capita GDP in 2000.

One amazing aspect of South Korea's economic growth is that the speed of its economic development typically exceeded its development plans. Its economy was in the fast lane. Of the six economic development plans undertaken between 1962 and 1991 all but one achieved more than the targeted growth rates.[24] Many of the gains in the South Korean economy came from total factor productivity (TFP) growth, which averaged 3 to 6 times that of the average of the developing countries. In sum, South Korea's economy was a dazzling success, growing rapidly during the half century between 1953 and 2003. Its real GDP expanded from $15.1 billion in 1953 to $567.7 billion in 1996 and $680.1 billion in 2004, while per capita annual income grew from about $778 in 1953 to $12,422 in 1996, though it declined to $10,206 in 1998 (all in year 2000 U.S. prices) and $10,706 in 2003, expanding about 14 times during the 50-year period.

This was an average annual growth in real GDP of about 8 percent and nearly 5.9 percent in per capita income between 1953 and 2003, making South Korea one of only a dozen economic powers in the early twenty-first century. The rampant inflation of more than 50 percent per annum in the early 1950s was also gradually brought down to a mere 3 percent in 1987 and 1.8 percent in October 2002. Along

with rapid economic growth, South Korea's population also increased, nearly tripling from 14 million in 1953 to over 44.6 million in 1995, an annual rate of 2.75 percent. Reliable labor statistics are scarce for the early period, but official estimates show that the number of employed workers also increased from approximately 5 million in 1953 to 8.5 million in 1965, 15.5 million in 1986, and 19.9 million in 1998, quadrupling in a 45-year period. Total employment increased at an annual rate of 3.9 percent per year from 1963 to 1976. At the same time, as the economy grew, the unemployment rate sharply declined and stayed at a low level, despite a rapid increase in the labor force. The unemployment rate in South Korea declined from probably over 30 percent in 1953 to about 15 percent in 1965, a decline of more than 50 percent, and to 2.4 percent by 1986, and kept it at a low rate thereafter; for example, it was 2.8 percent in September 2002.[25]

In the meantime, South Korea was able to improve the quality of its labor force. The World Economic Forum ranked South Korea in the top 10 in higher education, Internet use, school connections to the Internet, and savings and investments in its Global Competitiveness Report of 2001–2. In the meantime, the literacy rate, which was barely 40 percent in 1953, was reported to have reached over 90 percent in 1987. The students enrolled in secondary school as a percentage of their age group increased from less than 25 percent in 1953 to nearly 90 percent in 1987. Similarly, the country's life expectancy increased from about 50 in 1953 to 62.3 in 1970, 66 in 1981,[26] and 74.4 in 1997.

South Korea is now a major global player in international trade and political institutions. It was the world's 12th largest trading nation and 12th largest exporter in 2002, surpassing Taiwan, while its imports were ranked at 14th in the world. It is the United States' 8th largest trading partner. Notwithstanding South Korea's economic advances, it still has much to accomplish before it catches up with its advanced neighboring countries, however. Now (in 2003), per capita annual income in South Korea is a little more than $12,000, about 85 percent of Taiwan's $14,200, less than a third of Japan's $38,000, and about a third of the United States' $34,900.

These accomplishments and developments, by any standard, are extraordinary for a country such as South Korea, which has faced numerous obstacles. Many view its accomplishments as a shining example among the success stories of economic development after World War II. Its attainments are especially astonishing when held up against the economic disasters in the northern half of the peninsula. In 1991, South Korea's GDP was $290 billion, in contrast to North Korea's $22.9 billion. In terms of per capita GDP, South Korea's was $6,767 in contrast to North Korea's $1,038, the former being 6.5 times the latter.[27] Comparisons are also made with countries in Asia similar to South Korea, namely, Taiwan and Singapore.[28] Now South Korea is even viewed as an economy that threatens such highly developed countries as the United States. The United States attacks South Korea as a country that "dumps" products or "targets" industries and competes against some of the most advanced products of the developed countries. South Korea's remarkable performance has important implications for the development of the world economy today, with South Korea as a free and independent state serving as a showcase for less developed countries and as a strong and stabilizing force in Asia and the world. In short, South Koreans have achieved what many people, including most Koreans, once thought inconceivable.[29]

There have been some signs of a slowdown in the last decade or so, but many are still optimistic about South Korea's potential for future economic growth. The state-run Korea Development Institute (KDI), for instance, estimated in 2001 that South Korea's potential growth rate, the so-called sustainable growth rate, would, without triggering inflation, average 5.1 percent over the next decade, with input-driven growth engines giving way to productivity-led ones.[30] The think tank expected GDP to reach around $1.1 trillion in 2010, with per capita GDP of $21,000. Total trade volume would swell to $580 billion in the same year, with exports and imports amounting to $296 and $294 billion, respectively. The KDI also projected that the factor-input-led economic growth rate would fall to 2.4 percent over the next decade, from an estimated 3.4 percent growth rate throughout the 1990s, while economies of scale and resource allocation would raise the economic growth rate by 1.5 percent, compared with an estimated 2.2 percent boost in the 1990s. On the other hand, the technological-advance-driven economic growth rate should stay at 1.2 percent until 2010. The KDI expected that the contribution ratio of technological advances to economic growth would rise to 24 percent in 2010, up from the current 18 percent.

How does South Korea's economy compare with its neighboring countries, Japan and Taiwan? Many economists note that South Korea is similar to these two countries in proximity, size, and population density, as well as in its paucity of natural resources, its history of living under the shadow of the Chinese for centuries, its Confucian heritage, and its hardworking and educated labor force. In view of their similarities in geographical location and culture, some compare the economic development of South Korea to that of these two countries.

Particularly, many see the pattern of economic development in South Korea as being like that of Japan in addition to the above-noted similarities, the physical and human casualties suffered during the wars, and the experience of U.S. occupation. On the economic front, their successes after World War II are similar. It is, thus, meaningful to compare the South Korea of today with Japan two to three decades ago—that is, moving from an aggressive exporter of labor-intensive products to an aggressive exporter of sophisticated and high-tech products. They also note that South Koreans have chosen Japan as a model and see themselves as taking a trail blazed by the latter country.

Notwithstanding some similarities, they do, in fact, differ in many respects. South Korea's per capita GDP was about one-third that of Japan's at the end of the latter's occupation, and the relative difference between the two countries (e.g., South Korea's per capita GDP being about one-third of Japan's) continues to date. Other differences between the two countries are that Koreans lived under Japanese occupation for nearly four decades, and that South Korea is a divided half of a nation and suffers under precarious political and economic conditions. It followed quite a different path of growth than that of Japan in many respects. Its economy is much smaller (one-seventeenth the size of that of Japan's) and it lags behind technologically. In addition, South Korea's labor productivity is estimated to be one-third to one-half the level of its Japanese counterpart in the textile industry (e.g., cotton), for instance. South Korea is also much more dependent on the rest of the world for growth and development (e.g., foreign capital). It would also be wrong to ascribe South Korea's success to its having copied the Japanese model. For example, public ownership of the banking system has given the Korean government far greater control over industry than that which prevailed in

Japan. Yet, South Korea has enjoyed economic success almost as good as Japan's, which is astonishing given the difficulties it faced after World War II.

Similarly, South Korea and Taiwan are often thought of as dynamic twins, nipping at the heels of industrial powers such as the United States and Japan. However, there are subtle differences between Taiwan and Korea. South Korea took different paths in the race to develop its economy. South Koreans have been characterized as aggressive and reckless, while the Taiwanese are thought of as more rational, cautious, and conservative. South Koreans believe in large-scale business operations, in contrast to the Taiwanese. In South Korea, a few large business groups and the government have played an overwhelmingly pivotal role, while in Taiwan, small firms and individuals have played the crucial role. South Korea until 1987 persistently incurred trade deficits, thus relying more on other countries for capital, while Taiwan ran up a huge surplus. Taiwan's trade surplus reached $7.8 billion compared with South Korea's deficit of $1.56 billion. Taipei held the world's biggest foreign exchange reserves with $83.6 billion, compared to Seoul's $20.2 billion at the same time. South Koreans are viewed as spenders and the Taiwanese as savers. Moreover, while South Korea's economic development is almost on a par with the economic success of Taiwan, the latter country is somewhat ahead of the former. In 1993, for instance, Taiwan's per capita national income was $10,566, more than 41 percent higher than South Korea's $7,466. While Taiwan's unemployment rate stood at 1.4 percent, that of South Korea was 2.8 percent, twice as much as the former.

STRUCTURAL CHANGES

The South Korean economy after 1953 not only achieved extraordinary growth rates, but the nation's entire economic structure has also undergone dramatic changes. As the predominantly agricultural economy developed into a largely semi-industrial one under colonial rule, different sectors of the economy expanded at varying speeds and in different ways during the 50-year period following the Korean War, reflecting uneven rates of increased productivity. As a result, South Korea's economic structure changed radically and profoundly into a genuinely industrial one. The transformations in different economic sectors and industrial organizations are examined below.

Industry

South Korea's economic growth after the Korean War has been spearheaded by its growing industrial sector. During the 42-year period between 1953 and 1994, the sector expanded at a rate nearly double that of the entire economy. Output increased from about 10 percent per year in the country on average to more than 17 percent during the next 10-year period, although its rise slowed to 10.4 percent between 1981 and 1994. Overall, the sector expanded at an average rate of nearly 13 percent per year (Table 2.2). As a result of fast growth, gross domestic product contributed by the industrial sector increased from about a tenth of GDP in 1953 to a third in 1988, although it declined somewhat to about a 30 percent level in the first half of the 1990s (Table 2.3).

TABLE 2.2 Aggregate and Sectoral Growth Rates (in percent)

Year	Real GDP	Industry/ Mining	Manufacturing	Construction and Public Utilities	Services	Government/ NGO	Agriculture
1953	—	—	—	—	—	—	—
1954	5.6	11.5	18.1	22.7	1.2	—	8.0
1955	4.5	19.9	21.3	0.1	6.1	—	1.5
1956	(1.3)	13.6	15.2	(4.1)	2.9	—	(6.9)
1957	7.6	9.9	7.1	23.2	4.6	—	9.4
1958	5.5	9.1	10.3	5.2	2.9	—	7.3
1959	3.9	10.0	9.2	21.7	6.5	—	(0.3)
1960	1.2	10.9	8.2	—	2.6	—	(2.1)
1961	5.9	4.4	4.0	8.8	(0.6)	—	12.2
1962	2.1	13.4	11.7	16.2	8.1	—	(6.0)
1963	9.1	14.2	16.1	17.3	6.9	—	9.5
1964	9.7	10.5	9.9	9.1	3.2	—	15.6
1965	5.7	18.3	20.5	24.2	8.4	—	(1.0)
1966	12.2	15.3	17.3	20.6	11.0	—	11.6
1967	5.9	20.2	21.6	20.5	12.4	—	5.9
1968	11.3	23.4	27.2	36.5	13.4	—	1.3
1969	13.8	19.2	21.6	36.6	11.6	—	10.5
1970	8.8	19.6	19.9	6.8	12.6	—	(1.4)
1971	8.5	16.4	18.6	(0.7)	14.7	6.1	3.1
1972	4.8	12.1	14.0	0.1	6.9	1.5	2.8
1973	12.8	28.5	29.5	23.9	14.7	2.6	7.5
1974	8.1	16.0	17.2	11.8	7.5	2.4	6.9
1975	6.6	12.4	12.4	8.6	7.2	3.3	3.7
1976	11.8	21.3	23.5	12.3	13.1	2.6	9.3
1977	10.3	15.4	15.3	27.2	11.7	3.7	3.1
1978	9.4	20.8	22.2	29.1	11.7	4.7	(9.7)
1979	7.1	9.1	10.1	6.6	7.0	4.5	7.3
1980	(2.7)	(1.7)	(1.6)	(0.5)	2.1	4.4	(19.4)
1981	6.2	9.5	10.1	(3.0)	4.4	4.1	14.3
1982	7.6	5.9	6.9	16.7	7.7	4.3	7.2
1983	11.5	14.8	15.3	21.7	11.0	3.6	7.8
1984	8.7	16.3	16.9	8.3	10.3	2.7	(1.4)
1985	6.5	6.1	6.2	6.8	9.0	3.9	3.6
1986	11.6	19.0	19.5	6.4	13.2	3.9	4.7
1987	11.5	18.9	19.5	12.5	14.3	3.8	(6.1)
1988	11.3	13.4	13.8	8.9	12.6	5.7	8.9
1989	6.4	4.0	4.2	14.2	8.4	5.2	(1.0)
1990	9.5	9.3	9.7	24.4	9.9	4.6	(4.6)
1991	9.1	8.9	9.1	13.7	10.9	4.0	0.4
1992	5.1	4.8	5.1	0.5	6.9	4.4	6.0
1993	5.8	4.9	5.0	9.1	7.6	3.0	(2.9)
1994	8.4	10.2	10.4	5.7	10.7	2.1	1.2
Averages							
1953–61	3.7	9.9	10.4	8.6	2.9	—	3.2
1962–71	8.7	17.1	18.4	18.7	10.2	6.1	4.9
1972–86	8.0	13.7	14.5	11.7	9.2	3.5	3.2
1987–94	8.4	9.3	9.6	11.1	10.2	4.1	0.2
1953–94	7.3	12.9	13.6	12.6	8.3	3.6	3.0

Sources: This table is based on data shown in Hanguk Eunhaeng 1995: 174–75; Bank of Korea, *Economic Statistics Yearbook*, various years.

TABLE 2.3 Sectoral Composition of Gross Domestic Product (in percent)

		Services						
Year	Industry[1]	Public Utility[2]	Construction[3]	Trade[4]	Government[5]	Agriculture[6]	Other[7]	Total
1953	10.0	2.1	14.7	12.9	11.8	47.3	1.2	100.0
1954	12.5	2.6	14.3	13.5	15.9	40.3	0.9	100.0
1955	12.3	2.9	10.7	13.8	14.3	44.8	1.2	100.0
1956	12.5	2.8	9.7	13.3	13.6	47.2	0.9	100.0
1957	12.5	4.1	9.9	12.3	15.3	45.2	0.7	100.0
1958	14.2	4.6	10.0	12.6	16.7	41.2	0.7	100.0
1959	15.7	5.3	10.3	14.2	19.1	34.7	0.7	100.0
1960	15.7	5.4	9.9	13.9	17.5	36.8	0.8	100.0
1961	15.3	5.8	8.8	12.6	16.4	40.2	0.9	100.0
1962	16.6	6.2	8.7	14.1	16.9	36.6	0.9	100.0
1963	16.6	5.1	7.5	14.2	13.7	42.2	0.7	100.0
1964	17.6	4.3	6.5	13.5	11.4	45.9	0.8	100.0
1965	19.7	5.3	6.9	16.5	12.3	38.4	0.9	100.0
1966	20.1	6.3	6.9	17.2	12.8	35.4	1.3	100.0
1967	20.4	7.1	7.4	18.3	13.7	31.4	1.7	100.0
1968	21.8	7.7	7.9	18.1	14.5	28.5	1.5	100.0
1969	21.9	7.4	8.5	18.5	13.7	28.7	1.3	100.0
1970	22.3	8.5	8.2	18.8	14.2	28.0	—	100.0
1971	22.2	8.1	7.7	22.1	13.2	26.8	(0.1)	100.0
1972	23.2	8.1	7.3	22.5	12.9	26.4	(0.4)	100.0
1973	25.9	8.1	7.3	23.6	11.1	24.7	(0.7)	100.0
1974	26.6	7.0	7.0	24.6	10.9	24.8	(0.9)	100.0
1975	28.0	7.5	7.5	22.8	10.9	24.9	(1.6)	100.0
1976	28.8	7.3	7.5	21.8	11.4	23.8	(0.6)	100.0
1977	28.4	7.5	8.9	21.2	11.6	23.0	(0.6)	100.0
1978	28.4	7.3	10.8	21.1	11.0	21.9	(0.5)	100.0
1979	28.0	7.8	12.1	21.1	11.5	20.5	(1.0)	100.0
1980	30.2	8.5	12.4	22.8	12.9	16.3	(3.1)	100.0
1981	31.0	9.1	10.7	22.0	13.0	17.9	(3.7)	100.0
1982	29.8	10.9	8.0	21.5	14.4	14.6	0.8	100.0
1983	29.8	11.1	8.3	22.3	14.3	13.6	0.6	100.0
1984	31.8	10.8	7.9	22.6	13.4	12.9	0.6	100.0
1985	31.3	10.4	7.7	24.0	13.8	12.8	—	100.0
1986	32.7	10.7	7.1	24.3	13.6	11.5	0.1	100.0
1987	33.0	10.4	7.4	24.9	13.4	10.5	0.4	100.0
1988	33.2	9.8	8.1	25.4	13.1	10.5	(0.1)	100.0
1989	31.7	9.4	9.0	27.6	13.1	9.6	(0.4)	100.0
1990	29.8	8.9	11.5	27.8	13.1	8.7	0.2	100.0
1991	29.0	8.8	13.9	27.5	13.3	7.7	(0.2)	100.0
1992	28.2	9.0	13.7	28.6	14.3	7.4	(1.2)	100.0
1993	29.3	8.8	12.0	29.7	14.1	6.7	(0.6)	100.0
1994	29.5	8.8	11.2	30.3	14.2	6.5	(0.5)	100.0
1995	29.9	8.7	11.3	30.6	14.1	6.2	(0.8)	100.0
1996	29.3	8.7	11.6	30.6	14.7	5.8	(0.7)	100.0
1997	29.3	8.7	11.6	30.5	15.0	5.4	(0.5)	100.0
1998	31.1	9.2	10.1	30.2	15.5	4.9	(1.0)	100.0

(*continued*)

TABLE 2.3 (*continued*)

Year	Industry[1]	Services				Agriculture[6]	Other[7]	Total
		Public Utility[2]	Construction[3]	Trade[4]	Government[5]			
Averages								
1953–61	13.4	4.0	10.9	13.2	15.6	42.0	0.9	100.0
1962–71	19.9	6.6	7.6	17.1	13.6	34.2	0.9	100.0
1972–86	28.9	8.8	8.7	22.5	12.4	19.3	(0.7)	100.0
1987–98	30.2	9.1	11.0	28.5	13.9	7.7	(0.4)	100.0
1953–98	24.3	7.5	9.5	21.1	13.7	23.9	0.0	100.0

[1]Includes manufacturing and mining.
[2]Includes public utilities and transportation.
[3]Includes construction and housing.
[4]Includes trade and financial business services.
[5]Includes government services and NGOs.
[6]Includes agriculture, forestry, and fishery.
[7]Includes other miscelleneous items and statistical errors.

Sources: This table is based on Hanguk Eunhaeng 1995: 177; Bank of Korea, *Economic Statistics Yearbook*, various years.

The factors that contributed to the speedy expansion of industry, especially manufacturing, were principally increases in capital stock, labor, and productivity. The growth in capital and labor inputs explains most of the growth in output. According to one study,[31] for the period between 1971 and 1993, the contribution of capital was the greatest, about 54 percent of the output growth in the overall manufacturing sector. With the expansion of capital, the level of technology also advanced significantly, followed by the increase in labor input. Employment in the modern manufacturing sector grew at about 10 percent per annum, raising employment in the manufacturing sector from about 5 percent of the total labor force in 1953 to 8.7 percent in 1965 and more than 25 percent in the late 1980s, followed with a decline to lower than a 20 percent level in the 1990s (Table 2.4).[32] The number of workers in manufacturing exceeded the number of farmers after 1985, and by 1996 the number of manufacturing workers was nearly double the number of farmers in the country. In addition, the labor force was increasingly better educated (see chapter 3).

In the future, however, it is expected that the industrial sector will shrink over time. According to the KDI's estimate, with the portion of GDP in the manufacturing sector continuing to fall from 28.4 percent in 2000 to 28 percent in 2010, and with the service industry taking up a bigger share of GDP (from 67 percent in 2000 to 69.3 percent in 2010), the industrial structure is expected to continue to shrink.

With the expansion of capital, the development of advanced technology and increased input from a better-educated labor force, labor productivity in the manufacturing sector increased by nearly 10 percent per annum after the Korean War, which was far more than the average growth of the entire economy. Labor man-hours and labor-education contributed to the increase in GDP about 21 and 4 percent, respectively. In contrast, the growth in TFP contributed less to the growth in output. The

TABLE 2.4 Employment by Economic Sectors (in percent)

Year	Agriculture, Forestry, and Fishery	Manufacturing	Mining	*Services*			Unemployed	Grand Total
				SOC and Other Services	Construction	Total		
1953	60.6	5.0	0.6	9.3	16.1	25.4	8.4	100.0
1954	57.9	5.2	0.6	13.0	15.1	28.1	8.2	100.0
1955	59.5	5.4	0.7	13.4	10.2	23.6	10.8	100.0
1956	62.1	5.6	0.4	13.1	8.9	22.0	9.9	100.0
1957	60.2	5.8	0.9	13.7	8.4	22.1	11.0	100.0
1958	55.7	6.0	1.2	15.4	9.2	24.6	12.5	100.0
1959	48.6	6.2	1.1	18.4	9.5	27.9	16.2	100.0
1960	51.1	6.4	1.1	17.1	9.2	26.3	15.1	100.0
1961	54.8	6.6	1.6	16.2	7.6	23.8	13.2	100.0
1962	50.8	6.8	1.8	18.1	7.4	25.5	15.1	100.0
1963	56.7	7.0	1.3	17.2	6.0	23.2	11.8	100.0
1964	57.2	7.5	0.6	24.8	2.2	27.0	7.7	100.0
1965	54.3	8.7	0.8	26.1	2.7	28.8	7.4	100.0
1966	53.8	9.1	0.9	26.7	2.4	29.1	7.1	100.0
1967	51.8	11.0	1.0	27.2	2.8	30.0	6.2	100.0
1968	49.8	12.1	1.2	28.6	3.2	31.8	5.1	100.0
1969	48.9	12.4	1.2	29.3	3.4	32.7	4.8	100.0
1970	48.2	12.6	1.1	30.9	2.7	33.6	4.5	100.0
1971	46.3	12.6	0.9	32.4	3.3	35.7	4.5	100.0
1972	48.3	13.1	0.5	30.0	3.6	33.6	4.5	100.0
1973	48.0	15.3	0.4	29.1	3.2	32.3	4.0	100.0
1974	46.2	16.7	0.4	28.9	3.7	32.6	4.1	100.0
1975	44.0	17.8	0.5	29.4	4.2	33.6	4.1	100.0
1976	42.9	20.5	0.5	28.2	4.0	32.2	3.9	100.0
1977	40.2	20.8	0.8	29.7	4.7	34.4	3.8	100.0
1978	37.2	21.6	0.8	31.3	5.9	37.2	3.2	100.0
1979	34.4	22.0	0.8	33.1	5.9	39.0	3.8	100.0
1980	32.2	20.6	0.9	35.3	5.8	41.1	5.2	100.0
1981	32.7	19.5	0.8	36.5	6.0	42.5	4.5	100.0
1982	30.7	20.2	0.7	38.5	5.5	44.0	4.4	100.0
1983	28.5	21.6	0.8	39.6	5.4	45.0	4.1	100.0
1984	26.1	22.3	1.0	40.8	6.0	46.8	3.8	100.0
1985	23.9	22.5	1.0	42.8	5.8	48.6	4.0	100.0
1986	22.7	23.7	1.2	43.1	5.5	48.6	3.8	100.0
1987	21.2	26.2	1.1	43.0	5.5	48.5	3.0	100.0
1988	20.1	27.0	0.8	43.7	5.9	49.6	2.5	100.0
1989	19.1	27.1	0.5	44.4	6.3	50.7	2.6	100.0
1990	17.5	26.5	0.4	45.9	7.3	53.2	2.4	100.0
1991	16.1	26.2	0.4	46.9	8.1	55.0	2.3	100.0
1992	15.4	24.9	0.3	48.5	8.5	57.0	2.4	100.0
1993	14.3	23.5	0.3	50.7	8.5	59.2	2.7	100.0
1994	13.3	23.1	0.2	52.3	8.7	61.0	2.4	100.0
1995	12.2	23.0	0.1	53.6	9.1	62.7	2.0	100.0
1996	11.4	22.1	0.1	55.2	9.3	64.5	1.9	100.0
1997	10.8	20.7	0.1	56.6	9.3	65.9	2.5	100.0
1998	11.3	18.2	0.1	56.2	7.4	63.6	6.8	100.0

(*continued*)

TABLE 2.4 (*continued*)

Year	Agriculture, Forestry, and Fishery	Manufacturing	Mining	Services			Unemployed	Grand Total
				SOC and Other Services	Construction	Total		
Averages								
1953–61	56.7	5.8	0.9	14.4	10.5	24.9	11.7	100.0
1962–71	51.8	10.0	1.1	26.1	3.6	29.7	7.4	100.0
1972–86	35.9	19.9	0.7	34.4	5.0	39.4	4.1	100.0
1987–98	15.2	24.0	0.4	49.8	7.8	57.6	2.8	100.0
1953–98	38.0	16.1	0.8	32.7	6.5	39.2	6.0	100.0

Source: Based on Bank of Korea, *Economic Statistics Yearbook*, various years.

growth in TFP accounted for about 22 percent of the growth of value-added output. Its contribution has been falling in recent years, averaging about 9.4 percent over the period between 1989 and 1993. Seeing this trend, some economists have taken the position that South Korea, as well as other East Asia economies, will not be able to sustain high growth because its growth is extensive, but TFP growth is lower.[33] However, improvements in labor quality, such as through education, suggest that it can maintain its high growth potential.[34]

Within the industrial sector, manufacturing in particular grew rapidly, which led the economy with the fastest-growing number of enterprises, employees, and products. The number of manufacturing establishments doubled in 20 years (from 22,718 in 1966 to 44,037 in 1985), representing nearly half of all enterprises established in the country. Swiftly, the number of employees more than quadrupled.[35] Production in the manufacturing sector multiplied at an average rate of about 14 percent per annum between 1953 and 1999, about twice the speed of the rise in the nation's GDP. The rapid rise in this sector is particularly notable during the period between 1965 and 1978, when the annual growth rate was more than 19 percent. The value added by the manufacturing sector ballooned 171 times, from 156.2 billion to 26.74 trillion *won* during the 1966–85 period.[36] As a result of speedy expansion, the manufacturing sector produced an increasing share of GDP. Its share increased from 8.9 percent in 1953 to 13.6 percent in 1960, 21.6 percent in 1970, and 27 percent in 1977, reaching a peak of 32.5 percent in 1988.

Within manufacturing, the HCIs contributed more than the light industries over time. Except for the years between 1953 and 1957, the first five-year period after the Korean War, the share of GDP and total production in manufacturing contributed by the HCIs rapidly increased from 19.5 percent of the total in 1957 to 73.1 percent in 1994, while that of light industry gradually declined from more than four-fifths to less than a third during the same period (Table 2.5). During 1977–81, large HCIs such as iron and steel, petrochemicals, and nonferrous metals grew by an astonishing 51.8 percent, with their exports reaching 45.3 percent of total output in 1981. The average annual rate of increase in TFP on a value-added basis in the heavy industries was about

TABLE 2.5 Shares of Manufacturing in GDP and Total (in percent)

	Share of GDP			*Share of Total*		
Year	Heavy and Chemical Industry	Light Industry	Manufacturing Total	Heavy and Chemical Industry	Light Industry	Manufacturing Total
1953	1.9	7.1	9.0	21.1	78.9	100.0
1954	2.5	9.3	11.8	21.6	78.4	100.0
1955	2.3	9.3	11.6	20.1	79.9	100.0
1956	2.3	9.3	11.6	19.8	80.2	100.0
1957	2.2	9.0	11.2	19.5	80.5	100.0
1958	2.7	10.1	12.8	21.4	78.6	100.0
1959	3.0	11.1	14.1	21.6	78.4	100.0
1960	3.2	10.6	13.8	23.4	76.6	100.0
1961	3.6	10.0	13.6	26.3	73.7	100.0
1962	4.1	10.3	14.4	28.6	71.4	100.0
1963	4.4	10.3	14.7	29.7	70.3	100.0
1964	4.7	10.9	15.6	30.4	69.6	100.0
1965	5.7	12.3	18.0	31.4	68.6	100.0
1966	6.3	12.3	18.6	34.1	65.9	100.0
1967	6.6	12.5	19.1	34.7	65.3	100.0
1968	7.6	12.4	20.0	38.0	62.0	100.0
1969	7.6	12.7	20.3	37.6	62.4	100.0
1970	8.2	12.8	21.0	39.2	60.8	100.0
1971	8.5	12.6	21.1	40.4	59.6	100.0
1972	8.2	14.0	22.2	37.0	63.0	100.0
1973	10.2	14.7	24.9	40.9	59.1	100.0
1974	12.8	12.9	25.7	49.9	50.1	100.0
1975	12.4	13.5	25.9	47.9	52.1	100.0
1976	13.5	13.9	27.4	49.3	50.7	100.0
1977	13.8	13.0	26.8	51.5	48.5	100.0
1978	14.2	12.5	26.7	53.0	47.0	100.0
1979	15.1	12.4	27.5	54.9	45.1	100.0
1980	15.1	13.1	28.2	53.6	46.4	100.0
1981	15.5	13.0	28.5	54.4	45.6	100.0
1982	15.5	12.6	28.1	55.1	44.9	100.0
1983	16.6	12.4	29.0	57.3	42.7	100.0
1984	17.4	12.5	29.9	58.1	41.9	100.0
1985	17.1	12.2	29.3	58.5	41.5	100.0
1986	18.4	12.4	30.8	59.6	40.4	100.0
1987	18.8	12.6	31.4	59.9	40.1	100.0
1988	20.3	11.8	32.1	63.2	36.8	100.0
1989	19.9	11.1	31.0	64.2	35.8	100.0
1990	19.2	10.0	29.2	65.9	34.1	100.0
1991	19.5	9.0	28.5	68.3	31.7	100.0
1992	19.3	8.5	27.8	69.4	30.6	100.0
1993	19.3	7.7	27.0	71.6	28.4	100.0
1994	19.7	7.2	26.9	73.1	26.9	100.0
Averages						
1953–61	2.7	9.5	12.2	21.6	78.4	100.0
1962–71	6.4	11.9	18.3	34.4	65.6	100.0
1972–86	14.4	13.0	27.4	52.1	47.9	100.0
1987–94	19.5	9.7	29.2	67.0	33.1	100.0
1953–94	10.9	11.4	22.3	44.2	55.8	100.0

Sources: Based on Hanguk Eunhaeng 1995: 174–75; Bank of Korea, *Economic Statistics Yearbook*, various years.

4.5 percent. In 1971–93, the average rate of increase in productivity per man-hour adjusted for the variations in the labor force's mean education years was 7.8 percent in heavy manufacturing industries. The average rates of increase in the unit labor cost for heavy manufacturing were 11.9 and 14 percent, respectively. As a result, the contribution of the manufacturing sector increased from about 9 percent in 1953 to 32.1 percent in 1988, although its share of GDP stabilized at about 30 percent soon thereafter.

Within the HCIs, chemicals had one of the country's fastest growth rates. The annual increase in production in the chemical industry was, on average, 23 percent, resulting in the expansion of its share in GDP from 1.2 percent in 1962 to 10 percent in 1986. The majority of the chemical products were intermediate goods such as petroleum products, fertilizer, and cement. It has grown mainly as an import-substitution industry stimulated by strong domestic demand. The chemical fertilizer industry, a large part of the chemical industry, met most of South Korea's domestic consumption demands. This is in sharp contrast to the growth pattern of industries such as textiles, shipbuilding, steel, and plywood, which have largely been export oriented.

The metal, machinery, and equipment industry, which includes machine tools, parts, rolling stock, ships, and automobiles, was insignificant in South Korea until about the 1970s. It consisted of a limited number of small and medium-sized firms producing goods at a low level of technology. Since the 1970s, however, the industry has expanded at more than 20 percent per annum, accelerating to about 30 percent per year in the 1980s. The metal industry, comprising iron, steel, and nonferrous metals, has grown similarly swiftly, at an annual average rate of nearly 15 percent. Since this industry is vital to the manufacturing, construction, and chemical industries, its rapid growth was necessary for the country's industrialization. The share of the steel industry expanded from 4.5 percent of manufacturing production and 0.6 percent of the GDP in 1966 to 6.8 and 0.8 percent, respectively, by 1975. By 1989, the steel industry in the country expanded to include 200 steel companies, and South Korea was the world's tenth largest steel producer, accounting for 2.3 percent of world steel production. Likewise, by 1988, the capacity of the South Korean motor industry had exceeded 1 million units.

In the twenty-first century, the country is expected to have technology-intensive industries as well as modern information systems. The share of the machinery industry increased from 10.8 percent of all manufacturing in 1981 to 14.7 percent in 2000. The share increased from 2.9 to 8.9 percent for the automobile industry and from 7 to 18.8 percent for electronics. The Korean shipbuilding industry also surged. As of October 2000, the Korean shipbuilding industry accounted for 48 percent of worldwide orders, up from 41 percent in 1999, compared with Japan's 28 percent. The industry, however, has faced very difficult financial problems recently, and its prospects are uncertain.

Light industries also grew in the early years, but at considerably slower rates than in the later periods. Between 1989 and 1993, the decline in the growth rate of productivity was most noted in the light manufacturing industries.[37] The average annual rate of increase in TFP on a value-added basis in the light manufacturing industries was about 1.1 percent. In 1971–93, the average rates of increase in productivity per man-hour adjusted for variations in the labor's mean education years

was 4 percent in the light manufacturing industries. The average rates of increase in the unit labor cost for light manufacturing was 14 percent during 1971–93. As a result, the contribution of the light industries increased from a little less than 2 percent of GDP in 1953 to a little more than 25 percent in the late 1990s.

Within light industry, the first modern manufacturing industry in South Korea was textiles, similar to the typical growth pattern followed in many developing and developed countries in the past. The textile industry evolved slowly in the 1950s but gained momentum in the 1960s and 1970s, achieving a considerably higher growth rate than the manufacturing sector as a whole. Long handicapped by insufficient foreign exchange for raw material imports, it was busy with overseas orders. The value added by the textile industry to the manufacturing sector rose from less than 20 percent in 1953 to a peak of about 30 percent in 1978. Textiles, clothing, and leather products made up about 24 percent of South Korea's manufacturing output in 1980. Throughout the 1980s, textiles played a critical role in Seoul's exports, accounting for 19.6 percent of total export earnings. But the industry relative to other industrial sectors declined later, to about 20 percent in 1986, averaging about 17 percent in the 1980s. The primary reasons for the growth and decline in this industry were the significant increases in exports and chemical fiber production before the mid-1980s. Other light industries, such as the footwear industry, also expanded over time. Footwear exports in 1988 constituted 6.3 percent of the country's total exports by value. Over 10,000 textile and footwear enterprises employed more than four workers each, and 34,000 smaller shops manufactured such products in 1978.

Among light industries, South Korea's food processing grew somewhat more slowly than the above two products, at an average annual rate of a little more than 12 percent, while the production of sheet glass, which has doubled since 1962, was more than sufficient for local construction needs. Other output, such as cigarettes, paper products, automobile tires and tubes, and bicycles, soared in the early years, but the rate of expansion also has slowed considerably in recent years.

Services

The service sector, which includes SOC, trade, and finance, also expanded during the 50-year period after the Korean War. It expanded more slowly than the industrial sector, however, at an annual average of 8.5 percent, while the government and nonprofit organizations sector increased at an even slower annual rate of about 3.8 percent. Consequently, the production originating in the service sector increased modestly, by about 50 percent in about 46 years, from about 42 percent of GDP in 1953 to 60 percent in 1998, although its share of production varied somewhat over time.[38] Likewise, employment expanded from 2.4 million workers in 1964 to 8.7 million in 1986 (363 percent in 22 years) and 15.2 million in 1998 (633 percent in 34 years), increasing at about 5.5 percent per annum.

Social Overhead Capital

Within the service sector, SOC, which includes transportation, storage, communications, construction, electricity, and water and sanitary services, expanded very rapidly,

second only to manufacturing. The production originating in it increased rapidly, particularly in the early years. Its output expanded on average 14.6 percent per year between 1953 and 1985, which was nearly twice the level of the increases in the GDP during the same period, and 13 percent during 1953–99. As a result, its share of output increased from a little more than 2 percent of GDP in 1953 to nearly 10 percent by 1998. Likewise, employment expanded from only about 3 percent of the total labor force in 1953 to about 10 percent in 1998, while labor productivity increased about 8 percent per annum. The most rapid growth within the SOC segment was the electric, water, and sanitary services sectors, which grew at an average annual rate of 17.1 percent during 1953–75.[39] Other than repair work, not much expansion in railroads took place, since they were mostly constructed under Japanese colonial rule.

Domestic Trade

The production originating in trade and finance expanded, but at a considerably slower rate than that of the manufacturing and SOC sectors. It increased by about 7.1 percent per annum during 1953–85 and by 8.5 percent during 1953–99, which was less than half the rates experienced in the manufacturing and SOC sectors, and somewhat more than the rate of expansion in overall GDP. The share of GDP originating in finance and commerce increased from less than 13 percent in 1953 to about 22 percent in 1971 and 30 percent in 1998. Employment in theis sector also increased, resulting in the expansion of its share from about 12 percent of the country's labor force in 1953 to about 30 percent of the total in 1986. The average annual increase in labor productivity in this sector was about 5 percent, which was equal to the national average but less than half of the rates experienced in manufacturing and SOC.

The largest employer in South Korea's service sector in the mid-1980s was retail trade. Approximately 26,054 wholesale and 542,548 retail establishments and 233,834 hotels and restaurants employed about 1.7 million people in 1986. The sector was dominated by a large contingent of small businesses. The vast majority of retailers were small merchants in cities, towns, and villages, each with a modest storefront or stand and limited stock, but the great majority of South Koreans made their purchases from these small retailers. Although their numbers increased, their share relative to the total number of workers employed gradually decreased over time from about 34 percent in the early 1970s to 28.8 percent in 1989. As of 1998, self-employed workers numbered close to 6 million and constituted 28.5 percent of all employed workers.

Foreign Trade

One clearly discernible structural shift in the South Korean economy was the volume and nature of the goods and services traded with other countries. The volume of commodity trade (i.e., imports and exports) expanded from $267 million in 1954 to $280 billion in 1996, rising more than 1,000 times in a 43-year period. From a small volume of trade (mostly imports) in the early 1950s (e.g., 17.8 percent of GDP in 1954), South Korea was transformed into one of the major trading economies in the world in later years. By 1986, the volume of trade was equivalent to 82.5 percent

of GDP, and by 1987 the country was transformed from a net importer to a net exporter and became a "self-sufficient" economy. Since then, as its economy has continued to expand, the volume of South Korea's trade has increased, although its ratio to GDP has gradually declined (e.g., to 54 percent in 1996).

Exports have experienced a phenomenal expansion. In 1954 they were almost nonexistent. Total exports in that year were worth a mere $18 million for the whole country, equivalent to 1.2 percent of GDP. Their export ratio (exports to GDP) remained between about 1 to 3 percent until 1963. Since then, exports have expanded exponentially, at an annual average rate of more than 30 percent during the 1970s and 1980s, which was about 2.5 times the growth rate of real GDP. The dollar value of commodity exports during the 1960s increased at an annual rate in excess of 40 percent, a figure that may be unprecedented in modern times. In the mid-1970s, exports increased by an average of 45 percent per year. As a result, the volume of exports increased to about $46 billion in 1986, an increase of 2,000 times in 30 years, and represented 45 percent of GDP. Thereafter, they continued to increase to $138.6 billion in 1996 and $172.3 billion in 2000, at which time South Korea was ranked the 13th largest exporter in the world.

The increases in South Korea's exports are truly record breaking, even in comparison with the records of Japan and the United States. South Korea's exports increased from 1 percent of GDP to 4 percent between 1954 and 1964, while those of Japan decreased from 11 percent in 1954 to 9 percent in 1963, although Japan's exports were 11 and 2.5 times greater than South Korea's in 1954 and 1964, respectively.[40] By 1973, South Korea's exports accounted for 24 percent of its GDP, which increased again to 26 percent in 1981, surpassing Japan's ratio of 17 percent. South Korea's exports relative to GDP declined to 25 percent in 1996, but they rose to the 40 percent level in 2000, compared with the U.S. export ratio of about 6.5 percent. Funds generated from exports enabled South Korea to import more capital goods and raw materials for production and to reduce its foreign debt when a trade surplus was realized.

Two additional changes have taken place with Korea's exports. The first is a greatly increased share of manufactured goods as opposed to traditional and food-related products. South Korea was not a significant exporter of manufactured goods (about 5 percent of exports) in the early 1950s. Exports then consisted mainly of the sale of goods and services to U.S. military forces stationed in the country and were mostly raw materials, including food-related products. After 1963, the manufacturing industry's share expanded dramatically, rising to about 50 percent of total exports in 1964, 85 percent in 1977, and over 90 percent by 1985.

Also considerably altered over the years was the type of manufactured goods exported. The sector has moved from labor-intensive, light industry products (e.g., plywood, wigs, tires, and simple steel fabrications), textiles, and clothing during the 1960s and early 1970s to labor-intensive, heavy industry products such as iron and steel, ships, machinery, and chemicals. In 1965, for instance, when manufactured goods exports made up 63 percent of total exports, the shipment of light industrial goods was about 48 percent, while that of heavy industrial goods was 15 percent of the total exports. Subsequently, South Korea became an important exporter of ships, textiles, and footwear, all labor intensive but requiring better technology, more

capital equipment, and a more highly trained labor force. By 1975, nearly 56 percent of exports were labor-intensive, light industrial goods, and 7.8 percent were labor-intensive, heavy and chemical industrial goods.[41]

The unequaled and unprecedented rate of growth in exports had not been due merely to the use of low-wage labor. The speed with which South Korea successfully entered into capital-intensive heavy industry is striking. After 1974, there was accelerated growth in the production and export of heavy industrial and chemical products. During 1977–81, exports of HCI products such as iron and steel, petrochemicals, and nonferrous metals accounted for as much as 45.3 percent of the country's total. By 1985 the shares of HCI and light industry were equal. In 1986 the share of heavy industrial and chemical products expanded to 55.5 percent of total exports (compared with 18.9 percent in 1980), whereas the share of light industrial products had contracted to 40.9 percent (compared with 71.1 percent in 1980).

A more detailed examination of manufactured goods exported also shows the changed nature of products. A greater proportion of manufactured goods exported has consisted of high technology and precision machinery in recent years. In 1955, machinery exports were only 1.1 percent of total exports, but their share increased to about 36 percent in 1985. Exports to the United States have been automobiles, telecommunications equipment, and electronic components, in addition to apparel and footwear. The share of exports in transportation equipment has increased in recent years (e.g., from 6 percent before 1984 to 44 percent in 1986). For example, the Hyundai Motor Company, which began by exporting six Pony hatchback cars in 1976, shipped 1.4 million cars in 1988 and 10 million in the first six months of 2004. Today, electronics, including computers and semiconductors, and machinery, notably automobiles, are South Korea's leading export products. The country has built a highly diversified industrial complex, producing and exporting a wide variety of products. On the other hand, the export share of raw materials, including minerals, has declined precipitously. The share dropped from about 85 percent of total commodity exports in the mid-1950s to less than 5 percent by the mid-1980s. Likewise, the share of food-related exports shrank, though moderately, from approximately 10 percent to about 5 percent during the same period.

The second clearly discernible change in South Korea's export was the countries of destination. In the early years, the countries to which South Korea exported were primarily the United States and Japan. South Korea depended heavily on them as its major trading partners, with their share making up more than 80 percent of the country's total exports in the 1960s and 75.6 percent in 1970. While the traditional exports to Japan of sea products and minerals continued to increase, most of the new manufactured goods went to more diverse countries, including other developed and developing countries. Success in diversifying export markets led to a reduction in the U.S.-Japan export market share to about 50 percent in the late 1980s. While the decline in South Korea's exports to Japan was modest, from nearly 20 percent to about 15 percent, its exports to the United States decreased to about 36 percent.[42]

In the meantime, the developed countries to which South Korea exported increasingly included those of Western Europe, which expanded to about 15 to 19 percent in the late 1970s and 1980s, respectively. Export to the European Community increased from about 5 percent to 15 percent and remained fairly constant

at about 13 to 15 percent of the total. Exports to developing areas, such as those to the Middle East, accounted for about 12 percent of South Korea's export trade from 1972 to 1977, although its share declined to 5.2 percent in 1986. The developing countries included Saudi Arabia and Malaysia. By 1980, South Korean construction contractors were engaged in large projects in the Middle East, including the Saudi Arabian peninsula. Exports to Latin America grew from 0.8 percent in 1972 to 3.6 percent in 1986, and exports to Oceania grew from 0.9 to 1.4 percent during the same period. To a large extent, it appears that South Korean manufactured goods have penetrated the traditional Japanese markets of the world, and South Korean exports have replaced many of those of Japan in these markets. Its outward orientation and success in penetrating international markets became a significant driving force in the country's rapid industrialization.

South Korea's imports similarly increased rapidly, in volume as well as in relation to its GDP. Imports rose from $345.4 million in 1953 to $144.9 billion in 1995 and $160.5 billion in 2000. Their volume multiplied 465 times between 1953 and 2000, while the ratio of imports to GDP increased from about 20 percent in 1953 to 37.5 percent in 1986 and then decreased to about 25 percent in 2000. South Korea's reliance on imports was greater than that of Japan. This may be seen by comparing the relative importance of imports in Korea to that of Japan. South Korea's imports accounted for 16.2 percent of its GDP in 1954, while Japan's accounted for 11 percent in the same year. By 1963, South Korea's imports had expanded to 21 percent, surpassing Japan's ratio of 11 percent in the same year. By 1981, South Korea's ratio reached 35.5 percent, while that of Japan was only 16 percent, the former being more than double the latter.

While the volume of South Korea's imports multiplied many times, the types of goods imported altered significantly during the period. Since the early 1960s, the share of imported consumer goods declined, while the share of industrial supplies and capital equipment imports has risen. The share of consumer goods imported decreased from 24.1 percent of total imports in 1962 to 9.8 percent in 1986, because of increased domestic production of these goods in the country—import substitution—and increased imports for export-goods industries. The importation of manufactured goods increased, though less rapidly than imports of capital or intermediate goods, leaving the share of the former fairly constant during the 30-plus-year period after the Korean War. Consumption goods made up only about 10 to 15 percent of total imports. The types of imported goods that declined in relative share included fuels, lubricants, and chemicals such as fertilizer.

The most notable change in the composition of imports was the steady rise in capital goods, machinery, and transportation equipment, which by 1985 accounted for 32 percent of total imports, compared with 10 percent in 1953. Imports of raw materials and intermediate goods intended for further processing in domestic industries also increased. They inched up from about 20 percent in the mid-1950s to about 38 percent in the 1980s. Virtually all energy products and raw materials such as coal, petroleum, ore, and timber were imported. The imports in later years were mostly of raw materials (50 to 60 percent of the total), including petroleum (10 to 20 percent of total), and capital goods (25 to 35 percent of total). South Korea's trade pattern thus clearly shows that the earnings from exports were used to purchase

the machinery and equipment needed to expand industrial capacity and pay for the imported raw materials used to manufacture exports. In this way, relatively abundant labor was exchanged, in effect, for relatively scarce capital goods and raw materials.

Another notable change in imports was the gradual shift in the countries from which goods and services were imported. In the early years, more than half of the country's imports came from the United States, but its share of imports decreased to about 22 to 25 percent of the total in the 1980s. Imports from Japan climbed from about 10 percent in the 1950s to 36 percent in the late 1970s, although the ratio declined slowly to about 25 to 35 percent of total imports in the latter half of the 1980s. Especially significant was the importation of basic materials from Japan. South Korea purchased nearly half of its imports of basic materials (e.g., steel, metals, and petrochemicals), worth $4.55 billion, from Japan in 1986. The heaviest reliance on Japan was in the importation of steel, which made up four-fifths of Korea's $1.1 billion steel imports. Korea also bought $4.4 billion worth of machinery from Japan out of $8 billion purchased abroad in 1985.

One other major change was the rise in technology imports. From virtually none in the early years, such imports became increasingly important as South Korean industries faced intensifying competition in the world market. The importation of technology from abroad, however, was limited to a few countries. The Japanese share of technology licensing agreements was about 51 to 56 percent during the 1980s, which was followed by the United States with 24 percent, West Germany with 5 percent, and Great Britain with 4 percent. South Korea's machinery, electronics, and petrochemical sectors relied mostly on Japanese technology due to the country's heavy dependence on Japanese machinery and parts. Agreements with Japan accounted for 61.6 percent of all technology licensing pacts signed by the machinery sector, and electronics pacts represented 56.3 percent of the total. The comparable figure is 58.9 percent for the petrochemical industry.

In the future, it is expected that the service sector of the economy will expand over time. According to the KDI's estimate, the industrial structure will change further down the road, with the service industry taking up a bigger share of GDP, reaching 69.3 percent in 2010, compared with 67 percent in 2000. The manufacturing portion of GDP is anticipated to fall to 28 percent in 2010 from 28.4 percent in 2000.

Agriculture

In contrast to the industrial sector, the agricultural sector expanded as the nation's economy grew, but at a much more sluggish rate. The growth of agricultural output averaged 3.2 percent per year between 1953 and 1961, 4.9 percent between 1962 and 1971, 1.3 percent between 1972 and 1980, and 2.7 percent between 1981 and 1994 (Table 2.2). The average rate of growth in this sector between 1953 and 1994 was 3 percent, which was less than half of the growth rate of the nation's GDP and only about 28 percent of the expansion rate of the manufacturing sector. Consequently, the agricultural sector's contribution to the nation's GDP decreased from

47.3 percent in 1953 to 28 percent in 1970, 10.5 percent in 1988, and 4.9 percent in 1998 (Table 2.3). Rice represented about 90 percent of total grain production and over 40 percent of farm income. By the late 1980s, roughly only about half of South Korea's needs, mainly wheat and animal feed corn, was imported. Likewise, South Korea transformed from a major rice exporter, as much as half of its rice production, during the colonial period to a net rice importer in the 1980s.

In contrast to the relative decline in agricultural output, the number of farmers slowly increased until about 1976, when it reached a peak of 5.6 million. At that time, the farm population represented about 41 percent of the nation's total labor force. Thereafter, it gradually decreased to fewer than 2.3 million in 1998. On the whole, the number of farmers actually decreased from 1976, at a rate of about 1.5 percent per annum on average, up to 1986 and at about 2 percent per annum between 1953 and 1998. Consequently, the proportion of farmers decreased from about 70 percent of the economically active population in the country in 1953 to 63 percent at the start of the economic boom in 1963, 50 percent in 1973, 34 percent in 1980, 23.6 percent in 1986, and 11.3 percent in 1998 (Table 2.4).

In contrast to the farm population, the acreage available for cultivation per household changed in the opposite direction: first decreased and then slowly climbed up. The acreage available for cultivation per household decreased about 8 percent by 1962, but thereafter it gradually increased by about 55 percent during the 36-year period between 1962 and 1997. Notwithstanding the increase, under the land reform carried out soon after the Korean War, farmers were limited to 7.35 acres (3 *jeong-bo*) of land per farm household, and a typical Korean farm cultivated on average 3.385 acres in 2001. Because of the small size of most farms, mechanization and other improvements beneficial to large-scale operation were not implemented. Consequently, the only available opportunities for increasing agricultural output were the greater application of fertilizers and the sowing of improved, high-yielding seed varieties, mainly rice. Thus, increases in agricultural production have been more or less limited to the increased productivity of land. The productivity per acre increased, for instance, by 48.4 percent in 11 years, from 28.5 kilograms per *joeng* in 1965 to 42.3 in 1976. However, the rise in labor productivity in agriculture, at about 3.3 percent per annum, was the lowest among all major sectors of the economy.

Mining and Others

Mining once occupied a significant position in the economy, especially under Japanese rule and in the 1950s and 1960s, when coal mining was at full capacity to supply fuel to households. But it slowly declined and came to hold a relatively insignificant position. Its annual growth rate during 1953–75 averaged about 9 percent and contributed between 1 to 2 percent of GDP until about 1982. Its contribution, however, ebbed to less than 1 percent (about 0.4 percent) by the mid-1990s, as electricity replaced coal for fuel and power. Employment in it represented about 1 percent of the labor force in the 1960s but declined to about 0.1 percent of gainfully employed workers thereafter. The share of production of "miscellaneous" sectors, such as fishery and forestry, decreased 30 percent during the same period.

INDUSTRIAL STRUCTURE AND ORGANIZATION

One other major change in the South Korean economy was its industrial structure and organization, and the two notable changes within the larger one were the increasing capital and technologically intensive industries and the increase in the scale of business enterprises.

Capital and Technologically Intensive Industries

Industrialization that began with light consumer-oriented industries after the Korean War gradually advanced into HCIs and then into high-tech industries. The industrial sector had begun to face problems of its own in the early 1970s, because the industrial structure had been based on low-value-added and labor-intensive products and faced increasing competition and protectionism from other developing countries, and South Korean industry responded by emphasizing the development of HCIs and by promoting investment in high-value-added, capital-intensive industries. While these activities were important in the 1980s, in the 1990s real growth was also taking place in the electronics and high-technology industries. The electronics industry became the world's sixth largest manufacturer and South Korea's leading export industry, although its electronic goods continued to be dependent on Japanese components. In the late 1980s and 1990s, South Korea's leading electronics firms were Samsung,[43] Lucky-Goldstar (LG), and Hyundai.

Now, the industrial scene is marked by plants requiring relatively high-level skills and technology, such as the manufacture of chemicals, shipbuilding, automobiles, and electrical machinery, electronic appliances, and high-tech equipment. The country in the twenty-first century is expected to have technology-intensive industries and modern information systems: the share of the machinery industry is expected to increase from 10.8 percent in 1981 to 15 percent in the twenty-first century, from 7 percent to 20 percent for electronics, and from 2.9 percent to 9 percent for the automobile industry. The share for textiles, on the other hand, is expected to further decrease from 18.6 percent to 9.5 percent during the same period.

The Scale of Businesses

Another obvious structural change in industry was in the size of businesses. As the business sector grew, the dominance of large-scale firms increased over time. Industrial firms with more than 300 employees made up only 1.1 percent of the total in 1966, but their share increased to 2.5 percent in 1985, while the shares of medium-sized establishments with 50 to 99 employees increased from 3.8 to 9.7 percent, and those with 100 to 299 employees increased from 2.6 percent to 6.8 percent. The share of small establishments with fewer than 50 employees decreased from 92.5 to 81 percent during the same period.[44] In comparison to Taiwan and even Japan, the relative dominance of large industrial establishments in South Korea was prominent.

More striking statistics pertain to the number of employees and the values added by different sizes in manufacturing establishments. Employment in large firms ex-

panded from 33.7 percent of total employment in manufacturing to 43.9 percent between 1966 and 1985, while the medium-sized firms with 50 to 99 employees increased moderately from 10.5 to 12.3 percent, and those with 100 to 299 employees from 16.3 to 20.4 percent. The small establishments shrank from 39.5 to 23.4 percent. The comparative statistics between South Korea and Japan reveal the importance of large firms in the former. The number of employees in large manufacturing establishments in South Korea accounted for 39.4 percent of the total in 1986, while the Japanese constituted 27.9 percent; small firms in Korea accounted for 29.9 percent, compared with Japan's 41.7 percent.[45]

These structural changes brought about a concentration of economic and political power in large industrial conglomerates, retarded the development of the small and medium-sized enterprises essential for entrepreneurship and technological innovation, and led to costly labor strife. The large businesses shared a greater and increasing portion of the nation's production of goods and services over time. The value added by the large firms increased from 49.9 to 62.4 percent during the 1966–85 period, while the medium-sized establishments held fairly constant: from 8.6 to 8.2 percent for businesses with 50 to 99 employees and 16.6 to 17.7 percent for those with 100 to 299 employees.[46] Value added by the small firms rapidly decreased from 24.9 to 11.7 percent. The large firms also engaged in more technological collaboration with foreign partners than did small or medium-sized firms.

The Rise of the *Jaebeol*

One significant group within the business community that dominated the South Korean economy was business conglomerates, or *jaebeol*, as shown below. It is not easy to define what constitutes a *jaebeol*, but the term is used in the same context as the Japanese word *zaibatsu* (and is written in the same Chinese characters with a different pronunciation). *Jaebeol* are the highly diversified, family-controlled businesses that have held a central role in the development of the Korean economy. In general, a *jaebeol* is a very large conglomerate engaged in numerous lines of business, comprising a group of different specialized companies with interrelated management. Officially, a *jaebeol* is defined under the Antitrust and Fair Trade Act of 1988 as a group of companies with a combined asset value of 400 billion *won* (equivalent to about $500 million then) on a consolidated balance sheet basis. According to the Economic Planning Board, under this definition there were 40 business combines or *jaebeol* with 605 subsidiaries under their managerial wings in 1988.[47]

These Korean *jaebeol*, which emerged after the Korean War, were nowhere to be seen under the Japanese rule (with the exception of the Japanese *zaibatsu*), as elaborated in Appendix 2.1. During the colonial period, very few Koreans owned or managed large corporations. Many of the *jaebeol*'s founders were small merchants (e.g., rice peddlers or rice mill operators) or ran shops that produced soap and fish oil. After the departure of the Japanese in 1945, some Korean businessmen began expanding their businesses, and a number of them became *jaebeol* in the late 1950s and thereafter. In the early stage, the *jaebeol* were in businesses characterized by relatively simple technologies and low investment, but by the late 1980s, many had

become financially independent and secure, and these groups of affiliated companies dominated all sectors of the South Korean economy.

Jaebeol engaged in almost every kind of business, but they were especially conspicuous in manufacturing, and they expanded much faster than non-*jaebeol* businesses. While the nation's manufacturing sector as a whole grew at an average annual rate of 17.2 percent between 1973 and 1978, for instance, the top 46 *jaebeol*'s value added increased at 24.4 percent per year during the same period. Their share of value added in the manufacturing sector of GDP increased from 31.8 percent in 1973 to 43 percent in 1978, and nearly 60 percent of their value added was in the manufacturing sector in 1978. Similarly, the share of total manufacturing produced by the top 30 *jaebeol* grew from 32 percent in 1977 to 40 percent in 1985.[48] Likewise, the top five *jaebeol*'s share in the manufacturing sector of GDP during the period more than doubled, reaching 18.4 percent,[49] and they produced 22.3 percent of all manufacturing shipments and employed 8.5 percent of the manufacturing work force.

Within manufacturing, the *jaebeol* became more oriented toward HCIs. Nearly 60 percent of the top 46 *jaebeol*'s value added in manufacturing was from them. Their shares in the nonmetallic minerals and machinery sectors were even higher—over 70 percent of the total in 1978.[50] *Jaebeol* also concentrated on the heavy and consumer industries and the production of electric and electronic goods. They not only built the basic industries (e.g., the HCIs) in the country,[51] but to a large extent they were also responsible for the successful expansion of South Korea's export capacity and often dominated the South Korean economy. While focusing on industries that produced for foreign markets, the *jaebeol* also began to produce for a growing domestic market by 1990.

The *jaebeol*'s business extended far beyond manufacturing. Their value-added contributions were higher—greater than 30 percent—also in most other fields, such as construction, finance, insurance, retailing,[52] real estate, and foreign trading. While these activities were important in the early 1990s, real growth is now taking place in their electronics and high-technology industries. The only exception was in the field of agriculture, although they held large amounts of nonagricultural land. Surprisingly, their shares in the petrochemical and basic metal products sectors were relatively low. This was largely due to heavy investment in them by the government, primarily through public enterprises, in the 1960s and 1970s.

In contrast to a small number of giant *jaebeol*, there were thousands of small and medium-sized manufacturers and shops in service industries, in the marketing of specialized items, and in the largely traditional marketplaces and streamlined buildings housing corporate and professional offices. There were only a few medium-sized manufacturers. Many of South Korea's medium-sized and small firms typically manufactured specialized parts or equipment for the *jaebeol*, which assembled and marketed goods under their own brand names but relied on smaller support firms to manufacture most of the individual parts. Generally, those with fewer than 400 employees, which accounted for 32 percent of South Korea's exports in 1986, contributed 38.9 percent to the GDP when calculated on a value-added basis. The rapid rise of the *jaebeol* in relation to the relative decline of small businesses in South Korea is in stark contrast to

the economic structure in Taiwan, where the single biggest force behind its remarkable economic growth was small and medium-sized businesses.[53]

URBANIZATION

Another discernible structural change was a shift in population from rural to urban areas. As the employment of the labor force changed, so did its location. As industrialization accelerated, the urban population multiplied. It expanded from about 25 percent of the total population in 1953 to 28 percent in 1960, about 60 percent in 1987, and 89 percent in 1994 in cities where the population exceeded 100,000. The population of Seoul alone increased from about 8 percent of the total population of the country to 25 percent during the same period. In this way, the relatively slowly expanding semi-industrial and agricultural economy of Korea at the end of colonial rule was speedily transformed into today's dynamic, industrial, urban economy.

FACTORS AFFECTING ECONOMIC GROWTH AND STRUCTURAL CHANGES

There are a number of explanations for South Korea's economic growth, and they are briefly surveyed in the remainder of this chapter so that we may focus on the main purpose of this book—namely, capital formation and economic development of the country after the Korean War. Among many factors debated among scholars and laymen, the following appear to be worth briefly outlining below. One of the most commonly cited is "the will to economize," in the context of W. Arthur Lewis' thesis.[54] The argument is that the South Koreans set economic development as the foremost national goal soon after the Korean War, though perhaps not immediately after the gaining of independence,[55] and had a strong will to pursue it. The nation's goals shifted dramatically, especially after the overthrow of Syngman Rhee's regime in 1961, away from the multiple objectives of reconstruction, strong defense against communist North Korea, and the maintenance of minimum consumption standards to a more single-minded concentration on economic growth.

In this regard, South Korea's experience was different from those of many developing countries. Typically, the political leaders of these countries avow their intense interest in economic growth before any growth occurs. Their interest, however, is in the fruits of growth, not in the actions needed to bring it about. Virtually no government in these countries is ready to divert resources from traditionally satisfying activities and take the actions needed to promote development until a corps of private individuals provide the demand and support for effective government action.

In South Korea, the authoritarian and highly centralized government of the military regime[56] set the acceleration of economic growth as its primary goal and played the central and most crucial role in it. Cole and Lyman, along with Jones and SaKong,[57] noted that the key to effective planning in the new military-led administration was that of a government that embraced economic growth as a primary

objective and as a principal legitimizer of its holding of power.[58] Also, the *World Development Report* for 1983 observed that "single-minded attention to economic growth" was a significant factor in promoting the country's economic development.[59] All the regimes installed in South Korea after the 1961 military coup set rapid economic development, accompanied by the maintenance of a strong military defense capability against North Korea, as one of the country's most important goals. The country needed superior economic performance to insure itself against possible incursions from North Korea. This emphasis on economic growth and military strength echoed the Japanese motto of "Enrich the Nation and Strengthen the Military Might" (*Fukoku Kyohei*), which emerged after the Meiji Restoration in Japan and was adopted in Korea under Japanese rule.[60]

It is sometimes believed that once economic institutions begin to change, the transformations are self-reinforcing and self-perpetuating. According to this reasoning, old beliefs and relationships are altered and new ones emerge that are more consistent with the new economic environment, thereby bringing about further changes. However, this is not always the case. Economic growth, even if propelled, does not perpetuate itself. In South Korea, the military governments placed a strong emphasis on continual, accelerated growth with a series of five-year economic development plans, which were devised and implemented to fulfill the economic expansion goals.[61] Other major economic objectives were listed, but they were less important than the goal of accelerating economic growth. For instance, breaking the vicious cycle of poverty and improving the quality of life were only listed in the first and fifth five-year economic development plans, respectively, while the question of equity was mentioned only in the third and fourth. None was taken seriously by the government. Rampant inflation, for instance, was tolerated until about 1981 for the sake of economic development.

Not only the government but also the individuals and business firms were expected to contribute to economic development, even at the cost of their own interests, including the maximization of profits. In other words, many privately owned businesses were expected to behave like government enterprises, placing the nation's interests ahead of their own. Likewise, Koreans were also competitive and "impetuous" (as some sources put it, "Koreans are impatient people,"[62] "Koreans are a people in a hurry,"[63] and "Rushing pell-mell into expansion is the Korean way of doing business"[64]), and decided to pursue rapid economic development at almost any cost.

In achieving the goal of rapid economic development, the South Koreans took Japan and the United States as their development models; that is, they were under the demonstration effect. One of the most important forces, often overlooked by most scholars, that provided the institutions and economic environment conducive to rapid economic development was the Koreans' drive to match or surpass the Japanese. Most Koreans traditionally had a strong sense of cultural superiority to Japan and the Japanese.[65] The *Wall Street Journal* captured the sentiments of the Korean people well when it observed, "when the Japanese colonized Korea by force in 1910, the Koreans were stunned. How could this inferior culture dare try to supplant their superior Confucianism?"[66] The Korean-born writer Richard E. Kim also professed in an interview that "I had a feeling of superiority" toward the Japanese.[67] The Koreans were engulfed in "a-catch-up-with-Japan-movement." A

byword among Koreans was, "If Japanese can do it, so can we." One newspaper published a story about a Korean marathon runner who was not expected to win at the Olympics but won the gold medal in 1988. When he was asked how he was able to win, he said that he did not want to lose to a Japanese runner who was behind him. A similar competitive mood was shown at the 2002 World Cup soccer matches.[68]

As a former Japanese colony, Korea retained close, though reluctant, cultural, linguistic, and ideological ties with its former master. A former prime minister (1998–2000), who was a major participant in the establishment of the military regime in 1962 and an important political leader in the country, succinctly stated in 1988 that " Japan was the model of [Korea's] economic growth."[69] According to a reporter for the *Wall Street Journal*, "Korean auto makers desperately want[ed] to repeat the success of their role model and rival Japan."[70] Also, a well-respected economist who once held a number of important staff and executive positions with the government wrote recently that "the Japanese case has always appealed to Koreans."[71]

Koreans were also inspired by the affluence and generosity of the United States, having had firsthand experience with Americans under the U.S. occupation following World War II, and were determined to duplicate their success in their own country.

In addition, Confucianism and the extended family system were a source of strength (rather than a weakness, as some economists have claimed) and contributed to a sense of responsibility for the achievements of each family member, whose accomplishments and failures were seen as a reflection on the entire family at present and in the future as well as past. Asian societies place a premium on the family, hard work, and the greater good of the community. Richard E. Kim recognized that the key to striving for his success was to "not disgrace the family."[72] These values have led many South Koreans to strive for success when given the opportunity.[73]

Another reason for South Korea's economic success was the destruction of traditional leadership, institutions, value systems (which are often overlooked by most economists), the speedy rise in new leaders, and establishment of the crucial institutions required for capital formation and economic development. Many of the vested interests who would have opposed modernization—aristocrats, landlords, and tradition-bound bureaucrats—were largely eliminated either at the hands of the Japanese colonial administration or under U.S. occupation. Also, the vast destruction brought about by the war led to the restructuring of the social order. The Japanese usurpation of Korean sovereignty, the land reform carried out in 1949–50, the wartime devastation, and a number of political revolutions virtually destroyed the traditional Korean hierarchy and aristocracy, thereby largely eliminating the potential sources of resistance to social/economic changes, which persisted under traditional and transitional periods before 1905.

Many observers, foreign as well as Korean, also attributed South Korea's economic success to a high-quality and adaptive labor force that worked for low wages. According to this view, a high level of human resources was developed early in Korea despite a low per capita income.[74] The KDI reported that increased labor inputs were the dominant factor in South Korea's rapid economic growth after the

Korean War. Approximately 40 percent of the growth is attributed to the increase in labor inputs during 1963–82. Of these labor inputs, the rise in the number of workers accounted for about 60 percent, while longer working hours and more education accounted for the balance.[75] About 5 percent of total output during the same period was accounted for education.[76]

The marginal contribution of labor to output in South Korea, according to one study, was more important than in Japan. In the period from 1954 to 1981, South Korea's economic growth depended very much on the contribution of labor, in comparison to Japan, which was more reliant on capital.[77] According to this view, the labor force in South Korea was hardworking (nearly 54 hours a week work was the norm until recently),[78] highly literate and well educated, while capital was scarcer than in Japan.[79] South Korea also possessed a nucleus of well-trained, able, and disciplined young bureaucrats: a large pool of college-educated persons (many trained in the United States[80] and Japan) with managerial and clerical skills; literate, schooled, urban and rural work forces; and a traditional emphasis on education. In addition, the labor force had a strong work ethic, largely influenced by Confucian teaching.

Others attribute South Korea's success in economic development to the Vietnam War.[81] Vietnam War purchases by the United States were equal to 10 percent of South Korea's exports in 1966. Most of the exports to the United States during the Vietnam War era were for military uses. Such foreign demand accorded South Korea the opportunity to expand its production facilities, export goods and services, and earn foreign exchanges to procure the requisite capital goods and raw materials.

One of the most crucial forces that contributed to the establishment of economic institutions and an environment conducive to development was the government. The level, speed, orientation, and pattern of economic development in South Korea were by no means a coincidence. They were the consequence of prevailing conditions and powerful forces, especially those of the government, which promoted capital formation and economic development. Most studies indicate that government supports are essential to saving, investing, and nurturing economic growth to bring about economic progress in the so-called underdeveloped economies; and past experiences in other countries clearly demonstrate that public policy was one of the most important sources of cross-country differentials in economic growth. A standard explanation for the extraordinary rates of investment and economic growth achieved in Hong Kong, Singapore, Taiwan, and Ireland in recent decades, for example, is that these countries experienced positive government support and sound public policy,[82] which directed investment into promising sectors of the economy. Economic growth has proceeded under almost as many different sets of governmental institutions as there are governments, but without the appropriate government policies there may not be much economic growth.[83] South Korea has a record of maintaining political and economic stability and pursuing long-term economic development goals.[84] The active role of the government is examined in detail in the next chapter and the remaining portion of this study. This short listing also serves to demonstrate that many factors affected economic development, which is not a simple or automatic process.

SUMMARY AND CONCLUSIONS

Half a century ago, few dared to predict that South Korea would become one of the world's economic powers by the late twentieth century. Its accomplishments, by any standard, have been extraordinary. South Korea—formerly a colony and half of a divided country with scanty natural resources, ravaged by a bitter war that destroyed much of the capital structure, carrying a very heavy burden of expenditures on national defense, and with what many thought was a limited capacity to absorb capital, especially in the industrial sector—was thought to have no chance for success in climbing out of the economic doldrums in such a short time line. Yet, in a span of a little more than three decades, South Korea has been transformed from one of the most dislocated and poorest economies in the world to the ranks of the industrialized middle-income nations with a broad-based improvement in living standards, a country in the fast lane. Its real GDP has expanded about 38-fold, increasing at about 8 percent per year on average, and it has enjoyed about a 16-fold rise in per capita income, an annual average of about 6 percent. It has emerged as one of the most energetic and successful developing economies in the world after World War II. South Korea appears to have reached the stage where its economic growth can be self-sustaining, and it is confident that it will continue to grow its GDP at an annual average rate of more than 5 percent in the next several decades. Barring any political obstacles in the near future, such prospects are not unrealistic. As a matter of fact, in spite of the financial difficulties of 1997–98, its economic future appears to be bright indeed.

While the economy has rapidly expanded, the entire structure and other dimensions of the economy have undergone drastic changes. The "miraculous" economic growth has transformed the economy from mostly agricultural to a major new industrial power. The exceptionally fast growth of the manufacturing and SOC sectors chiefly led the structural changes, as well as economic growth. The expansion of the industrial sector was impressive and came to dominate the economy. In comparison to the modern industrial sector, agriculture, the backbone of the economy before World War II, has lost its dominance. It now accounts for about 5 percent of GDP in the country, although it is growing faster than in many other less developed countries.

Within manufacturing, the sectors that expanded most rapidly were the chemical, metal, electrical, machinery, equipment, and textile industries. Over time, the industrial sector has also become more capital and technology intensive. The dynamic industrialization in South Korea that began with light consumer goods after the Korean War quickly advanced into HCIs and then into high-tech industries. The industrial scene is now marked by plants requiring relatively high skills and technology, such as the manufacture of electrical machinery, electronic appliances, electronics, chemicals, transport equipment, ships, and high-tech products. The second most rapidly expanding economic sector was SOC, which included the networks of transportation, communications, electricity, water, and sanitary services. Social overhead capital laid the firm foundation on which economic development ensued in the decades ahead.

Another clearly discernible structural shift in the South Korean economy in the past half century was its strongly international-trade-oriented economy, which showed increased volume and saw a shift in the nature of goods and services produced and traded. The country, which had a negligible volume of trade in the early 1950s, skyrocketed into one of the major trading economies of the world. The volume of South Korea's trade is now equal to more than half of its GDP. Also, while the share of exported manufactured goods greatly expanded, the type of manufactured goods exported has changed from the labor-intensive light industry products to the labor-intensive heavy industry and high-tech products.

Likewise, the share of imports shifted from manufactured consumer products to capital goods and raw materials. Also, the countries to which goods and services were exported gradually shifted from the United States and Japan to more diversified countries, including the Western European and less developed countries. Similarly, the countries from which goods and services were imported gradually shifted from the United States to Japan, though imports still come from both countries.

There were also changes in industrial organization in terms of the scale of business. The large business establishments increased their dominance with regard to the number of employees and the values added. The large businesses shared an increasing proportion of the production of the nation's goods and services, using more resources, including labor, over time. The rise of the *jaebeol* is particularly notable. The South Korean economy is increasingly dominated by them, including businesses involved in heavy industries, consumer goods, and electric and electronic goods, as well as trading companies and real estate and insurance concerns. To a large extent, the *jaebeol* were responsible for the successful expansion of South Korea's exports, while the relative importance of small businesses has diminished over time. In the agricultural sector, the economic structure shifted from large landlords controlling farmland to small farmers owning land and earning income from farming without sharing crops with the former landlords.

There are many explanations for the rapid growth and structural changes in South Korea after the Korean War. Among them are the people's will to develop the nation's economy; Confucianism and the extended family system; the existence and speedy establishment of the crucial institutional reforms suitable for investment and economic development; the high-quality and adaptive labor force with low wages; and the positive role of a strong, stable, and able government.

3

AGGREGATE AND SECTORAL INVESTMENT

Among all the explanations given for South Korea's rapid economic growth, its success in capital formation seems to have been as essential as any other major contributing factors, although a high level of capital formation is not necessarily a guarantee for economic growth. But in countries like predevelopment South Korea, where the shortage of capital relative to other requirements for economic growth prevailed, the accumulation of capital seems to be an essential ingredient for economic success. A report in the *New York Times* in the early years of economic development in South Korea observed that "lack of [investment] funds to carry out the hopeful and ambitious programs drawn up in hundreds . . . is a major stumbling block."[1] Since capital is essential, though not on its own sufficient, economic development requires increases in the volume and quality of productive factors, including physical and human capital, as Nurkse, a pioneer on the subject, pointed out in 1953.[2] More recently, Paul Krugman also observed that the growth of the East Asian economies is attributable mainly to an accumulation of physical and human capital.[3] Barro and Lee likewise found that one of the six major factors that dramatically affected economic growth rates was investment.[4]

More specifically related to South Korea, Jene K. Kwon argues that the expansion in the capital utilization rate was a major source of growth in productivity.[5] Also, Kim and Park found that nearly 50 percent of the increase in output in South Korea was attributable to capital accumulation,[6] which approached the level of the contribution made by capital in Japan's economic growth during the comparable period, although others found a more moderate contribution of capital input: about one-fifth of the expansion in the country's total output during 1963–82 and approximately one-quarter of the growth of the economy during 1972–83.[7] To modernize the economy and maintain overall sustained growth at a rapid rate—the country's two primary economic goals—South Korea needed large amounts of

investment and the ability to allocate them to meet the nation's economic goals optimally.

Examined in this chapter is the volume of aggregate physical investment in South Korea after the Korean War, followed by a discussion of the extent and type of investments in various economic sectors. In order to gain knowledge of the nature and orientation of investment, also examined are the form (fixed capital), the scale, and the intensities of capital and the technology embodied in capital. Finally, the extent and the nature of investment in human capital are investigated.

AGGREGATE INVESTMENT

When Korea was liberated from Japan after World War II in 1945, capital goods in Korea were in poor condition, even crippled. Furthermore, as shown in the previous chapter, by the time the Korean War armistice was declared in 1953, productive facilities had been largely destroyed during the vicious war, and the level of new investment was scant until long after the signing of the truce. Between 1953 and 1961, investment in South Korea accounted for merely about 11.6 percent of its GDP on average (Table 3.1). Only thereafter were large sums of investment dedicated to productive facilities and capital goods to support the nation's expanding economy for the next 40-year period.

During the second stage of development, in the 10-year period between 1962 and 1971, the country devoted nearly a fifth (19.9 percent) of GDP for investment, almost doubling the previous nine-year ratio.[8] The first five-year economic plan (1962–66) called for an investment of 15.1 percent of GDP. This consisted of initial steps toward building a self-sufficient industrial structure that was neither consumption oriented nor overly dependent on oil. Electrification, oil refining, and the production of fertilizers, synthetic fibers, and cement were emphasized. The gross domestic investment actually exceeded that of the economic development plan and averaged an annual rate of 16.4 percent of GDP, an increase of over 32 percent of what prevailed in the previous reconstruction period. Investment in consumer-goods industries during this period reached such an extent that production surpassed pre–Korean War levels, although it was still far below pre–World War II levels. New investment during this period was concentrated on expanding the import-substitution and the consumer-goods industries, which supplied the basic needs of the population in areas such as cotton textiles, rubber shoes, and soap. In addition to reconstruction, some new facilities were added, although they were relatively small by today's standards. Also, a substantial amount of investment took place in basic or key industries such as cement, fertilizer, and iron, as well as in electric power and energy.

During the next five-year economic development plan period (1967–71), with investment targets of 26.4 percent of GDP, the country realized an average annual investment of 25.8 percent, an increase of 57.3 percent over the 16.4 percent in the previous five-year period. During this period, investment was focused on modernization of the industrial structure and the building of import-substitution industries, including the steel, machinery, and chemical industries. The effort to provide

TABLE 3.1 Volume and Type of Investment, 1953–94 (in percent of GDP and ratio)

	Percent of GDP					
			Type of Investment		*Ratio of Total*	
Year	Investment Total	Annual Change	Fixed Capital	Inventory	Fixed Capital	Inventory[1]
1953	14.7	—	7.3	7.4	49.7	50.3
1954	11.4	(22.4)	9.3	2.1	81.6	18.4
1955	11.7	2.6	10.4	1.3	88.9	11.1
1956	8.0	(31.6)	10.4	(2.4)	130.0	(30.0)
1957	14.0	75.0	10.7	3.3	76.4	23.6
1958	11.8	(15.7)	10.2	1.6	86.4	13.6
1959	10.4	(11.9)	11.2	(0.8)	107.7	(7.7)
1960	10.0	(3.8)	10.9	(0.9)	109.0	(9.0)
1961	12.0	20.0	11.8	0.2	98.3	1.7
1962	11.8	(1.7)	13.8	(2.0)	116.9	(16.9)
1963	17.0	44.1	13.6	3.4	80.0	20.0
1964	13.2	(22.4)	11.4	1.8	86.4	13.6
1965	14.1	6.8	14.9	(0.8)	105.7	(5.7)
1966	20.4	44.7	20.6	(0.2)	101.0	(1.0)
1967	20.9	2.5	21.8	(0.9)	104.3	(4.3)
1968	24.9	19.1	25.4	(0.5)	102.0	(2.0)
1969	27.9	12.0	26.1	1.8	93.5	6.5
1970	24.3	(12.9)	25.1	(0.8)	103.3	(3.3)
1971	24.8	2.1	22.5	2.3	90.7	9.3
1972	20.9	(15.7)	20.7	0.2	99.0	1.0
1973	25.2	20.6	23.9	1.3	94.8	5.2
1974	31.8	26.2	27.0	4.8	84.9	15.1
1975	28.6	(10.1)	26.7	1.9	93.4	6.6
1976	26.5	(7.3)	25.5	1.0	96.2	3.8
1977	28.3	6.8	28.3	—	100.0	—
1978	32.5	14.8	32.6	(0.1)	100.3	(0.3)
1979	35.8	10.2	33.7	2.1	94.1	5.9
1980	31.9	(10.9)	32.1	(0.2)	100.6	(0.6)
1981	29.9	(6.3)	28.1	1.8	94.0	6.0
1982	28.9	(3.3)	28.5	0.4	98.6	1.4
1983	29.4	1.7	29.5	(0.1)	100.3	(0.3)
1984	30.6	4.1	29.0	1.6	94.8	5.2
1985	30.3	(1.0)	28.6	1.7	94.4	5.6
1986	29.2	(3.6)	28.2	1.0	96.6	3.4
1987	30.0	2.7	29.1	0.9	97.0	3.0
1988	31.1	3.7	29.6	1.5	95.2	4.8
1989	33.8	8.7	31.9	1.9	94.4	5.6
1990	37.1	9.8	37.1	—	100.0	—
1991	39.1	5.4	38.4	0.7	98.2	1.8
1992	36.8	(5.9)	36.6	0.2	99.5	0.5
1993	35.2	(4.3)	36.0	(0.8)	102.3	(2.3)
1994	36.1	2.6	35.9	0.2	99.4	0.6
1995	37.2	—	—	—	—	—
1996	37.9	—	—	—	—	—
1997	34.2	—	—	—	—	—
1998	20.9	—	—	—	—	—

(*continued*)

TABLE 3.1 (*continued*)

	Percent of GDP					
			Type of Investment		*Ratio of Total*	
Year	Investment Total	Annual Change	Fixed Capital	Inventory	Fixed Capital	Inventory[1]
Averages						
1953–61	11.6	1.5	10.2	1.3	92.0	8.0
1962–71	19.9	9.4	19.5	0.4	98.4	1.6
1972–86	29.3	1.7	28.2	1.2	96.1	3.9
1987–94	34.9	2.8	34.3	0.6	98.2	1.8
1953–94	24.3	3.8	23.4	0.9	96.2	3.8
1995–98	32.6	—	—	—	—	—
1953–98	25.5	—	—	—	—	—

[1]Includes improvement in agricultural land, animal stock, and miscellaneous item, as well as changes in inventory.

Sources: This table is constructed on the basis of data shown in Hanguk Eunhaeng 1995: 178–79; Bank of Korea, *Economic Statistics Yearbook*, various years.

substitutes for imports resulted in investment in sheet glass, wool, synthetic spinning, plywood, and newsprint. In many instances, the expansion in investment even created substantial excess capacity.[9] According to several studies and reports, the extent of "over-investment" in some cases, beginning about 1963, was such that many could not effectively compete and sell goods produced in these facilities in world markets. Included in this category were sugar refining, flour milling, and other consumer-goods or consumer-materials industries. As will be examined later, such idle capacity became a source of growth in productivity and the basis for rapid economic development in the years ahead. In addition, investment began to take place in industries that expanded the number of exports, especially manufactured goods, destined for developed countries.

The investment ratio reached nearly 30 percent of GDP during the 15-year period between 1972 and 1986. In the third five-year economic development plan (1972–76), the nation's investment target was 27.8 percent of GDP, and it realized average investment nearly equal to the target, an impressive rate of growth. During this period an export-oriented structure of heavy and chemical industries (HCIs) was speedily built. These included iron and steel, transport machinery (including automobiles), shipbuilding, household electronics, and petrochemicals. The HCIs sought to supply new industries with raw materials and capital goods and to reduce or even eliminate the nation's dependence on foreign supplies. The country's first integrated steel mill was built in 1973, along with the nucleus of other heavy industries, which included a metal factory that supplied a special type of metal necessary for the manufacture of ammunition, a heavy industrial plant, and a shipyard. In 1974, the country's first petrochemical complex was completed, and 12 others followed in later years.

The country's investment continued at high levels. The investment during the fourth five-year economic development plan (1977–81) reached an impressive av-

erage rate of 31 percent of GDP, although it was somewhat short of the ambitious target of 35.5 percent. During the seven years between 1974 and 1980 in particular, investment accelerated vigorously. The nation's investment ratio reached 36.1 percent of GDP. Overall, during the 10-year period between 1972 and 1981, South Korea invested more than a third (33.8 percent) of its GDP. Especially notable was the establishment of major strategic industries consisting of technology- and skilled labor–intensive industries such as machinery and electronics. This enabled the country to foster the development of industries designed to compete effectively in the world's industrial export markets. These developments can be ascribed to a favorable turn in the export of iron, steel, and ships, which took place because of the high-quality and low-cost production available in the country. In machinery industries, investments were doubled in the production of electric power tools, integrated machinery, diesel engines, and heavy construction equipment. Investment activity thereafter, however, slowed a little, though a high level was maintained. During the fifth five-year economic and social development plan (1982–86), investment decreased somewhat relative to GDP to an average of 28.5 percent.

The 11-year period between 1987 and 1997 shows the largest investment in the country's history. The ratio was raised to 33.9 percent during the sixth five-year economic and social development plan (1987–91) and reached 34.9 percent of GDP between 1987 and 1994. During the 11-year period, South Korea sought to shift the emphasis away from HCIs toward technology-intensive industries such as precision machinery, electronics (televisions, videocassette recorders, and semiconductor-related products), and information systems. During the sixth five-year economic and social development plan, it accelerated the development of science and technology by raising the ratio of research and development investment from 2.4 percent of the GDP to over 3 percent by 1991.

The seventh and final five-year economic and social development plan (1992–96) achieved an imposing average annual investment rate of 36.7 percent. The plan emphasized the development of high-technology fields, such as microelectronics, new materials, fine chemicals, bioengineering, optics, and aerospace. Also, the government and industry worked together to build high-technology facilities in seven provincial cities to better balance the geographical distribution of industry throughout the country. South Korea's average investment rate between 1990 and 1997 stood at 37.1 percent of GDP. It is clear that investment continued to be maintained at high levels during the 16-year period between 1981 and 1996. For the period, South Korea dedicated slightly less than a third (32.7 percent) of GDP to investment. The financial crisis in 1997–98, however, resulted in a sharp decline of investment in the country to 25.9 percent and has remained fairly low thereafter.

On the whole, aggregate investment in South Korea during the last half century that followed the Korean War increased at about 3.8 percent per annum on average and was equal to about a quarter (24.3 percent) of GDP between 1953 and 1994 and more than a quarter (26.4 percent) between 1953 and 1998. Since the slump in investment and economic activities that followed the 1997 financial crisis, South Korea has been attempting to rejuvenate the nation's investment. Despite low expectations, new surveys indicate that many Korean companies planned to increase investments. The Federation of Korean Industries reported that domestic

investment by Korea's top 600 companies would increase 17.2 percent in 2004 from that in 2003 (to 67 trillion *won*), which was down slightly from the year before, when companies expanded investment by 18.7 percent.

THE NATURE OF INVESTMENT

There are a number of discernible characteristic features of domestic investment with respect to the nature of industries and types of investment. They are grouped under four fairly clearly discernible types/patterns of investment relative to fixed capital and inventory investment, net and replacement, investment in capital- and technology-intensive industries, and scale of investment. These features are evaluated below.

Fixed Capital and Inventory Investments

Investment in South Korea after 1953 was focused mostly on expanding the nation's fixed productive capital goods and facilities, except during the period immediately after the Korean War. Between 1953 and 1961, a time of reconstruction and economic recovery from the Korean War, South Korea devoted a relatively small portion of investment (10.2 percent of GDP and 92 percent of total investment in the country) to expanding investment in fixed capital (Table 3.1). The immediate task during this period was mostly to restock the country's depleted inventory, and repair or rebuild many productive facilities that were damaged or destroyed during the war. As much as 50 percent of investment in the country in 1953 was devoted to inventory investment, while more than a fifth (22.3 percent) was devoted to restocking the depleted inventories during the first six-year period between 1953 and 1958. For reconstruction, the nation dedicated about a third (30.4 percent) of total investment during the same period, and it took about four years to bring fixed capital to the pre–Korean War level.[10] Less than half (47.3 percent) of the total was dedicated to adding new investment during the period.

After the initial few years, investment in fixed capital goods and facilities increased to 20 percent of GDP in the late 1960s and 1970s. Relative to the total, investment in fixed capital was at about the 80 percent level in the early 1950s and increased to over 90 percent in the late 1950s. For the 42-year period between 1953 and 1994 it averaged 96.2 percent of the total (23.4 percent of GDP), while investment in inventory was volatile from year to year but remained low, averaging about 3.8 percent of the total investment and maintaining less than a percent of GDP level.

Construction, Equipment, and Machinery

The investment in fixed capital took place on two broad fronts, namely, the construction of productive facilities and the installation of machinery and equipment. A detailed examination of the data reveals that investment in the construction of facilities, such as nonresidential building and housing, and installation of machinery

and equipment, such as trucks and machines, during the 46-year period between 1953 and 1998 was approximately 61 and 39 percent of total investment, respectively (Table 3.2). In the case of manufacturing, over two-thirds of South Korea's manufacturers spent over half of the funds available for facility investments on automation. According to a survey of 2,256 Korean companies across the nation conducted by the Korea Development Bank in May 1987, facility investments in the manufacturing sector constituted 63.6 percent of its total investment in 1986 and 68.3 percent in 1987. Within the construction sector, investment in residential housing was relatively small, averaging about 17 percent of the total, while investment in other construction, including nonresidential business facilities, was about 44 percent of the total on average. The share of investment in housing, however, increased over time, from less than 15 percent on average for the 34-year period between 1953 and 1986 to 20 percent of total investment during 1987–98. Investment in nonresidential buildings and other structures decreased from 20 percent and 24.3 percent on average to 17 and 19 percent, respectively.

In comparison, investment in transportation equipment and machinery/equipment on the whole expanded from about 8 and 23 percent during 1953–61 to about 11 and 31 percent during 1987–94, respectively. For the 46-year period between 1953 and 1998, their average shares of investment were 12.1 and 27.3 percent, respectively.

Replacement and New Investments

In contrast to many stable and peacetime economies, the South Korean economy after the Korean War was focused on reconstruction in the early period and on expanding investment in new fields in the later years. The data available between 1953 and 1983 show that until about 1961, nearly two-fifths of total investment was dedicated to the replacement of existing capital, while only about 60 percent was devoted to the addition of new capital.[11] Many facilities that had been damaged or destroyed during the Korean War, which resulted in loss of productive capacity and became the principal constraint on industrial output, were repaired or rebuilt during these years. The reconstruction of fixed capital to its prewar level took about four years.[12] Over time, however, replacement investment slowly declined from about 40 percent of the total in the early years to about 25 percent in 1979. It climbed back to about 33 percent in 1983, while new net investment expanded from 55 to 78 percent and declined to about 67 percent during the same period.

PUBLIC INVESTMENT

Investment in South Korea was carried out by both the public and private sectors but, unlike the situation in many developed economies of the West, the volume of public investment in the country has been relatively large and the government has played an active, positive, and critical role in the nation's investment. Like its neighboring northeast Asian countries, the South Korean government did not hesitate to use public enterprises, the most direct and interventionist tool, as a way to direct the nation's resources toward investment.[13] In this way, it made a major

TABLE 3.2 Type of Fixed Investment (in percent of total)

	Construction						
Year	Housing	Nonresidential Building	Other	Total	Transportation Equipment	Machinery and Equipment	Total Fixed Capital
1953	21.3	31.1	20.4	72.9	8.9	18.2	100.0
1954	27.6	25.5	20.2	73.3	8.6	18.0	100.0
1955	17.7	28.4	25.0	71.0	5.5	23.4	100.0
1956	17.1	22.0	22.6	61.7	7.3	31.1	100.0
1957	13.6	21.4	32.0	67.0	6.6	26.4	100.0
1958	13.5	24.6	29.5	67.7	6.7	25.7	100.0
1959	15.7	28.1	27.1	71.0	8.3	20.8	100.0
1960	20.1	24.2	23.6	68.0	9.0	23.0	100.0
1961	14.4	19.5	31.1	64.9	11.2	23.9	100.0
1962	12.0	22.5	30.1	64.5	10.7	24.8	100.0
1963	10.1	20.8	30.1	61.1	14.0	24.9	100.0
1964	12.5	22.8	30.3	65.6	9.4	25.0	100.0
1965	11.4	27.0	28.3	66.7	9.8	23.5	100.0
1966	10.0	19.0	25.4	54.4	12.8	32.8	100.0
1967	11.3	18.7	24.0	53.9	19.4	26.6	100.0
1968	12.0	18.1	26.2	56.3	16.5	27.2	100.0
1969	10.0	18.7	31.3	60.0	17.7	22.4	100.0
1970	13.7	21.5	29.0	64.2	14.9	20.9	100.0
1971	14.3	19.5	24.6	58.5	17.5	24.1	100.0
1972	13.3	18.5	23.1	54.9	19.9	25.2	100.0
1973	13.8	22.3	19.2	55.3	17.9	26.7	100.0
1974	17.5	17.9	17.0	52.4	23.7	23.9	100.0
1975	17.5	17.9	18.1	53.5	21.2	25.3	100.0
1976	14.4	19.0	21.9	55.2	18.1	26.7	100.0
1977	16.4	18.2	22.4	56.9	13.6	29.5	100.0
1978	19.4	17.3	19.4	56.1	12.6	31.3	100.0
1979	17.1	18.3	22.9	58.2	11.0	30.8	100.0
1980	16.1	20.9	26.1	63.0	10.8	26.2	100.0
1981	14.5	19.1	27.6	61.3	12.7	26.0	100.0
1982	18.1	18.7	28.4	65.2	9.7	25.0	100.0
1983	20.0	19.2	25.4	64.5	8.3	27.2	100.0
1984	19.0	18.6	24.2	61.8	9.2	29.0	100.0
1985	15.8	16.9	22.7	55.4	13.7	30.8	100.0
1986	16.1	15.7	18.2	49.9	12.6	37.4	100.0
1987	15.3	17.3	16.1	48.7	12.3	39.0	100.0
1988	16.8	18.7	15.6	51.1	11.7	37.2	100.0
1989	17.4	19.5	16.1	53.0	12.6	34.3	100.0
1990	22.8	19.1	16.2	58.1	12.1	29.8	100.0
1990	23.9	17.9	19.5	61.3	11.0	27.7	100.0
1992	22.8	17.0	23.0	62.7	11.4	25.8	100.0
1993	23.7	18.0	21.2	62.9	10.7	26.4	100.0
1994	21.4	17.2	20.3	58.9	11.7	29.4	100.0
1995	21.1	17.5	19.2	57.8	10.1	32.0	100.0
1996	20.4	16.0	21.6	58.1	10.0	32.0	100.0
1997	19.9	16.9	24.6	61.4	8.6	30.1	100.0
1998	22.9	16.5	29.1	68.5	5.4	26.1	100.0

TABLE 3.2 (*continued*)

Year	*Construction*				Transportation Equipment	Machinery and Equipment	Total Fixed Capital
	Housing	Nonresidential Building	Other	Total			
Averages							
1953–61	17.9	25.0	25.7	68.6	8.0	23.4	100.0
1962–71	11.7	20.9	27.9	60.5	14.3	25.2	100.0
1972–86	16.6	18.6	22.4	57.6	14.3	28.1	100.0
1987–98	20.7	17.6	20.2	58.5	10.6	30.8	100.0
1953–94	16.5	20.4	23.7	60.5	12.5	27.0	100.0
1953–98	16.9	20.1	23.7	60.6	12.1	27.3	100.0

Source: Bank of Korea, *Economic Statistics Yearbook*, various years.

contribution to the nation's investment in its volume and kind.[14] As noted in chapter 2, when Japan was defeated in World War II and withdrew from the Korean peninsula, the Japanese—both the government and private citizens—left a vast amount of capital goods behind. According to best estimates, more than nine-tenths of all the industrial production facilities in South Korea were left behind and became the property of the Korean government. Some facilities and assets were divested and "auctioned off" to private businesses (examined in chapter 4), but the Korean government retained and operated many major enterprises. In the early years, the government believed that it was essential to invest in public enterprises and operate them itself, since capital-poor private entrepreneurs lacked the wherewithal or expertise, or both, as well as the experience, to launch the critical industries thought to be necessary for economic growth and the nation's well-being.

The volume of public investment on the whole increased absolutely during the entire period following the Korean War. During the early years, the government undertook the task of reconstructing the ravaged production facilities, in addition to upgrading those inherited from the Japanese, which were under its management. However, public investment made up a relatively small portion of the nation's total investment and was inadequate to meet all of its needs until about 1956. Thereafter, the South Korean government, with foreign aid funds (see chapter 8), undertook many investment projects to acquire new capital goods, introduce new industries, and expand their industrial facilities, which were ordinarily undertaken by private businesses in most market-oriented, developed countries. The government pushed the country to meet its ever-expanding needs, develop the modern industry to a world-class level, and bring about the economic development of the country.

Public investment, however, did not necessarily increase uniformly relative to economic parameters—such as government budgets, GDP, the nation's total investment, fixed investment, and private investment. In relation to government budget, the available data between 1971 and 1994 indicate that public investment in South Korea decreased from more than 30 percent of government expenditures in 1971 to about 23 percent in 1981; thereafter, it remained fairly steady at about 22 percent from 1982 through 1994[15] (Table 3.3). For the 24-year period between 1971 and 1994,

TABLE 3.3 Aggregate, Private, and Public Investment between 1953 and 1994 (in percent of GDP and total investment)

	Percent of GDP							
		Domestic Investment				*Ratio of Domestic Investment*		
Year	Aggregate Investment	Total	Public	Private	Other[1]	Public	Private	Total
1953	14.7	13.1	2.0	11.1	1.6	15.3	84.7	100.0
1954	11.4	10.4	0.1	10.3	1.0	1.0	99.0	100.0
1955	11.7	10.3	0.6	9.7	1.4	5.8	94.2	100.0
1956	8.0	8.6	4.6	4.0	(0.6)	53.5	46.5	100.0
1957	14.0	13.9	3.4	10.5	0.1	24.5	75.5	100.0
1958	11.8	12.8	3.0	9.8	(1.0)	23.4	76.6	100.0
1959	10.4	10.8	2.6	8.2	(0.4)	24.1	75.9	100.0
1960	10.0	9.0	4.0	5.0	1.0	44.4	55.6	100.0
1961	12.0	11.7	4.7	7.0	0.3	40.2	59.8	100.0
1962	11.8	11.0	4.2	6.8	0.8	38.2	61.8	100.0
1963	17.0	14.4	4.0	10.4	2.6	27.8	72.2	100.0
1964	13.2	14.0	4.2	9.8	(0.8)	30.0	70.0	100.0
1965	14.1	13.2	5.5	7.7	0.9	41.7	58.3	100.0
1966	20.4	16.6	5.3	11.3	3.8	31.9	68.1	100.0
1967	20.9	15.4	6.3	9.1	5.5	40.9	59.1	100.0
1968	24.9	18.2	7.5	10.7	6.7	41.2	58.8	100.0
1969	27.9	21.4	6.8	14.6	6.5	31.8	68.2	100.0
1970	24.3	18.1	6.0	12.1	6.2	33.1	66.9	100.0
1971	24.8	16.1	5.0	11.1	8.7	31.1	68.9	100.0
1972	20.9	17.3	2.3	15.0	3.6	13.3	86.7	100.0
1973	25.2	22.6	3.0	19.6	2.6	13.3	86.7	100.0
1974	31.8	20.2	2.1	18.1	11.6	10.4	89.6	100.0
1975	28.6	18.1	2.5	15.6	10.5	13.8	86.2	100.0
1976	26.5	24.2	4.5	19.7	2.3	18.6	81.4	100.0
1977	28.3	27.5	4.4	23.1	0.8	16.0	84.0	100.0
1978	32.5	29.9	5.2	24.7	2.6	17.4	82.6	100.0
1979	35.8	28.5	6.3	22.2	7.3	22.1	77.9	100.0
1980	31.9	23.2	5.1	18.1	8.7	22.0	78.0	100.0
1981	29.9	22.9	5.3	17.6	7.0	23.1	76.9	100.0
1982	28.9	24.4	5.7	18.7	4.5	23.4	76.6	100.0
1983	29.4	27.6	6.8	20.8	1.8	24.6	75.4	100.0
1984	30.6	29.8	6.4	23.4	0.8	21.5	78.5	100.0
1985	30.3	29.8	6.1	23.7	0.5	20.5	79.5	100.0
1986	29.2	33.7	6.0	27.7	(4.5)	17.8	82.2	100.0
1987	30.0	37.3	6.5	30.8	(7.3)	17.4	82.6	100.0
1988	31.1	39.3	7.8	31.5	(8.2)	19.8	80.2	100.0
1989	33.8	36.3	7.9	28.4	(2.5)	21.8	78.2	100.0
1990	37.1	35.9	8.5	27.4	1.2	23.7	76.3	100.0
1991	39.1	36.1	7.8	28.3	3.0	21.6	78.4	100.0
1992	36.8	34.9	7.8	27.1	1.9	22.3	77.7	100.0
1993	35.2	35.3	8.6	26.7	(0.1)	24.4	75.6	100.0
1994	36.1	35.2	9.3	25.9	0.9	26.4	73.6	100.0
Averages								
1953–61	11.6	11.2	2.8	8.4	0.4	25.8	74.2	100.0
1962–71	19.9	15.8	5.5	10.4	4.1	34.8	65.2	100.0

TABLE 3.3 (*continued*)

	Percent of GDP							
		Domestic Investment				*Ratio of Domestic Investment*		
Year	Aggregate Investment	Total	Public	Private	Other[1]	Public	Private	Total
1972–86	29.3	25.3	4.8	20.5	4.0	18.5	81.5	100.0
1987–94	34.9	36.3	8.0	28.3	(1.4)	22.2	77.8	100.0
1953–94	24.3	22.1	5.1	17.0	2.2	24.6	75.4	100.0

[1]Includes mostly incoming and outgoing foreign investments, but may also include statistical errors and ommisions.

Sources: Hanguk Eunhaeng 1995: 179; Bank of Korea, *Economic Statistics Yearbook*, 1973: 272–73; ibid. 1983: 292–93; ibid. 1985: 258–59.

public investment in South Korea averaged 25 percent of government expenditures. Public fixed investment relative to government expenditures fluctuated over time, increasing from the 20 percent level in the early 1970s to about a 28 percent level in the late 1970s, thereafter decreasing to about a 17 percent level in 1989, and rising to more than a 20 percent level in the early 1990s. Between 1971 and 1994, public fixed investment averaged about 22 percent of government expenditures and constituted about 86 percent of total public investment. Inventory investment in the public sector for the same period was equal to 3.6 percent of the total government expenditures and constituted about 14 percent of total public investment.

In relation to GDP, public investment started out with a minimal sum (e.g., a little more than 1 percent in the early 1950s and 2.8 percent between 1953 and 1961), but it increased to 5.5 percent during the 10-year period between 1962 and 1971 (Table 3.3). It remained fairly high during most of the period thereafter but, after about the mid-1970s, it gradually moderated and declined to 4.8 percent between 1972 and 1986, which was followed by a rise to 8 percent between 1987 and 1994. For the 42-year period between 1953 and 1994, public investment was equal to 5.1 percent of GDP on average. The South Korean government's contribution to investment was certainly on the higher rung among the developed and developing countries. It has been estimated that other governments in the world typically used 2 to 7 percent of their real resources (GDP) for capital formation. Countries that have high percentages of investment in public works and utilities typically invest about 7 percent of GDP (as in New Zealand) and some as little as 2 percent. Public investment in South Korea, therefore, has been greater (while its consumption spending has been less) than that found in most countries, except perhaps the other rapidly developing Asian economies (Table 3.4).

While the relative amount of government spending in South Korea was small (much smaller than the spending of most of the industrial, Latin American, and East European countries), the proportion of the budget allocated to investment was high, constituting more than a third of its expenditures during 1971–94 (Table 3.4), and much akin to those of Japan, Taiwan, and Singapore, which appear to be exceptions to the general rule in free market-oriented economies.[16] While the ratio of South

TABLE 3.4 Ratio of Government Expenditures to GDP and Its Composition in the Early 1990s (in percent)

			Percent of Government Expenditures				
					Investment		
Country	Year	Government Expenditure/GDP	Social Welfare	Defense	Education	Economy	Total
Sweden	1994	48.5	48.2	5.5	5.0	13.2	18.2
France	1992	45.0	45.0	5.7	7.0	4.7	11.7
Germany	1991	32.5	33.8	7.6	7.6	7.6	15.2
Japan	1993	23.7	36.8	4.1	6.0	3.3	9.3
United States	1994	22.0	29.6	18.1	1.6	6.4	8.0
Korea	1995	19.9	9.3	15.7	18.1	24.0	42.1
Thailand	1992	15.0	3.9	17.2	21.1	26.2	47.3
Averages	—	29.5	29.5	10.6	9.5	12.2	21.7

Source: Republic of Korea, National Bureau of Statistics 1997.

Korean government expenditures to GDP may be comparable to those of Japan and the United States, its ratio of public investment to government expenditures was far greater than those of the two countries and most developing nations, excepting some of the other rapidly growing Asian economies, as shown crudely in Table 3.4 above.

Similarly, in relation to total investment in the country, public investment increased rapidly and was large in the 1960s. It expanded from 5 to 6 percent in the early 1950s to high percentages through the first and second five-year economic development plans (1962–71), peaking at more than 41 percent in 1969 and averaging more than 30 percent in the 1960s. During the 10-year period from 1962 to 1971, public investment was more than a third (34.8 percent) of total investment in the country (Table 3.3). Thereafter, public investment fell to 13.3 and 10.4 percent of the country's total investment in 1972 and 1974, respectively, and averaged 18.5 percent during 1972–86. Thereafter, it increased to 22.2 percent between 1987 and 1994. For the 42-year period from 1953 through 1994, public investment on average was a little more than a fifth (21 percent) of total investment in the country and 21.2 percent of domestic investment.

The above data indicate that public investment in Korea overall was much more than that found in many developed and developing countries. Its contribution to public investment was especially significant in the early years of the 1950s through 1960s and is consistent with the experiences of many rapidly developing countries after World War II that placed an emphasis on expanding public investment. Relative to private investment, the importance of public investment remained fairly constant at about 10 to 30 percent, averaging 26.8 percent.[17] Corollary to the trends shown in public investment relative to government expenditures and GDP, the government's share of "incorporated business" doubled (from 12 to 24 percent) in the early 1970s, and its contribution to fixed capital decreased to 13.7 percent in 1974 and thereafter. Similarly, the volume of capital in government enterprises

also decreased to about 11.5 percent of the total in the 1970s and 8.1 percent in 1979,[18] and then increased to 9 percent in the early 1980s, about 12 percent in the mid-1980s, and 15.6 percent in the late 1980s.

There appear to have been two fairly distinct periods of growth of public investment: the 20-year period after the Korean War ended and the 30-year period thereafter. During the first period, public investment steadily increased and remained at high levels relative to most economic parameters. The ratios relative to the government budget, GDP, and total investment declined, although they fluctuated and varied somewhat relative to various economic parameters. This was followed by generally slackening public investment relative to most economic parameters for the next 30 years.

The Nature of Investment

Soon after the Korean War, the Korean government was faced with two major tasks beyond its traditional functions of performing government services, namely, the reconstruction and new construction of damaged and necessary production facilities to fulfill the nation's economic needs. These tasks involved social overhead capital (SOC) and the establishment of necessary enterprises to produce goods and services. They were necessary because of the state of neglect during World War II and the destruction during the Korean War. The purpose of the remainder of this section is to examine them.

Social Overhead Capital

The government's restoration and expansion of SOC were the most immediate needs in the country after the Korean War, which required the major proportion of public investment. Because of long neglect during World War II and catastrophic destruction during the Korean War, South Korea faced the need for immediate reconstruction and improvement of production facilities, especially SOC, left by the Japanese. It also needed to add new SOC to meet the expanding demands of the country. In addition, it required more government investments in public works, such as roads and communication facilities in the early 1980s. Private interests were reluctant to or incapable of investing adequate amounts of resources, especially in the early years, in these SOC projects, which had a high degree of risk and were beyond the capabilities of private investors at the time. However, most of these government gap-filling investment ventures in SOC had economies of scale and extensive linkage effects in the early, gestation stages.

After the Korean War, the largest volume of investment in the country was in the construction of SOC. Relative to GDP, the average investment in it during the first 20-year period (1953–72) constituted nearly 4 to 5 percent, while new investment in it during the 36-year period (1953–88) averaged about 6 percent. It has been estimated that countries that have a high percentage of investment in public works and utilities dedicate 2 to 3 percent of GDP to public works, strictly defined (roads, harbors, schools, hospitals, public buildings, etc.), and 4 to 5 percent to public utilities, which may or may not be publicly administered (railways, road transport,

communications networks, electricity, gas, etc.). Relative to total investment, the share of investment in SOC fluctuated over time from a low of 8.6 percent in the 1950s to a high of more than 40 percent in 1962 and 1967. During the same period, fixed investment in it was about one-fifth in the early 1950s to more than two-fifths by the late 1960s, and remained at about a third after 1970. For the 32-year period after the Korean War, fixed investment in SOC averaged nearly a third (32.8 percent) of the total fixed investment in the country and close to two-thirds of total fiscal funds allocated to public investments and loans (Table 3.5).[19] These percentages of investment are considerably higher than those found in most other countries.[20] Typically, in advanced industrial economies, 35 percent or so of gross fixed investment is found in public works and utilities.[21]

The reconstruction and improvement of SOC in South Korea included investment in electric power, transportation, communications, water, and storage. Investment in electric power was the most visible, particularly during the early years. The chronic shortage of electric power for which South Korea had depended upon North Korea before the latter shut off the supply handicapped industry in the 1950s and early 1960s but was finally overcome by 1964. Thermal (coal-based) and hydroelectric power projects increased the country's generating capacity to well over 800,000 kilowatts by the end of 1966, nearly doubling the 1962 capacity, and to 1.5 million kilowatt in 1987, again nearly doubling in 25 years. The Korea Electric Company, in which the government heavily dedicated its resources, was reorganized in 1982 as a public corporation and became known as Korea Electric Power Company (KEPCO), one of the largest public corporations in South Korea. It had 30,289 employees, and by 1988 serviced almost all of the populace. All of its shares were owned by the government.

A considerable sum was also invested in the nation's telephone system, which had been devastated during the Korean War. Not much new construction of railroads was undertaken, other than repairing and upgrading them, because they had been extensively and well constructed by the Japanese colonial rulers before 1945. The government efforts to build social infrastructure, however, lessened considerably in later years, after the most urgent needs had been met. During the 24-year period between 1971 and 1994, its investment in SOC decreased to about 22 percent of its expenditures on average.

Manufacturing

The South Korean government also played a crucial, though not necessarily a major, role in reconstruction and pioneering on the frontiers of manufacturing, which contributed the largest share of value added in public enterprises in the 1960s and the early 1970s on two fronts.[22] One was the expansion of government enterprises in the manufacturing of goods inherited from the Japanese colonial government, namely, tobacco, ginseng, salt monopolies, and textbooks used in school systems. They have been efficient at revenue-producing, as well as being essential enterprises that produced the necessary goods and services at a reasonable cost and yielded profits that were put to other public uses.

TABLE 3.5 Fixed Investment in Economic Sectors (in percent of total)

Year	Social Overhead Capital	Manufacturing and Mining	Agriculture, Fishing, and Forestry	Trade and Finance	Housing	Miscellaneous	Total
1953	19.1	21.3	13.1	7.8	21.3	17.3	100.0
1954	30.0	15.9	9.2	5.2	24.5	15.2	100.0
1955	23.2	23.8	11.1	6.7	17.7	17.6	100.0
1956	22.6	28.7	11.9	5.7	17.1	14.0	100.0
1957	32.3	24.5	14.0	4.0	13.6	11.5	100.0
1958	30.9	25.3	11.7	6.0	13.5	12.6	100.0
1959	29.6	21.0	11.8	6.7	15.6	15.3	100.0
1960	24.0	21.4	12.8	6.3	20.1	15.4	100.0
1961	33.1	21.0	14.1	4.2	14.4	13.1	100.0
1962	37.6	21.3	8.3	5.9	12.0	14.9	100.0
1963	38.7	23.6	10.3	4.9	10.1	12.4	100.0
1964	30.2	24.9	11.9	5.3	13.1	14.7	100.0
1965	27.7	27.2	11.6	7.0	11.9	14.6	100.0
1966	30.8	32.6	12.0	4.2	10.3	10.1	100.0
1967	39.5	24.7	8.6	4.5	11.2	11.5	100.0
1968	39.2	24.9	7.4	7.5	12.0	8.9	100.0
1969	43.8	21.3	6.4	9.4	10.0	9.2	100.0
1970	38.4	20.2	8.0	9.9	13.7	9.8	100.0
1971	36.3	20.2	8.1	10.0	14.3	11.2	100.0
1972	38.7	20.0	10.4	7.8	13.3	9.7	100.0
1973	27.9	30.2	9.7	8.5	13.8	9.8	100.0
1974	30.9	23.4	11.8	8.6	17.5	7.8	100.0
1975	35.8	22.3	8.9	8.6	17.4	6.9	100.0
1976	34.8	23.9	9.4	9.1	14.4	8.4	100.0
1977	33.3	21.7	9.0	10.3	16.4	9.2	100.0
1978	32.8	23.8	8.1	8.4	19.4	7.4	100.0
1979	32.5	23.6	7.1	10.3	17.1	9.4	100.0
1980	34.8	17.3	6.8	14.0	16.2	10.9	100.0
1981	37.9	16.9	7.8	10.9	14.8	11.6	100.0
1982	36.1	13.9	7.4	10.3	18.5	13.8	100.0
1983	34.1	13.4	6.1	12.3	20.0	14.1	100.0
1984	32.1	16.0	5.8	13.1	19.0	14.1	100.0
Averages							
1953–61	27.2	22.5	12.2	5.8	17.5	14.7	100.0
1962–71	36.2	24.1	9.3	6.9	11.9	11.7	100.0
1972–84	34.0	20.5	8.3	10.2	16.7	10.2	100.0
1953–84	32.8	22.2	9.7	7.9	15.4	11.9	100.0

Source: Table is constructed on the basis of data in Bank of Korea, *Economic Statistics Yearbook*, various years.

Perhaps more important, the government also expanded public investment in new facilities producing a fresh line of products in the early years of the republic. These public investments involved the establishment of plants to produce new products such as fertilizer, oil and petroleum, plate glass, petrochemicals, steel, cement, automobiles, ships, and even processed food products. In the case of the fertilizer

industry, the government invested in, owned, and operated the first one in the country, the Chungju fertilizer company. This very costly facility took more than five years to construct and put into effective operation. After a second government-invested and owned plant was built, it drew on the experienced staffs of these two enterprises to establish two new joint ventures involving government-owned domestic companies and foreign private businesses. A wholly private, domestic, and foreign joint venture was allowed to build a fifth fertilizer plant. This model was repeated in petroleum refining, where the first refinery was a government-owned joint venture with a foreign enterprise but the second and third refineries were purely private enterprises. Likewise, the government invested huge amounts of resources in manufacturing cement to meet domestic needs. The completion of three new cement mills by the government in 1965 raised the annual capacity of cement production by a million tons, some of which it started to export to other countries in Asia soon after.

The government also invested huge sums in manufacturing steel. One of the most outstanding examples of public investment in manufacturing was the founding of the Pohang Iron & Steel Company (POSCO). The government concluded that self-sufficiency in steel and the construction of an integrated steelworks were essential to the country's economic development. POSCO was organized in April 1968 and began production in 1972; ever since, its growth has been phenomenal. South Korea's integrated steel mill was ranked at the top in terms of facilities, reputed to be the most efficient in the world at the time, and also rated the world's most productive steel manufacturer throughout the late 1980s. Soon, it penetrated the markets of the developed countries, including the United States. By the late 1980s, it was the fifth-largest steel company in the noncommunist world, and by 1999 it was rated the top steelmaker in the world, ahead of Japan's Nippon Steel and Luxembourg's Arbed Group. Once these industries were well established and there was room for more enterprises, the government opened the way to private investors. Also, one of the outstanding examples of public investment in manufacturing was the launching of a shipbuilding industry. According to the Shipping Intelligence Network of London, South Korea led with 40 percent of the world's production, and Japan was second with 24 percent, as measured by tonnage.

The strategic importance of public investment in manufacturing was great, considering the distribution of investment among critical industrial sectors. These public investments were made in some of the new and basic import-substitution and export-oriented industries in order to introduce advanced technologies into the country and attract the private sector's interest while bearing the entrepreneurial risk of innovative investment. Through investments in these new ventures, the public enterprises performed the role of entrepreneurial surrogate, entrepreneurial supporter, and/or managerial substitute by introducing new, expensive technologies as a model for private investors. Nearly 90 percent of the value added by the public enterprises originated from these companies, which substituted for private entrepreneurship. This was a role very similar to that of Japan after the Meiji Restoration in the latter half of the nineteenth century.

Thus, the engine that attracted advanced foreign technology in the early years was the government, whose leaders were well educated and savvy. In general, the

government used public enterprises when they best suited its objectives. In addition, the Korean government preferred to establish its own enterprises and then manage them rather than relying on private businesses to launch enterprises, regulate them, and threaten them with competition from imports in order to assure that production would expand to meet domestic as well as export needs. The government believed that by starting its own firms, it could overcome the problems involved with natural monopolies and imperfect market conditions.

Most of these gap-filling government investments in the frontiers of manufacturing in the early years were high-risk, large-scale, capital-intensive ventures with long gestation periods that were beyond the wherewithal of private investors at the time of their establishment. However, these public enterprises entailed economies of scale and had a high input-output interdependence not just with the manufacturing sector but with the Korean economy as a whole.[23] The average incremental capital output ratio in public enterprises was more than six, compared to about two for the economy as a whole and 1.7 for manufacturing. High input and output interdependence also indicated the sector's high degree of linkage with the rest of the economy. This helped South Korea meet the goals of providing social goods, preventing wasteful competition, and realizing external economies.

Outside of SOC and the selected industries examined above, the Korean government did not invest many of its resources in other sectors. Major mining operations were initiated by the government, but investment in them was more or less limited to improving capital facilities left by the Japanese, mainly those involved in coal mining to ease the domestic fuel shortage. To provide energy for heating, the government invested heavily in coal mining and increased production from 5 million metric tons in 1960 to over 10 million in 1965; ultimately, the industry was able to fully satisfy domestic demand and accumulate some surplus for export.

Public investment in infrastructure in rural areas was made primarily to improve productivity of farming through the building of farming roads, bridges, reservoirs, dams for the irrigation of rice paddies, land reclamation, flood control, and agricultural research. The volume of government investment in it, however, was relatively small, 8.9 percent of total investment. Some investments in the early 1980s intended to promote farm mechanization had forward and backward linkages to the nonagricultural sectors of the economy. These investment projects, however, were mostly limited to reducing the gross imbalance between the rural and urban sectors in the 1980s by providing essential infrastructure for agriculture and expanding the supply of scarce inputs and increasing the productivity of the farming population. Some observers have noted that a great deal of the financial support the government offered to the agricultural sector was siphoned off by officials and politicians.[24]

This prominent trait—the South Korean government's active role in investment—may not continue in the future, but it will probably follow a similar course at a reduced level, making a substantial amount of investment and playing a critical role in two main sectors: SOC and manufacturing, as shown above; and promoting further economic growth. In addition, the reconstruction of educational and medical facilities by the government after the war was substantial and should not be underestimated. Also, the government financed and supported many private businesses through its lending program, which is examined in chapters 5, 6, and 7.

Organizational Structure

Public investment in physical capital involved three types of public organizations, namely, government departmental enterprises, autonomous public enterprises, and quasi-public enterprises. They were made up of 17 agencies: 6 government departmental enterprises staffed and run by government employees (e.g., monopolies, railways, and communications networks); and 11 integral departmental agencies (e.g., pension funds and hospitals). The largest volume of capital investment in departmental agency enterprises was in the government tobacco, ginseng, and salt monopolies. These were under the management of the Office of Monopolies, of which the production of cigarettes by the Korea Tobacco & Ginseng Corporation was the largest component, accounting for 59 percent of the value-added output of government enterprises.

The government's most visible venue or instrument for investment was public enterprise. The government determined that the fastest and most efficient way to develop strategic industries in a variety of key areas was to establish autonomous public enterprises under government management. Investment in public enterprises began to gain importance soon after the cessation of the Korean War. From the early 1960s on, the Korean government actively used this tool, by either expanding existing public enterprises or establishing new ones. The number of public enterprises, including nonbusiness enterprises, had increased to about 120 by 1969. The value added by public enterprises on the whole remained fairly constant at about 9.1 percent of GDP between the 1960s and 1990s. Between 1963 and 1973, the real annual growth rate of value added by public enterprises was 10.8 percent,[25] while the economy as a whole was growing at an average rate of 9.3 percent per year.

In the early years, the new public corporations represented the core of the modern enterprises established in the country, both the public and private, after the Korean War. The public enterprises comprised 58 firms, 22 of which were directly held, autonomous, public-invested enterprises with at least 50 percent government ownership, including a mining company and banks. Of these, 30 were indirectly held, autonomous government businesses such as food and steel companies, and 6 were subsidiaries of government-invested autonomous enterprises (usually with indirect government funding and controlling with majority shareholding such as banks. Even as recently as 1985, the public enterprise sector consisted of about 90 enterprises employing more than 300,000 workers, or 2.7 percent of the total labor force in the nonagricultural sector. It accounted for 6 percent of GDP and maintained a current account surplus.

The public enterprise sector has played an important role both quantitatively and qualitatively. The importance of investment in it is evident in its sheer magnitude. In the nation's overall fixed capital formation, the sector's contribution has been substantial for the last three decades.[26] Taken at face value, the public enterprise sector accounted for 42 percent of gross investment until about the middle of the 1970s. The proportion in public enterprises was almost as high as in countries such as India or Pakistan, where socialist goals were well defined. South Korea's frequent reliance on this tool exemplifies the government's pragmatic approach to policy implementation. As the economy developed, however, the necessity of the govern-

ment's direct involvement in these sectors declined. As of 1989, it was operating only 24 state-run enterprises, in addition to other public corporations intended to promote, regulate, and control private businesses.

The public enterprises included numerous important firms, such as the Korea Electric Power Corporation, one of the largest public corporations in South Korea with more than 30,000 employees, which served about 99.8 percent of the populace in 1988, and POSCO. Investment in communications was made through the Korea Telecommunications Authority. Another example of public investment in manufacturing was the Kukchong Textbook Company, the publisher of textbooks used in the school system, which was inherited from the Japanese colonial government. The government shareholding in the textbook company was 92.3 percent of the total in 1987. Another government enterprise that engaged in production of goods was the Daihan Coal Corporation. Even as late as May 1987, government shareholdings in public enterprises averaged 56.6 percent, ranging from 31.2 percent of the Korea Technological Development Corporation, and 49.2 percent of the Korea Appraisal Board, to 65.2 percent of the Korea Stock Exchange.

The quasi-government enterprises numbered 33: 14 government-backed enterprises with equity but without control (e.g., oil and chemical companies) and 19 government-backed enterprises without equity but with control (e.g., agricultural and fishery cooperatives).[27]

PRIVATE INVESTMENT

Although the government initiated many new investment projects, the major portion of investment came from the private sector. Paralleling aggregate sum, investment in the private sector was very small in the early years after the Korean War but increased rapidly thereafter. It was estimated at 8.4 percent of GDP (Table 3.3) and a little more than 4 percent of GDP in fixed capital. Private investment increased to meet most investment needs in later years (e.g., to 10.4 percent between 1962 and 1971 on average, 20.5 percent between 1972 and 1986, and reaching 28.3 percent between 1987 and 1994). Fixed investment in it increased from a very small sum just after the Korean War to approximately 85 percent of the total by the early 1980s.

On the whole, private investment during the 42-year period between 1953 and 1994 constituted 17 percent of GDP and comprised nearly three-quarters (75.4 percent) of all domestic investment on average (Table 3.3). However, should data for the remaining 10-year period (1994–2003) become available, we will probably find that private investment for all 50 years following the Korean War was nearly four-fifths of the total, since all indications are that private investment after 1994 has continued to increase relative to total and public investments. In this way, private investment has assumed the dominant position in capital formation in South Korea, as it has in most other developed and market-oriented economies, while public investment played the crucial role in reconstruction and introduction of new fields in early years. Private investment was made in both the business and household sectors, as examined below.

Business Investment

Investment in business fluctuated somewhat from period to period and year to year, but after the Korean War, South Korea dedicated the largest sum of investment to business. On average, it contributed more than half (52.5 percent) of all investment in the private and other sectors in the country during the 32-year period between 1953 and 1984 (Table 3.6). The absolute sum of investment in business increased, but in relation to all investment in the private sector, it decreased to 56.2 percent between 1962 and 1971 and to 43.4 percent between 1972 and 1984. For the 42-year period between 1953 and 1994, business investment is estimated at 15 percent of GDP and 62.2 percent of domestic investment (Table 3.7). As shown in the next sections, business investment was focused on manufacturing, capital- and technology-intensive industries, and in large-scale businesses.

Manufacturing

The dominant field of private investment in the country after the Korean War was manufacturing, which constituted more than half of all enterprises established in the private sector in the country. The small per capita capital stock endowment in the manufacturing sector at the end of Korean War, which produced goods mostly for domestic use, expanded rapidly after about 1962 with recently built industrial facilities that introduced new lines of products as well as those reconstructed after the Korean War. Investment in it, which covered almost all rapidly expanding manufacturing sectors (including some mining) in the post–Korean War period, constituted about 22.5 percent of total fixed investment in the country between 1953 and 1961 (Table 3.5). During most of the 32-year period between 1953 and 1984, investment in manufacturing was maintained at high levels, averaging about 22.2 percent of total fixed investment and peaking at more than 30 percent of the total in 1966. Much higher investment in manufacturing was also reported. According to a survey of 2,256 Korean companies across the nation conducted by the Korea Development Bank in May 1987, facility investments in the manufacturing sector made up 63.6 percent of the total investment in 1986 and 68.3 percent in 1987. Over two-thirds of South Korea's manufacturers spent over half of the funds available for facility investments on automation.

As examined earlier, business investment was concentrated in light, consumer-oriented manufacturing during the early years and the heavy, chemical, and high-tech industries in the later stages. Business investment was made initially in the labor-intensive import-substitution and export-goods-manufacturing industries, in which South Korea developed a competitive advantage. However, when the industrial sector, which had been based on low-value-added and labor-intensive products, began to face increasing competition and protectionism from other developing countries, businesses turned to the HCIs and invested heavily in high-value-added, capital-intensive firms. Strengthening the international competitiveness of South Korean industry also required quality improvement and innovative designs for products, for which South Korean firms relied greatly on foreign patents and technology.

TABLE 3.6 Private and Other Investments, 1953–84 (in percent)

Year	Ratio of Private Investment to GDP	*Distribution of Private Investment*				
		Business	Household	Other	Statistical Discrepancy	Total
1953	11.1	34.1	52.2	13.7	—	100.0
1954	10.3	44.5	40.0	15.5	—	100.0
1955	9.7	40.0	31.0	29.0	—	100.0
1956	4.0	111.2	(52.2)	41.0	—	100.0
1957	10.5	40.1	43.2	16.7	—	100.0
1958	9.8	53.5	41.2	5.3	—	100.0
1959	8.2	74.6	18.8	6.6	—	100.0
1960	5.0	87.6	(19.8)	16.9	15.3	100.0
1961	7.0	69.9	21.7	0.8	7.7	100.0
1962	6.8	105.7	(52.8)	38.5	8.6	100.0
1963	10.4	54.3	4.3	30.2	11.3	100.0
1964	9.8	69.2	20.6	8.5	1.7	100.0
1965	7.7	87.0	2.5	(3.4)	13.9	100.0
1966	11.3	47.5	26.3	17.3	8.9	100.0
1967	9.1	51.7	12.8	27.0	8.5	100.0
1968	10.7	42.2	7.9	41.3	8.6	100.0
1969	14.6	32.8	27.1	34.3	5.8	100.0
1970	12.1	37.1	17.7	38.8	6.5	100.0
1971	11.1	34.3	19.8	45.4	0.4	100.0
1972	15.0	42.5	35.2	19.1	3.2	100.0
1973	19.6	49.9	43.1	10.7	(3.7)	100.0
1974	18.1	38.0	25.2	38.0	(1.3)	100.0
1975	15.6	36.7	25.4	34.9	3.0	100.0
1976	19.7	51.4	45.7	5.7	(2.8)	100.0
1977	23.1	46.5	55.0	(0.1)	(1.4)	100.0
1978	24.7	39.1	53.6	8.8	(1.5)	100.0
1979	22.2	33.1	43.0	22.4	1.5	100.0
1980	18.1	39.7	26.1	34.2	—	100.0
1981	17.6	39.9	30.6	30.3	(0.8)	100.0
1982	18.7	46.3	34.9	18.2	0.7	100.0
1983	20.8	50.4	39.0	10.3	0.3	100.0
1984	23.4	50.0	26.4	20.3	3.4	100.0
1985	23.7	—	—	—	—	—
1986	27.7	—	—	—	—	—
1987	30.8	—	—	—	—	—
1988	31.5	—	—	—	—	—
1989	28.4	—	—	—	—	—
1990	27.4	—	—	—	—	—
1991	28.3	—	—	—	—	—
1992	27.1	—	—	—	—	—
1993	26.7	—	—	—	—	—
1994	25.9	—	—	—	—	—
Averages						
1953–61	8.4	61.7	19.6	16.2	2.6	100.0
1962–71	10.4	56.2	8.6	27.8	7.4	100.0
1972–84	19.7	43.4	37.2	19.4	0.0	100.0
1985–94	27.8	—	—	—	—	—
1953–84	13.9	52.5	23.3	21.1	3.0	100.0
1953–94	17.0	—	—	—	—	—

Sources: Hanguk Eunhaeng 1995: 179; Bank of Korea, *Economic Statistics Yearbook*, various years.

TABLE 3.7 Estimated Domestic Investment, 1953–94 (in percent)

	Investment Relative to			
	GDP		*Total*	
Saving Sources	Subsector	Sector	Subsector	Sector
Private Sector	—	19.0	—	78.8
Personal/Household	4.0	—	16.6	—
Business	15.0	—	62.2	—
Public Sector	—	5.1	—	21.2
Domestic Total	—	24.1	—	100.0

The fields within manufacturing in which investment took place evolved over time. The first five-year economic development plan (1962–66) focused on initial steps toward building a self-sufficient manufacturing structure that was neither consumption oriented nor overly dependent on oil. It emphasized investment in import-substitution industries, focusing on textile manufacturing, fertilizer plants, cement plants, glass factories, oil refining, synthetic fiber manufacturing, and flour milling. The second five-year economic development plan (1967–71) stressed the modernization of manufacturing by rapidly building the textile, fertilizer, glass, and chemical industries. During the 16-year period between 1953 and 1968, investment in manufacturing made up nearly one quarter (23.9 percent) of total fixed investment (Table 3.5).

Once the import-substitution industries were well established, investment shifted more toward outward-looking export-oriented industries in the latter half of the 1960s. Under the third five-year economic development plan (1972–76) an export-oriented structure was built in the HCIs. Within the HCIs, metals and minerals experienced the most rapid rise in investment, realizing the per capita capital stock increase of 11.5 times in 22 years over the level that prevailed in 1968, while the chemical, machinery, electric, and transportation equipment industries showed an average increase of 5.2 times. The developers of the HCIs sought to supply them with raw materials and intermediate and capital goods in order to reduce or even eliminate their dependence on foreign goods.

The industries that attracted large amounts of investment included iron and steel, transport machinery, household electronics, shipbuilding, and petrochemicals, which comprised technology-intensive and skilled-labor-intensive industries. The government concluded that self-sufficiency in steel and the construction of an integrated steelworks were essential to the country's economic development, and it invested huge sums in manufacturing steel. To do that, POSCO was organized in April 1968. In 1972, just four years after the company's inauguration with only 39 employees, it began production. During the fourth five-year economic development plan (1977–81), strategic industries designed to compete effectively in the world's industrial export markets attracted investment. Heavy and chemical industries grew by an impressive 51.8 percent in 1981, while their exports increased to 45.3 percent of total output. These developments can be ascribed to a favorable turn in the export

performance of iron, steel, and shipbuilding, which transpired because high-quality, low-cost products could be produced in the country. In machinery industries, investments were doubled in electric power generation, integrated machinery, diesel engines, and heavy construction equipment.

In the case of the automobile industry, Hyundai was the only company permitted to manufacture passenger cars for most of the 1980s; but by 1989, Kia Motors and Daewoo were allowed to reenter the passenger car business, followed by Ssangyong Motors, which in that year became South Korea's fourth car manufacturer. Investment in car and car-component manufacturing in 1989 was over $3 billion. Likewise, investment in machinery and equipment increased from about 20 percent of the total to about 30 percent, making this the largest component of investment during the 46-year period between 1953 and 1998. Investment in transportation equipment on average increased from about 8 percent in the mid-1950s to about 20 percent in the mid-1970s, but thereafter it decreased to less than l0 percent in the late 1990s.

Under the fifth (1982–86) and the sixth (1987–91) five-year economic and social development plans, the emphasis of investment shifted away from HCIs to technology-intensive fields such as precision machinery, electronics (televisions, videocassette recorders, and semiconductor-related products), and information technology. In the manufacturing sector, with a greater focus on export-oriented industries, such as the manufacture of electric, electronic, and high-tech products, business investment in the so-called export and processing industries expanded rapidly in the 1980s. Under the seventh and final five-year economic development plan (1992–96), high-technology fields, such as microelectronics, new materials, fine chemicals, bioengineering, optics, and aerospace, were rapidly developed.

In comparison, investment in the so-called light industries was relatively modest. In the late 1970s, investment in light industries was just a little over one-fifth of all investment in manufacturing, and facility investments in light industries rose only 8.9 percent. Within the light industries, the textiles attracted the largest portion of investment.

Other Economic Sectors

No detailed and consistent data in sectors other than SOC and manufacturing are available, but investment in all other sectors was relatively small. Following the expansion of manufacturing, investment in fixed capital in the traditional economic sectors, namely, agriculture, fishery, and forestry, increased but, in contrast to SOC and manufacturing, it was relatively small, constituting less than a tenth (9.7 percent) of the total, and decreased over time from about 13 percent in 1953 to 5.8 percent in 1984 (Table 3.5). If the data relative to fixed investment were available, the gaps between agriculture and SOC/manufacturing beyond 1984 would be much wider than what are shown above. In the early years (1953–61), even when the majority of Koreans were employed in agriculture, investment in it was only 11.2 percent of the total (Table 3.3). Other than the government investment projects, such as construction of a few irrigation dams and roads, real investment in agriculture by farmers appears to have been very limited.

Fixed investment in trade and finance, too, experienced the increases in absolute amount, especially in later years, but relative to the total in the country it fluctuated from period to period and was small, similar to agriculture. In the early years (1953–68), investment in them was less than 6 percent of total fixed capital investment, but it nearly doubled to 10.2 percent of the total between 1972 and 1984. For the 32-year period between 1953 and 1984, fixed investment in the sector remained less than 8 percent. As the nation's income grew, fixed investment in them thereafter increased to about 19 percent in the late 1980s.

The Nature of Business Investment

Not only did the volume of investment expand and vary among different sectors, the nature of investment changed over time. In the manufacturing sector, investment became increasingly more capital- and technology-intensive, large scale, and outwardly shifted, as shown in the next sections.

Capital- and Technology-Intensive Industries

One of the most conspicuous developments in investment in South Korea after the Korean War was not only the skewed investment pattern toward the modern and industrial sectors but also the heavy emphasis on capital- and technologically intensive industries over time. Such a tendency toward capital-intensive investment is clearly shown in an increase in depreciation allowances. Depreciation allowances between 1953 and 1994 increased from less than 5 percent of disbursement of business income to more than 10 percent.[28]

Investment in the manufacturing sector was typically more capital intensive than in other sectors, which facilitated rapid reconstruction and expansion of that segment of the economy. The average per capita capital stock for the sector in 1968 was a little more than one million *won* in 1975 prices, but by 1980 the sector's average had increased to 3.8 times the 1968 level. A good example is the rapid growth of investment in the HCIs, which were typically more capital intensive than the light industries. The expansion of investment in them enabled these industries to achieve rapid growth in export manufacturing. Within the HCIs, the initial orientation was investment in labor-intensive industries, in which South Korea developed a competitive advantage. But, when the low-value-added and labor-intensive industrial structure faced increasing competition and protectionism from other developing countries in the early 1970s, businesses responded to the problem by investing in high-value-added, capital-intensive industries after about the mid-1970s.

Investment in South Korean firms also became more technologically intensive. Companies purchased foreign patents and technology and produced the same goods made elsewhere at a lower cost, which was one of the reasons for their success through the 1980s. They welcomed technology transfers in the form of licenses, sophisticated capital goods imports, and foreign training. Openness to technologically intensive foreign direct investment (FDI) speeded technology acquisition (examined in chapter 8), and manufactured export growth provided a powerful incentive and

mechanism for technological upgrading. Because world markets for technology were imperfect, firms that exported had greater access to technology than those that produced import substitutes or nontraded goods. It is particularly notable that South Korean manufacturers made a significant shift toward high-technology industries after 1990. This shift in emphasis, however, did not mean an immediate decline in heavy industries such as automobile manufacturing and shipbuilding, which had dominated the economy in the 1980s. Nonetheless, the increases in productivity through investment in capital goods, economies of scale, and technological progress contributed 36.6 percent to the growth of the economy during the 12-year period between 1972 and 1983, a trend that has continued.

Scale of Investment

Another feature of investment in the country was the allocation of a major share of it to large-scale business firms and an increasing tendency to do so over time. In addition to being capital intensive, most of the government venture investments in SOC were in large-scale enterprises, with long gestation periods. Investment in manufacturing, both in public and private sectors, too, was heavily oriented toward large scale firms, especially the *jaebeol*.[29] The history of investment in 50 first-generation *jaebeol* reveals their humble beginnings. What capital there was in South Korea before 1950 was nearly all destroyed during the Korean War, and million dollar enterprises were virtually unknown. It was reported that one of the most powerful *jaebeol* of today did not even have sufficient funds to pay $100,000 to purchase a former Japanese plant.[30] As the economy grew, the *jaebeol*'s investments expanded rapidly until they came to dominate the South Korean business community and economy.

The *jaebeol*'s line of investment in business changed over time. In the 1950s and early 1960s, when their phenomenal rise began to draw attention, their investments were concentrated in small-scale light industries, such as the production of wigs and textiles, which required relatively small amounts of investment. Within light industry, textiles formed the largest portion of their business.[31] But by the mid-1970s and 1980s, a large proportion of South Korea's major basic industries, such as HCIs, were built by the *jaebeol*, which became the dominant investors. Some of these investments involved multimillion-dollar projects.

Surveys estimated that the *jaebeol*'s capital assets increased from a meager sum in 1953 to anywhere from $300 million to $1 billion in 1965. Most of these estimates probably were overstated; a more realistic figure might be $400 million in 1965.[32] According to a Bank of Korea analysis in 1977, the *jaebeol*'s contribution to the country's investment in tangible assets (e.g., real estate and machinery) was 42.6 percent of the total, while the small to medium-sized businesses contributed 28.3 percent.[33] Twenty years later, the ten *jaebeol* listed in the *Fortune 500* in 1985 reported total assets of $95.6 billion and owners' equity of $7.5 billion, more than 15 times the figure reported in 1965.[34] In 1999, nine Korean companies were included on the list of the world's top 50 multinational companies in developing countries, second only to Hong Kong's 10 firms. According to a Federation of Korean Industries' report, based on a nationwide survey of 400 large concerns in

16 major business lines, the nation's major conglomerates spent about $9 billion on the expansion of production facilities in 1987. The rapidly rising investments of the *jaebeol* had to be one of the most important contributing factors to South Korea's record-setting private capital formation and business expansion.

The Samsung *jaebeol*'s (ranked the largest in the country) investment in its businesses for the 34-year period between 1954 and 1987 may serve as an example of the *jaebeol*'s phenomenal growth in investment.[35] The founder entered the fray with the Cheil Wool Industry, which was established in Taegu in December 1954 with paid-in capital of 10 million *hwan* (about $50,000).[36] The founder then developed the Samsung Group, with investments in banking, trading, sugar refining, spinning, textiles, fertilizer, tires, cement manufacturing, and fire insurance.[37] It listed assets of $116.7 billion as of December 2000.

Overseas Investment

South Korean investment was not confined to the home front but also extended beyond its borders after 1967. It first engaged in overseas equity investments, because it needed to develop export markets as well as procure natural resources abroad for South Korean industries. Its investment abroad began in 1968 with a forestry development project in Indonesia. From that time on, outgoing Korean foreign direct investment (KFDI) grew at a modest rate. This modest growth continued until 1986, primarily because of a sharp rise in construction-project investment in Middle Eastern countries. In addition, rising real wages at home in the second half of the 1980s had the predictable effect of transforming South Korea into an investing country abroad.

Outgoing KFDI has accelerated since 1986. Cumulative outward FDI expanded from a little over $126 million in the 1970s to about $1.32 billion in the 1980s, a more than 10-fold increase in about 10 years. The number of outbound FDI projects told a similar story: the cumulative total increased from 269 in the 1970s to 630 in the 1980s. Its average annual growth rate from 1987 to 1990 was 56.7 percent. Although Korean investment abroad reached more than 5 percent of domestic savings during the five-year development period between 1987 and 1991, it was relatively small. Its ratio to GDP in 1990 was about 1.5 percent, which was much smaller than its incoming FDI. Some Korean investors were interested in acquiring skills and technologies via FDI abroad, while others were interested in avoiding trade barriers in foreign countries.

Especially aggressive investors abroad were the *jaebeol*. Not content with domestic investment, they were ambitious to conduct business abroad. Similarly, both the number of projects and investments made by small and medium-sized firms in the late 1980s and early 1990s increased substantially. Their share of FDI abroad increased from only 2.8 percent of total cases and 1.8 percent of the total amount in 1980 to 32.6 and 9.9 percent, respectively, in 1989. The government liberalized KFDI by domestic businesses in 1995, which permitted them to deposit up to $1 million abroad and invest up to $1 billion in foreign stock markets beginning in 1995. Korean outward FDI apparently had no adverse effects on home country performance.[38]

South Korea's foreign investment went equally to both developed and developing countries. North America attracted the most South Korean overseas investment. In 1987, out of a total South Korean overseas investment of $1.2 billion in 745 projects, nearly half of them (48 percent) were in developed countries, while the remaining 52 percent were in developing countries. The geographical distribution of South Korea's outward FDI out of a total of 899 projects at the end of 1989 was as follows: 28 percent in Asia, 53 percent Organization for Economic Cooperation and Development (OECD) countries, and 20 percent in the rest of the world. In dollars, the distribution was 25 percent in Asia, 51 percent in OECD countries, and 24 percent in the rest of the world.[39]

South Korea's investment abroad in recent years has been primarily in China. It has more than doubled over the past two years (2003–4), driven by the rush to take advantage of cheap labor and a huge consumer base in the world's fastest-growing economy. South Korea's direct investment in China amounted to $3.65 billion in 2004, up from $2.1 billion two years earlier and 2.6 times that in the United States. It accounted for 10.3 percent of all FDI in the world's most populous nation, compared with 5.2 percent in 2002, underlining the growing economic exchanges between the neighbors. The number of Korean companies operating in China also jumped to 4,920 in 2003, from 650 in 1992, according to the trade association. A growing number of Korean companies, especially manufacturers, headed to China to escape rising labor costs and sluggish consumer spending at home. Korean businesses were also eager to tap into the neighboring country's enormous consumer base. On a cumulative basis, Korean investment in China stood at $19.69 billion at the end of 2003, with 27,128 companies investing in it. LG Electronics Inc. has said that it set a sales target of $15 billion for its 2005 operations in China. Korea's second-largest electronics maker will focus mainly on increasing sales of value-added products such as plasma-display panels, mobile phones, and liquid-crystal-display monitors.

South Korea's overseas investments were in a variety of businesses in the mining, forestry, trading, manufacturing, and construction industries. In the 1970s, mining attracted the most investment abroad, accounting for 47.1 percent of the total, followed by 30.4 percent for manufacturing, 8.2 percent for trading, 5.3 percent for forestry, and 2.6 percent for construction.[40] Since then, the increase has been most noticeable in the manufacturing sector, which accounted for 37 percent of South Korea's total outstanding outward FDI at the end of 1989. The number of investment projects tells a similar story: approximately 33 percent of all projects were in manufacturing. In 1990, nearly 61 percent of the approved FDI were in manufacturing. South Korea's outward FDI in Asia was in labor-intensive, low-technology industries, whereas its direct investment in OECD countries was largely in the machinery and equipment, electrical, and electronics industries, through which it could obtain local market access and product information and technology as well as maintaining market share. Its external investments were in numerous small businesses as well as large conglomerates, and its technology exports were to less developed countries, such as the Southeast Asian nations.

South Korea's outward FDI has not shown the sterling results hoped for by exporters, however. According to the Director of the Overseas Investment Statistics

and Analysis Team of the Export-Import Bank of Korea, the high equity participation of Korean FDI was risky and resulted in an unsatisfactory performance. These overseas investments incurred losses and substantially decreased the overall returns. The sluggish performance of foreign affiliates was attributed mainly to reckless overseas expansion and an adverse and unfamiliar business environment in foreign countries. The report also noted that, despite their poor performance in general, affiliates planned to maintain or even expand their business activities abroad.[41]

Household and Other Investments

The second major component of private investment in the country may be grouped under the heading of the household and other sector, which include most of the residential housing and other miscellaneous investment. Investment in the household sector experienced wide cyclical gyrations. The sector attracted a large portion of investment (an average of 41 percent of the private investment) for three years immediately after the cessation of the Korean War in 1953. Nearly a fifth (19.6 percent) of the total private investment in the country was dedicated to household investment between 1953 and 1961. Once the urgent need for reconstruction was met, the major portion of resources dedicated to it declined to less than a tenth (8.6 percent) of the total private investment during the decade of 1962–71, while large portions of resources were devoted to business investment. Investment in the household sector then shot up to more than a third (37.2 percent) of the total private investment, the largest amount (equivalent to nearly 13 percent of GDP) during the 13-year period between 1972 and 1984 (Table 3.6).

Among household investment, the resources dedicated to housing were the most important component. It increased absolutely over time but followed a somewhat different path than fixed investment in other sectors. Immediately after the cessation of the Korea War, investment in housing was relatively large (e.g., about a fifth of total fixed investment in the country during the first few years after the Korean War; i.e., 1953–56. It was especially high during the first two years following the Korean War, when the largest share (24.5 percent of the total) of investment was devoted to reconstructing the destroyed or damaged dwellings (Table 3.2). This was then followed by a decline to an average of about 12 percent during 1962–71, partly in response to policy measures aimed at curbing speculation in housing. However, as the disposable income in the country increased rapidly while housing prices skyrocketed, a greater portion of the nation's resources was devoted to investment in housing and fixtures in the household. For example, the average price of a condominium went up by 51.4 percent between 1985 and 1989.[42] As a result, the rate of investment in housing picked up to 16.6 percent during the 15-year period between 1972 and 1986 and increased further to 20.7 percent between 1987 and 1998.

Overall investment in housing during the 46-year period between 1953 and 1998 averaged 16.9 percent as the housing market served as the popular outlet for household savings, especially among the well-to-do families (Table 3.2). In relation to the number of people dependent on it, however, investment in the housing in South Korea fell far short of meeting even the minimum requirements after the war

until about 1985. The catastrophic destruction of residential housing, as well as industrial facilities, during the Korean War resulted in a mammoth need for housing. It was certainly a far cry from what is considered typical in many developed countries, that is, about 35 percent of total investment.[43] The demand for types of housing also changed drastically. The proportion of single-house-owning households in urban areas has steadily declined to less than 50 percent while investment in multiple dwelling units has expanded proportionately.[44]

A sizable amount of private savings was invested also in "other miscellaneous sectors," which included all other sectors that are not represented in any of the investment categories examined above. Similar to the household sector, private investment in "other sectors" fluctuated cyclically, but somewhat differently from that of the household sector. The levels of investment were high during 1955–56, 1962–63, 1967–71, 1974–75, and 1980–81, whereas they were relatively low in other years (Table 3.6). For the period between 1953 and 1961, average investment in other sectors was 16.2 percent of the total private investment, which was followed by a rise to an average of 27.8 percent during 1962–71. It then fell to 19.4 percent during 1972–84. On the whole, investment in other sectors from 1953 through 1984 averaged a little more than a fifth (21.1 percent) of private investment, which is somewhat less (9.4 percent) than that of the household sector.

Based on the classification of the nature of capital goods, fixed investment in "other sectors" in the form of construction, such as roads, dykes, dams, and irrigation, for the 46-year period between 1953 and 1998 was fairly constant over time, averaging nearly a quarter (23.7 percent) of the total in the country, which is about four-tenths more than that in housing (Table 3.2). In terms of fixed investment, the other miscellaneous sectors averaged 11.9 percent for the 32-year period between 1953 and 1984, which is about 23 percent less than that in housing during the same period (Table 3.5). Similar to the household sector, fixed investment in miscellaneous investments fluctuated widely from year to year but averaged 15.6 percent of the total investment in the country from 1953 through 1984. Also, according to a survey, people kept about 15 percent of their savings in other assets. There appears to be no particular pattern over time, but the level of investment in these other assets appears to have followed a U-shaped curve, showing relatively high ratios prevailed in the early 1950s and the 1990s and low levels of investment during the late 1960s and the 1970s. It also seemed to have followed a decreasing tendency over time from about 14.7 percent of the total during 1953–61 to 10.2 during 1972–84 (Table 3.5).

ESTIMATED DOMESTIC PHYSICAL INVESTMENT

It seems useful to review and recapture the findings on broad sectoral domestic investment in South Korea during the last half of the twentieth century. The average domestic investment during the 42-year period between 1953 and 1994 was approximately 24.1 percent of GDP (Table 3.7), which constituted almost all (99.2 percent) of investment in the country (tables 3.1 and 3.7). Investment in the country was carried out by the public and private sectors, but they played somewhat

different and complementary roles in capital formation. While the public investment contributed about 5.1 percent of GDP and more than a fifth (21.2 percent) of total investment in the country, the private sector dominated domestic investment with 19 percent of GDP, which was equal to more than three-quarters (78.8 percent) of the total domestic investment. It continued its investment in the economic sectors that started in and prevailed in Korea under Japanese colonial rule—namely, industrialization—unlike many typical former colonial economies under Western colonialism.[45]

INVESTMENT IN HUMAN CAPITAL

Another major factor that contributed to South Korea's rapid economic growth was a relatively large investment in human capital. Like its East Asian neighbors,[46] South Korea has a rich heritage of valuing education highly, the educational fervor of which was clearly visible, even more than neighboring countries, after World War II.[47] The importance of education in Korea is well reflected in the income and time spent on education, and the salaries of teachers compared with those of other income groups in the country, as well as in other developed countries.[48] A veteran teacher in South Korea earned 2.5 times the national average per capita income, in comparison to 1.2 times the average per capita income in the United States. According to a report compiled by the world's 31 wealthiest nations in the OECD, covering much of Europe, North America, and some Asian countries, the average salary per hour of a high school teacher with 15 years of experience in 1999 was $77 for actual teaching in South Korea, in comparison to $35 in the United States and more than $50 in Denmark, Spain, and Germany (the international average was $41).

Not only do Korean people value education highly, but they actually invested relatively more resources in it than did most other developing and even developed countries, as is shown in the public and private expenditures on education. High proportions of incomes were spent on education. It was reported that 9 percent of South Korea's GDP in 1973 was spent on education. Wealthy families were able and willing to spend large amounts on private tutoring costs for their education. The National Statistical Office reported that families in the top income bracket spent on average for their children's private tutoring in 2006 about ten times (about $400 a month) more than those in the bottom bracket. In 2003, the difference was about 6.3 times. Declining fertility and rapid economic growth also meant that more resources were allocated per child in South Korea than in many other developing countries, where population growth tended to exceed the growth of GDP.

The government, which played a very important role in investment in human capital, spent about 15 percent of the budget on education in 1987, which was nearly equal to expenditures for social services. According to the OECD, the international average of total government spending on educational institutions in 1998 was 5 percent (it was 4.8 percent for the United States.). Also, public spending for education in South Korea concentrated on primary and secondary education by providing universal primary education and widely available and high-quality secondary education. South Korea devoted more than 80 percent of its education budget to

basic education in the 1980s,[49] and a large proportion of the eligible population attended high school (70 percent of eligible students were attending high school as early as the late 1970s). Its secondary education level was higher than in other low- and middle-income economies even as early as the 1960s.

The private sector, as well as the government, also devoted large amounts of resources to education. To supplement public education, many private educational institutions mushroomed in the country, and large shares of family budgets were spent on education. A 2002 report of the Korea International Trade Association indicated that South Korea was first in private tutoring in a global ranking of countries. South Korea's spending was equivalent to 2.9 percent of its GDP, a percentage far exceeding that of the United States, which ranked second with 1.61 percent of its GDP.[50] About 41 percent of a family's budgets was devoted to college education per student. Educational expenditures were shared among three sources: parents, 67 percent; government, 30 percent; and private foundations, 3 percent.[51]

The emphasis on education beyond primary school was on science and business. At the post-secondary education level, the limited public funding was used primarily for science and technological education (including engineering), while university education in the humanities and social sciences was shared with the private system. The proportion of post-secondary students in engineering programs was far greater in South Korea than in other countries. Also, while the government limited the number of students studying abroad because of the scarcity of the nation's foreign exchange holdings, students majoring in science, engineering, and business administration were treated more favorably in the national screening process than were those in the humanities and social sciences. These restrictions were eased in the late 1970s and again in recent years as the balance of payments situation turned favorable. The rapid increase in the supply of college graduates in engineering and science during the 1980s helped to meet the increasing demands of firms for highly educated manpower. The government also imported educational services on a large scale, particularly for disciplines requiring specialized skills.

In terms of quality, according to 1979 World Bank statistics, the state of education in South Korea had reached the level found in the advanced Western European countries.[52] Near-universal literacy and at least an elementary school education helped young people to train and adjust to modern industry and business. The task was made easier by the fact that South Korea needed to catch up to the advanced economies.[53] It is noteworthy that South Korea's unemployment situation is the reverse of that typically found in industrialized countries and is thus unique. The unemployment rate among college graduates in 1985 was 6.7 percent, compared with 5.9 percent for high school graduates, 4.1 percent for middle school graduates, and a mere 1.5 percent for primary school graduates.[54]

As a result of the high-level investment in human capital, by 1961 South Korea had a well-educated, young workforce, along with a modern infrastructure. Recent evidence has linked an unexplained portion of productivity growth to the improved quality of the labor force. Three-quarters of all professionals were college graduates by the mid-1980s. This was particularly true in the HCIs and technology-oriented industries. Unlike light industry's workforce, workers in the HCIs were skilled men and women with higher educational attainments than their earlier counterparts had

possessed. More than 80 percent of these workers had graduated from high school and earned relatively higher wages than most workers employed in light industries. The emergence of educated white-collar workers also played a significant part in South Korea's economic development. Of the entire workforce in 1992, one out of every four was classified as a white-collar worker. Likewise, although professionals and managers made up only 2.8 percent of the total workforce in 1965, this figure had increased to 10 percent by 1992. The proportion of clerical workers, too, grew from 4 to 14.4 percent during this period.

Thus, investment in human capital made a positive contribution to the nation's economic development. Education accounted for a large portion of its economic success, contributed to industrial flexibility, and promoted greater equity. The well-educated and highly motivated workforce was able to produce low-cost, high-quality goods that found ready markets in the United States and the rest of the industrial world. South Korea now hopes to take advantage of its workforce to become competitive in areas where other advanced industrial nations have already achieved success. Fortunately for South Korea, its high level of well-educated workers, who constitute a formidable brain trust for future research and development, are its major asset.

Technology

Contrary to a hypothesis that the growth of the East Asian economies is attributable mainly to an accumulation of physical and human capital while technological progress played a limited role,[55] new technology in South Korea became one of the most important sources of productive growth for the country's manufacturers. Lim provides numerous examples of successful institutional innovation and learning, showing that the country's technological progress involved significant learning and competence building, and claiming that the total factor productivity growth rate of South Korea was higher than those of Japan, Taiwan, and other OECD countries.[56] As for technological competitiveness, South Korea was rated ninth in the world.

The enhanced ability of South Korea to acquire, directly or indirectly, new technology from abroad and adapt it to domestic conditions is a by-product of its investment in human capital. Technology has entered South Korea in ways different from those countries heavily reliant upon others, or perhaps different from virtually all others, including newly industrialized countries. Technology adoption is skill biased, and the introduction of new technology to the South Korean economy, especially manufacturing, was facilitated by educated workers either directly or indirectly. Much new technology was brought home by Koreans educated abroad. Korea, as well as other East Asian countries—including Singapore and Taiwan, which were among the world leaders in these areas—upgraded its technology more quickly than Latin American countries, leading to stronger performance across a range of indicators, such as transport costs, port efficiency, and depth of road, rail, and airfreight facilities. Similarly, tertiary enrollments in science and engineering education, and business expenditures on research and development, on average, were well above the regional average for Latin American countries. The pool of well-educated future workers abroad was a major asset, and the Korean government has

made a conscious effort to attract foreign-educated Korean students back to the home country.

Many of these students took up leadership positions in government, in business, and in numerous research-oriented and technical fields. The government-funded research institution is an important organizational invention that has provided the knowledge base for industries from the 1960s to the present date. Building technological capability and learning over the last four decades has been a key source of Korea's industrial development and economic growth. Furthermore, this technological capability would not have been possible without significant ingenuity on the part of many government and business institutes.

The South Korean government realized that the country needed to advance quickly in such areas as high technology to meet foreign competition and to grow its economy. The establishment of institutes such as the Korea Development Institute (KDI) and the Korea Institute of Science and Technology (KIST) provided not only an excellent research environment but also prestige and remuneration for returning scientists. For instance, about 250 scientists and engineers at KIST held advanced degrees earned abroad. Under the auspices of the Ministry of Science and Technology, there were 21 research institutes with nearly 5,000 research scientists. They not only directly contributed to improving local technological capabilities but also made cheaper sources of technology transfer available for South Korea. Under its outward-orientated economy, which encouraged entrepreneurial contact with outsiders, other opportunities were provided to literate Korean workers to indirectly facilitate the technology transfer. Also, well-educated workers could learn through training or watching. The private sector, too, joined the nation's effort for meeting foreign competition. The decisions by POSCO to build the Pohang Institute of Science and Technology and the Research Institute of Industrial Science and Technology were examples of this trend. POSCO used a great deal of resources to lure back more than 100 top South Korean scientists and researchers who had emigrated abroad while providing a major undergraduate and graduate education in a world-class institute whose focus is on science and technology.

The introduction of new technology to South Korea, especially in manufacturing, was facilitated also through the purchase of capital goods that utilized specialized technology. A data survey of firms in the 1970s reported that suppliers of capital equipment and raw materials were one of the leading channels of foreign technology transfer for all industries.[57] Entrepreneurs in export-related sectors were allowed free access to foreign capital equipment and raw materials. For decades, between 30 and 35 percent of imports were capital goods, and the ratio has increased over time, reflecting ongoing restructuring in the technology- and capital-intensive sectors. Because of the emphasis on restructuring, Korean exporters were able to purchase capital equipment that embodied the latest technology. With well-educated workers and a large amount of capital goods imported from more advanced countries, South Korea was able to adopt new technology readily and easily. Sellers' assistance usually included installation, which enabled the educated Korean workers to learn the operation process free of charge in most cases. Sometimes, as part of the purchase agreements, engineers were sent abroad for training, which was another important source of foreign technology transfer.[58]

Likewise, the educated workforce made it easy for buyers of output to provide technology-related product design, production processes, quality control, and other management know-how to help businesses deliver quality products with appropriate specifications and designs in a timely manner. One survey of firms in the 1970s reported that buyers of output were one of the leading channels of foreign technology transfer for all industries.[59] Accordingly, with the assistance of educated workers, Korea's adoption of an outward-looking development strategy helped entrepreneurs to take advantage of technology transfer easily and at a low cost.[60] This was particularly important for South Korea in earlier years. Korea, with its high level of general education and domestic R&D efforts, was able to take advantage of such technology transfers at low cost. Its proximity to other successful economies, especially, Japan, under which Koreans lived for nearly 40 years before its independence, also promoted the importation of new technology, at a time when innovation and the willingness to develop new product lines were critical.

Large investments in human capital thus enabled South Korea to realize technology transfer much more rapidly and consistently than many other countries, including developed ones. Like most East Asian countries, it had a sustained educational advantage over other developing countries. With its absorptive capacity, South Korea was able to easily take advantage of embodied technology. Notwithstanding these advances, as South Korean industry and exports continued to evolve toward higher levels of technology, domestic research and development efforts needed to continuously adapt. As one International Monetary Fund economist observed in December 1999, the South Korean economy, as well as other Asian economies, would require substantially more investment in education to keep pace with and reap the maximum benefit from worldwide technological advances.[61]

SUMMARY AND CONCLUSIONS

This chapter has examined the volume and fields of investment, the magnitude and nature of public and private investments, and the role of the government in them. It has been found that not only did the volume of investment in South Korea increase rapidly after the Korean War, but its percentage of GDP nearly tripled. Investment in the country increased from a modest level of about 12 percent of GDP in the early 1950s to 30-plus percent after the late 1980s, averaging 24.3 percent per annum during the 42-year period between 1953 and 1994. South Korea's investment was not confined only to domestic industries, it also extended to overseas equity investments in later years. In comparison to the average of about 8 percent for developing countries in the past 30 years and about 15 percent for developed countries, this investment ratio is extraordinary and one of the highest in the world.

South Korea thus moved from one of the lowest-investment economies to one of the highest in the briefest time span of recent record anywhere in the world. The rapid expansion of investment made it possible for labor to process and produce increasing amounts of goods and services. The increases in inputs and productivity through investment, as well as economies of scale and technological progress, have contributed much to the growth of the economy since the Korean War. Much has

changed with the people of premodern Korea, who only a few decades earlier had gone to great lengths to avoid investment and entrepreneurship and condemned risk-taking and adventure-seeking behavior as dangerous and anti-social.[62]

In modern Korea, most (93 percent) of the investment in social overhead capital and manufacturing has been in fixed physical capital facilities, with only a small portion in inventory. The investment in fixed capital took place on two broad fronts, namely, construction and installation of machinery and equipment. Likewise, a relatively large share of the nation's resources was dedicated to investment in human capital by both the public and private sectors. The acquisition of new technology was also stressed, which contributed greatly to South Korea's economic success.

Investment in the country took place in both the public and private sectors, and the government played two distinct roles in both: as an active investor in the public sector, where it was the principal actor in making critical decisions to invest, and as a supporter and promoter of private investment. Public investment was fairly sizable, on average more than 20 percent of total investment during the 45-year period after the Korean War. Public investment was important especially in the field of social overhead capital—electricity, transportation, and communications—and some important large-scale pioneering industries such as cement, chemicals, metals, steel, and even ships, in the early years. The government's contribution to investment in the manufacturing sector, where modern, innovative, capital- and technology-intensive, and large-scale operations took place, was significant. Although its share of the nation's investment decreased over time, it continued to play an important role in directing investment.

Most investment in South Korea, however, was in the private sector, which accounted for more than three quarters of the total. Private investment was concentrated in manufacturing, namely, the light consumer-oriented industries during the early years, and heavy, chemical, and high-tech industries in the later stages. Private investment was made initially in manufacture of labor-intensive, import-substituting, and/or export goods, in which South Korea developed a competitive advantage. However, when the industrial sector based on low-value-added and labor-intensive products faced increasing competition and protectionism from other developing countries, businesses directed their investment into the HCIs and invested heavily in high-value-added, capital-intensive industries. Strengthening the international competitiveness of South Korean industry also required improvements in quality and innovative designs. For this, South Korean firms relied heavily on foreign patents and technology. In comparison to business investment, investment in the household sector, including housing, was relatively limited.

4

INDUSTRIAL AND FOREIGN EXCHANGE POLICIES

Having examined how the requisite investment for rapid economic growth in South Korea was undertaken, the next obvious task is to discern the incentives and means by which the investment was realized. The volume, character, orientation, and pattern of investment in South Korea were by no means happenstance. Powerful forces and incentives promoted investment in the country and provided economic resources for investment in selected sectors, industries, and, sometimes, firms. In addition to its own public investment, the volume and character of investment in certain segments of the economy, industries, and even firms in the private sector in a market-oriented economy such as that of South Korea are determined mostly through private entrepreneurial responses and activities.

One of the most important forces influencing the responses and activities of private entrepreneurs and in setting the volume and pattern of investment is the government, which provides incentives and helps to reduce investment risks, uncertainties, and production costs. Entrepreneurial activity involves uncertainty and risk, which in turn raise the costs of business in a world of imperfect information. By providing incentives and helping to reduce uncertainties and risks related to investment, a society can more readily elicit a positive response from the business community. In particular, by providing an effective system of incentives and creating a favorable environment, the economy can channel existing entrepreneurial energies and economic resources into areas with high social productivity, such as the production of socially beneficial goods and services, away from zero-sum arbitrage and other rent-seeking activities, for a maximum positive entrepreneurial response. The South Korean government provided incentives for investment in certain sectors and business firms with a series of positive policy measures specifically directed toward augmenting their business investment.

The purpose of this chapter is twofold. The first is to examine the role of the South Korean government in promoting investment in the country after the Korean War, its governance and approach, and its industrial policy, which set the tone and created measures designed to fulfill its economic development goals. The second is to investigate the government's specific policies promoting investment in the private sector and to assess their effectiveness. Specifically included in the analysis in this chapter are government property divestiture programs and foreign exchange policies, followed by the assessment of their impact on capital formation in the private sector.

THE GOVERNMENT'S ROLE IN INVESTMENT

In contrast to most developed Western nations, South Korea's heritage—like that of most neighboring East Asian countries—enabled the government to play a very active and critical role in the economic development of the country, including in capital formation, as was the case in modern China and in Japan in its early stages of modernization. The leaders of the Korean government traditionally believed that the task of the government was to lead the nation and manage its governance. This was to be accomplished through strong central government control based on the principle of top-down management. Most political leaders believed that they had inherited the traditional structural role of the literati, promoting the nation's economic well-being through state intervention in the market, based on a traditional Confucian order in which the political decisions of the dominant group are superior to the calculations of individual business firms and considerations of personal welfare, an approach some economists call "Confucian capitalism."[1] In other words, in the past the policy decisions of state bureaucrats superseded the decision making of businesses. The government's role was to plant in the country "a form of 'guided capitalism' in which the principle of free enterprise and respect for the freedom and initiative of private enterprise were observed, but in which the government either directly participated in or indirectly rendered guidance to the basic industries and other important fields."[2]

Most South Korean people supported the strong role of the central government, believing until recently that the government's business was to govern or rule the country and its people, while the duty of the citizens was "to obey"[3] and to be governed for "the interest or good of the country."[4] Many held the view that they should adapt themselves to the society, repressive or liberal, and live within the bounds of given laws.[5] Ordinary Koreans were not supposed to surround themselves with personal luxury goods but rather to subordinate their personal interests to the so-called national well-being, in comparison to the people in other Asian countries. The Taiwanese, for example, seemed to have looked primarily after their family's interests and favored self-employment.

Korean businessmen, too, were expected to subordinate personal gains to national interests. As expected, a few business executives complained of too much government interference, but most endorsed the government approach and stated that

it provided businesses with guidance, not direction by fiat, and gave the government more of a role in setting direction. It was suggested that companies and executives that were opposed to government interference could always ignore the government's directives.[6] Businesses, however, did not have the luxury of refusal. Should they object, the government could discipline and punish both workers and businesses, including conglomerates. Those that objected to government policies were likely to be taken off the list of favored firms and find their access to necessary government approvals and bank and foreign credit denied. The cultural and institutional legacy of a strong, interventionist government thus was embedded in Koreans' psyche. Likewise, bureaucrats and politicians had incentives to maintain their influence in business decisions and private lives. As a result, the developmental state mode of national governance lingered on.[7]

In this sense, the success of the country was measured by both leaders and the governed. This ethos enabled the South Korean government to persuade its citizens, often forcefully, to subordinate their private interests to a higher collective purpose. It could exercise its authority to impose its will on all aspects of life, including the economic. This approach to governance is reflected in the nation's path of economic development after the Korean War. The South Korean people endorsed the economic goals of the government, though sometimes lukewarmly, reasoning that the most urgent task of the nation was to survive in the 1950s, to catch up with North Korea in the areas of industrial development and national defense in the 1960s, to catch up to Japan in economic development in the 1970s, and to become one of the major economic powers of the world in the 1980s and 1990s.

The ethos of governance was founded on the long and rigid Confucian tradition in Korea's history but then reinforced by the legacy and political experience of the Korean people under the short but powerful Japanese military and authoritarian colonial rule. Its authority was firmly implanted in the country's heritage and in its constitution under military regimes. This type of strong, government-directed structure was somewhat modified under the occupation of the United States in the early stages of post–World War II era. Initially, American and South Korean bureaucracies, which had competing interests, were charged with the task of economic planning. The aid agreement of 1949, for instance, defined the mandate of the U.S. economic coordinator in South Korea as "to assist the Government of the Republic of Korea to make the most effective use of Korea's own resources and of aid furnished to it by the U.S. government."[8] The cooperative decisions on aid projects by both the South Korean government and the principal aid donors, the U.S. government and the United Nations Korea Relief Agency, were a major factor in setting the investment pattern.

Two aspects of this government policy, revealed over the course of half a century, were "de-Japanization" and adoption of a free-market system, either at the insistence of the United States or through the changes of government policymakers and bureaucrats. The overwhelming majority of the political leaders and workers following the country's independence were trained by the Japanese military and the dictatorial administration in a more or less secluded environment. It took nearly a half century for the leaders and bureaucrats to depart from the forces of the Japanese era that continued to persist in many quarters. In the early years, most leaders and

workers found it more comfortable to read in Japanese than in English, although they voiced strong anti-Japanese sentiments. It was not surprising to find in the bases upon and methods through which economic policies were established and followed many similarities to those of the Japanese, especially in the early years after South Korea's independence.[9] Now the most important group of leaders and workers in the government and businesses has been American trained.

Notwithstanding the moderating influence of the United States after World War II, the highly centralized South Korean government ruled with a firm hand until about 1987, when the buds of democracy formed and blossomed. Through its many policies, the government undertook to maximize the advantages of the nation's resource endowments and expand certain targeted sectors and businesses in order to achieve "optimal" economic development and improve people's welfare. But the government also took an active and crucial role in capital formation—investment and its financing—during most of the 50-year period that followed World War II.[10] The government intervened directly in markets, utilizing various forms of discretionary manipulation and any available variation of "administrative guidance" and "deliberation counsel." It mobilized the private sector according to the needs and plans of the state,[11] controlled entry into and exit from markets, dictated who could accumulate capital, and managed and disciplined labor.[12] A high American government representative in South Korea, for instance, pointed out in 1957 this approach to governance, observing that the government bureaucracy directly or indirectly controlled practically all aspects of the economy.[13]

And so the central government played the key role in all economic decisions. This style of governance was particularly salient in the era of the military regimes between 1961 and 1987. Other than the American aid donor's moderating influence, the Korean government was involved in all aspects of crucial managerial decisions, including those typically made by entrepreneurs in most Western countries. To implement its policies, the South Korean government established suitable institutions. With little resistance, it quickly established new offices and changed a number of old ones to execute the well-defined economic goals. To begin with, it established under the Prime Minister in 1952 the Office of Planning, which was responsible for the annual budget. It later organized a separate Ministry of Reconstruction, which was responsible for planning reconstruction and development, followed by the new Economic Development Council in 1958.

Finally, in the executive branch of the government, a pioneering principal office in charge of the nation's economic development and investment programs, the Economic Planning Board (EPB) was created in 1961. The EPB combined the functions of planning, economic management, and budgeting. It was supplied with omnipotent tools for promoting the expansion of industrial capacity and enhance the levels of operation and profitability of existing capacity. When its minister was also given the title of Deputy Prime Minister in 1963, the special status of the EPB within the cabinet was further enhanced. The supercabinet level of the Deputy Prime Minister of Economic Planning was a virtual economic czar, and the office supplanted various others, including core economic ministerial offices, such as Treasury, Commerce, Agriculture, and Transportation. The EPB prepared the broad guidelines for the annual budget, collected annual proposals from the other ministers, and

evaluated their feasibility. Its power lay in its ability to designate specific projects for which other ministries prepared the budgets and, above all, it could adjust the budget estimates submitted by the ministries. While the office had the dominant voice in development strategies, including the nation's investment and its financing, the Ministry of Finance had the control over and supervision of the organized financial institutions.

Within the EPB, a capital import bureau was established, and its power extended to the area of foreign borrowing. It was also given the power to guarantee loans and audit and oversee the activities of the borrowing firms. The EPB was given the power to select the capital-goods imports and importers that qualified for government-aided deferred payment privileges. Finally, when the power to approve and extend incentives to foreign direct investment (FDI) was transferred from the Ministry of Finance to the EPB, it effectively gained complete control over Korea's importation of foreign capital. These responsibilities naturally gave the EPB a strong say over the money supply and industrial policy as well. In this way, the micromanaging technocrats at the EPB and other ministries functioned like an officer corps, while the presidential residence handed down the battle strategy.

Because government service conferred status in Korea, as it did in most Asian countries, the South Korean government was able to recruit the most qualified individuals and build a competent bureaucracy. Starting with a highly motivated and well-trained cadre of officials, the bureaucracy worked well when its objectives were clear and it enjoyed strong political support. It internalized the national objectives, was seen to act in the national interest, and did a better job than its counterparts in most other developing economies.

In addition, to fulfill its economic goals, the government established a variety of special-purpose entrepreneurial support institutions, a prime example being Korea Trading Corporation, to help small and medium-sized companies overcome their limited capabilities in overseas markets and expand their exports. To promote and assist investment in the private sector, the government established a number of public corporations that had the functions of promoting private businesses and regulating companies. These included the Korea Trade Promotion Corporation, Korea Mining Promotion Corporation, Korea Overseas Development Corporation, Korea National Tourism Corporation, Korea Labor Welfare Corporation, Industrial Sites and Resources Development Corporation, Korea Land Development Corporation, Agricultural Products Marketing Corporation, and Agricultural Development Corporation.

Also, to encourage private investments as well as to develop economic plans, the government established a number of research and development institutes. In the mid-1960s, it established the Ministry of Science and Technology to oversee all government research and development activities. In order to better coordinate research and development, two scientific institutions were created in the 1970s. The Korea Advanced Institute of Science was founded to develop and offer graduate science programs and to encourage universities to develop their own undergraduate programs in science. Soon after the republic was born, the South Korean government invested in technology research institutes. The Korean Atomic Energy Commission, founded in 1959, was responsible for research and development, production, dissemination, and management of technology for peaceful applications of

atomic energy. The industrial research laboratory, the Korea Institute of Science and Technology, was established in 1967 to conduct research and assist in developing new technologies and products, with one of its aims being lowering costs of production. The Korea Development Institute (a brain trust) affiliated with the EPB was formed in 1971 to conduct economic research and provide consulting services to the government. These institutes were financed and operated by the government technical staffs, and their leaders were mostly trained abroad, most commonly in the United States.

Other support institutions included a variety of special purpose banks and financial intermediaries; for example, the Korea Development Bank, Medium Industry Bank, and Export-Import Bank. Many laws and regulations were enacted as well. In 1982, for instance, almost 1,000 laws and regulations were either enacted or amended.[14] Also, the government offices overseeing the nation's economic development had to work with organizations outside of its structure. Since the main source of financial resources during the early stage was foreign aid, the donors, especially the United States,[15] obviously had significant influence over the allocation of financial resources to the designated users. There was a coordinating council composed of South Korean government officials and aid donors. This approach was well reflected in at least the first five of a series of (seven altogether) five-year economic development plans.

Among all businesses, the group that worked most closely with the government policy makers and bureaucrats in developing and implementing the nation's economic policies and fulfilling its goals was the *jaebeol*, the large business conglomerates. *Jaebeol* leaders assisted and cooperated with political leaders and government planners who relied on their ideas in the areas of economic planning and implementation. The government policy objectives were not formulated, set, and imposed by politicians or bureaucrats alone. They were the result of close and extensive consultation and coordination with the *jaebeol* through channels such as "discussion groups," "deliberation councils," and committees established to guide the development of targeted industries and implement government policies. While the discussion groups enabled private sector groups to influence the formulation and implementation of government policies relevant to their interests, the deliberation councils made the allocation rules clear to all participants. These groups and councils also facilitated the collection and dissemination of important information about export prospects, technological developments, and markets to assist individual firms in their investment decisions. In this way, a highly effective modus operandi emerged in which the *jaebeol* served as shock troops.

The implementation of economic policies was carried out by the government as if it and the *jaebeol* together formed a quasi-internal organization, paralleling that within a large private enterprise.[16] Since transactions between subunits of the latter were often more efficient than the same transactions across a market between independent firms or agents,[17] direct government intervention in the large private enterprises was smoother and more efficient than functional incentives.[18] In this way, relevant information was shared directly instead of indirectly across markets, through prices. The government then was able to use other incentives and control techniques to curb a small number of opportunists, coordinate interdependent

enterprises so as to adapt to unforeseen contingencies, and resolve by fiat small-number bargaining indeterminacy among enterprises for the so-called public good. Under this setup, the part of the private sector consisting of small and medium-sized firms did not participate directly in the process and was not subject to direct government intervention, but policy decisions of the government that had an impact on large enterprises indirectly influenced their activities, because many of these firms were connected with large enterprises either as suppliers or customers. In this way, government influence extended over a wide range of fields and businesses.

Once the nation's vision and targets for economic progress were formulated, the government charted its course of action to implement the policy objectives, based on private ownership and management, as in most developed economies. The South Korean government maintained its objectivity about its policies and was pragmatic and flexible. Not only was economic development mandated, but its fulfillment was closely monitored by the government. Policies were constantly subject to review and scrutiny, and inappropriate ones were quickly replaced. Of the almost 1,000 laws and regulations either enacted or amended in 1982, for instance, about one-tenth were revised more than twice in the same year.[19]

INDUSTRIAL POLICIES

The strong leadership commitment to the nation's economic development naturally resulted in the Korean government's active involvement in the nation's resource allocation. To modernize the economy and maintain overall sustained economic growth at a rapid rate, the two primary economic goals of the country, the government took a forceful and crucial role in setting goals and strategies and implementing appropriate policies to meet them soon after the Korean War. The general belief in the country was that the only path to economic growth was the "modernization" of the economy, which may have many meanings, but to most Koreans it was synonymous with industrialization and expansion of the industrial sector.

To fulfill the economic goals of South Korea, namely, modernization and rapid economic growth, the leaders of the government believed that it was necessary to industrialize its economy; thus, in cases of obvious market failure, the industrial policy was implemented as the cornerstone policy of the South Korean government. The industrial policy included strengthening key industrial sectors, increasing employment, developing more effective, "modern" management systems, placing production where domestic capacity did not exist, and expanding the nation's industrial output. Consequently, South Korea's initial strategy focused on reconstruction of infrastructure and industry, economic stabilization, and inward-looking industrialization. Under the banner of industrial policy, the South Korean government pursued sector- and sometimes firm- specific industrial development policies throughout the period, as is shown in all seven five-year economic development plans during 1962–96.[20] It called for the expansion of new facilities in the industrial sectors and financial support of them. The industrial expansion was pursued under several different policies, namely, the import-substitution policy, export promotion policy, heavy and chemical industry (HCI) policy, and the high-tech industry policy.

Import Substitution

The industrial policy came first under the banner of "Koreanization" or "localization." In the 1950s, the government instituted a strong policy later known as "import substitution." It selectively promoted import substitution in such nontraditional sectors as producer goods (petrochemicals and electrical machinery, for example) and, later, consumer durables and automobiles. As a way to replace imports with domestically produced goods, the government gave certain new or expanding industries protection from overseas competition.[21] It made the importation of such goods difficult by various means, including high protective tariff walls on imported manufactured goods, and finished and semiprocessed goods. During the 1950s, 1960s, and early 1970s, it built up an effective protection tariff rate of nearly 30 percent on manufactured goods. It also imposed an import quotas and import permit system in which the importation of such goods as chemical products were either banned or restricted. At the same time, to promote and expand industrial facilities for the import-substituting sector, tariffs were lowered on capital goods and raw materials in 1957. This provided new opportunities for profit in a range of processing industries, including the famous "three whites," namely, sugar, cotton, and wheat flour, which had liberal access to Public Law 480 shipments (see chapter 7). For example, wheat was provided virtually free of duty to millers. The cost of producing a sack of wheat flour was estimated at 35 *won*, but domestic manufacturers were able to charge 120 *won* per sack, and shortages sometimes drove prices to 500 *won*.

In 1977, the import surveillance system was established to monitor imports of newly liberalized items for special treatment. Moreover, the government introduced price ceilings on imports to protect the profitability of domestically produced goods. This policy included the maintenance of a low value for foreign exchange vis-à-vis a high value for Korean currency so that prices of imports stayed high (in Korean currency) while generous subsidies were provided for capital to expand import-substitution industries during 1953–65. In these ways, controls were in place to limit imports of consumer and other goods, which the government did not regard as "necessities,"[22] while import-substitution industries were promoted at home. As a result, under the import-substitution program, new industries were formed and domestically produced goods replaced foreign imports. In addition to flour, in the early years they included such goods as sugar, textile, woolens, flat glass, newsprint, rubber tires,[23] fertilizer, cement, steel, and petrochemical manufacturing.

The import-substitution policy is not surprising, since South Korea inherited a shattered economy at the time of liberation, brought about by Japanese negligence of capital facilities during World War II and Korea's dependence on the Japanese economy for its supplies. The situation was worsened with the separation of the South Korean economy from the complementary North Korean economic structure (which was, among other things, a major supplier of electric power). This was followed by the massive Korean War destruction, so that imports were needed to replace production where domestic capacity no longer existed. Since domestic industrial capacity did not meet the needs of the country, it was felt that the country should reconstruct, expand its industrial facilities at home, and protect the domestic

market rather than relying on imports. Producing domestic output to meet the country's demand necessarily involved substitutions for imports, but making that happen necessitated building, expanding, and protecting manufacturing facilities at home.

Export Promotion

By about 1962, South Korea ran out of easy import-substitution industries, and with the toppling of Rhee's regime, the new military government made major changes in its industrial policies. The primary goal was to establish a self-reliant industrial economy independent of the massive waves of U.S. aid that had kept South Korea afloat during the previous administration. As a consequence, a policy of export promotion was adopted whose sole purpose was to encourage domestic producers to export at the lowest possible price in order to compete successfully in the world market or some part of it. In this way, the earnings from exports would provide sufficient foreign exchange to import the needed raw materials, and intermediate and capital goods for production to expand exports. This strategy was particularly appropriate at that time because of South Korea's poor natural resource endowment and tiny domestic market.

The South Korean government devised an open-door, export promotion policy. It provided incentives to businesses, financial as well as nonpecuniary, to encourage investment in export-goods industries, which will be scrutinized later in this chapter and in chapters 5 and 6. It created a favorable social atmosphere, even giving prestigious awards in which contributions to exports were lauded as something good for society and even patriotic. In a society in which great value was placed on social harmony and cooperation, recognition for entrepreneurial activities created a favorable environment for them, which was quite contrary to the traditional value that prevailed before 1876.[24] By stressing that such activities directly benefited society, the government was able to solicit a positive entrepreneurial response.

The government also attempted to reduce the opportunity costs of export activities. It assisted exporters by exploring export markets within international agreements and by establishing the Korea Trade Promotion Corporation.[25] It provided information about markets abroad and helped to find new business opportunities, modeled after the Japanese. It sent numerous special trade missions abroad and negotiated agreements with important potential trading partners, including West Germany, Italy, Austria, and Mexico. Embassy staffs abroad, up to and including the ambassadors, were pressed into service as export promoters. Also, many procedures were simplified, such as for the importation of capital goods and intermediate products, and special consideration was given to exporters who had difficulty filling their orders.

Perhaps most important, the government created a favorable business environment in which export industries could prosper. Significant import protection existed well into the 1980s, and the government instituted offsetting policies to ensure that import protection did not result in the anti-export bias so prevalent in other developing countries. Consequently, it decided to eliminate the import surveillance system. These accommodations not only reduced uncertainty but enhanced confidence in the government's ability to maintain a favorable export climate.

The government promoted local industries also by reducing high tariff rates for capital goods and raw materials imported for export production. A five-year tariff reduction program was introduced in early 1983. The tariffs, which stood at 23.7 percent as late as in 1983,[26] were quickly reduced and even eliminated for many material imports used for producing export goods. The tariff rates for industrial goods were lowered to 18.7 percent and then 16.9 percent in 1988; tariffs on farm products were lowered from 27.2 percent to 25.2 percent. In 1988, another five-year tariff reduction schedule was initiated with the objective of making Korean tariff protection comparable to that which prevailed in the countries of the Organization for Economic Cooperation and Development by 1992.

The very active export promotion schemes that South Korea introduced in the early 1960s and 1970s—by providing various new fiscal and financial subsidies, correcting overvaluation of the local currency, encouraging businesses to import export-related raw materials and capital equipment freely, and introducing generous wastage allowances for export-related production—were important for its investment in the industrial sector and rapid industrialization. Quarterly export targets were publicly announced. These targets, ever increasing to seemingly unattainable levels, were negotiated jointly with the exporters' associations, sometimes in combination with export subsidies to secure acceptance of the targets.

At the same time, the government granted local industries financial incentives. It supported exporting industries with business tax exemptions for five years and reductions of corporate and private income taxes, although the preferential tax programs were later revised to give more equitable treatment to different industries.[27] It also turned a blind eye to widespread tax evasion. It was reported that businesses, for instance, evaded two billion *won* of import commission taxes.[28] Subsidies of various sorts were granted to producers of exports. Direct export subsidies were granted on 71 items, ranging from 5 to 25 *won* per dollar of exports, with the averages ranging between 3.6 to 10.3 *won* per dollar's worth of exports between 1961 and 1964 (this declined over time).[29] Also included in the financial incentives for exports were accelerated depreciation allowances. These incentives were employed across the board and generally applied to all firms automatically.

The government used other, less automatic instruments as well, including foreign exchange and interest subsidies, which applied to selected industries, goods, or firms. Along with financial support, selected individual commodities, industries, and domestic exporters were given specific export performance requirements. The export-oriented policies provided opportunities for even small firms to enter the export game, either directly or as suppliers to the *jaebeol*. While the government retained a high level of discretion over some policy instruments, others, such as loans to exporters and access to imported inputs, were extended to exporting firms on a nondiscretionary basis. Even when discretionary favors were extended to large firms, they were generally tied to some developmental purpose. Nonetheless, the government acquired greater control over the instruments of economic policy than it had possessed during the 1950s. A detailed examination of these privileges and subsidies is provided later in this and the following two chapters.

These support activities were important, particularly in the early stage of export promotion in the 1960s, especially for small and medium-sized exporters, when

export pessimism prevailed and inexperience made them unsure of themselves. These measures were designed to offset the import-substitution biases of the early years and to expand export industries. They made it easier and less costly for entrepreneurs to engage in socially productive ventures such as exports. In these ways, the government policies stimulated exports—particularly by newly emerging export sectors, which typically operated as cartels and, through protection, received higher incentives to export than to sell domestically. Because of these supports, the export targets generally were met or exceeded, even when they were revised upward within the same year, as frequently occurred.

Heavy and Chemical Industry Expansion

Heavy and chemical industry promotion policy is a good example of this industrial strategy. The government policy of expanding these industries involved both import substitution and export promotion. The government shifted its focus to nurturing the so-called basic industries—steel and the HCIs—in order to reduce the country's dependence on imported capital and intermediate goods and raw materials. The promotion of the HCIs through industrial targeting was accompanied by typical import-substitution policies, such as restricting imports of certain intermediate goods produced by these industries in the early years of policy implementation. The initial strategy under the banner of import substitution was to nurture light consumer-oriented and labor-intensive industries, in which South Korea developed a competitive advantage. Up to about the early 1970s, South Korean industries were able to operate largely with cheap labor. However, thereafter they had to compete in the international marketplace. The government shifted from supporting labor-intensive light industries to supporting high-value-added and capital-intensive industries such as the HCIs. Under this plan, the focus of the government's industrial policy changed from industry-neutral incentives for exports to industry-specific, and even sometimes firm-specific.

To promote their development, the government devoted $960 million to accelerating the expansion of several specific industries, the so-called strategic focus on HCIs, between 1972 and 1981. Six industries targeted were steel, nonferrous metals, industrial machinery, shipbuilding, petrochemicals, and electronics. This outward orientation should not be equated with openness, however. To promote heavy industries, the government concentrated its assistance on selected private corporations, which resulted in a close working relationship between the government and business and recurring problems for the Korean economy. This private-public relationship between businessmen and bureaucrats spawned sprawling conglomerates—the *jaebeol*—including Samsung, Hyundai, and the now-defunct Daewoo. These privileges and subsidy policies are examined below and in following chapters.

The Liberalization Policy

After having experimented with HCI policy, the South Korean government decided in the early 1980s to redirect its industrial policy to mitigate the adverse effects of government intervention in business. It began to relax and liberalize the control and

regulation of businesses. The direct government supports were slowly reduced after the 1980s, especially with the implementation of the sixth five-year economic and social development plan (1987–91). The sixth plan attempted to accelerate import liberalization and remove a number of restrictions and nontariff barriers on imports. It also included such measures as monetary expansion and delays in the adjustment of the industrial structure, which had arisen because of a large surplus of funds. The government also accelerated its measures to phase out direct assistance to specific industries and in its place to expand manpower training, research, and development in all industries, especially the small and medium-sized firms that had not previously received much government support.

Selective industrial promotion laws were replaced with a new law in 1986. This law was intended to encourage the "rationalization" of declining industries and to upgrade their technology. For instance, to strengthen the country's international competitiveness, the South Korean government required businesses to improve the quality of their products and introduce more innovative designs. Rather than developing new products through research and technology, the latest initiative actively encouraged the importation of foreign technology through a variety of mechanisms such as requiring technology improvements as a component of joint venture FDI (examined in chapter 8). Industries designated for rationalization were supported by restrictions on entries and mergers for a period of two to three years.

The above examination revealed that the nature of its economic policies was pragmatic and flexible over time, which was well reflected in the objectives and major policy directions of the five-year economic development plans. In their early stages, the plans were more or less directives that the private sector was to follow. When policies proved to be ineffective or sectoral policies were found to conflict with macroeconomic equilibrium, they were abandoned. South Korea's sharp policy reversal with respect to its HCI drive is a case in point. Faced with the effects of the second oil shock in the early 1980s and the domestic overheating of the economy produced by the HCI drive, the South Korean government, reversing its credit allocation policies after supporting that sector for almost a decade, introduced drastic stabilization measures. Trade liberalization replaced protection, commercial banks were privatized, and the attempt to pick winners was abandoned.

Also, following the era of President Chung Hee Park, who personally played a powerful, and often crucial, role in economic choices, South Korea's leaders came to support the principle of shared growth in order to win the support of the society at large. They promised, in effect, that as the economy expanded, all groups would benefit. In the early 1980s, the government instituted wide-ranging structural reforms. The strong government intervention policy in private business gradually was moderated. Policies on imports and foreign investment in the later years were liberalized to promote competition. The five-year economic development plans in the decades of the 1980s and 1990s could be characterized more as indicative than as directive.[30] The government also created an infrastructure more complementary to private businesses.

Further responding to the demands of the populace, the president ordered his economic aides in 1993 to draft a five-year plan that would remove direct government controls and encourage free-market principles.[31] In this way, it transformed

itself to some extent from a policeman to a partner. Also, in order to control inflation, a conservative monetary policy and tight fiscal measures were adopted. South Korean leaders thus built a more business-friendly environment, of which a major element was a legal and regulatory structure that was generally hospitable to private businesses. It is clear that strong leadership commitment was instrumental in bringing about a government-led development strategy until recently. Such a strategy is manifested in the government's involvement in resource allocation and investment activities in particular. Because of its importance in capital formation and economic development, the role of the government's numerous policies and programs is examined throughout this study.

POLICIES AFFECTING BUSINESS INVESTMENT

With the government's industrial policies now outlined, examined below and in the next two chapters are the government policies that affected private investment and those policies' impact on capital formation. In addition to making direct investments in public enterprises, the government played an important role in expanding the volume and the nature of investment in the private sector. Accompanying the informal means of pressure and persuasion, its policies to promote private business investment ranged from legal security to basic freedom of enterprise and the protection of domestic markets for local producers. Until recently, no major industries were left without either quantitative restrictions or tariff protection adequate to maintain strong domestic market positions.[32] Liberalization in the first half of the 1960s was extremely selective, with protection of the domestic market for consumer goods left in the hands of local firms.[33]

Policies to expand certain domestic industries in designated sectors also included government services such as financial and technical assistance that amounted to virtual partnerships with private interests to help Korean producers sharpen their competitive edge in the world market. In addition to concrete and effective institutional supports for business management, the Korean government pursued policies and programs until about 1986 intended to keep production costs low relative to productive inputs. One means of meeting this policy was the maintenance of low input wage costs, the major component of the cost of production, while providing a high-quality and docile labor force. The abundant supply of labor, sizable unemployment or underemployment in the early years of development, and the authoritarian government's pro-management labor and union suppression rule kept wages low for more than three decades. The average wage in South Korea was an eighth of that paid in Japan in 1966[34] and was $1.39 per hour in 1985, compared with $1.67 for Taiwan, $2.23 for Singapore, $9.50 for Japan, and $13.09 for the United States.[35]

Another way that wages were kept low was by curbing the bargaining power of labor unions. The government outlawed all but unions that they sanctioned. It issued a set of labor laws aimed at reshaping South Korea's growing labor movement. It also used "brute force to keep workers in line."[36] Union leaders were fired or imprisoned, regulations made legal strikes virtually impossible, and one union

was even disbanded as a public nuisance. The laws effectively restrained the increasingly powerful industrial unions and turned over their bargaining and other powers to unions that represented only the workers at one work site, however small. Overall, the Korean government has generally been less vulnerable and less responsive than governments in other developing countries to organized labor's demands to legislate a minimum wage.

In addition, the government ordered banks to refuse loans to companies that raised wages by, for instance, more than 10 to 15 percent in 1981. The directive represented a considerable level of pressure in a country where most companies depended heavily on the government.[37] Because wages, or at least wage-rate increases, have been downwardly flexible in response to changes in the demand for labor, adjustments to macroeconomic shocks have generally been quicker and less painful in South Korea than in other developing countries. Consequently, employment levels have risen first, followed by market and productivity-driven increases in wage levels.

Likewise, there were effective institutional supports for considerable labor market flexibility. Labor market policies tended to use the market and reinforce its flexibility. Even the existing labor laws and regulations were widely violated in order to meet the government's export target goals. According to a Labor Office investigation in 1973, 96 percent of business firms violated the labor laws, including violations regarding working hours, nighttime work, and "coffee breaks."[38] Companies thus were accustomed to getting help from the government and ignoring the needs of workers,[39] and a docile work force acquiesced to the low wages and long work hours. In this regard, the government's roles in labor markets in South Korea in the past contrasted sharply with the situation in most other developing countries. The government focused its efforts on generating jobs and boosting the demand for workers.

Government support for industrialization included even reduced utility rates for industrial firms. The rates for industrial use were about 77 and 41 percent of those for household and the commerce and public sectors, respectively.[40]

Government support for the industrial sector also accompanied the fiscal policy, which was geared toward supply-side economics. Korea's fiscal policy during the industrialization period included a relatively small public sector, adherence to a balanced budget until about 1981, relatively little spending for redistributive social services and welfare programs,[41] and the budgeting of scarce resources for industrial development.[42] One of the fiscal policies employed to promote investment was subsidies, which are examined in this and the following chapters.

The most important aspect of the tax policy to promote investment and rapid industrialization was the provision of a low tax burden and high tax incentives for businesses. While imposing comparatively low share of taxes on businesses and relatively small expenditures in GDP, the government relied heavily on indirect consumption taxes for its revenue. Also, many believe that the business tax codes constituted a prime discretionary sanction in government-business relations.[43] Combined with an insignificant property tax, the government extensively and liberally applied various tax incentives to induce the private sector to engage in economic activities that seemed desirable for industrial development and export growth.[44]

The government also created "contests" that combined competition with the benefits of cooperation among firms and between government and the private sector. The key feature of each contest was rewards based on performance, which the government and competing firms monitored. The rewards of these contests ranged from very simple nonmarket allocations, such as access to rationed credit for exporters and access to foreign exchange and/or credit (examined later in this chapter and in the next chapter) to the coordination of private investment in government-business deliberations.

GOVERNMENT PROPERTY DIVESTITURE PROGRAMS

In addition to the pro-business and pro-management policies briefly surveyed above, the government actively initiated a number of policies that provided financial incentives for investment in selected segments of the private sector. The first major government program that specifically and directly placed sizable capital resources in the hands of private businesses was the divestiture of government-owned assets to them. These were assets left behind by the former Japanese colonialists and those established and operated by the government after the Korean War.

Former Japanese Assets

As noted earlier, following World War II, the South Korean government inherited an extensive network of assets and plants that had been owned and operated by the Japanese government and private businesses in the country during colonial rule. It was estimated that approximately 94 percent of all industrial and business assets in Korea before World War II were in the hands of the colonial government and Japanese citizens; when the Japanese were repatriated after the end of the war, they left behind over 2,500 vested industrial and business enterprises in South Korea. These included facilities in the fields of food processing and brewing (472), machinery manufacturing (322), textiles (248), metals (840), chemicals (60), fertilizers (61), rubber products (38), commerce (136), construction (111), printing (102), milling (96), farming (89), transportation (75), mining (74), pharmaceuticals (60), electric power generation (51), banking (43), fuels (42), and others, in addition to housing and other personal assets.[45] Their value was estimated at about $2.2 billion in 1945 prices (probably a little over $20 billion in year 2000 prices),[46] although many industrial properties had deteriorated during World War II and sustained major damage during the Korean War.

Following World War II, the U.S. military and the South Korean government operated the facilities and plants provisionally as best as it could and helped to fund reconstruction efforts for some of them through both the Korea Reconstruction Bank and local commercial banks. But then, while retaining most of the public utilities (such as electric power, railroads, and communications networks), and the public monopolies on tobacco, ginseng, salt, banks, and coal mining, the U.S. military and South Korean governments sold/turned over most of the business facilities, as well as personal Japanese assets, to private individuals under the Divestiture

of Enemy Property (*jeoksan bulha*) program, starting in 1947, and under the Repatriated Property Liquidation Law (G*uisok Jaesan Choli-bob*), promulgated in May 1949.

The law stipulated that former Japanese property would be sold (1) at the "current market price," and (2) that the payment would be made in either a lump sum or deferred installment payment privileges for a maximum of 15 years with a 10 percent down payment. The typical transaction was the installment payments arrangement, in which the purchaser agreed to make a down payment of one-tenth of the purchase price and the rest in 10 equal annual payments. By 1953, about two-thirds of the enterprises were reported to have been "sold" or "handed over" to Korean individuals;[47] by July of 1956, the Bureau of Property Custody had sold all but about 10 percent of the original 2,700 vested business properties.

In carrying out the divestiture program, priority was given to those who had managed or leased the former Japanese-owned factories and farms.[48] Most buyers were reported to have been clerical workers in firms under Japanese rule or administrative employees under U.S. military rule. Approximately 73 percent of the properties were divested in this manner. Almost all big business sales were made in this way, as were about 40 percent of the big manufacturers of the 1950s (36 out of 89) and 68 percent of the top 22 businesses (15 out of 22).[49] Unfortunately, there are no reliable and comprehensive data as to the value of the divested Japanese plants. However, based on the estimated value of the large number of former Japanese assets that were sold or transferred to private businesses, their worth may be estimated at about $2.5 billion in 1961 prices,[50] which was probably more than three-quarters of the total private capital (not including agriculture) extant in South Korea at the time.

New Public Enterprises

A similar situation developed with a number of public corporations established after the Korean War to pioneer some of the basic import-substitute industries—such as fertilizers, oil refining, petrochemicals, and steel—which were mostly built under the aid programs and with foreign loans, some of which were examined in chapter 3. Most of these were large public enterprises with their corresponding economies of scale, which no private business in South Korea at the time had the wherewithal or the technical knowledge to invest in and operate. Even if a private business had been able to take over such facilities, that producer would likely have come to dominate the market and establish a monopoly position in those industries. The number of these public enterprises in 1963, including the vested Japanese plants (but excluding local public enterprises), was reported to have been 52. The value added by them was equal to 7 percent of GDP, while their assets represented 31.7 percent of the total invested capital in the country at the time.[51]

Many of these businesses were sold to private firms after 1964. They were sold at a negotiated price to be paid off either in a lump sum or in installment payments for a maximum of 20 years with a 10 percent down payment, somewhat similar to the divestiture program of former Japanese property. The typical transaction was the installment payment arrangement, in which the purchaser agreed to make a

down payment of one-tenth of the purchase price and the rest in 10 equal annual payments. The sale of Korean Air, founded by the government in 1962 and the country's sole airline until 1988, was sold in 1969 for 1.45 billion *won* (which was equivalent to about $4 million then at the realistic exchange rate). Payments were made in equal installments in Korean currency for a 10-year period, with a 10 percent down payment. The purchasers became the practical owners once they made the down payment.

In later years, the divestiture of some of these government enterprises was implemented through the sale of the government's stock shares by the Korea Development Bank, while the government continued to hold some capital shares of the companies.[52] The government privatized the Citizens National Bank and the Korea Foreign Exchange Bank by selling their shares by public subscription under the national stock system and by expanding employees' share of ownership in them. Since then, the government has announced many divestiture and privatization plans,[53] but the sale of government enterprises to the private sector accelerated only after 1986 through the issuance of capital shares.[54] In the case of the Pohang Iron & Steel Company (POSCO), the world's third-largest steelmaker, with 75 percent of shares reserved for private ownership in 1986, the government announced in 1987 that it was going to transform it into a private company, in line with its new policy of privatizing state-run corporations. This was followed with its announcement in June 1988 that it was going to sell half of its stake in POSCO, but that was not implemented until later.[55]

After the installation of a new democratically elected government in 1992, the Planning and Budget Commission twice announced plans to privatize most of the remaining public enterprises. According to an announcement made in 1998, out of a total of 108 existing public enterprises—13 wholly government-funded entities plus 30 related subsidiaries, and 13 partly government-funded organizations plus 52 related subsidiaries—32 (11 wholly or partly government-funded entities plus 21 related subsidiaries) were slated to be privatized. The 32 enterprises to be privatized in the first phase of the plan represented 30 percent of the existing 108 public enterprises but accounted for some 70 percent of their overall sales and the number of employees involved. More recently, the government slowly privatized a number of these public enterprises by selling stock to private citizens under its privatization program.

The government continues to retain the control of many enterprises even at this time by remaining as the principal and/or minor stockholder. The divestiture of public enterprises certainly took place at a much slower pace than that which had been pronounced. In the case of the sale of public shares of POSCO, for instance, the government retained a majority share of the stock until 2000, when it became a minority owner. In 2001, it allowed foreigners to own up to 53 percent of POSCO's shares. Similarly, in 2000, the South Korean government sold its 20 percent stake in the Korea Tobacco and Ginseng Corporation to an undisclosed foreign buyer.

As of 2001, the number of public enterprises, which had been 89 in 1975 (employing 305,000 workers, or 2.7 percent of total employment in the nonagricultural sector in 1985, a figure that increased to 107 in 1986), was about 90. These included the Korea Electric Power Company, for which the government announced in 1988

that it would sell 30 percent of all of its shares to the public, Korea Telecom, and Korea Heavy Industries and Construction. As a part of the government's ongoing reform efforts, the Korea Tobacco and Ginseng Corporation was scheduled to be privatized by the end of 2002. Also, until recently, foreigners were banned from directly purchasing shares of state-run companies placed under private management, and the number of shares an individual could hold was also restricted. Many of these government enterprises have been expected to be privatized, but the transfer has been postponed many times.

When the number of wholly or partly government-funded enterprises was reduced from 24 to 13, the number of affiliated subsidiaries was also slashed, from 75 to 8 (11 firms were targeted) in 2002. The first phase brought about a drastic reduction in the holdings of public enterprises.[56] Among the firms divested were the Daihan Printing and Publishing Company; Korea Tobacco and Ginseng Company, Korea's largest tobacco company; the national oil pipeline operator (DOPCO); and the Korea District Heating Corporation. The administration further liquidated, merged, or sold 66 of the 77 affiliates of public corporations on the restructuring list. In the corporations not divested (16 leasing companies, including the Korea Electric Power Corporation and Korea National Oil Corporation) the government laid off 21,700 workers, or 24 percent of total employees, between 1998 and 2000.

As with the divested former Japanese property, there are no reliable and comprehensive published data as to the value of the divested government plants established after World War II, so it is not possible to calculate their total value with precision. Nonetheless, based on the known value of some new government properties that were sold to businesses, their value could not have been less than $1 billion at the minimum in the year 1960–71 prices. This value may have constituted at least a fifth of the total private capital at the time.

Economic Impact

The government property divestiture programs had two major impacts on capital formation, namely, a large endowment of capital assets in private hands and large bounties, windfalls, and subsidies granted to business purchasers.

The Formation of Private Capital

One clear-cut consequence of government property divestiture programs was an enormous increase in capital assets in the private sector. As already noted, the lack of reliable data on divested government property does not allow us to calculate its value with precision. However, as examined in this chapter, more than half or even as much as three-quarters of the nation's capital assets were transferred to the private sector in its moves to divest most of the government-owned production facilities, which included former Japanese plants and some public enterprises that constituted the dominant segment of manufacturing productive facilities under the government property divestiture programs. Based on the values given in the previous section, its worth may be estimated at a minimum of about $3.5 billion in 1960–71 dollars (probably about $20 billion in year 2000 prices), making up about $2.5 billion of

the former Japanese property and $1 billion of public enterprises. They laid the economic foundation for the private sector, which became the principal actor in the rapid expansion of the industrial sector and economic growth.

Before 1953, there was not much private capital, nor was there much domestic savings available for investment in the early years after the Korean War, as examined in chapter 7. With the purchases of government properties, the private sector augmented its capital stock not only absolutely but also relative to the aggregate capital endowment of the country during the years before the major economic expansion commenced. Without the divestitures, the private sector would not have fulfilled the production needs of the country so quickly. The purchase of numerous publicly owned and established enterprises gave them a head start in founding new businesses and rapidly expanding old ones in a short time period. Private capital probably constituted about three quarters of all capital in South Korea in the late 1960s. The huge transfer of capital to private hands relative to total capital meant the private sector would play an important role in South Korea's economic development. Should this estimate be considered reasonable, then the property divestiture deserves a more careful evaluation in the future to obtain more definitive figures.

Property Wealth Bounties

The government property divestiture programs not only enabled the private sector to acquire large amounts of former Japanese property and public enterprises speedily, but they also provided private businesses with substantial sums of property wealth bounties. Former Japanese properties were "sold" or "handed over" to the buyers or beneficiaries at "bargain prices," and many buyers acquired them for virtually nothing as payment. In some cases, properties were "bought" by businessmen at "almost no cost."[57] One such case was the sale of a spinning mill in 1954, which was the most important asset among the textile plants sold under the Japanese property divestiture program. It was reported that the sale price of the mill was one-tenth of its market price.[58] The very large scale of the plants in South Korea's primitive industrial sector after the war gave these properties a prominent role in supplying the growing textile markets on the peninsula and in the world.

In many other cases, the new owners did not even have to buy the plants. In some cases, they merely paid a nominal "repatriation cost" to the vanquished Japanese owners for the right to the title and took over the property. In other cases, acquisition of the "liberated" Japanese property took the form of everything from outright "stealing" to Byzantine legal efforts to prove prior title. Apparently, anyone could justify himself as a legitimate heir to at least a portion of the property. In other words, a substantial portion of the assets was surrendered by the government to the so-called buyers with a large bounty.[59] Since these properties were sold or transferred at virtually no cost or at very modest prices—certainly far below the market value, typically at less than half—of the real values or costs of the assets, particularly in the early years, the buyers acquired them through bounties with sums from one-fifth to no more than one-half the value of property.

Unfortunately, the lack of reliable data does not allow us to calculate with precision the value of the bounties involved. Nonetheless, based on the conservatively

estimated sum of the large number and value of the former Japanese assets and government properties that were sold or transferred to businesses and the gap between the worth of some of the divested Japanese assets on the one hand and the prices at which these properties were sold or disposed to buyers on the other, the value of the divestiture bounty was vast. If the real market worth of the divested Japanese properties was set about $2.5 billion in year 1961 prices, the value of wealth bounties of the former Japanese properties may be estimated at a minimum of half of the value of property, or $1.25 billion (probably more than $7 billion in year 2000 prices). This value would probably have constituted nearly half of the value of all private capital (excepting agriculture) in that year.

Akin to the sale of the former Japanese assets, the divestiture of old and newly established public enterprises after World War II under foreign aid programs was also very much in favor of the buyers. The enterprises were sold to private businesses at low prices and with attractive terms of sale. Their sale prices, however, were not as favorable to the buyers as those of the former Japanese properties. It was estimated typically at about four-fifths of the market value. The Chungju Fertilizer Corporation, for example, was sold on April 1, 1964, to a private business. Its sale price was considerably less than the cost of construction. The cost of construction started out at 3 billion *won*, but total capital invested increased its cost to 5 and 7 billion *won* ($15 and 20 million) in 1966 and 1967, respectively.[60]

Since these properties were sold at modest prices, the buyers acquired them below their real value. Unfortunately, the lack of reliable data does not allow us to calculate definitively the value of the bounties involved in the transactions. The value of the assets that were sold to private businesses has not been confirmed, but the buyers appear to have purchased the property at prices about 10 to 20 percent below the real values. Based on the estimated value of a few public enterprises that were sold to businesses and the gap between the worth of some of them on the one hand and the prices at which these properties were sold to the buyers on the other, the value of the bounty was more modest in comparison to the former Japanese property wealth bounties, but was substantial nonetheless—conservatively, about one-tenth of the value of the assets. Based on a real market value of the divested public enterprises of about $1 billion at a minimum in 1961 prices, the value of the divestiture bonuses on the government properties may be estimated at about a tenth or $100 million at a minimum.

The Inflation Windfall

Another significant benefit that the purchasers derived from government property divestiture programs was the inflation windfall. An inflation windfall was provided to the buyers of government property on their installment payments via the reduction in real purchasing power of Korean currency in which a business purchaser paid back the loan. The inflation windfall was realized because the buyer's payment for the purchased property was reduced in real purchasing power by the rate of inflation during the payment period.

Accompanying the chaotic and unstable economy and the expansionary monetary and financial policies that were implemented soon after World War II, South

Korea was engulfed in rampant inflation. During most of the period between 1945 and 1981, when much of the payment for government property divestitures took place, the South Korean economy experienced double-digit inflation, as shown in Table 4.1. Starting with a more than 50 percent per year rate of inflation on average until about 1956, prices continued to rise at an annual rate of about 17.3 percent on average between the signing of the armistice of the Korean War in 1953 and about 1981. Because of rampant inflation, business buyers who bought government pro-

TABLE 4.1 Estimated Price Changes and Loan Payment (in constant value)

Year	Price Changes	*Relative Value* 1953	1954	1955	1956	1958	1960	1962	1963	1964	1965	1966
1953	53.1	100.0	—	—	—	—	—	—	—	—	—	—
1954	36.0	65.3	100.0	—	—	—	—	—	—	—	—	—
1955	69.6	48.0	73.5	100.0	—	—	—	—	—	—	—	—
1956	22.5	28.3	43.4	59.0	100.0	—	—	—	—	—	—	—
1957	23.1	23.1	35.4	48.1	81.6	—	—	—	—	—	—	—
1958	(3.1)	18.8	28.8	39.1	66.3	100.0	—	—	—	—	—	—
1959	4.3	19.4	29.7	40.4	68.4	103.0	—	—	—	—	—	—
1960	8.3	18.6	28.4	38.7	65.6	98.9	100.0	—	—	—	—	—
1961	8.0	17.2	26.3	35.7	60.6	91.4	92.3	—	—	—	—	—
1962	6.5	15.9	24.3	33.1	56.1	84.6	85.5	100.0	—	—	—	—
1963	20.7	14.9	22.8	31.1	52.7	79.4	80.3	93.9	100.0	—	—	—
1964	29.5	12.4	18.9	25.7	43.6	65.8	66.5	77.8	82.9	100.0	—	—
1965	13.6	9.5	14.6	19.9	33.7	50.8	51.4	60.1	64.0	77.2	100.0	—
1966	11.2	8.4	12.9	17.5	29.7	44.7	45.2	52.9	56.3	68.0	88.0	100.0
1967	10.8	7.6	11.6	15.7	26.7	40.2	40.7	47.6	50.6	61.1	79.2	89.9
1968	10.4	6.8	10.4	14.2	24.1	36.3	36.7	42.9	45.7	55.2	71.4	81.2
1969	12.9	6.2	9.5	12.9	21.8	32.9	33.2	38.9	41.4	50.0	64.7	73.5
1970	15.6	5.3	8.4	11.4	19.3	29.1	29.4	34.4	36.7	44.3	57.3	65.1
1971	13.5	4.7	—	9.9	16.7	25.2	25.5	29.8	31.7	38.3	49.6	56.3
1972	11.5	4.2	—	—	14.7	22.2	22.4	26.2	28.0	33.7	43.7	49.6
1973	3.2	4.1	—	—	—	19.9	20.1	23.5	25.1	30.3	39.2	44.5
1974	24.5	3.3	—	—	—	19.3	19.5	22.8	24.3	29.3	38.0	43.1
1975	25.2	2.6	—	—	—	—	15.7	18.3	19.5	23.5	30.5	34.6
1976	15.3	2.3	—	—	—	—	12.5	14.6	15.6	18.8	24.4	27.7
1977	10.0	2.1	—	—	—	—	—	12.7	13.5	16.3	21.1	24.0
1978	14.5	1.8	—	—	—	—	—	11.5	12.3	14.8	19.2	21.8
1979	18.2	1.5	—	—	—	—	—	—	10.7	13.0	16.8	19.1
1980	28.7	1.2	—	—	—	—	—	—	9.1	11.0	14.2	16.1
1981	21.6	1.0	—	—	—	—	—	—	7.1	8.5	11.0	12.5
1982	7.1	0.9	—	—	—	—	—	—	5.8	7.0	9.1	10.3
1983	3.4	0.9	—	—	—	—	—	—	5.4	6.5	8.5	9.6
1984	2.3	0.9	—	—	—	—	—	—	5.2	6.3	8.2	9.3
1985	2.4	0.8	—	—	—	—	—	—	—	6.2	8.0	9.1
1986	2.7	0.8	—	—	—	—	—	—	—	—	7.8	8.9
10 years	—	33.6	39.2	42.8	59.9	72.3	60.1	55.0	51.1	53.4	60.1	60.5
15 years	—	25.9	30.7	33.9	47.9	57.8	47.8	43.5	40.5	42.1	47.3	47.4
20 years	—	20.9	—	—	—	—	—	—	32.6	34.0	38.2	38.4

perties on installment payment ended up in paying back their creditors, namely, the banks and the government, in money that had less purchasing power. In other words, the value of the payments of business buyers/debtors to the government or banks was reduced by 17.3 percent per annum on average, due to inflation, between 1953 and 1981.

The extent of the inflation windfall obviously varied in direct proportion to the rate of inflation and the duration of loans: the higher the inflation rate and longer the maturity date, the greater was the inflation windfall to the buyers. As illustrated in Table 4.1, a purchaser on a 10-year installment payment in 1955, for instance, would have paid about a little more than two-fifths (42.8 percent) of the price of the property over a 10-year period and realized the windfall gain of nearly three-fifths (57.2 percent) of the price of the property, due to inflation,[61] although the windfall was not necessarily intended to award the purchasers when the property was divested. The buyers in the early years benefited the most from the windfalls, when inflation averaged more than 50 percent per year. If a purchaser bought the property on a 10-year installment payment in 1962, he would have paid about 55 percent of the price of the property and realized the windfall gain of 45 percent of it, due to inflation.

In the case of former Japanese property divestiture, since the terms of payment were extended typically for a period ranging between 10 and 15 years, the procurers of the property ended up paying only a fraction of the price, in constant purchasing power, at which they bought the property from the government. As noted earlier, the typical transaction arrangement was with a down payment of one-tenth of the purchase price with the rest due in 10 annual installments, although the total amount owed could also be made in a lump sum. Nearly all purchasers bought on the installment payment basis. If a business made payments for a 10-year installment payment during the period from 1953 through 1981, it would have paid on average only about a third (33.6 percent) of the price of the property in constant purchasing power, benefiting from a two-thirds (66.4 percent) inflation windfall.

In general, the business purchasers of property in the early years received greater inflation windfalls than those that bought the property in later years. A business buyer that bought a government property in 1960, for instance, would have paid about three-fifths (60.1 percent) of the price of the property, receiving about a two-fifths (39.9 percent) inflation windfall, instead of 33.6 and 66.4 percent, respectively, as was the case when purchased in 1953.

It is also noteworthy that the inflation windfall favored large property buyers, who typically bought former Japanese property with a 15-year installment payment, rather than the 10-year payment arrangement typical for small and medium-sized property purchasers.[62] The inflation windfall for a 15-year period for large purchasers placed the actual price of the property the buyers in 1953 paid at only a little more than a quarter (25.9 percent) of the price of property in constant purchasing power, in contrast to more than a quarter (33.6 percent) for the small buyers on a 10-year payment schedule. Therefore, the large purchaser paid less in constant purchasing power and received nearly three-quarters (74.1 percent) of the price of property in divestiture and inflation windfalls, while the small and medium-sized buyers realized less than three-quarters (66.4 percent).

In the case of the divestiture of newly developed as well as old public industrial enterprises, such as cement and chemical plants, the terms of repayment ranged typically between 10 and 20 years. Also, their privatization took place mostly after 1965, when the average inflation rate had moderated to 15.4 percent per year for the period until 1981. When public enterprises were sold to private businesses, the payment for the asset could be made either in a lump sum or in installments with a 10 percent down payment, similar to the divestiture of the former Japanese property. All buyers opted for the 10 to 20 equal annual installment payment arrangements.

Similar to the divestiture of former Japanese property, the real value of the payments diminished proportionately to increases in prices in the country during the repayment periods. In other words, the amount of money the buyer of a property paid to the government in constant purchasing power was reduced annually by the rate of inflation—15.4 percent on average—until all payments were made, during the period between 1965 and 1981. The price paid for divested government property bought in 1966 would have been about three-fifths (60.5 percent) of the price agreed on for the property on average for a 10-year period, realizing the inflation windfall of about two-fifths (39.5 percent) of the price of the property.

Similar results are shown in the government property transactions involving other years, though the amounts of the inflation windfall vary. The buyers in the early years realized greater inflation windfalls than those who bought the government property in the later years, since the decline in the purchasing power of money was less. If a purchase was made in year 1963, the business purchaser would have paid a little more than half (51.1 percent) of the price of the property and benefited from an inflation windfall of nearly half (48.9 percent) the property's value. Instead of 1963, if a purchase was made in 1966, the business buyer would have paid more than three-fifths (60.5 percent) of the price of the property and received less than two-fifths (39.5 percent), an inflation windfall nearly a tenth less.

It is also worth noting that similar to the divestiture of former Japanese property examined earlier, the inflation windfall to large buyers in the case of the divestiture of new public enterprises was greater than to small purchasers. The businesses that bought large properties—such as the Chungju Fertilizer Corporation, which was sold in 1964,[63] on a 20-year payment schedule—typically ended up paying only about a third (34 percent) of the price of the property (in constant purchasing power), realizing an inflation windfall of two-thirds (66 percent). This was compared with the more than half (53.4 percent; inflation windfall, 46.6 percent) of the real value of the property paid by the small buyers on a 10-year installment payment schedule, due to inflation. Most of these large firms were sold to *jaebeol*, which had close personal or political ties with government or majority political party officials.

In sum, inflation windfall reduced the payment for the former Japanese property to less than a third (27.1 percent) of its real value on average, and that of public enterprises to about a half (49.3 percent). Consequently, the inflation windfall was a boon to the business buyers of government property. To put it another way, business purchasers received inflation windfalls of approximately a third of the value of the property on average in constant purchasing power, due to inflation. The aggregate sum of inflation windfalls associated with the Japanese property and public

enterprise divestiture programs may be estimated at a minimum of $1.17 billion in 1961 prices (about $6.73 billion in year 2000 prices).

Combined Bounties and Windfalls

The combined wealth bounty and inflation windfall placed the actual prices of the properties the buyers ultimately paid for former Japanese property and public enterprises at less than a quarter (22.9 percent) and about two-fifths (40.7 percent) of the values of properties, respectively. They thereby realized more than three-quarters (77.1 percent) and nearly three-tenths (59.3 percent) of the value of properties, respectively. Assuming that the worth of former Japanese property and public enterprises divested were conservatively valued at $2.5 billion in 1961 prices, the wealth bounty and inflation windfall to the business buyers are estimated at approximately $1.93 billion in 1961 prices ($11.1 billion in year 2000 prices), comprising $1.25 billion in wealth bounties and $677.5 million in inflation windfalls. Similarly, assuming that the real value of the divested public enterprises was at least $1 billion, the wealth bounty of a tenth and inflation windfall of nearly a half (49.3 percent) of the values of property, the combined wealth bounty and inflation windfall would have been as much as $593 million in 1961 prices ($3.4 billion in 2000 prices), or $100 million and $493 million, respectively. The combined wealth bounties and inflation windfalls of former Japanese property and public enterprises divested are estimated conservatively at about $2.52 billion in 1961 prices and $14.5 billion in year 2000 prices.

The property divestitures also had further consequences for the costs of goods and services produced and sold. Since the prices paid for divested capital goods, namely production plants, machinery, and equipment, were only about half of the real costs on average, which were further cut down by inflation windfalls, their depreciation charges against the goods and services produced and sold, thus, were lower than what they would have been if the full real costs were charged against the goods and services produced.

The sale of government and former Japanese property to private businesses under the divestiture programs at bargain prices, combined with the inflation windfall, thus enabled the private sector to acquire assets in a short span of time and operate the production facilities at a nominal cost, which became the backbone of capital formation in the private sector. Otherwise, there would not have been much capital in the private sector, as there was little private capital and little savings for investment. Also, the low costs, far below their real values, of divested government properties meant low input costs for production, since underpriced facilities resulted in low depreciation charges of production facilities for business producers.[64] Coupled with the inflation bounty, the beneficiaries thus were enabled to produce and sell goods competitively in the world market.

The government thus had a significant impact on capital formation in the private sector. On the whole, purchasers of former Japanese property and public enterprises received the combined wealth bounties and inflation windfalls of nearly four-fifths (77.1 percent) and nearly three-fifths (59.3 percent) of the values of property purchased, respectively. These purchases, consequently, were a boon and enabled the

buyers to acquire production facilities at nominal cost, produce goods and services at low costs, sell competitively in the world market, and develop well-established, capital-rich businesses in a very short period of time.

Beneficiaries

Who were the beneficiaries of the windfalls and bounties? They appear to have had certain discernible profiles. In the case of the former Japanese property, divestiture was supposed to occur through public auctions. If no bid was successful after two public auctions, then the property could be sold to "a selected individual."[65] In reality, these procedures were not typically followed. Apparently, with time, a preemptive-rights-based method replaced open public auctions. This procedure favored certain individuals, employees, and businessmen. Approximately 73 percent of the "sales" of former Japanese property was carried out this way. Priority for the sale of government property was given to those who were renters, consigned managers who were appointed by the government, former stockholders, or employees who had served two years or more in the given enterprise. It was reported that, as of 1948, renters and managers already constituted 63.4 percent of those who were running the enterprises. As of 1949, renters or consignee managers made up over nine-tenths of those who were managing the enterprises,[66] in contrast to the experience in Japan after World War II.[67] Consequently, the majority of the beneficiaries of the Japanese property divestiture were those who had ties to the former Japanese owners, such as a partner, worker, friend, or caretaker. They were the ones who "could not have acquired and maintained their favored position under Japanese rule without a certain amount of "collaboration" with the Japanese colonialists.[68]

Another discernible outcome of the divestiture of former Japanese property is that many of the enterprising beneficiaries eventually turned into large firms, founded on these divested properties. It was during this period that a group of entrepreneurs began to form business conglomerates, or what were later known as *jaebeol* (in Japanese, *zaibatsu*). In this way, the program provided a stake for not a few budding enterprises. In the case of the textile industry, for example, a small number of very large textile firms were established in the private sector by the mid-1950s. A total of nine firms each operated 30,000 or more spinning machines. This was especially true under the Syngman Rhee regime, when most of the government divestiture of former Japanese property took place. About 40 percent of big manufacturers in the 1950s (36 out of 89), and 68 percent of the top 22 big businesses (15 out of 22) were created in this divestiture program. At least 13 out of 50 *jaebeol*, or slightly more than one-quarter, had acquired a significant number of former Japanese properties by 1998. Contrary to an observation made by some economists, these acquisitions did not result in a "relatively egalitarian distribution of assets, which subsequent development has not greatly changed."[69]

Among the beneficiaries, the "favorites" of the government, which had a great advantage in obtaining the property wealth bounties, were those that had close personal connections (*yeonjul*) or association with men in power, namely, government officials, in addition to their sometimes being good businessmen.[70] Personal

connections were established principally through blood relationships, personal friendships, school bonds, political connections, regional ties, social class, or other "links," as elaborated in Appendix 4.1. The bases upon which such connections were established heavily determined the effectiveness of personal networks in obtaining government favors. In this way, the mobilization of personal networks to find pockets of influence among politicians in power and state bureaucrats has been the most frequently used method of gaining such favors, because the selected recipients of government favors were chosen in a highly discretionary manner extending down to the level of particular firms or individuals designated by the government on an unofficial and subjective basis. The diversion of corporate funds into slush funds, which are used to make illegal contributions to politicians, appears to have been a rather common practice among *jaebeol*.

On the whole, most Korean people seem to have agreed with the principle of awarding government favors based on personal connections. As long as they were applied "fairly," people were not too concerned about the handing out of state favors to businesses through their connections. In fact, many people pressured the state to do so; while opposing businesses monopolizing state favors through corrupt collusion, most people regarded competitive businesses as deserving of favors. Indeed, most Koreans were envious and proud of the firms whose success was partly based on maintaining close personal ties with men in power.[71] The government, with the tacit understanding of businesses, tolerated "cronyism," based on the Confucian tradition. As a result, a large share of Japanese properties ended up in the hands of those who had close ties with the U.S. military government in Korea in the early years and the Korean government in a later period. In contrast, not many landowners who had lost land through the land reform (or redistribution) program were beneficiaries, unlike Japanese experiences in the latter half of the 1800s, although they were given the privilege of purchasing property with their land bond.[72]

In the divestiture of public enterprises, the preemptive-rights-based method was used even more pervasively than in the divestiture of the former Japanese property. Most beneficiaries of the divestiture of public enterprises had personal connections to government officials, which seems to have been the ultimate, if not the most important, means of conducting a successful business. The owners of businesses that eventually became *jaebeol* included Ju Yong Chung, Kyong Dong Sul, Chi Tai Kim, Chong Hee Kim, Yang Koo Lee, and Chong Lim Lee. Among them, Byong Chul Lee, the founder of Samsung, the largest *jaebeol*, was the most successful.[73] The Lucky-Goldstar (Geumseong) *jaebeol*, the third largest one, also purchased major vested properties,[74] while the Ssangyong's vested properties proved critical to its development as a *jaebeol*. Conducting business through personal connections tended to create a strong communal spirit,[75] but it also supported the status quo[76] and discriminated against foreign businesses.

FOREIGN EXCHANGE POLICY

To provide incentives for investment in targeted industries as a means of supporting economic development plans, various government policies were formulated and

implemented under the alliance between the government and the burgeoning businesses. One such government program that directly affected the costs of production, business profits, and, therefore, incentives for investment was the foreign exchange policy. In ordinary trading transactions in free markets, the foreign exchange rate is equal to opportunity or market costs and does not affect the true or opportunity costs of products, business profits, or private investment. However, if foreign exchange rates are arbitrarily altered by forces outside the market, like interference of the government in the working of the foreign exchange market, then such alterations have a major impact on them. In South Korea, the government was involved in setting and manipulating foreign exchange rates and allocating them in arbitrary ways outside of exchange market in the early years after World War II, which had a major impact on businesses' production costs, profits, and levels of investment.

Foreign Exchange Rates

The government policy on foreign exchange during the course of 50 years following the Korean War basically involved two phases, namely, the setting of the official rate of foreign exchange on the one hand and its allocation by the government and the free exchange rate and market regime on the other, which followed four distinct stages. The first stage of the foreign exchange policy spanned the eight-year period from the end of the Korean War to 1961, when the government tightly controlled foreign exchanges by establishing its official rates and allocations. The government set the official foreign exchange rates at a level far below the market in 1953, pegging it initially at 6 *won* per U.S. dollar. Then the foreign exchange rates were raised successively and rapidly to 18 and 50 *won* in 1955, 65 in 1960, and 100 and 130 in 1961. Partly at the insistence of interested trade groups,[77] official foreign exchanges were undervalued, on average, by more than 50 percent in terms of Korean currency. Thus, the value of Korean currency was more than 100 percent above the market rates relative to foreign exchange in most of these early years. At one point, in 1956, the U.S. dollar was officially valued at a level as low as one-third of the market value in Korean *won*.

The undervaluation of foreign exchange or the overvaluation of the Korean *won*, was well recognized in all quarters.[78] At the time, serious opposition to the undervaluation of foreign exchange came from foreign aid donor countries, including the powerful UN Economic Coordinator.[79] According to him, the exchange rates were unrealistic in that unreasonably high values were assigned to Korean currency in relation to U.S. dollars. He lashed out at very low exchange rates of foreign currency in terms of Korean currency, as well as price controls and poor planning, charging that market judgments could not be changed by such measures as artificially keeping the exchange rate low or pricing aid goods at unrealistically low levels in South Korean currency. Nonetheless, the very low foreign exchange rates were maintained until 1961.[80]

Along with the arbitrary foreign exchange rate policy, the government employed a multiple foreign exchange rate system until June 1961. The rates at which actual foreign exchange allocations were made to importers varied, depending in part on

the government agencies involved in the approval process, but also on the interest of the government in promoting a particular type of investment, the degree of competition for particular types of imports, the political influence of the borrower, and, finally, the political climate or financial exigencies of the ruling political party. Likewise, export earnings could be converted into local currency in a variety of ways at levels well above official exchange rates. Korean exporters in the 1950s could earn rates of return on foreign exchange generated from exports that were almost as high as, if not higher, than what they could earn in the 1960s and 1970s, even though the official yield for foreign exchange in the 1950s was substantially less than in later years.

After the government had followed an artificially low foreign exchange rate policy for some time, the new military government entered the second phase with a shift in development strategy. The economic policy reforms that came in the 1960s had two principal objectives. The one that dominated policymakers' efforts was a shift from an inward-looking to an outward-looking export-oriented industrialization strategy. The other was concerned with efforts to increase public and private savings for expanded investment. The artificially supported Korean currency was relaxed in 1961 when the government introduced a policy of gradually raising foreign exchange rates to market levels. The Korean currency was devalued from 62.5 *won* per dollar in 1960 to an official rate of 65 *won* and then to a new rate of 130 *won* per dollar.[81] In 1964, it was devalued further, first to 222 *won* and then to 255, to 265.4 in 1964, and to 270 in 1965, bringing it closer to the market value. The discrepancy between the official and market rates of foreign exchange narrowed, and the official exchange rates fluctuated on average at about 15 percent below the market rates.

In June 1961, the government also attempted to move away from the multiple exchange rate system to a unified one. South Korea's attempt to "get prices right" was a critical factor, but it was not the only ingredient that mattered. The newly introduced unified exchange rate system was also important and necessary to eliminate irregularities in the auction market and to reduce transaction costs.

The unitary exchange rate, however, was abandoned two years later, in 1963, when a reduction in foreign aid caused a deficit balance of payments crisis and slipped back to the multiple exchange rate system. Following a rather complicated system of foreign exchange allocation, the government applied different rates to different users. This involved a variety of privileged access categories for some products from certain sources, and a series of competitive auction and bidding procedures for other uses and sources, most notably export earnings, added to the frenzy of excess demand for foreign exchange at the official rates. Targeted industries received more favorable (lower) rates, while the foreign exchange rates within the nonprivileged sector varied substantially. While exporters sold freely to importers at competitive rates, the International Cooperation Administration and Korean Foreign Exchange Bank auctions yielded prices between the export and official rates.

The third phase commenced in 1965 when the government subtly abandoned the control of foreign exchange and turned to a more or less free foreign exchange market system, which was not subject to strict government control, and again reverted back to a unitary flexible exchange rate system, with the exchange rate being

determined by market forces. Following the 1965 exchange rate reform, exchange rate policies were liberalized and the Korean currency was frequently devalued to support export growth. Another major reform, the liberalization of import controls, came in 1967. Under this policy, the official rate declined steadily to about 7 percent above the market rate by 1975.

The fourth and final phase of the foreign exchange policy came after 1981, when the government-led foreign exchange rate controls ended in the country, opening a new era of free competition in the foreign exchange market, accompanied by free trade. A floating exchange rate system was introduced, and the nominal exchange rate was gradually reduced by 5 to 6 percent per year from 1981 to 1983. The Korean government, however, monitored foreign exchange transactions under the Foreign Exchange Control Law, and regulations on foreign exchange transactions were gradually reduced and then accelerated after 1986. South Korea formally announced its acceptance of the full obligations of the International Monetary Fund in 1988 and gave up quantitative import restrictions in 1990. The sweeping foreign exchange reform also removed many restrictions on current- and capital-account transactions for corporations competing with their foreign rivals in the world market. When the reform was completed, almost all current-account transactions were liberalized, while capital-account transactions, except those that were specifically prohibited, were permitted. These foreign exchange reforms boosted the nation's competitiveness and encouraged domestic businesses to enter into strategic alliances with their foreign counterparts.

The Allocation and Sale of Foreign Exchange

Akin to the foreign exchange rate policy, the allocation and sale of foreign exchange before 1981 was made by the government, but not through the foreign exchange market. The government had a stockpile of foreign exchange—obtained mainly from foreign aid in the early years and exports and foreign loans in later years—and government permission was required to import foreign goods and services with initial allocations of foreign exchange from the government. The allocation of foreign exchange involved a variety of privileged access categories for products from certain sources. Within the industrial sector, the foreign exchange policy targeted the import-substitution industries in the early stage, followed by the export-goods industries in later years.

The allocation of foreign exchange was made mostly to the importers in the area of social overhead capital and the targeted industries in the private sector. Foreign exchange was allocated also to particular uses based on the government's priorities, namely, the importation of inputs for export production, such as raw materials and intermediate and capital goods, against the consumer goods. In this way, the government encouraged investment in the designated export industries. A series of competitive auction and bidding procedures for other uses and sources, notably export earnings, added to the frenzy of excess demand for foreign exchange at the official rates. Another foreign exchange allocation policy that can easily be identified as unique was the supplying of most foreign exchange to large corporations. There are no comprehensive published data showing the allocation of foreign exchange

being based on the size of business firms, but more generous allocations of foreign exchange to "established industrial enterprises" were unmistakable.

In contrast to the foreign exchange control regime, a free trade regime, adopted in later years, eliminated the discretionary allocation of resources by the government. Instead, it gave unrestricted access to imported inputs (they were exempt from tariffs and indirect taxes), reduced charges on overhead, and granted credit and direct tax preferences. At the same time, changes in the foreign exchange regime relating to imports greatly reduced the incentives for socially unprofitable import substitution. More generally, the reforms brought the profitability of different activities more in line with their true economic profitability.

Beneficiaries

The beneficiaries of foreign exchange allocations at the official rates, which carried with them a bounty, were selected on the basis of three main criteria. First, they were in business in the targeted industries, namely, import substitution, export goods, HCIs, and high-tech industries. Second, they had to pass an international competition "test." Within the designated manufacturing sector, the prospective importing enterprises had to meet this market-oriented test. Based on the principle of the maintenance of market mechanisms as a benchmark for governing the economy that was adapted by the South Korean government, businesses receiving government bounty had to prove that they had succeeded in meeting international competition, with the presentation of the letters of credit from banks as evidence. Foreign exchange was sold against the import letters of credit when the commodities were shipped by the foreign exporter and received payment from the domestic producer-exporter only when it shipped the finished commodities.

Third, the beneficiary had to meet the performance test. Although the state had been deeply involved in market affairs by granting favors, it had never abandoned free-market principles. It was cautious lest favors be concentrated on a few businesses that in the end would not be sufficiently competitive to survive in the global marketplace. Thus, the state continually monitored the performance of the firms that benefited from its favors. If export performance was slow or if a business failed to produce domestic substitutes for imports, for instance, the bounty or favor was withdrawn. The fact that the order of the list of South Korea's top *jaebeol* fluctuated frequently over time clearly shows this concern of the state. No *jaebeol* could escape government oversight and ensure favors forever. These government measures involved all businesses in the country or particular industries, though not particular firms.

Economic Impacts

What was the economic impact of government foreign exchange controls and allocations on investment and the nation's economy? Having examined the institutions and means used by the country to control the use of foreign exchange to help accumulate capital and the role of the government in them, there is no doubt that the government policy had significant impacts on the nation's investment and economy, though discerning the particular effects is not easy. Especially difficult is the

quantitative measure of individual contributions in the government's efforts to expand investment in certain targeted businesses and industries and the nation's economy.[82] Notwithstanding the difficulties, this section assesses their impacts on investment and the nation's economy in broad outline. The economic impacts are evaluated below relative to the foreign exchange subsidy, the cost of production, beneficiaries, sectoral and aggregate economies, and resource allocation.

The Foreign Exchange Subsidy

One clearly discernible impact of the foreign exchange control policy is the provision of subsidy to businesses that received foreign exchange allocations at the low official rates during the 29-year period between 1953 and 1981. The selling of foreign exchange to privileged importers at about half the average in the early years constituted a bounty equal to the difference in the value of foreign exchange between the official and market rates, or 100 percent or more on average before 1965, and about 15 to 5 percent on average between 1965 and 1981. In other words, the foreign exchange rate repression policy had the same effect as that of any outright subsidy granted to businesses.

Relying on market incentives to ensure that firms earned adequate profits on their exports, the government subsidy was intended to put "relative prices right" on Korean products sold abroad. Otherwise, the import transactions under the foreign exchange control regime typically followed a "normal" course of trade: when a company received an import license, together with a commitment from the government that it would make available the necessary amount of foreign exchange, the importer bought the input factors from the sellers abroad at the official exchange rate with the bounty. In due time, the South Korean importer paid the bank in South Korea in local currency equal to the value of the import expressed in foreign exchange at the official low exchange rate.[83]

It is difficult to calculate the extent of imports under privileged access at the official exchange rate for the entire period. It is estimated that the values of foreign exchange sold to privileged importers with bounty are approximately at $500 million during the 1953–61 period, $700 million during 1962–71, and $1 billion during 1972–81. These estimations are based on some known facts, although they are fragmentary, imprecise, and involve certain assumptions. Conservatively, if a third of imports during 1953–61, for instance, came via privileged access with average bounty of 33 percent, the amount of the potential foreign exchange bounty would have been as much as $165 million. Likewise, if a quarter of imports came via privileged access with 10 percent bounty between 1962 and 1971, the amount of the potential foreign exchange bounty would have been $70 million. On similar assumptions, if 10 percent of imports came via privileged access at the 5 percent bounty rate during the 10-year period between 1972 and 1981, the amount of the potential foreign exchange bounty would have been as much as $50 million during the period. In total, foreign exchange bounty would have been crudely about $285 million from 1953 through 1981.

The decreased rates of the foreign exchange bounty obviously reflect the successive appreciation of foreign currency vis-à-vis devaluation of the South Korean

won during the ensuing years after 1961 with the rising volume of imports, which is examined in chapter 8. They made importing less conducive and exporting more attractive, reducing the potential foreign exchange bounty.[84] The preceding analysis makes it clear that the significant financial support for importers came in the form of the foreign exchange bounty during the 29-year period between 1953 and 1981, stemming from the government's foreign exchange control and allocation policies.

Costs of Production

One major consequence of foreign exchange subsidies was the low input cost for the production of Korean products, since the South Korean importers paid for input factors imported in local currency, not in foreign exchange (in spite of the fact that they needed foreign exchange to purchase and import foreign goods) at the low official exchange rate. This allowed businesses to import foreign goods—capital goods, raw materials, and other intermediate goods—at low cost. The low cost of imported capital, intermediate goods, and raw materials enabled the Korean producers to manufacture their goods inexpensively and sell them advantageously and competitively in the domestic and world markets. After the 1981 liberal reform, the gap between the official and market rates of foreign exchange gradually dissipated. With the more or less free foreign exchange policy, not only did the costs of imported raw materials in local currency gradually inch up, but their markets were also diminished to the extent that export producers were buying domestically produced rather than imported intermediate goods. In this way, the weight of incentives, both direct and indirect, shifted increasingly away from import substitutes and toward exports.[85]

Sectoral and Aggregate Economies

Other visible consequences of the government's foreign exchange policy were the increase in investment and expansion of production in the targeted sectors. The sectors of the economy that received the foreign exchange subsidy under the industrial policy expanded rapidly and came to occupy the core of South Korea's industrial economy. In the case of export industries, the soaring exports can be attributed partly to the foreign exchange subsidy. The modern designated manufacturing industries benefited, rapidly expanded, and employed greater amounts of capital goods and labor, which ultimately contributed to overall economic growth.

It is clear that the adoption of an export-led strategy in foreign exchange policy was partly responsible for the transformation of South Korea's economy. The foreign exchange policy thus contributed toward transforming a mostly agricultural and semi-industrial economy into an industrial economy by the end of the twentieth century. In addition to the expansion of the manufacturing sector, the strategies for promoting exports and adapting and improving the technology available in industrial countries have been by far the most successful selective approaches used in South Korea. It is doubtful, however, whether the benefits of the nation's industrial and economic growth were all due to the positive contributions of the foreign

exchange policy, as is often claimed by government officials and some economists. By no means were all new entries into export industries the result of the policy. Indeed, the exports of selectively promoted infant industries have not been accounted for in the case of more than a quarter of South Korea's manufactured exports.

For most exports, targets have worked together with market incentives to promote rapid expansion. But the growth of unprivileged sectors has also been substantial. For example, private firms developed the country's urban mass transit system, numerous medical facilities have been established, and private schools have sprung up at all levels to satisfy the almost insatiable demand for education. In spite of benign neglect by the government until the late 1960s and early 1970s, the agricultural sector also developed rapidly, largely because of private initiatives in response to market forces. Farmers have turned increasingly to the production of noncereal cash crops to meet newly emerging urban demands. Countries without directed policies such as Korea's also did well when the flow of international investment was large and technology crossed borders with ease.[86]

Likewise, to varying degrees and depending on the time period, because the overvalued Korean currency added an implicit "export tax," exports to the world market were virtually impossible in the early years. Also, the complicated multiple foreign exchange rate system provided disincentives for business to actively engage in exporting. In fact, Korea's exports to other countries were minimal under the foreign exchange control regime in the early years. Unlike the anti-export bias that was so prevalent in many other developing countries, the foreign exchange rate repression policy in South Korea, did not hurt its exports in the later years. This was because exports were linked to imports[87] and the total return to exporters was high.[88]

Resource Allocation

Was the South Korean government's control of foreign exchange the best measure for achieving the twin goals of industrializing the economy? It is not easy to discern whether the Korean economy would have done better with a less interventionist—promotional as well as restrictive—and laissez-faire foreign exchange policy, especially in the early years. With regard to the economic impact of the government foreign exchange policy on resource allocation, standard neoclassical economics would have found the interventionist and discriminatory industrial policies counterproductive, as they would lead to price distortions and the inefficient allocation of resources by bureaucrats instead of markets, thus inviting rent-seeking activities, which would in turn result in a less than optimal allocation of resources for investment and economic growth. Barro and Lee's study, for instance, found that a 10 percentage point increase in the black market premium on foreign exchange reduced the growth rate of the economy by 0.3 percentage points per year.[89] Some might even point to the investment boom in South Korea after the mid-1980s, which was clearly related to the liberalization of the foreign exchange policy.

The question, therefore, is whether South Korea's interventionist and discriminatory foreign exchange policy had an adverse impact on the nation's resource allocation, which was counterproductive to capital formation, economic growth, and economic welfare. The answer appears to be affirmative. Foreign exchange controls

and the allocation of undervalued foreign exchange to businesses resulted in inefficient resource allocation. This may be seen in at least two ways. First, the repressive foreign exchange policy, combined with import barriers and cumbersome customs procedures, led to excess demand for foreign exchange; encouraged imports, both openly and through the black market; and resulted in imports of goods and services beyond the optimal amount, therefore leading to the distortions in imports.

Under the repressive foreign exchange policy, the undervalued foreign currency lowered the cost of imported goods, such as raw materials, intermediate goods, or capital goods, in Korean currency and amplified the profit opportunity. The potential for making quick profits on imported goods with government-allotted foreign exchange was believed to have been especially great during the early years of 1953–60.[90] The "distortion premiums" in the 1950s were such that an importer who obtained foreign exchange at the official rate could earn enormous profits. As the government admitted in later years, "Under this irrational condition, anyone who owned processing facilities was able to make fantastic profits."[91] The potential profits ranged from 100 to 175 percent if the business imported a tariff-exempt commodity and were in the 90 percent range and if the business paid an average tariff. In some situations, windfall gains of more than 300 percent were easily made in the distorted foreign exchange market. On average, the prices of imported goods were lowered by more than half in the early years and about 5 to 15 percent thereafter (from 1964 until about 1981), making the incentives to sell domestically in these industries greater.

The foreign exchange policy also encouraged economic rent-seeking activities. Precisely because of the profit opportunity established by the government's undervaluation of foreign exchange (vis-à-vis overvaluation of the Korean currency), there were abundant opportunities for economic rent or windfall gains. As a matter of fact, numerous rent-seeking scandals, involving misallocations of foreign exchange, arose from the repressive foreign exchange policy and complicated multiple exchange rate system, combined with the various quantitative restrictions. There were numerous examples of this in the early years.[92] The repressive foreign exchange policy resulted in the abuses and misuses of discounted foreign exchange to the most privileged businesses. The evidence for this can be found in a variety of sources, including evaluations of the aid program by U.S officials. The scandals and incidents became political issues during the 1950s, and those that were later exposed during investigations launched by the military government suggest that corruption was widespread.[93] For example, under the U.S. aid program a large amount of fertilizer was imported from Canada and Japan in 1977. The importers sold the fertilizer to farmers at high prices and made "$8,710,000" in the deal. They also avoided paying "2,200 million *won* in taxes."

The second indication of inefficient resource allocation under the foreign exchange policy is the distortions in imports. The intended purpose of foreign exchange allocation was to increase exports. However, manufacturers often imported raw materials at a low official exchange rate and sold the finished goods domestically at greatly inflated prices.[94] The cotton textile industry, for example, imported cotton at the official rate of 50 *won* per dollar and then marketed its entire

output domestically, where the currency was worth 70 to 80 *won* per dollar. In this way, as U.S. officials observed, the cotton textile industry enjoyed a considerable hidden bounty through overvaluation of the *won*. The same was true for flour milling and other industries that used imported raw materials. One well-publicized case involved the so-called three powder exorbitant profit (*sambun pokli*) scandals, wherein three large companies (which later became some of the largest *jaebeol*) imported flour, sugar, and cement with foreign exchange bought from the government at the official exchange rate, sold them at high prices, and realized reported profits of 16.9 billion *won*. Also, the Samsung *jaebeol*, which imported saccharin illegally using the foreign exchange allocation at the official rate for the purchase of government-approved products, made "huge profits." Another case involved the importation of oil and fat for "industrial use" in 1971. Instead of using them for the approved purpose, they were sold for food shortening in the domestic market for an "enormous profit." Another case, reported in 1975, involved the importation of steel, which was supposed to have been processed for export. Instead of being exported, it was sold domestically at "large profits."

In these examples, foreign exchange was sold by the government at the low official rate, often together with tax exemptions. The undervalued exchange rate distorted trade, and the foreign exchange bounty, together with the loss of tax revenues from certain businesses, carried unmistakable economic costs to the country. The less efficient, typically import-substituting sectors within manufacturing thus received higher-than-average export incentives. Under these circumstances, potential exporters preferred to engage in rent-seeking or zero-sum arbitrage activities rather than socially productive, positive-sum activities such as exporting. In later years, some efforts were made to reduce windfall gains from importing restricted items by introducing special tariffs and strengthening deposit requirements for importing these items.

SUMMARY AND CONCLUSIONS

In addition to evaluating the government's role in economic policy, this chapter has examined the overall industrial policy after World War II in two parts, namely, the divestiture of government property and the foreign exchange policy, which had major economic impacts on capital formation in the private sector, the costs of production, profits, investment, and expansion of the nation's economy as a whole. The government policies were based on the assumptions that the private segment should be the principal actor in the expansion of the industrial sector, that effective capital absorption could not be expected from the private sector alone as a latecomer in free competitive markets, and that industrial firms needed to be nurtured by means beyond free market price incentives. The government policies thus involved fostering the growth of private enterprises and supporting these targeted sectors, industries, and business firms deemed beneficial to the nation's economic interests.

In addition to providing a friendly environment and informal pressures on business, the government directly provided opportunities to expand capital stock in the

private sector by divesting itself of a vast number of government properties (including former Japanese assets). They are estimated to be approximately $3.5 billion, constituting $2.5 and $1 billion of former Japanese property and public enterprises in 1961 prices, respectively, which constituted the major portion of capital in the country at the time.

The divestiture programs not only provided businesses the opportunity to acquire these properties but it also furnished them with generous financial incentives (bounties, windfalls, and subsidies). The divestiture of former Japanese enterprises at bargain prices, coupled with the inflation windfalls, probably were the most important measures undertaken by the government for capital formation in the private sector in the early stage of development. The combined total of the estimated wealth bounty and inflation windfalls is estimated at approximately $1.93 billion in 1961 prices, which probably represented nearly four-fifths of the value of the productive assets then extant. The program resulted in practically free gifts of the divested properties to private businesses. Given this, it is not surprising that no one who acquired former Japanese property has defaulted on the payment.

The value of the wealth bounty and inflation windfall to the second government program, namely, the divestiture of public enterprises, may be estimated at as much as three-fifths of their value. It was composed of a tenth and nearly half of the value for wealth bounty and inflation windfall, respectively. Although the bounty and windfall on the divestiture of public enterprises were generally modest in comparison to the former Japanese property wealth bounty and inflation windfall, they were significant in helping the buyers enlarge their business empires rapidly in a short span of time.

The total payment for the divested government properties was estimated at less than a third (28 percent) of their values, while the sum of combined wealth bounties and inflation windfalls was calculated at nearly three quarters (72 percent) of the value of the properties. In terms of 1961 prices, the beneficiaries ended up paying only $980 million, while deriving as much as $2.52 billion of wealth bounties and inflation windfalls. In year 2000 prices, they are estimated at $5.6 billion and $14.5 billion, respectively, totaling more than $20 billion. The financial bounties and windfalls of the two property divestiture programs were probably the most important means of capital formation in the private sector, especially for the *jaebeol*. In this way, the purchase of former Japanese assets and public enterprises enabled the private sector to build business inexpensively (at approximately one-quarter of their market value) and gave them a head start in producing goods and services at low cost (in the form of low depreciation charges) for decades to come, thus enabling them to successfully compete in the world market.

In addition to traditional monetary and fiscal policies (such as numerous forms of tax relief, reduced rates for public utilities supplied to industrial users by public enterprises, help in maintaining low input wages, and providing a supply of high quality labor), the government also supported designated businesses through its foreign exchange policy. It provided the needed foreign exchange, and the handsome subsidy that accompanied it enabled Korean producers to manufacture goods at low cost. This bounty allowed businesses to import foreign goods—capital and intermediate goods as well as raw materials—at lower than the market cost (about

86 percent on average) in Korean currency in the early years. Thus, the beneficiaries were able to produce goods less expensively, successfully compete in the world market, and make a substantial profit. The beneficiaries of the subsidy were confined mostly to the modern industries, especially the manufacturing sector. Within modern manufacturing, the most privileged were the policy-targeted industries, which included such import-substitution firms as textile manufacturers in the early stage, and the export-goods industries, especially manufacturers of basic heavy machinery and chemicals, in later years.

5

DOMESTIC FINANCING OF BUSINESS AND PUBLIC INVESTMENTS

Having examined the magnitude and the pattern of investment and some of the government policies that promoted business investment, the next obvious question is: How did South Korea achieve the level of investment required for rapid economic growth? A crucial challenge facing all developing economies, as were in all the developed countries before them, is mobilizing savings for productive investment, both in the business and public sectors. This chapter first examines the extent of self-financing, in which investors financed their investments with their own savings/funds. This is followed by an analysis of the credit extended to them by domestic financial intermediaries and the government.

To expand investment beyond the owners' equity capital, entrepreneurs and government require loans from others, and they are not the sole investment decision makers. The lender's capacity and willingness to loan funds to borrowers are at least as important as the investors' ability to borrow money from the former. In some sense, the lender's financial ability and decision to make a loan to the investors may be even more significant than the borrower's readiness to take the risk of investment, as the former sets the limit of financial resources. At least, the lender plays as important a role in financing investment as the borrower does, in addition to playing a crucial role of mobilizing savings for investment.[1] Typically, a major domestic source of loans is financial intermediaries, especially banks. Thus, after examining the financing of investment with owners' equity, this chapter will address the institutional structure of financial intermediaries and assess their contribution to financing private and public investments, relative to the type and nature of investment projects for which loans were extended, the terms of loans, the extent of the government role in them, and interest rate at which loans were extended.

Since the government plays a significant role in financing investment, its role in South Korea after the Korean War is scrutinized in two fronts, namely, credit

allocation and interest rate policy, thus, directly intervening in markets. The policy had major impacts on the costs of production, business profits, investment, the pattern of sectoral expansion, and the nation's economy as a whole in the last half of the twentieth century. This is followed by an investigation of financial resources of financial intermediaries and the government and the role of the unorganized and other financial markets including domestic portfolio investment and other sources of financing investment. The last section examines current credit financing. An assessment of the economic impact of the government's financial policy is deferred to the next chapter.

DOMESTIC SOURCES OF FINANCING INVESTMENT

It is difficult to ascertain the sources of financing investment for the last half of the twentieth century, especially their quantitative magnitudes, but a data for nonfinancial institutions for the period between 1970 and 1994 reveals that the largest portion (38 percent) of investment was financed by loans of financial intermediaries, followed by the "others" (26.6 percent), the share capital including company loans (22.8 percent), and foreign loans (12.6 percent) during the 25-year period (Table 5.1). In other words, the domestic sources financed nearly nine-tenths (87.4 percent) of investment in the country. Also, it is noted that the major portion of investment was financed with loans of various sources, while the share capital including company loans occupied relatively small portion—for example, less than a quarter (22.8 percent) of the total.

The domestic sources of financing investment were both of the public and private sectors. They, however, followed somewhat different patterns, which are examined below relative to their sources, magnitudes, and roles in capital formation.

Business Investment

In financing business investment, two major sources were available, namely, owners' equity and borrowing, which are being examined as to the extent, the means, and the implications of such financing of investment in South Korea after the Korean War.

Owners' Equity

There are numerous, often inconsistent and confusing estimates of owners' equity that changed over time and its contribution to business investment after the Korean War. Of them, one conspicuous and consistent feature is the paucity of owners' equity in businesses. Some calculation shows that the share of owners' equity in companies until about 1962 was often less than a tenth of their total capital.[2] However, once the nation's economy recovered to normalcy in later years, owners' equity in corporations not only increased absolutely but also gradually expanded to occupy more important position, although the reported ratio seemed to have fluctuated widely from year to year. The average share of equity in South Korean businesses slowly inched up from about 14 percent of total capital in 1962 to a quarter by the mid-1960s. Then, the

TABLE 5.1 Financing of Nonfinancial Institutions, 1970–94 (in percent of total)

	Company Share/Loans			*Domestic Loans*					
Year	Share	Loans	Total	Banks	Other	Total	Foreign Loans	Other	Total
1970	29.0	1.3	30.3	19.0	4.2	23.2	17.1	29.4	100.0
1971	24.0	1.4	25.4	18.7	4.6	23.3	19.6	31.7	100.0
1972	23.1	1.7	24.8	19.5	5.1	24.6	19.3	31.3	100.0
1973	21.4	1.7	23.1	20.3	6.2	26.5	17.7	32.7	100.0
1974	18.0	1.3	19.3	23.6	6.5	30.1	18.2	32.4	100.0
1975	17.2	1.5	18.7	23.8	6.6	30.4	19.0	31.9	100.0
1976	16.8	2.1	18.9	23.4	7.7	31.1	18.7	31.3	100.0
1977	16.3	2.8	19.1	23.0	9.2	32.2	17.9	30.8	100.0
1978	16.0	3.8	19.8	24.4	10.6	35.0	15.2	30.0	100.0
1979	13.8	4.5	18.3	25.2	12.1	37.3	14.6	29.8	100.0
1980	12.2	5.6	17.8	24.9	12.7	37.6	17.8	26.8	100.0
1981	11.2	6.8	18.0	24.1	13.9	38.0	15.7	28.3	100.0
1982	12.7	8.2	20.9	23.8	14.4	38.2	14.2	26.7	100.0
1983	12.7	8.6	21.3	23.7	15.5	39.2	14.0	25.5	100.0
1984	12.8	8.3	21.1	23.0	18.1	41.1	12.5	25.3	100.0
1985	12.5	8.5	21.0	23.4	18.9	42.3	11.7	25.0	100.0
1986	12.9	9.0	21.9	23.8	19.3	43.1	10.3	24.7	100.0
1987	13.6	8.8	22.4	23.6	20.9	44.5	8.3	24.8	100.0
1988	14.4	9.5	23.9	22.7	22.1	44.8	6.5	24.8	100.0
1989	14.2	12.1	26.3	21.6	24.2	45.8	5.0	22.9	100.0
1990	13.1	13.6	26.7	21.2	25.7	46.9	5.1	21.3	100.0
1991	12.5	14.0	26.5	21.3	27.4	48.7	4.9	19.9	100.0
1992	12.2	15.3	27.5	20.5	28.4	48.9	4.2	19.4	100.0
1993	11.9	17.0	28.9	19.8	28.5	48.3	3.5	19.3	100.0
1994	11.8	16.9	28.7	20.2	29.6	49.8	3.4	18.1	100.0
Averages									
1970–80	18.9	2.5	21.4	22.3	7.8	30.1	17.7	30.7	100.0
1981–86	12.5	8.2	20.7	23.6	16.7	40.3	13.1	25.9	100.0
1987–94	13.0	13.4	26.4	21.4	25.9	47.2	5.1	21.3	100.0
1970–94	15.5	7.4	22.8	22.3	15.7	38.0	12.6	26.6	100.0

Source: Hanguk Eunhaeng 1995: 220–21.

average equity ratio slid down to about 23 percent of the total personal savings during 1969–71 (Table 5.2). The largest share of personal savings were devoted to owners' equity between 1971 and 1984, when personal savings invested in stock shares were typically at the upper 20 percent level. A survey by the Korea Economic Federation in 1971 confirmed the insufficiency of equity investment, reporting that 56 percent of Korean businesses "lacked adequate equity financing."[3]

On the whole, the average share of equity in South Korean businesses between 1960 and 1998 was typically about 27–28 percent of the assets of enterprises. This level of equity ratio throughout the entire period was low and sometimes thought "dangerously low," in contrast to the experiences of many developed countries. It was nowhere near the level found in developed countries such as the United States.

TABLE 5.2 Sources of Financing Investment in Company (in percent)

Year	Equity	Bank Loans	Loans from Other Sources[1]	Total	Grand Total
1960	7.9	68.6	23.5	92.1	100.0
1961	9.5	62.1	28.4	90.5	100.0
1962	13.8	63.2	23.0	86.2	100.0
1963	50.0	42.7	7.3	50.0	100.0
1964	52.6	39.9	7.5	47.4	100.0
1965	51.5	41.2	7.3	48.5	100.0
1966	46.9	46.4	6.7	53.1	100.0
1967	33.2	55.7	11.1	66.8	100.0
1968	28.4	62.2	9.4	71.6	100.0
1969	22.2	70.6	7.2	77.8	100.0
1970	19.0	74.6	6.4	81.0	100.0
1971	28.6	46.1	25.3	71.4	100.0
1972	29.8	45.3	24.9	70.2	100.0
1973	31.0	45.5	23.5	69.0	100.0
1974	21.1	40.5	38.4	78.9	100.0
1975	29.4	38.5	32.1	70.6	100.0
1976	28.9	38.6	32.5	71.1	100.0
1977	30.7	35.9	33.4	69.3	100.0
1978	27.7	37.0	35.3	72.3	100.0
1979	24.0	39.7	36.3	76.0	100.0
1980	21.8	39.4	38.8	78.2	100.0
1981	22.5	37.2	40.3	77.5	100.0
1982	25.1	36.9	38.0	74.9	100.0
1983	26.7	35.9	37.4	73.3	100.0
1984	26.5	36.4	37.1	73.5	100.0
1985	27.6	37.5	34.9	72.4	100.0
1986	28.8	36.6	34.6	71.2	100.0
1987	27.5	35.0	37.5	72.5	100.0
1988	28.2	32.1	39.7	71.8	100.0
1989	28.6	30.6	40.8	71.4	100.0
1990	26.4	33.1	40.5	73.6	100.0
1991	24.8	35.9	39.3	75.2	100.0
1992	24.1	37.5	38.4	75.9	100.0
1993	25.5	35.6	38.9	74.5	100.0
1994	28.3	32.9	38.8	71.7	100.0
1995	27.8	33.2	39.0	72.2	100.0
1996	25.5	36.2	38.3	74.5	100.0
1997	20.3	43.5	36.2	79.7	100.0
1998	23.0	42.6	34.4	77.0	100.0
Averages					
1960–71	30.3	56.1	13.6	69.7	100.0
1972–86	26.8	38.7	34.5	73.2	100.0
1987–98	25.8	35.7	38.5	74.2	100.0
1960–94	28.0	43.6	28.4	72.0	100.0
1960–98	27.6	43.1	29.3	72.4	100.0

[1]Nonbank financial institutions, unorganized financial markets, and other financial intermediaries.

Source: Bank of Korea, *Economic Statistics Yearbook,* various years.

Part of the reason for the paucity of equity financing was small savings in the country and the lack of direct investment by potential investors: the ordinary citizens, wealthy individuals, landlords, or large businesses that had the financial wherewithal to invest in share capital. Moreover, not only was there a lack of savings to invest, but there was also a lack of institutions to channel people's savings into equity share capital other than the direct investment of the entrepreneurs themselves. No large public market for securities in South Korea, such as a stock market,[4] existed. The Korea Stock Exchange came into being in 1956, and the Securities and Exchange Law was enacted only in 1962. Even then, not many savers were accustomed to utilizing the institution for investment purpose until about the 1970s, when a tax and financial incentive system was introduced by the government to encourage companies to list their shares on the stock market. The Korea Stock Exchange became a viable venue for investment only after the late 1980s; but even as late as in 1987 there were only about 350 companies listed on the exchange. Large investment banks and securities markets are still not an established part of economic life in Korea today. Also, in their place, the government extensively intervened in stock market operations, allegedly to protect investors from undue downside risks.

Another reason for the paucity in equity financing appears to have been the prevalence of high interest rates in the country until recently (e.g., the early 1980s). Because of the tight controls on interest rates on loans and deposits, in the unregulated market South Korea had extremely high interest rates on loans,[5] which made it difficult for Korean companies to attract people's savings away from it at reasonable rates of interest.

The extent of owners' equity financing also varied widely among different economic sectors. The ratios of equity to assets in the electric power and the entertainment and recreation industries were the highest, that is, 38.6 and 38.3 percent, respectively, during the 1971–98 period, followed by the mining and real estate industries with 29 and 28 percent, respectively (Table 5.3). Others, the transportation and communications, construction, retail/wholesale, and manufacturing industries, the ratios of equity to assets were low, below the average ratio of 26.8 percent, with 18, 19.1, 20.7, and 23 percent, respectively, during the same period. It is notable that the government-owned and -operated public enterprises, such as the electric power industry and mining had relatively large share of equity investment than that of the private sector (29 percent), which included manufacturing, retail, and wholesale businesses. It is also notable that within the business sector, the so-called nonproductive service subsectors, such as, entertainment, recreation, and trade had higher ratios of equity share to total assets than others.

The share of equity financing investment also varied within the particular economic sectors, such as manufacturing. High shares were found among consumer-goods industries, such as food and wood products, while producer-oriented intermediate product industries, such as primary metal (e.g., iron) and petro-chemical products, operated with smaller shares of owners' equity.

The share of equity financing likewise varied according to the size of the business. The equity ratios of large and medium-to-small firms varied over time, but equity financing in large-scale businesses was typically lower than in medium or small firms and the discrepancy between the two groups remained fairly constant

TABLE 5.3 Equity Financing of Sectoral Investment (in percent of total capital)

Year	Electric Power	Entertainment	Mining	Real Estate	Manufacturing	Trade	Construction	Transportation and Communication	Average
1971	30.6	33.4	40.9	38.7	20.2	25.7	21.3	17.7	28.6
1972	25.7	43.2	33.2	36.1	24.2	34.4	24.2	17.7	29.8
1973	23.2	43.1	38.6	23.1	26.8	36.5	34.0	22.6	31.0
1974	23.8	52.5	39.5	38.3	24.0	33.0	24.6	21.2	32.1
1975	33.3	50.0	41.2	19.4	22.8	26.2	28.0	14.2	29.4
1976	42.8	50.5	37.4	17.8	21.5	20.2	21.3	19.3	28.9
1977	41.9	45.8	34.9	37.8	22.2	21.1	24.3	17.4	30.7
1978	37.4	41.4	28.0	35.1	21.4	18.8	22.2	17.0	27.7
1979	33.6	24.3	21.3	34.5	21.0	18.4	20.7	18.2	24.0
1980	27.9	25.0	27.6	32.3	17.0	15.0	16.0	13.7	21.8
1981	27.6	28.3	24.9	35.1	18.1	14.5	16.0	15.5	22.5
1982	38.7	26.6	30.4	34.7	20.6	16.0	16.7	17.1	25.1
1983	36.1	29.5	35.5	37.0	21.7	19.9	17.1	16.7	26.7
1984	36.2	33.7	42.2	26.0	22.6	17.6	18.1	15.7	26.5
1985	34.8	52.1	38.8	29.3	22.3	14.9	16.0	12.5	27.6
1986	37.1	57.7	36.5	27.0	22.2	23.5	14.8	11.8	28.8
1987	41.2	51.5	35.0	25.7	22.7	23.0	11.9	8.6	27.5

1988	48.6	37.3	33.2	30.5	25.3	24.9	15.7	9.8	28.2
1989	52.8	36.0	26.3	28.9	28.2	25.0	17.9	13.6	28.6
1990	52.6	26.8	25.0	22.8	25.9	18.2	17.4	22.7	26.4
1991	50.4	27.2	21.4	17.1	24.6	17.8	17.4	22.5	24.8
1992	47.1	26.5	20.5	16.0	23.9	18.0	17.8	23.1	24.1
1993	44.9	39.4	22.5	14.0	25.3	15.6	18.8	23.7	25.5
1994	46.2	46.5	18.4	29.5	24.8	16.0	21.0	23.6	28.3
1995	45.9	41.6	24.6	25.6	25.9	15.5	19.1	24.5	27.8
1996	47.3	32.3	22.3	25.6	24.0	16.4	15.1	21.4	25.5
1997	36.7	31.9	10.7	18.9	20.2	14.0	13.2	17.2	20.3
1998	36.8	37.7	0.4	27.7	24.8	20.0	13.2	23.6	23.0
Averages[1]									
1971–86	32.9	38.6	34.3	31.7	21.8	22.1	21.4	17.1	27.5
1987–96	47.7	36.5	24.9	23.6	25.1	19.0	17.2	19.4	26.7
1997–98	36.8	34.8	5.5	23.3	22.5	17.0	13.2	20.4	21.7
1971–98	38.6	38.3	29.0	28.0	23.0	20.7	19.1	18.0	26.8

[1]The figures below represent the averages of entries in each column in the row. The weight is not assigned to each entry.

Sources: Hanguk Eunhaeng 1995: 236–43; Bank of Korea, *Economic Statistics Yearbook* 1999: 132–35.

throughout the whole 50-year period. In 1960, the equity ratio of large firms was 28 percent in comparison to 46 percent for small and medium firms. The average owners' equity ratio of "large" businesses in 1970 was 19.5 percent, in contrast to 71.5 percent for medium and small businesses. The owners' equity in most large businesses was less than one-fifth of their assets (17.53 percent, with some as low as 3.6 percent), while that in small and medium businesses was more than three-quarters. The Bank of Korea's Analysis of Business Management for 1977 reported that the largest corporations, including general trading corporations, had owners' equity of only 17 percent of total assets, in contrast to 22.3 percent for small and medium businesses.[6] In 1978, businesses with more than 1 billion *won* in assets had an owners' equity-asset ratio of 33.6 percent, in contrast to 82.6 percent for firms with less than 5 million *won* in assets. Likewise, local businesses in the countryside, which were typically small, depended more on their own equity than did those in capital city.

The relatively small owners' equity in large companies is also clearly shown in terms of differences in the equity-asset ratio between incorporated company—which tended to be large—and unincorporated businesses, which tended to have single proprietors. The average equity-asset ratio of companies in 1970–71, for instance, was 23.8 percent in comparison to 33 percent for individual businesses. Equity financing of companies ranged from more than 50 percent of total investment to a little more than one-fifth, averaging about 26.4 to 27.6 percent between 1960 and 1998. Personal savings invested in capital shares in corporations—large as well as some medium size ones—and their retained earnings were not numerous. The contrast is more dramatic in the cases of the *jaebeol* and small to medium businesses. The average ratio of net worth to total assets of *jaebeol* was 19.3 percent in 1987.[7] Until about 1997, owners' equity in large businesses was often less than ten percent of total assets. In the case of the 10 largest *jaebeol* listed in the *Fortune 500* in 1983, the ratio of owners' equity to assets was only 7.2 percent (or the asset holding was 13.8 times the owners' equity). Typically, the equity ratios of *jaebeol* were even much lower than officially reported, as they widely used cross-equity shareholdings within *jaebeol* business conglomerates, which tended to inflate the value of their equity shares. In contrast, the owners' equity of unincorporated businesses financed 76.9 percent of the total capital.[8]

Domestic Borrowing

The paucity of equity investment and the absence of well-developed capital markets compelled Korean businesses to rely heavily on loans from both domestic and foreign sources. Since equity financing of businesses was less than a third of the total on average, more than two-thirds (68 percent) of capital stock in businesses during 1971–98 was borrowed from others.[9] There is no suitable and adequate data available to calculate domestic borrowing for investment in the country, but some fragmentary and scattered data indicate that the borrowing of domestic savings for investment may be estimated at about 7 percent of GDP, or about 30 percent of domestic investment, during the last half of the twentieth century, as illustrated below. In the case of incorporated businesses, the average ratio of loans between 1960 and 1998 was 72.4 percent of the total. Comprehensive data are not available, but

according to figures for the period between 1971 and 1998, companies borrowed nearly two-fifths (37.7 percent) of the value of their assets on average from domestic sources (Tables 5.1 and 5.4). It was also reported that in some companies (approximately 61 percent of 365 businesses) in 1971 borrowed more than 100 percent of their asset values. These figures clearly show that Korean businesses, especially the large corporations, were highly leveraged.

The extent of company borrowing varied among different sectors. The average ratio of the borrowing to asset value was about 47.8 percent in the electric power and gas industries in contrast to 22.9 percent in the entertainment and sports industries. The extent of company borrowing, however, showed a declining tendency, that is, from the highest ratio of borrowing to assets on average declined from about 45 percent in 1971 to about 33 percent in 1994.

Public Investment

As examined in chapter 3, the South Korean government undertook a substantial amount of investment between 1953 and 1998, particularly during the years immediately following the cessation of the Korean War, despite its difficult financial situation. As shown in chapter 3, overall, the government invested as much as 5.1 percent of GDP during the last half of the twentieth century, which accounted for a little more than a fifth (21 percent) of all domestic investment.[10] It is not difficult to discern the sources that financed public investment, but it is not clear to what extent or in what amount they did. The sources were both domestic and foreign savings. Let us examine the domestic sources in this chapter while deferring the contribution of foreign sources to chapters 8 and 9.

Domestic sources to finance public investment could have come from government revenues. However, the revenues classified as "ordinary revenues," comprising three main categories, namely, taxes, profits from government enterprises, and incomes from public investment, were mostly allocated for the operation of the government, namely, consumption purposes such as ordinary government services to its citizens, but not for investment purpose. The only possible source of financing public investment could have been profits earned in government-owned and -operated ventures and public enterprises co-owned and operated with private shareholders. However, they were considered part of ordinary revenues to provide ordinary government services, and there is no evidence that they financed much, if any, public investment.

On the other hand, substantial portions of "special revenues" from domestic and foreign sources such as loans and foreign aid were dedicated to public investment. The financing of South Korea's government-led development projects was essentially built on the assistance of these financial sources. According to the data available for the 1971–94, the special revenues derived from loans, foreign aid, and others comprised nearly half (45.6 percent) of total government revenues, while its dedication to public investment constituted a little less than two-fifths (38.8 percent) of its expenditures (Table 5.5).

It is not certain how much of special revenues of the government from the domestic sources were attributable to the financing of public investment, but it seems reasonable to estimate that the volume of loans of financial intermediaries and the

TABLE 5.4 Company Borrowing from Banks by Sectors (percent of total assets)

Year	Electric and Gas	Manufacturing	Transportation and Communication	Construction	Retail and Wholesale	Mining	Real Estate, Service	Entertainment, Sports	Total
1971	59.8	55.9	54.4	47.2	41.4	36.2	29.6	44.6	44.2
1972	63.7	51.4	54.0	46.2	32.8	45.7	31.7	37.1	42.7
1973	64.1	38.5	53.6	43.3	28.8	41.3	53.7	40.6	42.8
1974	55.4	49.7	48.9	48.3	34.3	33.5	22.9	30.8	38.3
1975	56.3	47.0	54.7	35.9	29.8	39.4	24.2	20.3	35.9
1976	48.7	46.8	57.5	28.2	34.3	32.2	37.7	23.1	37.1
1977	49.7	47.0	44.9	26.8	31.6	27.7	30.8	28.6	33.9
1978	55.0	48.0	44.8	22.5	33.8	32.5	33.7	25.4	34.4
1979	56.5	48.4	47.9	26.4	40.0	34.6	34.4	29.0	37.2
1980	63.4	49.3	51.3	39.7	36.3	24.2	33.7	17.6	36.0
1981	55.5	49.4	47.7	44.6	37.6	26.3	16.4	19.9	34.6
1982	55.1	45.9	44.2	47.9	39.8	25.1	21.7	15.4	34.3
1983	56.0	43.7	44.5	42.9	38.3	20.5	22.0	19.2	33.0
1984	56.1	41.5	42.0	48.2	38.5	21.6	20.2	23.2	33.6
1985	57.2	46.7	47.0	50.1	46.6	21.2	19.4	11.4	34.6
1986	53.6	46.0	45.4	55.3	40.0	21.1	24.0	7.7	34.2
1987	48.1	42.9	44.5	50.4	34.6	22.8	23.9	12.8	33.1
1988	34.4	39.5	45.3	46.6	31.4	26.6	12.2	21.1	31.8

1989	29.1	38.5	39.4	43.7	30.5	31.9	11.9	19.4	30.8
1990	28.4	44.6	35.0	40.3	36.8	43.9	13.2	22.8	33.8
1991	26.8	44.5	36.8	41.0	37.1	44.2	35.0	21.5	37.2
1992	34.3	47.2	38.1	43.2	37.6	44.2	35.3	19.8	37.9
1993	36.4	46.8	38.6	42.6	34.3	43.1	21.7	21.2	35.5
1994	34.3	44.5	27.8	44.1	34.9	44.1	17.4	15.8	32.7
1995	32.2	44.8	26.2	46.4	35.9	42.1	18.7	19.1	33.3
1996	35.1	47.7	31.4	49.9	36.4	43.0	23.5	23.2	36.4
1997	46.8	54.2	39.5	51.2	41.4	61.5	24.5	28.7	43.0
1998	46.2	50.8	41.3	52.0	45.1	70.0	13.5	21.8	42.1
Averages[1]									
1971–86	56.6	47.2	48.9	40.8	36.5	30.2	28.5	24.6	36.7
1987–98	36.0	45.5	37.0	45.9	36.3	43.1	20.9	20.6	35.6
1953–94	49.1	46.0	45.3	41.9	35.9	32.7	26.1	22.8	35.8
1953–98	47.8	46.5	43.8	43.0	36.4	35.7	25.2	22.9	36.2

[1]The figures below represent the averages of entries of each column in the row. The weight is not assigned to each entry.

Sources: Hanguk Eunhaeng 1995: 236–43; Bank of Korea, *Economic Statistics Yearbook*, various years.

TABLE 5.5 Financing of Investment in the Public Sector, 1971–94
(in percent of total expenditures/revenues)

	Expenditures	*Revenues*					
			Ordinary				
Year	Public Investment[1]	Aid, Loans, and Other	Profits[2]	Investment[3]	Taxes	Total	Grand Total
1971	40.4	46.0	31.8	5.3	16.9	54.0	100.0
1972	41.8	46.0	35.4	5.6	13.0	54.0	100.0
1973	32.5	51.7	30.9	11.6	5.8	48.3	100.0
1974	35.1	42.8	19.8	6.7	30.7	57.2	100.0
1975	39.4	42.4	3.3	9.3	44.9	57.6	100.0
1976	39.0	37.8	11.6	6.7	43.8	62.2	100.0
1977	38.6	41.6	15.8	7.7	35.0	58.4	100.0
1978	38.8	42.6	11.5	8.7	37.2	57.4	100.0
1979	40.3	27.8	14.9	22.1	35.2	72.2	100.0
1980	40.0	41.5	24.1	7.9	26.5	58.5	100.0
1981	42.0	42.9	16.4	7.8	33.0	57.1	100.0
1982	39.7	49.1	12.1	4.6	34.2	50.9	100.0
1983	37.7	45.9	17.6	4.8	31.7	54.1	100.0
1984	37.0	55.3	13.1	4.5	27.1	44.7	100.0
1985	39.8	52.5	13.3	5.8	28.4	47.5	100.0
1986	38.2	49.5	14.5	5.2	30.7	50.5	100.0
1987	34.4	51.9	3.9	5.1	39.1	48.1	100.0
1988	33.7	48.7	(1.2)	7.4	45.2	51.3	100.0
1989	35.3	50.4	(5.6)	8.7	46.5	49.6	100.0
1990	40.0	47.3	(1.6)	7.6	46.7	52.7	100.0
1991	43.8	41.3	2.0	7.0	49.7	58.7	100.0
1992	41.9	43.8	5.8	7.2	43.3	56.2	100.0
1993	39.2	49.8	8.2	6.1	35.9	50.2	100.0
1994	41.5	44.9	2.3	8.6	44.2	55.1	100.0
Averages							
1971–86	38.8	44.7	17.9	7.8	29.6	55.3	100.0
1987–94	38.7	47.3	1.7	7.2	43.8	52.7	100.0
1971–94	38.8	45.6	12.5	7.6	34.4	54.4	100.0

[1]Public expenditures for investment as percent of total expenditures.
[2]Profits from government enterprises.
[3]Revenues from public enterprises.

Sources: Hanguk Eunhaeng 1995: 248–49; Bank of Korea, *Economic Statistics Yearbook*, various years.

proceeds from the sale of public bonds that financed public investment between 1953 and 1998 was about a third of the total, leaving the remaining two-thirds to the foreign sources. This estimation is based on the fact that as much as 51 percent of total loans between 1953 and 1970 were traced to loans of the domestic financial institutions. There was a wide fluctuation of budget deficits, but they averaged about 3.9 percent of government revenue during 1971 and 1994, which were met with borrowings from both domestic and foreign sources more or less evenly (e.g., 51 and 49 percent, respectively).[11] Also, domestic borrowings accounted for more than two-fifths (40.2 percent) of budget deficits during the 14-year period between

TABLE 5.6 Loan Balances of Financial Institutions (in billion *won* and percent)

	Total		*Percent of Total*			
Year	Billion *Won*	% Change	Businesses	Household	Government	Total
1970	4,845.9	—	77.7	8.8	13.5	100.0
1971	6,236.9	28.7	78.1	8.5	13.4	100.0
1972	7,779.7	24.7	77.7	7.7	14.6	100.0
1973	9,899.3	27.2	79.9	7.4	12.7	100.0
1974	13,399.9	35.4	79.0	8.4	12.6	100.0
1975	17,535.5	30.9	79.4	7.9	12.7	100.0
1976	22,049.3	25.7	79.4	8.2	12.4	100.0
1977	27,811.3	26.1	79.9	7.9	12.2	100.0
1978	36,443.8	31.0	80.4	8.9	10.7	100.0
1979	47,152.0	29.4	81.2	9.5	9.3	100.0
1980	66,307.4	40.6	81.2	9.6	9.2	100.0
1981	86,815.2	30.9	79.1	11.8	9.1	100.0
1982	109,291.0	25.9	78.3	12.7	9.0	100.0
1983	128,643.0	17.7	77.5	13.6	8.9	100.0
1984	148,670.9	15.6	77.0	14.8	8.2	100.0
1985	172,116.6	15.8	76.5	15.7	7.8	100.0
1986	194,659.9	13.1	76.2	16.7	7.1	100.0
1987	219,453.0	12.7	75.1	18.5	6.4	100.0
1988	248,392.9	13.2	73.0	21.7	5.3	100.0
1989	301,316.4	21.3	72.1	23.4	4.5	100.0
1990	372,117.5	23.5	72.0	24.0	4.0	100.0
1991	455,453.9	22.4	72.1	24.5	3.4	100.0
1992	530,990.6	16.6	72.0	24.8	3.2	100.0
1993	616,573.3	16.1	72.5	24.6	2.9	100.0
1994	736,096.9	19.4	72.3	25.1	2.6	100.0
Averages						
1970–77	13,694.7	28.4	78.9	8.1	13.0	100.0
1978–86	110,011.1	24.4	78.6	12.6	8.8	100.0
1987–94	435,049.3	18.2	72.6	23.3	4.0	100.0
1970–94	183,202.1	23.5	76.8	14.6	8.6	100.0

Source: Hanguk Eunhaeng 1995: 218–19.

1971 and 1984 and less than 1 percent between 1986 and 1998. Similarly, the government borrowed as much as 8.6 percent of all loans extended by financial institutions during the 25-year period between 1970 and 1994, although loans to the government declined from 13–14 percent of total loans in the early 1970s to less than 3 percent after 1993 (Table 5.6). Relative to government revenues, banks financed more than 1.9 percent on average, which was about 32 percent of budget deficits for the entire period.

DOMESTIC LENDING INSTITUTIONS

A major portion of investment supplemented the small pool of owners' equity with a variety of domestic loans, and the bulk of business borrowing was made from four

main domestic institutions, namely, the organized financial intermediaries, the government, the unorganized financial market, and other miscellaneous sources, such as portfolio investment. The organized domestic financial institutions of the sources of loans are examined below, while deferring the unorganized financial market and other miscellaneous sources until later in this chapter.

The Organized Financial Institutions

To compensate for the lack of owners' equity, a variety of domestic venues of financing investment is made available, but the major source is loans from domestic organized financial intermediaries. Financial intermediaries themselves usually are seldom savers or investors themselves but, since they hold the financial resources of others in large volume and are in the business of lending to augment owners' equity to meet the investment needs of business, they traditionally have played an important role in mobilizing and allocating savings of others to investment in developed countries. When the financial market pools risk, it tends to be more willing to finance investment in the development of new technologies and the exploitation of resources. In the majority of instances, the decision to lend to a business may be more difficult and more significant than the entrepreneur's readiness to take the risk of investment. However, difficulty is often encountered in deciding which of an unlimited array of potential investors is to be entrusted with loan capital. In this decision-making setting, the role of financial institutions has been of great importance historically, although U.S. corporations now have largely freed themselves of their dependence on them.

In South Korea, there were two distinct types of financial markets, organized and unorganized, each playing a unique role in financing businesses in the country: meeting somewhat different financial needs of borrowers while complementing each other. Organized financial intermediaries are those formally established under the law to facilitate services in the financial markets. They are comprised two types in South Korea: banks and nonbank financial institutions (NBFIs), such as finance and investment companies, savings and loan associations, insurance companies, and agricultural cooperative societies. Their structures were somewhat modified after the World War II, but the basic framework of the organized financial intermediaries was already well established in Korea under Japanese rule prior to 1945. As shown below, the organized financial intermediaries in the country played a unique role, vis-à-vis those in most other developed countries, in capital formation.

Reliable and consistent data showing credit financing of investment, including that of the financial intermediaries, are difficult to find. Even the magnitude of credit financing of investment of organized financial intermediaries,[12] especially that of NBFIs, and the unorganized financial market are scarce. Nonetheless, all indications are that the primary source of financing investment was credit extended by the organized financial intermediaries. Their loans started out very small in the early years and fluctuated somewhat, but on the whole they expanded rapidly over time. On average, domestic credit of the organized financial intermediaries rose at an amazing rate of 75.9 percent per annum between 1953 and 1961, 37.7 percent between 1962 and 1971, 31.5 percent

between 1972 and 1986, and 21 percent between 1987 and 1998, averaging 40.5 percent per year between 1953 and 1998 (Table 5.7).

The volume of loans increased much faster than overall economic activities of the country. Loans made by the organized financial institutions rapidly increased from about 40 percent of GDP between 1974 and 1977 to about 95 percent between 1992 and 1998. Nonetheless, the rate at which the volume of loans increased slowed down over time. This phenomenon is more clearly revealed in the ratio of loans extended by the organized financial intermediaries to business. It decreased from the high 70 percent level in the early 1970s to about 70 percent level in the mid-1990s and similarly in the annual rise in volume of their loan balances, for example, from about 30 percent to less than 20 percent (Table 5.6), showing that the financing of investment relied more upon sources other than loans of financial institutions, such as owners' equity and business savings.

Banks

Like that of most other countries, the organized financial market in South Korea after the Korean War was dominated by banks. Their assets comprised more than 84 percent of those of all financial institutions in 1965.[13] Bank loans expanded rapidly, rising from about 1.6 billion *won* in 1953 to 135.9 trillion in 1994, an annual average rise of about 31 percent during the period. General-purpose banking credits reached 39.1 trillion *won*, which represented 78.2 percent of the total lending. Similarly, the annual sum of bank loans, which was less than the stock of money before 1962, rapidly climbed to 235 percent in 1970, 321 percent in 1980, 465 percent in 1990, and 572 percent in 1997. The market share of bank loans dominated the organized financial market, for example, averaging 62 percent between 1955 and 1998 (Table 5.7). In relation to GDP, aggregate bank loans increased from less than 10 percent before 1960 to 27 percent in 1970, 35.6 percent in 1980, 41.2 percent in 1990, and 44.2 percent in 1997.

Relative to corporate investment, loans made by banks in South Korea comprised between one-third to more than a half, which accounted for about three-quarters of total private investment.[14] On average, the ratio of loans extended by banks to companies for investment during 1971–98 was about 38 percent of total capital on average constituting more than 1.4 times the owners' equity.[15] In addition to making large loans, banks also assisted businesses with their cash flows, as many businesses had liquidity problems.[16] Banks, thus, played a very important role in financing businesses.

Notwithstanding the rise in the volume of bank loans, their relative importance to total loans of the financial institutions declined over time, however. With the relaxation of government control over NBFIs and the widening interest rate differential between banks and NBFIs broadened (examined in the following sections), the ability of banks to attract deposits and expand lending gradually weakened after the middle of the 1970s. The dominance of banks gradually declined from more than three-quarters of the total loans in the mid-1970s to less than 64 percent of the otal in 1967,[17] 67 percent in 1978, 55.5 percent in 1986, and to less

TABLE 5.7 Loans of Organized Financial Institutions (in percent)

	Annual Changes				*Composition*					
Year	Banks	(Savings)	NBFI	Total	Banks	(Savings)	NIF	NBFI	Total	Loan/GDP
1953	166.7	—	—	166.7	100.0	—	—	—	100.0	—
1954	37.5	—	—	37.5	100.0	—	—	—	100.0	—
1955	72.7	—	—	200.0	57.6	—	—	42.4	100.0	—
1956	86.8	—	92.9	89.4	56.8	—	—	43.2	100.0	—
1957	52.1	—	70.4	60.0	54.0	—	—	46.0	100.0	—
1958	45.4	—	14.1	31.0	59.9	—	—	40.1	100.0	—
1959	14.6	—	35.2	22.9	55.9	—	—	44.1	100.0	—
1960	(36.1)	—	12.7	(14.6)	41.8	37.8	—	58.2	100.0	—
1961	178.3	110.6	27.5	90.5	61.1	41.8	—	38.9	100.0	—
1962	35.0	38.4	26.0	31.5	62.7	44.0	—	37.3	100.0	—
1963	13.7	13.9	24.9	17.9	60.5	42.5	—	39.5	100.0	—
1964	8.1	10.4	15.3	11.0	58.9	42.3	—	41.1	100.0	—
1965	35.8	48.3	17.8	28.4	62.3	48.8	—	37.7	100.0	—
1966	42.4	50.4	33.9	39.2	63.7	52.8	—	36.3	100.0	—
1967	73.8	80.0	17.5	53.4	72.2	61.9	—	27.8	100.0	—
1968	85.5	94.0	36.3	71.9	78.0	69.9	—	22.0	100.0	—
1969	70.0	72.0	57.5	67.2	79.3	71.9	—	20.7	100.0	—
1970	28.3	26.6	37.1	30.1	78.1	69.9	—	21.9	100.0	—
1971	27.3	28.8	24.4	26.6	78.5	71.1	—	21.5	100.0	—
1972	30.3	31.8	40.7	32.5	77.2	70.7	—	22.8	100.0	—
1973	32.5	35.2	49.7	36.4	75.0	70.1	—	25.0	100.0	—
1974	52.9	53.7	31.9	47.7	77.7	72.9	—	22.3	100.0	42.6
1975	19.2	19.0	32.6	22.2	75.8	71.1	—	24.2	100.0	39.0
1976	28.7	27.1	38.4	31.1	74.1	68.6	0.3	25.6	100.0	37.8
1977	26.4	24.4	67.4	36.9	68.2	62.1	0.5	31.3	100.0	40.5
1978	40.3	40.3	48.9	43.0	66.6	60.6	0.8	32.6	100.0	43.1
1979	35.8	37.4	40.2	37.3	66.2	60.9	0.5	33.3	100.0	46.5
1980	35.9	36.6	50.5	40.8	64.1	59.3	0.3	35.6	100.0	55.4
1981	30.7	35.9	45.0	35.8	61.7	59.4	0.3	38.0	100.0	54.9
1982	26.8	21.9	26.0	26.5	61.6	56.9	0.6	37.8	100.0	61.9
1983	19.4	18.7	30.7	23.7	59.4	54.6	0.6	40.0	100.0	66.4
1984	15.9	15.9	30.5	21.7	56.0	51.5	1.1	42.9	100.0	68.4
1985	20.8	21.8	19.6	20.3	56.3	52.1	1.1	42.6	100.0	73.7
1986	15.6	15.3	19.2	17.2	55.5	51.3	1.1	43.4	100.0	74.7
1987	10.2	10.3	26.7	17.4	52.5	48.5	0.7	46.8	100.0	75.3
1988	13.2	13.5	18.8	15.8	51.3	47.5	0.7	48.0	100.0	73.9
1989	28.2	28.9	31.8	29.9	50.7	47.2	0.6	48.7	100.0	82.3
1990	18.4	18.7	33.4	25.7	47.7	44.6	0.6	51.7	100.0	85.9
1991	20.8	21.0	27.9	24.5	46.4	43.5	0.4	53.2	100.0	88.9
1992	15.0	15.1	22.0	18.7	45.1	42.3	0.3	54.6	100.0	94.5
1993	12.0	12.1	17.0	14.7	44.1	41.4	0.2	55.7	100.0	93.8
1994	18.0	17.6	24.9	21.9	42.8	40.0	0.1	57.1	100.0	98.0
1995	—	—	—	—	44.5	—	—	55.5	100.0	90.8
1996	—	—	—	—	47.2	—	—	52.8	100.0	89.7
1997	—	—	—	—	46.8	—	—	53.2	100.0	94.4
1998	—	—	—	—	57.5	—	—	42.5	100.0	77.6

TABLE 5.7 (*continued*)

	Annual Changes				*Composition*					
Year	Banks	(Savings)	NBFI	Total	Banks	(Savings)	NIF	NBFI	Total	Loan/GDP
Averages										
1953–61	68.7	110.6	42.1	75.9	65.2	39.8	—	44.7	100.0	—
1962–71	42.0	46.3	29.1	37.7	69.4	57.5	—	30.6	100.0	—
1972–86	28.8	29.0	38.1	31.5	66.4	61.5	0.6	33.2	100.0	54.2
1987–98	17.0	17.1	25.3	21.1	48.0	44.4	0.5	51.7	100.0	87.1
1953–98	38.2	33.7	33.8	40.5	62.0	55.2	0.5	39.5	100.0	70.0

Sources: Bank of Korea, *Economic Statistics Yearbook*, various years; Hanguk Eunhaeng 1995: 170–71.

than half (48 percent) between 1987 and 1998, although it bounced back to 57.5 percent in 1998 (Table 5.7). The average ratio of loans from banks between 1953 and 1998 was about 62 percent of the total of the organized financial institutions, while others supplied rest or less than two-fifths. The average ratio of loans from banks between 1960 and 1998 was about 43 percent of total capital of companies, while that of NBFIs, unorganized financial markets, and others made up about 30 percent of the total during the same period (Table 5.2).

Banks in South Korea were of two types, namely, special purpose public banks and "commercial banks," whose roles in financing businesses were somewhat different. The most important public bank in the country was the Bank of Korea, the central bank, which was established and operated by the government. Its functions were typical of central banks: the issuance of all currencies; the formulation and execution of monetary and credit policies; the conduct of the bulk of foreign exchange control; the research, collection, and preparation of statistics on many aspects of South Korea's financial and economic system; and the supervision and regulation of the activities of commercial banks.

The Bank of Korea had enormous financial resources of its own, commanding about 16 percent of the total financial resources in the country in 1975, for instance. With these large financial resources, it played a major role in financing investment. It engaged in loan transactions for the government, and made loans to other banking institutions, including major commercial banks, maintaining the solvency of all banks through the balances it held.[18] In addition to playing an important role in extending the credit to institutional borrowers, the Bank of Korea also made loans to major businesses. In addition, it was entrusted with the management of government investment funds, including the National Investment Fund (NIF), a major fund through which government was more or less directly involved in allocating the loans but not as a part of the government budget.

Other banks that the government established to conduct specialized financial activities included the Korea Development Bank, the Small and Medium Industry Bank, the Korea Exchange Bank, the Export-Import Bank of Korea, the Citizens National Bank, the Korea Trust Bank, the Korea Long Term Credit Bank, the Korea Housing Bank, and the Agricultural Bank/National Agricultural Cooperatives Federation (NACF).

The Korea Development Bank, established first as the Korea Reconstruction Bank in 1954, was a state-owned and state-run enterprise. It was the largest term-financing institution in the country, and was designed to provide long-term loans to key enterprises without the limitations of commercial bank lending. The government used it as a principal financing channel for reconstruction and the construction of new industries to implement its successive five-year development plans. It even furnished equity investments, guaranteed corporate borrowings in domestic and foreign currencies, made long and medium-term loans for equipment, and made loans to term clients for working capital. Among all the banks, the Korea Development Bank played the most important role in financing investment in the country, as was the case with the Industrial Bank under Japanese rule before 1945. It allotted more than half of its loans to the manufacturing sector during the early years.

The Small and Medium Industry Bank, established in 1961, provided term and working-capital loans to, and discounted the bills of, supposedly small- and medium-sized firms. As late as May 1987, the government held 99.9 percent of the shares in the bank. Three other financial institutions supplied credit for business and government projects. The Korea Exchange Bank was set up by the government in 1966 to handle foreign exchange transactions and guarantee the foreign obligations of Korean corporations. It made a few long-term loans for investment. The Export-Import Bank of Korea extended medium- and long-term credit to both suppliers and buyers to facilitate exports of goods and services, major resources development, and overseas investment. As late as May 1987, the government held 37.8 percent of the shares in the bank. The Korea Housing Bank was established in 1967 to provide housing loans to low-income families, provide construction financing to the Korea Housing Corporation and private developers for apartments, and furnish long-term and low-interest construction financing to local governments and individuals. The Korea Long-Term Credit Bank specialized in extending credit on a long-term basis.

The importance of lending by these "public banks" evolved over time. In the early 1950s, they made more than half of total bank loans. They even had close dealings with foreign investors. Of the total of $1.53 billion in foreign investment projects approved through 1968, approximately 34 percent was channeled through the public banks.

South Korea's commercial banks, unlike those in the developed economies, came into being after World War II under circumstances much different from those in Western countries, but much similar to those of the specialized public banks in South Korea. At the end of the war in 1945, all commercial banks that had been owned and operated by the Japanese, as well as public banks, were taken over by the South Korean government. They were owned (the initial shares of commercial banks held by the government comprised about 70 percent of the total) and operated by the government during the early years following the end of World War II until about 1964. The government had complete control of all facets of bank operations, including the appointment of bank personnel. It immediately made the existing commercial banks de facto public enterprises by legally limiting private shareholders' voting rights. Under this institutional setup, it exerted a strong influence on the allocation of financial resources to sectors it considered strategic.

The government transferred its control to private hands briefly during the four-year period between 1957 and 1960, as it viewed at that time the commercial banks as unimportant because of its reliance on specialized public banks for its needs. They were sold to private individuals in 1957. The divestiture of commercial banks was a short-lived, however, as the government's macroeconomic goals motivated it to regain control of the financial system in its credit allocation decisions. It took back the ownership of the private commercial banks[19] under the military government and continued to own and tightly control them for years to come. At the same time, the government allowed new commercial banks to be formed. It established Citizens National Bank in 1963 by taking over numerous mutual savings and loan functions of traditional cooperative financial societies, such as the savings and loan associations and *gae* ("mutual aid societies"). The bank provided petty loans, secured by mutual installment accounts, to small-sized firms under the control of the government.

The second stage in commercial banks was from 1964 to about 1980. Under a 1964–65 financial reform, the nation's financial establishment and its structure changed perceptively. The government sold off its shares in some commercial banks to private individuals during this period, and its control over bank lending was slowly relaxed. Government share holdings of nationwide commercial banks were reduced to about 30 to 65 percent of total shares in 1973.

It is clear from the above examination that the government decision makers in South Korea, especially the economic planners, until about the early 1980s viewed control over the allocation of credit, both domestic and foreign, as an important means of directing the scarce resources toward business investment in the early years. Upon considering the crucial role of the financial institutions in furnishing business investment, as well as mobilizing savings, the government used the organized financial intermediaries as a way to implement its economic policies until about the 1980s. It ensured the flow of funds to preferred sectors and borrowers. However, as the Korea Economic Institute of America observed, "financial institutions [were] overly regulated and protected by the government."[20]

As shown above, over time, the function of commercial banks as intermediaries for financing business investment substantially changed, but they basically played a secondary role in implementing the government economic policy. The business of commercial banks was confined primarily to discounting commercial papers or financing short-term working capital, particularly for imports of raw materials, which they were accustomed to, but they were not well equipped to supply longer term business financing. When they were owned and operated by the government, it was the unchallenged major shareholder in all the nationwide commercial banks. They were used by the government to implement its national economic policy, as was the case under Japanese rule before 1945. The national commercial banks were in effect de facto "public enterprises" in the sense that the government controlled their management and operated them with the objective of implementing its own economic policies. The banks did not view the maximization of profits as their primary objective, as is the case in most developed countries, but acted more as "rationing agents" for the government.[21]

The subsidiary role of commercial banks is clearly revealed at least in two respects, namely, the relatively small volume of lending and the lack of discretionary power to allocate bank loans. To begin with, the volume of commercial bank lending increased substantially over time, but its share declined from about 50 percent of total bank loans in the early 1950s to about 30 percent in the late 1950s and early 1960s, as the banks lacked the financial resources to make loans due to the paucity of deposits arising from the low interest paid to customers' deposit. With the 1965 financial reform and the rise in the official interest rate after 1965, when the interest rate differential between the organized financial institutions and the curb financial market narrowed, the share of commercial banks' lending soared (e.g., from less than 30 percent of all bank credits in the early 1960s to about 60 percent in the early 1970s), as they were able to attract more deposits.

The third stage in the evolution of commercial banks came when another financial reform was commenced in 1981 with the adoption of a financial liberalization policy, which reduced government control of financial dealings and broadened the scope of the role of financial institutions. This move reflected the government's desire to facilitate the easy flow of funds from savings into investment with less government intervention and to develop the nation's financial institutions. As it gained more experience and recognized the shortcomings of the government control over credit through banks, coupled with pressure from foreign countries, the South Korean government became more flexible in adjusting its financial policy over time. The government allowed more autonomy in asset management, as well as day-to-day operations, and attempted to move away from direct involvement in bank lending in an effort to sharpen the international competitiveness of Korean businesses. It took a series of steps to provide more freedom of operations to local financial institutions.

First of all, the number of government-held shares in all nationwide commercial banks was further reduced. The government began to liberalize the banking system by more aggressively denationalizing the countrywide commercial banks. It divested its equity shares in one of the five national commercial banks, the Hanil Bank, in 1981. In 1982, the law limiting private shareholders' voting rights was repealed, and two more commercial banks—the Korea First Bank and the Bank of Seoul—were privatized. Government ownership of the remaining two commercial banks—the Chohung Bank and the Commercial Bank of Korea—was turned over to the private sector in 1983. As a result, the number of government shares in banks (including the Bank of Korea) was halved (from 41 percent to 20 percent). As of 1987, South Korea's five major commercial banks (Chohung, Commercial, First, Hanil, and Seoul) were privately held, although the government continued to hold as much as 72.6 percent of equity in the Citizens National Bank. It had a plan to transfer all commercial banks to private hands, although it had yet to be fully implemented as of 2002. Individuals and businesses, including *jaebeol*, however, were not allowed to acquire controlling shares in these banks.

This policy also had cleansing and realigning effects. Under pressure from the International Monetary Fund (IMF), a number of financial institutions, including commercial banks, have been allowed to dissolve. As of August 2000, 472 financial organizations—22.4 percent of the entire financial industry, including 10 commercial banks—had been liquidated, merged with stronger firms, or had their business

licenses revoked. A total of 1,103 individuals in 261 financial organizations were reprimanded for mismanagement, and 721 lawsuits were pending in the courts for damages amounting to 394.7 billion *won*. The IMF welcomed the progress made in the privatization of the Korea First Bank, but it urged the South Korean government to move expeditiously to privatize the Seoul Bank to demonstrate its commitment to introducing international management practices and greater competition into the South Korean financial system.[22] These moves have had cleansing and realigning effects.

Second, the liberalization of nationwide commercial banks in 1982 also removed the entry barriers to the financial sector. New entries increased, and the number of branches that financial institutions could have also was raised. The government chartered two new joint venture commercial banks, the Kor-Am Bank (co-owned with the American investors) and the Shinhan Bank (co-owned with Japanese). Together with the Shinhan and Kor-Am, there were 961 commercial bank branches across the country. In addition, local banks were found in every province.

Third, control over banking operations, such as internal managerial matters, personnel, budgeting, branch banking, and financial dealings was relaxed by the government. In January 1982, the government abrogated its directives regulating personnel management, budgetary, and other operational policies of banks. After 1986, the sixth five-year economic development plan provided a policy orientation that gave an even freer hand to the managers of financial institutions, calling for the selection of bank presidents by independent nominating committees, and the right of banks to freely determine the number of branches and their locations.

Fourth and lastly, in keeping with the liberalization moves noted above, the government allowed banks to deal more with furnishing credit to businesses without government intervention and develop new financial services and instruments at the banks' own discretion, such as the business of extending loans and selling government and public bonds. In January 1982, it abolished the direct control over bank lending through credit ceilings and quotas. More recently, South Korea's financial liberalization policy allowed the banks to extend increasing amounts of credit to businesses based on market forces but with fewer government directives. Along with the financial market liberalization policy, the power to allocate resources and credit was transferred in the late 1980s from the Economic Planning Board to the functional government ministries, including the Ministry of Finance. In a similar move in the 1990s, the functions of the Economic Planning Board were confined primarily to economic planning.

With the liberalization reform of 1981, the government made a conscious effort to narrow the gap in interest rates among banks, NBFIs, and the unorganized financial market. Commercial banks were allowed to introduce new financial instruments with higher interest rates than ordinary bank deposits. These were subject to fewer government directives but more influence by market forces, which enabled them to regain their financial resources and to lend more of them after the 1980s. In addition, depositors' preference for commercial banks' safety helped them to regain their share of deposits and the ability to finance businesses.[23] Moreover, as new foreign loan inflows became more (examined in chapter 8), the commercial banks were able to extend an increasing number of loans to businesses.

With these reforms, the role of banks gradually expanded. They gained some latitude in decision making and allocating bank funds—that is, funds raised through deposits and the sale of securities—for loans to specific firms and projects, although the government continued to control the banks through other means, such as influencing the appointment of chief bank executives, until a later date. The rising level of financial sector development, together with the increasing openness of Korean economy to international capital flows, caused directed credit programs to decline in importance. The reduced government control of financial dealings and broadened scope of financial institutions eased the flow of funds from savings into investing sectors and the development of the nation's financial institutions. Commercial banks thereafter kept pace with the rest of the economy by introducing a few new banking services/practices with the establishment of the capital market system and with the implementation of the fifth five-year economic development plan (1982–86). For instance, in response to the excess demand for funds under the regimes of credit rationing, the commercial banks employed various practices to discriminate among borrowers, although they experienced a sustained erosion of their once-dominant market.

In spite of the above liberalizing efforts, continually keeping banks under tight government supervision, on the one hand, and easing of the controls on the NBFIs, on the other, lessened the banks' ability to expand their financial resources in the succeeding years. In the late 1980s, a new commercial banking system was implemented. Commercial banks were required to increase their loans to manufacturing companies from 48.7 to 55 percent of total loans, while the compulsory lending ratio for province-based banks was raised from 49.2 to 51 percent. The banking industry was subjected to a "prime" bank system, whereby each major South Korean public bank was assigned to one domestic commercial bank. Under the legislation designed to carry out certain functions or assist special markets, six special banks received funds from the government and the sales of debentures. Credit rationing was carried out under the "window guidance."[24] As a result, the market share of banks in deposits declined from 84 percent in 1971 to slightly less than 50 percent in 1986, while the market share of bank loans decreased from 79 percent of the total in the early 1970s to 64 percent in 1983 and about 36.7 percent in 1994.

Nonbank Financial Intermediaries

The role of nonbank financial intermediaries, which included a variety of financial institutions other than banks—such as finance and investment companies, investment trust companies, mutual savings and finance companies, credit unions, the National Agricultural Cooperatives Federation (NACF), formerly Agricultural Bank), and Central Federation of Fisheries Cooperatives—changed over time, but they extended somewhat similar types of loans to businesses as did banks. Under government guidance, however, they played a subsidiary role to banks in financing business investment throughout most of the period following the Korean War, although they played a more significant role after the 1972 financial reform.

After the 1972 financial reform, NBFIs gained increasing importance as financiers of business investment[25] as the government gradually relaxed its control over

them on two fronts while keeping banks on a tight rein, as examined previously. First, the reform introduced new regulations easing the government's grip on their interest rates, which allowed them to attract personal savings from the curb market. NBFIs were allowed to pay higher interest rates on deposits in their institutions. By offering the rates of return that were higher than before and higher than those offered by banks, they were able to attract a larger share of financial resources away from banks, as well as the curb market, to the government's dismay. Since the costs of intermediation at NBFIs were lower than those of banks, their cost advantages, as well as higher lending interest rates, resulted in their increasing market share of financial resources and, ultimately, loans. In contrast to banks, while the contribution of NBFIs toward financing investment was rather insignificant in the early years, their share of the loan market expanded rapidly thereafter, surpassing that of banks and accounting for more than half of the total by 1990. As a result, parallel to its expansion, the proportion of NBFI financing became more significant in Korea's corporate finance. The market share of NBFI loans increased from 21 percent of the total in the early 1970s to 36 percent in 1983 and 57 percent in 1994 (Table 5.7). For the 30-year period between 1969 and 1998, lending by NBFIs increased rapidly, from about a fifth of the total to more than half, averaging about 40 percent.

Second, the 1972 reform also introduced new regulations that relaxed the requirements for establishing NBFIs, short-term finance companies and mutual savings companies in particular, to help introduce unorganized financial activities into the organized financial sector and as a government-supervised means of supplying more loans to smaller companies and households. The Ministry of Finance allowed the nation's 237 mutual savings and finance companies to establish new branches. Both entry barriers to and operational restrictions on NBFIs were lifted or reduced further in the 1980s. As a result, 12 new short-term finance companies and 57 mutual savings and finance companies sprang up. Over time, NBFIs have grown much faster than banks and have led the expansion of the financial industry in the country.

Government

To modernize or industrialize the economy and maintain overall economic growth in high gear—the two primary economic goals of the country—the South Korean government took an active role in financing credit to businesses during most of the period after the Korean War. As was noted in the preceding chapter, the government had a clear, credible, and flexible vision for the objectives of its financial, as well as industrial, policy and directed the flow of crucial resources from savers to investors. The allocation of credit was by far the most important single instrument of the government's microeconomic control of investment. The leaders of the government felt that their involvement in directing credit was warranted, as there was a significant discrepancy between private and social benefits, the investment risk of particular projects was high, and information problems discouraged lending for investment projects, especially to small and medium-sized firms.

The government pursued four principal approaches—direct government financing, indirect financing through banks, open competitive financing, and loan guarantee

programs—at different stages of the country's development. During the years immediately following the Korean War, there were indications of government allocation of bank loans, but the dominant credit policy was carried out through more direct government allocations of financial resources to businesses for investment, mostly with funds obtained through foreign aid. The government set up a number of its own funds to allocate credit to businesses. These had three purposes: to expand production facilities, purchase foreign input goods, and promote certain economic activities. To expand production facilities, the funds included a public investment bond fund, an electric loan fund, a financial investment fund, a machine industry investment fund, a floating modernization investment fund, an agricultural investment fund, a forestry investment fund, and a housing loan fund. The government funds that promoted certain economic activities financed export sales from 1948 to 1955 and export shipments from 1950 to 1955.

The government helped to finance the import-substituting textile industry for the importation of mostly American raw materials and technology by lending procurement dollars, which was controlled jointly by the Korean Ministry of Reconstruction and the UN Office of the Economic Coordinator. The program loaned as much as $138 million for the purchase of raw cotton and other supplies between 1953 and 1959.[26]

In addition to formulating and implementing all of the country's economic development plans, beginning in the 1960s the Economic Planning Board was also in charge of directing the flow of credit to designated industries and even specific firms. As one former deputy prime minister and minister of economic planning stated, the government provided loans on preferential terms to finance the construction of industrial facilities and the purchase of capital goods and raw materials from other countries. After 1962, the government directed loans to finance the suppliers of U.S. offshore military procurement and established the export industry's special facility investment fund. With these funds, the South Korean government, sometimes together with the U.S. International Cooperation Administration (ICA) and the Agency for International Development (AID), made loans directly to businesses to build plants or install machinery and equipment if businesses put up 15 to 25 percent of their own funds. Sometimes even a portion of the entrepreneur's own share was financed via a low-interest, long-term bank loan. Government loans also financed imports of materials to be used in export production from 1961 to 1972 and supplied foreign exchange loans beginning in 1967.

When the import-substitution policy of the early years was gradually replaced with an ambitious policy of "export promotion," the South Korean government extended preferential credit to export goods manufacturing industries and implemented other financial incentive programs (examined in chapter 4) in exchange for the companies meeting export targets and achieving international competitiveness. To carry out financial incentive programs for export manufacturing industries, a number of funds were established: the fund to promote the export industry, implemented from 1964 to 1969; the fund to convert small and medium-sized firms into export industries, initiated in 1964; the fund to provide foreign currency loans, launched in 1967; the fund to finance exports, started in 1969; and the fund to prepare exports of agricultural and fishery products, inaugurated in 1969.

TABLE 5.8 Government Investment and Loans, 1963–94

Year	*Percent of Government Expenditures*			Policy Loan as Percent of Bank Loan
	Investment	Loans	Total	
1963	—	—	—	72.8
1964	—	—	—	—
1965	—	—	—	—
1966	—	—	—	46.0
1967	14.3	7.8	22.1	—
1968	17.8	5.1	22.9	40.2
1969	20.7	8.1	28.8	—
1970	14.7	5.5	20.2	43.7
1971	23.4	6.4	29.8	—
1972	19.6	8.4	28.0	42.4
1973	18.3	3.4	21.7	—
1974	14.7	11.8	26.5	42.8
1975	25.1	8.5	33.6	—
1976	28.6	8.3	36.9	61.2
1977	26.3	12.7	39.0	—
1978	28.4	12.6	41.0	82.5
1979	25.9	11.4	37.3	—
1980	23.1	12.8	35.9	76.7
1981	22.3	18.4	40.7	—
1982	23.3	12.3	35.6	36.4
1983	29.7	10.9	40.6	—
1984	19.6	9.6	29.2	83.6
1985	19.2	9.2	28.4	74.1
1986	18.8	5.9	24.7	32.9
1987	19.1	6.4	25.5	34.3
1988	18.0	6.2	24.2	—
1989	16.7	7.5	24.2	—
1990	18.6	10.9	29.5	—
1991	22.2	10.0	32.2	—
1992	22.2	7.8	30.0	—
1993	20.8	6.6	27.4	—
1994	20.5	8.4	28.9	—
Averages				
1963–66	—	—	—	59.4
1967–71	18.2	6.6	24.8	42.0
1972–81	23.2	10.8	34.1	61.1
1982–85	23.0	10.5	33.5	64.7
1986–94	19.7	7.7	27.4	33.6
1967–94	21.1	9.0	30.2	55.0

Sources: Hanguk Eunhaeng 1995: 246–47; Bank of Korea, *Economic Statistics Yearbook*, various years; J. U. Kim 1986.

No comprehensive data are available for the period before 1967, but according to data published between 1967 and 1994, government lending to businesses for investment increased in both absolute terms during the period and in the percentage of expenditures allocated, increasing to more than a fifth (21.1 percent) (Table 5.8). Government lending increased from 5 to 7 percent of its expenditures in the late

1960s to 18.4 percent in 1981, followed by a gradual decrease to about 8 percent in the early 1990s.[27] The largest percentage of its budgets was loaned out between 1977 and 1983, averaging about 13 percent. Between 1983 and 1990, government lending gradually declined to about 8 percent, or approximately 0.2 percent of GDP.[28] Government loans to businesses for the period between 1967 and 1994 averaged 9 percent of the government expenditures.

These credit programs were extended to particular industries and firms. During the early years, however, the loans were nonselective in that within the realm of a chosen activity, such as exports, all industries and firms were treated equally. Rarely were the loans industry or firm specific. Until about 1974, the principal financial resources that enabled the Korean government to make loans to businesses came primarily from foreign aid and loans (examined in chapters 8 and 9).

When direct allocation of loans to businesses was undertaken, the government encountered many difficulties. It also became aware of poor performance experiences in other countries, since most governments that have tried to directly allocate credit have not been successful. Such programs have frequently resulted in distorted incentives among both lenders and borrowers and increased rent-seeking activities. Given this, the South Korean government's direct credit financing was slowly eased out and replaced with indirect credit control through banks, which began after 1965, albeit with strong built-in incentives for direct government influence over investment and resource use until about 1997. Thus, the main source of financial incentives for promoting the designated industries shifted to favored access to credit through financial intermediaries.[29]

ALLOCATION OF LOANS

Now that domestic sources of financing investment and the role of the domestic lending institutions are examined, the next questions are: How were the nation's financial resources allocated, by and for whom, and on what criteria? They are investigated according to economic sector, industrial field, investment type, and criteria.

Economic Sectors

Loans of the organized financial institutions for the period between 1970 and 1994 show that loans to three broad categories of nonfinancial institutions, namely, business, households, and the government changed over time, but they show certain discernible patterns. First, more than three quarters (76.8 percent) of the loan balances of financial intermediaries were made to businesses, while loans to households and the government were relatively small, 14.6 and 8.6 percent, respectively (Table 5.6). Considering the fact that the loan balance to businesses and the government before 1994 was more than nine-tenths of the total, it was clear that the nation's investment priority was in the reconstruction of the destroyed nation's infrastructure and the construction of new production facilities for production of goods and services. If the data before 1970 were included, this feature would be even more prominent, because relatively fewer loans were made to households' needs then.

Households as a demander of funds were largely excluded from the organized financial system. The loan balances of organized financial institutions to the household sector between 1970 and 1977 averaged only about 8.1 percent of the total.

Second, while the shares of the business sector and the government decreased from about 78 and 13.5 percent of the total to about 72 and 2.6 percent, respectively, the share of households increased from about 8.5 to 25 percent of the total. These trends seem to indicate that while the nation dedicated relatively large financial resources to businesses and the government to reconstruct and invest in production and social overhead capital (SOC) facilities in the early years, more financial resources were loaned out to households to meet their investment needs, in such areas as housing and other consumer durables, in the later years.

Industrial Sectors

The financing of investment in South Korea after the Korean War may be grouped and examined under three broad headings: sectoral allocation, the nature of investment, and the amount and terms of loans. Loans for investment were made within three broadly defined groups, namely, SOC, manufacturing, and all others.

Social Overhead Capital

The first sector targeted for investment after the Korean War was the reconstruction and expansion of SOC, which included electric power, transportation, and communications networks, mainly those in the public sector. They constituted the major portion of investment in public enterprises, which received the largest amounts of loans relative to their assets among all economic sectors in the country in the early years. They were financed not with savings in the public sector but largely with resources from two other sources, namely, private funds (examined later in this chapter) and foreign savings (evaluated in chapters 8 and 9). Between 1963 and 1973, the government invested as much as 30 percent of the nation's total investment in public enterprises, when ordinary government expenditures exceeded its ordinary revenues. Public investment was financed with loans and aid obtained from domestic private and foreign sources.

Loans from the organized domestic financial intermediaries supplied approximately 1.8 percent of GDP, or about of 7.5 percent of domestic investment during the 42-year period between 1953 and 1994. As to public investment during 1971–94, nearly four-tenths (38.8 percent) of government expenditures is traced to loans from the organized financial intermediaries (Table 5.5), while the public sector generated no net savings out of ordinary revenues. The public enterprises absorbed more than twice the combined volume of all transferred resources (foreign as well as domestic) taken by two deficit sectors (the government and incorporated businesses) via financial institutions. Thus, the public sector as a whole was by far the largest net borrower in the economy during the early period, that is, a net borrower of a large portion of the net savings of the two surplus sectors (households and foreigners), as shown in chapter 7.

The main domestic source for financing the SOC investments was loans from public banks, since the financial intermediaries served as a major tool whereby the government exercised control over the crucial flow of resources from savers to investors. During 1959–73, when public investment was at its height, about one-quarter of all public bank loans were diverted to the expansion and improvement of SOC, especially in the electric power, transportation, and communications industries. Outstanding Bank of Korea loans to the government amounted to 2.16 trillion *won* (roughly $2.7 billion) in 1987, and its overdue interest charges on its borrowings reached 250 billion *won* (about $800 billion), all of which was used for economic and SOC investment projects. In the case of the Korea Reconstruction Bank, about 40 percent of loans extended were earmarked for the infrastructure sector.

The data available on company borrowing between 1971 and 1998 show that electric power and transportation/communications received the bulk of loans—nearly half (47.8 and 43.8 percent, respectively) of the values of their assets—although their loan/asset ratios decreased somewhat from about 60 and 54 percent in the early 1970s to about 46 and 40 percent in the 1990s, respectively (Table 5.4). Since the electric power and transportation/communications industries typically had large amounts of tangible assets, they had the moderate debt-equity ratios of 2.16 and 2.14, respectively.[30] Likewise, the NIF loans designed to support the electric power industry totaled 40 billion *won* in 1987, although the fund designated to support it decreased to 20 billion *won* in later years.

Manufacturing

One of the main objectives of the government's economic policy was to provide financial incentives to create an investment-friendly environment to private investors and extend large sums of credit to businesses under various loan programs. It has been estimated that approximately three-quarters of credits (5.1 percent of GDP) extended by the financial intermediaries and government were to business for private investment. Of them, the largest portion was allocated to manufacturing. Beginning in the 1960s, when a major portion of the basic financial needs of SOC had been met, the government gradually shifted its credit policy to suit the needs of the manufacturing sector. The flow of credit from the Korea Development Bank, as well as those of commercial banks, was directed to support manufacturing, which relied heavily on borrowed funds for investment throughout the period.

Manufacturing relied for nearly half of its investment on borrowed funds between 1971 and 1998, which was slightly behind that of the electric and gas industry (Table 5.4). Almost 80 percent of all fixed investment of the manufacturing sector was financed with bank credit during the latter half of the 1970s, for instance. In 1977 alone, $3.4 billion in bank loans were made available to it and $925 million (732.6 billion *won*) in 1983.[31] The favorable bank credit extended to manufacturing was also clearly reflected in its debt-to-equity and debt-to-asset ratios. For the period between 1971 and 1998, the loan-to-asset ratio showed a close second highest with 46.5 percent, after 47.8 percent for the electric power industry. In relation to asset holding, the share of indebtedness was as high as 92.8 percent of total assets in 1963–69 and 81.8 percent in 1970–74. The debt-to-equity ratio in

manufacturing during the period of rapid expansion ranged between 2 and 4 to 1.[32] The debt-to-equity ratio of the Korean manufacturing sector as a whole was almost 400 percent throughout the 1970s.

The loans to expand industries were targeted to three principal groups, namely, import-substitution industries, export-goods industries, and the so-called strategic industries. Under the "import-substitution" policy, the most government and bank loans to expand domestic production facilities were granted to industries such as textiles, cement, plate glass, fertilizer, and petroleum.[33] The textile industry was the first major post–Korean War recipient of credit extended to manufacturing under the government's directed financial drive to replace imports of foreign goods in the early years. As seed money, the government loaned the entire foreign exchange need up to $500,000 to the textile manufacturing industry. The Korea Reconstruction Bank also committed about 9.7 billion *won* to the industry in 1957, 13.2 billion *won* the next year, and 17.4 billion *won* in 1959. Its loans to textile manufacturers accounted for about 30 percent of its total loans to the manufacturing industry in 1957 and 20 percent in the next two years. Commercial banks also dedicated a major share of their loans to the textile industry, about 11 billion *won* in 1959, between 27 and 34 percent of all loans made to the manufacturing industry in those years.[34] In 1978, the ratio of bank loans to total investment in the textile industry was about 41 percent, higher than petrochemicals, prime metals, and machinery. Another industry that received a large sum of loans was the cement industry. The loans from banks and short-term financiers to the Oriental Cement Company in 1956 were as much as 50 percent of assets.

As noted in chapter 4, with the installation of the military government in 1961, the orientation of the financial and industrial policies shifted from the expansion of import substitution industries to the promotion of export-goods industries, which was most vigorously pursued under General Chung Hee Park's military regime. One interesting feature of the export promotion effort was its sectoral emphasis. To implement the policy, the government established, through the appropriate ministries, 35 "commodity chiefs" to coordinate the development of loan programs with representatives of the appropriate industries for the production of specific commodities. The government then directed the banking system to channel scarce financial resources to the specific manufacturing sectors to support such export industries. Sectoral export organizations also provided services such as marketing, advertising, inspection, and arbitration assistance and were provided with various special favors, including the right to set quotas (as in the textile industry) among member firms. Initially, credit to build production facilities in export industries was provided to a few light industries in areas such as footwear and toys, which were in financial difficulty at the time, to bolster their international competitiveness.

Similarly, a foreign exchange loan program was implemented to support export industries and import-substitute producers by financing the purchase of raw materials, intermediate goods, and capital goods abroad. Upon obtaining an export letter of credit from a foreign buyer, the export producer imported all his input goods using government loans. Export loans were large and plentiful. The government provided financial incentives for targeted export industries or goods by using international price signals to gauge their efficiency (in the form of the letter

of credit) and success and ensure that Korean industrial goods would be internationally competitive.

The average loans were tied to each dollar's worth of export letters of credit, after assessing the potential of the products for exports. As industries gained competitive advantages, the export-financing loans were gradually lowered from 740 to 670 *won* per dollar in 1986 in order to siphon off the excess liquidity. After 1987, the government further reduced export-financing loans, under which the average loan tied to each dollar's worth of export letter of credit dropped from 670 to 475 *won* for large trading firms, a decrease of 30 percent, and from 700 to 630 *won* for small businesses, a decrease of 10 percent. These bank loans were extended on a nondiscretionary basis. Loans to finance export production were distinctive in that they were granted automatically on receipt of an export order or letter of credit, which exporters were allowed to use as collateral. The volume of government-directed loans to support export industries increased from 31 percent of total loans in 1965–71 to 43 percent in 1971–75, accounting for as much as 73 percent of bank loans.[35]

The chief instrument of the government's drive to meet its industrialization goals was the so-called policy loans, which were allocated to industries and firms designated as strategic by the government under the industrialization and economic development plans. It was an attempt to entice local businesses to bolster investment, expand production facilities in strategic industries, and produce goods and services primarily for export but also for domestic use. Under this program, a large proportion of total domestic credit was allocated to strategic industries and firms, which increased over time from 45.1 percent of the total credit during the 1972–76 period to 50.2 percent during 1977–80.[36] Particularly toward the end of the 1970s, when bank loan interest rates were substantially negative in real terms, the proportion of loans extended to HCI expanded rapidly. Almost 60 percent of total bank loans from 1975 to 1977, and close to 95 percent of policy loans in 1978, went to HCIs, when the government allocated 240 billion *won* for the construction of modern manufacturing plants, such as steel mills, shipyards, and automobile facilities.

After 1981, when the government moved into the liberalization stage, the policy loans that had become major obstacles to financial liberalization were reduced, however. The one exception to this trend occurred in 1984 and 1985, when the government increased the amount of dollar-denomination loans from $5 billion to $7 billion in the 1980s[37] and the share of policy loans averaged about 80 percent of total bank loans (Table 5.8). The increase in policy loans in these two years was attributed to soaring exports in spite of the reduced lending rate on export-financing loans, even when "below-cost exports" were discouraged. Only a small proportion of policy loans was provided through fiscal funds, including foreign borrowings allocated through banks in Korea.

After 1985, policy loans were drastically reduced, and the policy of allocating subsidized credit to the HCIs was terminated. As a result, outstanding "policy loans" extended to local businesses amounted to 10.9 trillion *won*, 36.4 percent of new loans, and 34.3 percent of the total, as of July 1, 1987, while general-purpose banking credits increased in that year (1987). Policy loans declined further to 27.9 percent of total bank lending in 1988. On the whole, the share of policy loans between 1963 and 1985

fluctuated from year to year, from 36.4 percent of bank loans to 83.6 percent of new loans by banks, reaching 39.1 trillion *won*, but its share averaged more than half (55 percent) of total bank loans between 1963 and 1987 (Table 5.8) and had a powerful impact on sectoral investment and economic growth in the country.[38]

The policy loan was significant not only because of the large volume of investment but also because of its selective nature, which determined the character of investment in the country. The policy loan after 1972 was earmarked not only for certain sectors but for specific industries and even particular firms. Within the HCIs, special credit was extended to the chemical industry. When large-scale investments were necessary in oil refineries and fertilizer plants, the government provided funds out of its own resources. Likewise, under the sixth socioeconomic development plan (1987–91), the government aimed to promote vigorously such "promising industries" as automobiles, machinery, electronics, and semiconductors, while reducing the country's dependence on labor-intensive industries such as textiles and footwear.

Another notable loan program that had a major impact on investment in South Korea was the NIF. When foreign aid dried up and the strategic industries needed funds for expansion and also to take the place of high-interest-rate curb loans in the early 1970s, the government came to the rescue by establishing this major special fund in 1974 to support the policy loan program. The fund was set up to supplement what was meant to be the "temporary" government's discretionary allocation mechanism (slated to be phased out when the financial crisis of the 1970s was over) and instrument under the management of the Bank of Korea by providing loans mostly to government-designated strategic industries.

Initially, it targeted raising 60 billion *won*, which subsequently was raised to 90 billion *won* in 1987, to set up and make loans to promote designated export industries. Actually, the volume of financial resources of the NIF increased from 1.9 billion *won* in 1975 to 77.1 billion in 1978, 187.7 billion in 1982, 660.5 billion in 1985, and 855.2 billion in 1990. The temporary NIF lasted well into the 1990s. The fund declined to 411.7 billion *won* in 1993, 108.7 billion in 1995, and a mere 7 billion in 1998. Unlike the policy loan scheme, which allocated loans to expand certain production facilities in export industries, the NIF loan program mostly targeted the HCIs, which were considered the basic components of industrialization. Thus, most of the NIF funds were used to support it.

The government lent as much as two-thirds of its portfolio to the HCIs in the 1970s and early 1980s.[39] In 1987, for instance, 76.7 percent of the 600 billion *won* of the NIF's funds (or 460 billion *won*) was used to support the steel, shipbuilding, electronics, and defense industries. Special access to bank loans gave rise to chronic excess demand for debt capital and high debt-to-equity ratios in the participating firms. Similarly, foreign currency lending was centered on high-tech industries to accelerate their facility investments. The NIF also acted as an intermediary and guarantor by channeling the flow of domestic savings toward investments in modern industry.

In addition to export-led and labor-intensive manufacturing—of such commodities as shoes, plywood, textiles, and clothing—and firms engaged in machinery production in the early years, another industry that received a large amount of bank

loans was the construction industry. There was an increased amount of loans to overseas construction companies under the government's industrial rationalization program as a part of an attempt to diversify the nation's export markets in the late 1970s and 1980s. Under the Overseas Construction Promotion Law of 1975, as well as the Shipping Promotion Law of 1967, they were actively promoted with financial as well as tax privileges. As a result, the indebtedness ratio of the construction industry was also high; for example, 3.68 in 1968.[40] The ratio of long-term borrowing to assets in construction industries on average was 41 percent during the 1971–98 period, which was one of the highest in the country (Table 5.4). With such a push, the government's export-oriented growth strategy heavily influenced investment and the South Korean economy for several decades.

"Other" Sectors

In contrast to the policy of developing designated industrial sectors, the government gave only minimal support to other segments of the economy. To agriculture, which was the dominant component of the economy until about the mid-1960s, it gave mere lip service in its "Emphasis on Agriculture" (*jung-nong*) and "Balanced Development of Industry and Agriculture" (*nonggong pyongjin*) policies. During 1957–60, for example, the government's capital expenditure account allocated only 4 billion *won* (1.9 percent), out of an aggregate sum of over 220 billion *won* to agriculture. It seems that what financial support the government did provide probably did not even end up in agriculture but was largely siphoned off by corrupt officials and politicians.[41]

Similarly, the so-called New Village Movement (*Saemaeul Wundong)*, a program launched in 1970, was nothing more than a new government-sponsored "inspirational/attitudinal movement" intended to increase agricultural production, without much meaningful financial support. Until the late 1960s and early 1970s, the government approach to the development of agriculture was one of benign neglect. Many government slogans and propaganda efforts (e.g., "agriculture first") were superficial and did not show a great deal of concern for the development of agriculture. The only notable effort shown by the government was to organize the NACF, which provided a small amount of financial support to the farmers and looked after the marketing of farm crops. Other discernible assistance the government gave to agriculture appears to have been the financing of investment in public projects to promote farm mechanization in the early 1980s, a token gesture meant to reduce the imbalance in government support between the rural and urban sectors. Limited financing was provided for projects aimed at expanding the food production base. The funds allocated to assist food-production programs rose from 25 billion to 30 billion *won* in 1986.

The other sectors faced a similar fate. Retailing and wholesaling, real estate, and the so-called nonproductive entertainment and recreation sectors, such as golf courses and hotels, received rather scanty loans, if any, from government-controlled banks. Their shares of bank loans for 1971–98 were equal to 36.4, 25.2, and 22.9 percent of their assets, respectively, about half of those of the public utilities and manufacturing sectors (Table 5.4). Bank or government financing for local businesses in small

towns was virtually nonexistent. Similarly, the allocation of loans to the HCIs stifled the flow of funds to light manufacturing and other industries, which were even banned from receiving bank credits when they purchased or constructed buildings for commercial use.[42]

The Nature of Industrial Investment

In addition to targeting SOC, the import-substitution and export industries, and the so-called strategic manufacturing sectors, credit allocation also focused on three major types of investment projects in those designated sectors. South Korea's financial resources were channeled to meet the economic goals established by the government through supporting "entrepreneurial" investments, developing capital- and technology-intensive industries, and relying on large businesses to provide economic growth in expanding import-substitution, export, and "strategic" industries with high social returns.[43] In implementing its financial policy, the government also advocated the merits of soundly managed, well-focused, and clearly directed credit programs. Moreover, it relied on allocation decisions among competing investments in the capital market, which followed a combination of market mechanisms and intervention to guide, set the terms of loans, and monitored the borrowers' performances. They are elaborated below.

"Entrepreneurial" Projects

One of the notable features of businesses targeted for bank loans was their propensity to be "entrepreneurial," willing to enter fields that were new and often risky but that had potentially promising products. There was an implicit understanding that should the business borrower be unable to pay its loans, the government would more or less guarantee repayment or stand ready to bail it out in major investment projects. In a sense, some loans resembled venture capital, as the government or lending institution shared the burden of possible losses—though not the gains—with the borrowers, thereby becoming an implicit risk bearer or entrepreneur.

An accurate accounting of these entrepreneurial loans is unavailable, but there is much fragmentary and anecdotal evidence to show their pervasiveness. The establishment and financing of firms in the HCIs by the government and banks may be cited as an example of entrepreneurial loans. To finance these firms, the government actively solicited businesses with proven track records to participate in major projects by lending them money[44] and providing tax incentives, including investment tax credits, accelerated depreciation allowances, tax holidays,[45] or inexpensive industrial parks, or some combination of all of these. Many participated in these ventures more to take advantage of the subsidies and other privileges than out of immediate profit motives or enthusiasm for the particular venture.[46]

Capital- and Technology-Intensive Industries

Another prominent feature of credit policy was the tendency for the government and banks to target "modern" manufacturing—not only specific industries and

entrepreneurial projects, but also particular types of enterprises. After the mid-1970s, the government encouraged certain enterprises to increase their efforts to improve technology as a means of strengthening international competitiveness. These firms may be grouped under the heading of capital- and technology-intensive industries. In the early years, the government's selective credit policy was aimed at expanding capital-intensive industries, like the HCIs, which required tangible assets and capital goods—such as modern plants, machinery, and equipment—to achieve international competitiveness.

The credit once extended to labor-intensive industries was, then, gradually transferred to capital-intensive industries and later to the high-tech and technology-intensive industries. The government encouraged domestic firms to import advanced foreign technology from abroad by extending loans that allowed them to establish businesses in developed countries. By making such loans, the government supported the efforts of Korean firms to expand their investments abroad to learn and import new technology. Soft loans extended to firms investing abroad in order to acquire foreign technology were increased from 1.6 billion *won* in 1986 to 3.0 billion in 1987, for instance.

The technological innovations of small and medium-sized enterprises were supported as well in later years. The technology credit guarantee system was introduced in 1986 to offer financial assistance to small and medium-sized enterprises that had difficulty accessing financial resources under the old bank credit policy. It established the Korea Technology Credit Guarantee Fund in 1989, which contributed to the advancement of technology in the country's industries. Likewise, in order to improve the technological sophistication of small- and medium-sized companies, the government made those companies eligible for financial, tax, and other favors when they were deemed capable of adapting advanced technology to the production of semiconductors, computers, and scientific materials. It also established joint ventures and signed technology licensing agreements with foreign firms. The government provided financial support in five-year increments and encouraged big enterprises to provide technological assistance to the small and medium-sized firms. The Ministry of Science and Technology invested an estimated 55 billion *won* in localizing the production of a great majority of machine parts and promoted the use of atomic energy.[47]

Large Businesses

Another prominent feature of the government's credit policy was the lenders' tendency to loan large amounts to big corporations.[48] There are no comprehensive published data showing bank credit based on the size of businesses, but generous bank credit to large "established industrial enterprises" was clearly discernible during nearly the entire period following the Korean War,[49] and a vast portion of the nation's financial resources was directed to large conglomerates (*jaebeol*) of national importance.[50] The top 10 *jaebeol* had 40 percent of all bank credit in South Korea in the 1980s, and by the late 1980s the *jaebeol* had become financially independent and secure, thereby reducing the need for further government-sponsored credit and assistance. While highly leveraged businesses dominated by large

business groups were the primary recipient of bank finance, smaller business firms obtained credit from small banks, other types of institutions, or unorganized markets. An eminent economist, former president of the Bank of Korea, and deputy prime minister in charge of economic affairs has observed that under government-led growth strategies, the *jaebeol* were strongly favored over small and medium-sized enterprises, especially in government and bank loans.[51]

This practice may be traced back to the early years of South Korea's independence, when both the U.S. and South Korean governments jointly undertook foreign aid programs in the country. A number of regulations and records show this practice of granting credit to large businesses. In the case of the foreign exchange loan program, for instance, the government established in 1967 a specific set of loan guidelines for banks. It set loan limits for importing capital goods that favored large borrowers by extending a larger share of loans to them. Loans ranging between $500,000 and $1 million were made at 50 percent of project costs; $1 million to $1.9 million loans at a 50–67 percent rate; and sums of loans exceeding $2 million at a 50–75 percent rate.

There are many examples of large loans made to big companies. For example, the Chohung Bank in 1971 loaned 17.9 billion *won* (about $20 million) to the Daisung Lumber Company. The Foreign Exchange Bank loaned a total of 150 billion *won* to 171 companies, all of which received more than 100 million *won* each. Likewise, the major portion of NIF loans was extended to large corporations such as the Pohang Iron & Steel Company. One indication of large amounts of credit extended to large firms was their high level of indebtedness. It is well known that most *jaebeol* had higher debt-to-equity ratios, often more than 4 to 1, than their smaller counterparts.[52] The Korea Development Bank's research on selected corporations and the Bank of Korea's related official statistical data clearly show that the ratio of preferential loans allocated to the large enterprises was much larger than that of the medium- and small-scale firms.

Moreover, all the *jaebeol* had cross-equity shareholdings and cross-loan guarantees, which enabled them to maintain high debt-equity ratios. The biased awarding of loans to large firms was such that the opposition members of the National Assembly accused the government of favoring large businesses, which created an uproar in 1974.[53] In spite of a major protest, a study by the Bank of Korea in 1975 reported that bank loans continued to favor large firms.[54] In 1976, bank loans of more than 50 billion *won* (about $80 million) were given to 16 large corporations,[55] while loans ranging from 30 to 50 billion *won* ($20 to 80 million) were extended to 15 other large corporations.[56]

All the major *jaebeol* that received loans apparently had more credit than they needed. Particularly during the era of HCI promotion, large firms participating in that industries' projects gained greater access not only to cheaper policy loans but also to general bank loans, even during times of credit rationing. The *jaebeol*,[57] a relatively small number of large businesses that received the lion's share of loans in the past 35 years or so before the 1990s, was the single most important group and the epitome of successful businesses in South Korea.[58] Some officials suggested that these large firms had sufficient financial resources of their own or could rely on capital-market instruments such as corporate bonds and debentures to raise funds,

but they relied more upon bank loans at low interest rates.[59] Even after the 1997–98 financial crisis, the top 30 *jaebeol* continued to obtain bank loans and float corporate bonds far larger than those obtained by small and medium-sized firms.[60]

Indeed, the *jaebeol* were granted an almost "unlimited supply of loans." The extent of bank loans to large corporations was staggering. For example, 3 billion out of 11.7 billion *won* of debenture loan went to large businesses. The total indebtedness of 50 *jaebeol* in 1980, according to published data, was 20.66 trillion *won*, which was more than 10 times the total currency issued in the country, 168.8 percent of the total money supply (M2), and 82.4 percent of total claims on the private sector. In 1983, a total of 450 companies received loans of more than 5 billion *won*, and 220 companies received between 5 and 10 billion *won*. One newspaper observed in 1979 that the reliance of large businesses on bank loans was such that a *jaebeol* "[could] not avoid defaulting without [a] daily loan of 5 billion *won*."[61] The Finance Ministry reported in 1987 that the nation's 82 largest companies had total loans of more than 1 trillion *won* ($12 billion), with each having more than 50 billion *won* ($60 million) in outstanding loans. The aggregate $12 billion debt of these companies accounted for 20 percent of Korean banks' outstanding loans[62] and was equivalent to 3 percent of the nation's total money supply (M2), which amounted to about 33 trillion *won* at the end of 1986.

Not only did *jaebeol* such as Samsung have greater access to the financial resources of the banks, but they also had other ways to access financial resources.[63] Since the *jaebeol* were prohibited from investing in banks, in order to avoid conflicts of interest they expanded their influence in the financial sector through the ownership of NBFIs such as merchant banks, security companies, and insurance companies. If curb loans and other indebtedness were added, the debt ratio of the *jaebeol* would probably have been more than two times their collateral assets.

The reason for extending more loans to large businesses than to the medium-sized and small ones was not based on the financial well-being of the firms, since the large firms were not financially healthier than the medium-sized and small ones. They did not have more collateral in relation to their loans. As a matter of fact, the large businesses had less collateral. According to a Bank of Korea analysis, the indebtedness (bank loans, domestic and foreign) of the large corporations was 130 percent, while that of the medium-sized and small businesses was 66 percent of the value of their collateral in 1975.[64] Yet large companies were able to borrow money from banks while 165 small and medium-sized companies that had healthier owners' equity went bankrupt in 1978, a result of their not being able to borrow money from banks. According to one observer, "The reason for the business failure of small and medium firms was in the fault of bank financing."[65] It was alleged that about 300 businesses either ceased operation or were bankrupt.

The generous bank loans to large corporations were based on three policy guidelines. The first was to ensure meeting the "production requirement," which was based on the targets established by the government under a series of five-year economic development plans. The large corporations were most likely to meet this requirement. The second guideline was "to use loans productively." It was thought that credit (as well as other) advantages should be provided to large corporations with proven track records. The third policy guideline was to provide "relief" from

hardships and/or bankruptcies that might have affected the nation's economic well-being. Daily newspapers reported that all the Seoul city banks loaned money to large *jaebeol* as "relief loans" even to the point of having a shortfall in their own bank reserve requirements.

In the later years, partly because of public pressure and in order to achieve a more balanced industrial structure between small and large enterprises and between parts makers and assemblers, the government began to reverse its past preference for large firms by increasing credit allocations to small and medium-sized firms after the 1980s. Small businesses were central to the government's policy of producing more sophisticated technology locally; additionally, they were critical to the government's strategy of encouraging regional development away from the overcrowded area around Seoul. Starting in 1983, the government selected a number of the more promising smaller firms to receive special government assistance. These businesses were eligible for a number of tax breaks, help in securing financing, and consultations and technical education from the Ministry of Trade and Industry.

To improve the financial structures of small and medium-sized firms, in addition to encouraging them to increase their capital through direct financing, the government in 1988 increased the credit extended to small and medium-sized firms and the agro-fisheries industry by reducing the number and amounts of policy loans to large companies. The banks were required by law to make at least one-third of their business loans to small and medium-sized firms. The central bank extended more facility credits to small and medium-sized manufacturing firms after 1987, as part of the government's effort to firm up the foundations of small and medium-sized businesses. Likewise, under the new NIF program, more loans were given to small and medium-sized businesses engaged in merchandise exports than in earlier years. A total of 100 billion *won* was specifically set aside for six medium-sized and small corporations in the 1980s, for instance.

Under the small and medium-sized industry promotion project of the sixth economic development plan, an estimated 12 trillion *won* (roughly $14.8 billion) was supplemented by the state-managed Small and Medium Industry Promotion Fund and bank loans between 1987 and 1991. The bulk of bank loans were used to finance facility modernization, small business start-ups, and the relocation of small and medium-sized firms from urban centers to rural areas. In this way, the share of investments by small companies was raised from the 29.7 percent of total business investments in 1987 to 40 percent in 1991. The government also set aside a total of 156.4 billion *won* in 1992 to finance the nation's small and medium-sized businesses. In addition, they became eligible for a number of tax breaks, consultations, and technical education from the Ministry of Trade and Industry.

In the meantime, the system of credit supervision for *jaebeol* was enforced in 1984 by freezing the total amount of bank credits available to the top five and setting ceilings onto the top 30 based on total assets. Measures mandating reductions in the debt-equity ratio of large enterprises to 200 percent were introduced. Under this new system, the share of bank credits allocated to the top 30 *jaebeol* as a whole (both loans and loan guarantees) declined substantially. According to the Office of Bank Supervision and Examination, the combined bank credits extended

to Korea's 30 largest businesses totaled about $26 billion, or 19.69 percent of the banks' total credit extension.[66] Their total share of credit was lowered from 23.3 percent in 1988 to 16.8 percent in 1991. The share of corporate loans has steadily declined from 88.5 percent in 1991 to 77 percent in 1995 and 45.3 percent in 2002.

The new government policy to increase the share of loans to small- and medium-sized businesses resulted in the rise in their share at the same time that the *jaebeol*'s allotment of loans were decreased. The share of loans received by the top five *jaebeol* between 1988 and 1991 decreased from 10.9 percent of the total credit to 9.1 percent and from 12.7 percent of actual lending to 7.9 percent, respectively. Obviously, from these statistics we can surmise that the shares of loans of the small and medium-sized firms conversely increased during the period.

The above analysis reveals that South Korea's financial resources were channeled to meet the economic goals established by the government through such well-defined policies as expanding targeted sectors, developing capital- and technology-intensive industries, supporting "entrepreneurial" investments, and relying on large businesses to provide economic growth for most of the period after the Korean War, except in the most recent years. Of all the organized financial institutions, the banks in particular, closely tailored their loans to reflect the government's economic goals, approaches, and policies, as "subordinate" players or "rationing agents." In this way, the financial system was designed to transfer the majority of funds from surplus to deficit sectors through intermediation markets. Even the central bank lacked independence and served as an agent of the government under the direction of the Finance Ministry to provide funds to targeted sectors of the economy and support weak financial institutions.

The Korean financial system was an instrument of industrial policy, and the will of the government to undertake economic development through financial policy played a crucial role, well reflected in the allocation of financial resources in economic sectors and the types of investment projects. The system of mutual support was protected and maintained between the financial institutions, regulatory authorities, and the business sector and reinforced by restraints on competition, insularity, and restricted foreign competition. In this respect, the structure and role of finance in South Korea's economy drew heavily from the Japanese model,[67] which differs from financial regimes in Western economies in that it may be viewed as a service industry available to all borrowers who meet competition. In addition, Western economies such as the United States limit concentrations of nonfinancial business and thereby restrain their ability to extract rents from the financial system.

Subjective and Discretionary Criteria

In addition to loan allocation being based on the general criteria established by the government, namely, strategic industries, entrepreneurial projects, capital- and technological intensive industries, and large businesses, actual allocation of loans also relied on personal connections. Successful business borrowers were selected partly on the basis of unofficial, subjective, and discretionary criteria of having personal ties with a political leader in power or government officials, similar to those business transactions involving government property divestiture, which was

examined in chapter 4 and elaborated in Appendix 4.1. Favoritism based on personal connection was one of the important cornerstones involved with loan allocation, which was often done in a shroud of opaqueness, relying on long-term multidimensional relationship established between banks, individual borrowers, and business groups.

Financial regulation and supervision to assess and monitor risk were designed with nontransparency in mind to provide a favorable environment for political favors and concessions to be struck between politicians, government bureaucrats, and the business sector. Supported by opaque financial regulation, supervision, and central bank policy, the customer relationship itself sometimes has higher priority than rational considerations of evaluation, monitoring, and imposing penalties for risk. Also, a system of pervasive deposit guarantees maintained through the discount window of the central bank and financial regulation, and a policy of "no failures of financial institutions or markets" was a pervasive financial practice in Korea.

Amounts and Terms of Loans

To overcome the main constraints facing new or expanding enterprises, a strong preferential credit scheme inaugurated in 1963 set attractive terms for loans—in the form of subsidized interest rates (examined next) and long repayment periods. The amounts of loans were substantial in most cases, typically constituting more than half of the required costs of projects for which loans were granted. Since then, most of the credits extended to the targeted industries and businesses, specifically, those in the import-substitution and export-goods industries, remained on very favorable terms. Under the flexible repayment schedules, borrowers were generally required to make a downpayment of one-tenth of the value of the property or capital goods at the time of the loan contract and to pay the remaining principal over a period of 3 to 40 years, usually in local currency.

The amount of loans for importing capital goods ranged from 50 to 80 percent of the costs of the goods. In the case of the foreign exchange loan program, the government established in 1967 a specific set of loan criteria for banks, including (1) a maximum of $500,000 to be used as seed money for launching new businesses, (2) full financing of foreign exchanges, and (3) a minimum of 20 percent for foreign exchange loans from Japan and 15 percent from other countries. The amount of these loans ranged from $100,000 to $1,000,000. Short-term, low-interest loans to finance export production were extended without limit against any letter of credit at the interest rate of 6.5 percent, compared with discounts on commercial bills that were 24 percent, following the interest rate reform in 1965.

The amounts of loans for setting up new enterprises in the government-designated industries usually amounted to three-quarters of the start-up capital,[68] and loans to firms in the export industry were made to cover up to four-fifths of the required foreign exchanges in 1987. Typically, longer maturity periods were awarded to projects that had long gestation periods, such as public overhead capital investment, while those for private and profit-oriented investment projects were generally short. Under the directed credit programs for starting new businesses, loans were

made for a period ranging from 10 to 40 years. With the 1987 guidelines, loans were extended for 8- to 20-year periods. Other loans were repayable, generally in equal sums, in 6 to 20 years, averaging about 10 years. The foreign exchange loans to export firms in 1987 typically had a two-year grace period and required repayment in three-year installments. In the case of NIF loans to businesses, repayment terms were much more favorable to the borrowers than ordinary bank loans, with an eight-year installment payment schedule followed by a three-year grace period. Specific arrangements for short-term loans changed from time to time, but the export industries were given bank loans on a three- to four-month deferred payment schedule by the domestic commercial banks to cover current production costs in full, tied to each dollar's worth of export letters of credits.

Monitoring of Loans

One of the most distinguishing features of the Korean government's bank loan policy was a high degree of government monitoring of the use of loans to businesses. The government was extensively involved in monitoring business performance in the sectors that were granted low-interest bank credits. The monitoring was based on stringent performance criteria in order to make certain that the targeted goals were met, avoid the misuse of funds and the abuse of credit programs, maintain macroeconomic stability, and minimize distortions in incentives, as well as to ensure that loans were repaid on time.

It even individually monitored the large conglomerates using market-oriented criteria such as exports and profitability. In the case of financial support for exports, including bank loans, the government carried out effective institutional monitoring. Next to the responsible minister's office was what was called an "export situation room," laid out so that potential target shortfalls could be identified at a glance. Contact between government and business in the day-to-day implementation of these programs was close. A large staff maintained almost daily contact with major exporters, and it was not uncommon for the minister to intercede in difficult situations. The ministry then held monthly export promotion meetings to review the current trade situation, the progress of the export drive, and the performance of individual sectors and firms: to provide guidance for future activities; and to ensure that no administrative obstacles were impeding export growth. The Monthly Trade Promotion Conference was chaired by the president of the Republic and attended by ministers, bankers, and the more successful exporters.

In this way, the target system served to keep the government well informed about export performance so that timely adjustments could be made in incentives, often including selective ad hoc assistance to individual exporters. To make sure that its goals were met, the government rewarded successful firms with more credit and punished less successful firms with reduced credit. The highest export achievements brought national awards, as well as material benefits, including relaxed tax surveillance, while the authorities often used the law—particularly tax law—as a blunt weapon against companies that had fallen out of favor.[69] The meeting also provided complementary entrepreneurial inputs directly through governmental bodies. Otherwise, government failures might be exacerbated rather than correcting the adverse

effects of so-called market failure. This has been greatly facilitated by the strong emphasis on exports, forcing companies to lower their operating costs to internationally competitive levels.

The combination of increased monitoring and the control of a variety of discretionary policy instruments provided the government with substantial power over the private sector. The surveys reveal that the government maintained mechanisms for guaranteeing compliance. While one firm claimed that it had been penalized for failing to meet an export target, 58 of 85 firms polled mentioned that the rigor of tax collection was linked to export performance, and another 38 claimed that export performance was tied to the facility and speed of their dealings with the government. More than seven-tenths of them, or 61 of out of 85, ranked "assurance of continued government support for the firm's efforts" as a benefit of good export performance.[70]

Contrary to the significant role of financial institutions in most other countries, it is clear from this analysis that financial intermediaries, especially banks, in South Korea did not play an important role in allocating savings to investment or deciding which of an unlimited array of potential investors was to be entrusted with loan/capital. In this decision-making process, the role of financial institutions was not of great importance historically (that is, under Japanese colonial rule). In their place, however, the Korean government relied heavily on loan policy tools to expand investment in South Korea, even more than fiscal policy measures,[71] while taking control of all forms of institutional credit, which gave it great power over the business community. Until about 1978, the government continued to directly allocate about 70 percent of domestic credit. As Professors Cole and Park observed, the allocation of loanable funds never took market forces into account until the early 1980s.[72] Thus, in South Korea after the Korean War, financial loan tools were far more powerful than fiscal policy in directing resources toward designated sectors and firms, particularly at a time when the nation's tax system was rather narrowly based and the domestic capital market was in its infancy.

FINANCIAL RESOURCES OF LENDING INSTITUTIONS

Borrowers are always willing to use funds from lenders or financial intermediaries, but it is often the inability of these lenders or institutions to mobilize enough savings—not any lack of demand for their services—that prevents businesses from borrowing money for investment, especially in the early development stage. The obvious question, therefore, is: Where have the lending institutions mobilized the financial resources to meet the nation's investment needs? The resources of the financial intermediaries that enabled them to make loans changed over time, but they may be traced to several principal sources. The domestic sources are examined below, while the foreign sources are investigated in chapters 8 and 9.

Financial Institutions

The principal domestic sources of the resources of the financial institutions as a whole were three: deposits, currency issued by the central bank (the Bank of Korea),

and foreign loans. The financial intermediaries are not the savers, but they traditionally hold the financial resources of others, namely deposits of savings of others, and are willing to lend them to augment owners' equity and meet their investment needs. Deposits in financial institutions as a whole multiplied a shockingly high 40.9 percent per year on average, ranging from 61.3 percent during 1953–61 to 25.7 percent during 1987–94 (Table 5.9). These rates of increase were much greater than the growth rates of most economic parameters in South Korea after the Korean War. In other words, the financial intermediaries as a whole had more than enough financial resources to affect investment in the country.

Deposits in banks, the most significant source of financial resources, in South Korea increased very rapidly, from 1.1 billion *won* in 1953 to 136,190 billion in 1994, an average increase of 37.3 percent per year. Deposits in banks comprised as much as 93.2 percent of all organized financial intermediaries between 1953 and 1961, although they gradually decreased to 38.4 percent during the period between 1987 and 1994. Deposits in banks between 1953 and 1994 averaged a little less than three-quarters (72.3 percent) of the total in the organized financial intermediaries.

The sources and magnitude of resources that supplied funds for investment varied among banks. The Bank of Korea received deposits of the Korean government, other banking institutions, and private organizations, in addition to printing its own currency. A similar situation prevailed as to the stock of money printed in the country. The amount of currency issued by the Bank of Korea multiplied many times during the last half of the twentieth century following the Korean War. The overall money supply, that is, currency and M2 (more inclusive stock of money), increased annually 42 and 47 percent on average during 1953 and 1961, respectively, although their increases subsided a little to 18.5 and 18 percent, respectively, during 1987 and 1994. For the 42-year period between 1953 and 1994, they increased on average 27.3 and 28.7 percent, respectively. In other words, the stock of money increased over 6,500 and 10,800 times, respectively, during the 1953–94 period, which contributed to galloping inflation until about 1981, as shown in Table 5.10. Currency issued accounted for about 16 percent of the resources of the financial intermediaries on average during the post–Korean War period.[73] With additional foreign savings/resources, their expanded financial resources were able to meet the increasing demand for investment. Monetary policy was conducted by the Monetary Policy Board, which was an agency of the government and the Finance Ministry.

The principal financial sources of the Korea Development Bank came from the government, supplemented with funds and loans obtained from foreign sources. It did not solicit deposits from citizens, nor did it compete to attract private savings into its coffers. Like the Korea Development Bank, the principal sources of funds of the Small-Medium Industry Bank were the loans from the government, the Bank of Korea, the Korea Development Bank, and international banks, in addition to time and savings deposits of businesses and individuals. The financial resources of the Korea Exchange Bank were foreign currency deposits of the Bank of Korea and loans from foreign banks, while the primary sources of funds of the Korea Housing Bank were loans from the government, housing bonds, and debentures, as well as deposits and housing installment payments. In the case of NIF, which was entrusted to the Bank of Korea, the financial resources were raised through the compulsory

TABLE 5.9 Deposits in Financial Institutions (in percent)

	Annual Changes				*Composition*			
Year	Banks	(Savings)	NBFI	Total	Banks	(Savings)	NBFI	Total
1953	120.0	—	—	120.0	100.0	18.2	—	100.0
1954	118.2	100.0	—	118.2	100.0	16.7	—	100.0
1955	75.0	75.0	—	87.5	93.3	15.6	6.7	100.0
1956	59.5	85.7	100.0	62.2	91.8	17.8	8.2	100.0
1957	13.4	—	33.3	15.1	90.5	15.5	9.5	100.0
1958	42.1	30.8	—	38.1	93.1	14.7	6.9	100.0
1959	14.8	176.5	62.5	18.1	90.5	34.3	9.5	100.0
1960	13.7	(40.4)	7.7	13.1	91.0	18.1	9.0	100.0
1961	75.2	92.9	121.4	79.4	88.8	19.4	11.2	100.0
1962	58.3	125.9	125.8	65.8	84.8	26.5	15.2	100.0
1963	(0.3)	4.9	7.1	0.9	83.9	27.5	16.1	100.0
1964	10.5	13.3	38.7	15.1	80.6	27.1	19.4	100.0
1965	82.1	111.0	45.2	75.0	83.9	32.7	16.1	100.0
1966	54.0	129.1	81.5	58.4	81.5	47.3	18.5	100.0
1967	70.3	83.9	61.7	68.7	82.3	51.5	17.7	100.0
1968	81.2	98.2	88.7	82.5	81.7	55.9	18.3	100.0
1969	66.0	76.8	35.2	60.3	84.6	61.7	15.4	100.0
1970	27.5	27.6	27.9	27.6	84.5	61.7	15.5	100.0
1971	23.8	23.0	37.7	25.9	83.1	60.2	16.9	100.0
1972	35.4	28.6	20.4	32.9	84.7	58.3	15.3	100.0
1973	33.0	34.0	50.6	35.7	83.0	57.6	17.0	100.0
1974	20.9	20.5	28.8	22.2	82.1	56.7	17.9	100.0
1975	32.1	32.1	30.7	31.9	82.2	56.8	17.8	100.0
1976	33.7	34.5	48.5	36.3	80.7	56.1	19.3	100.0
1977	45.1	37.3	80.9	52.0	77.0	50.6	23.0	100.0
1978	42.3	43.0	52.8	44.7	75.7	50.0	24.3	100.0
1979	26.0	27.3	44.8	30.6	73.0	48.8	27.0	100.0
1980	27.0	31.3	50.8	33.4	69.5	48.0	30.5	100.0
1981	37.1	34.1	46.1	39.9	68.2	46.0	31.8	100.0
1982	24.4	18.8	41.8	29.9	65.3	42.1	34.7	100.0
1983	12.8	14.7	34.1	20.2	61.3	40.2	38.7	100.0
1984	16.8	10.4	42.9	26.9	56.4	34.9	43.6	100.0
1985	11.1	17.0	28.5	18.7	52.8	34.4	47.2	100.0
1986	15.8	21.5	33.5	24.2	49.2	33.7	50.8	100.0
1987	27.3	20.8	41.6	34.6	46.5	30.2	53.5	100.0
1988	25.7	22.9	35.4	30.9	44.7	28.4	55.3	100.0
1989	16.4	19.9	35.3	26.8	41.0	26.8	59.0	100.0
1990	25.6	19.8	32.0	29.4	39.8	24.9	60.2	100.0
1991	17.2	16.1	22.4	20.3	38.8	24.0	61.2	100.0
1992	8.9	16.2	31.0	22.4	34.5	22.8	65.5	100.0
1993	7.9	16.6	23.7	18.2	31.5	22.4	68.5	100.0
1994	16.8	21.4	25.5	22.7	30.0	22.2	70.0	100.0
1995	14.0	14.3	—	—	—	—	—	—
1996	17.9	20.1	—	—	—	—	—	—
1997	9.1	18.5	—	—	—	—	—	—
1998	27.0	31.5	—	—	—	—	—	—

(*continued*)

TABLE 5.9 (*continued*)

	Annual Changes				*Composition*			
Year	Banks	(Savings)	NBFI	Total	Banks	(Savings)	NBFI	Total
Averages								
1953–61	59.1	65.0	54.2	61.3	93.2	18.9	6.8	100.0
1962–71	47.4	69.4	54.9	48.0	83.1	45.2	16.9	100.0
1972–86	27.6	27.0	42.3	32.0	70.7	47.6	29.3	100.0
1987–98	17.8	19.8	30.9	25.7	38.4	25.2	61.6	100.0
1953–94	37.3	43.2	45.0	40.9	72.3	36.6	27.7	100.0
1953–98	35.5	41.3	—	—	—	—	—	—

Sources: Bank of Korea, *Economic Statistics Yearbook*, various years; Hanguk Eunhaeng 1995: 169, 224.

deposits of banking institutions, NBFIs, and various public funds managed by central and local governments and other public entities.

Commercial banks had limited financial resources in the form of owners' equity, and thus their principal sources were deposits from the general public, loans from the government and the central bank, and foreign loans. Bank deposits, one of the primary traditional financial resources, were the largest financial source of commercial banks, but they were small compared with those of commercial banks in most developed countries. Commercial banks were not able to attract much domestic savings, particularly before 1964, when the interest rates paid on deposits in banks were low—much lower than the market rates in most years and sometimes even below the rate of inflation. Only with the interest reform of 1965 were banks able to attract a large volume of deposits, especially between 1966 and 1976. The market share of banks as a whole in terms of funds raised in the domestic financial market increased from 82 percent in 1971 to 86 percent in 1972. Notwithstanding the government efforts to strengthen the competitive edge of banks by allowing them to match against NBFIs in interest rate markets in later years, bank deposits declined relatively from 65.4 percent of total loanable funds in 1980 to 34.1 percent in 1991, while the deposit share of NBFIs increased conversely, as noted in the next section.[74]

The rest of the financial resources of the commercial banks were loans from the central bank and the government, and foreign savings, which will be examined in the remainder of this chapter and in chapters 8 and 9. One of the banks' principal sources of funds were loans from the government (mainly aid-generated counterpart funds and "special revenues") and the Bank of Korea, especially in the early years, when commercial banks received few deposits and the country received large amounts of foreign aid. In later years, commercial banks also obtained foreign loans directly, which became an important source of the loans they made to investors. Foreign loans are estimated to have constituted about 30 percent of the total financial resources of the commercial banks.

The NBFIs, including the NACF and the Central Federation of Fisheries Cooperatives, derived their funds mostly from deposits of their members and mutual fund installment payments. Deposits in NBFIs increased even more rapidly than in

TABLE 5.10 Balance in Government Budget, Changes in Stock of Money, and Price Level (in percent)

Year	Budget Balance[1]	*Changes*				
		Currency	M2 Stock	Price Index	Currency−CPI	M2 Stock−CPI
1953	(0.6)	130.0	114.3	53.1	76.9	61.2
1954	(2.0)	82.6	93.3	36.0	46.6	57.3
1955	(2.2)	47.6	62.1	69.6	(22.0)	(7.5)
1956	2.6	27.4	28.7	31.7	(4.3)	(3.0)
1957	2.9	13.9	19.8	16.2	(2.3)	3.6
1958	7.0	28.9	33.1	(6.3)	35.2	39.4
1959	(2.8)	13.8	8.8	2.4	11.4	6.4
1960	3.2	10.6	8.1	10.7	(0.1)	(2.6)
1961	(3.2)	24.0	57.7	13.3	10.7	44.4
1962	(6.9)	14.4	10.1	9.4	5.0	0.7
1963	(0.6)	5.8	6.3	20.5	(14.7)	(14.2)
1964	3.3	27.4	16.7	34.7	(7.3)	(18.0)
1965	1.7	26.2	34.2	10.0	16.2	24.2
1966	(3.1)	32.1	29.7	11.8	20.3	17.9
1967	(16.3)	46.5	44.5	10.5	36.0	34.0
1968	(8.9)	40.5	44.6	10.7	29.8	33.9
1969	(19.3)	35.7	41.7	11.8	23.9	29.9
1970	(10.2)	22.3	22.1	16.3	6.0	5.8
1971	(4.8)	17.6	16.4	13.2	4.4	3.2
1972	(19.2)	31.2	45.1	11.7	19.5	33.4
1973	(0.4)	44.3	40.6	3.3	41.0	37.3
1974	(12.2)	28.6	29.5	24.7	3.9	4.8
1975	(9.5)	23.4	25.0	24.9	(1.5)	0.1
1976	(5.6)	31.3	30.7	15.4	15.9	15.3
1977	(7.8)	40.4	40.7	10.2	30.2	30.5
1978	(5.1)	44.3	24.9	14.4	29.9	10.5
1979	(7.2)	21.8	20.7	18.2	3.6	2.5
1980	(11.6)	12.2	16.3	28.8	(16.6)	(12.5)
1981	(17.6)	8.2	4.6	21.5	(13.3)	(16.9)
1982	(14.2)	26.6	45.6	7.1	19.5	38.5
1983	(4.1)	11.0	17.0	3.4	7.6	13.6
1984	(3.6)	9.5	0.5	2.3	7.2	(1.8)
1985	(6.4)	5.2	10.8	2.4	2.8	8.4
1986	0.1	12.1	16.6	2.7	9.4	13.9
1987	5.1	21.0	14.7	3.0	18.0	11.7
1988	9.6	16.2	20.2	7.1	9.1	13.1
1989	5.6	20.7	17.9	5.7	15.0	12.2
1990	2.4	21.1	11.0	8.6	12.5	2.4
1991	(3.6)	10.6	36.8	9.3	1.3	27.5
1992	(0.8)	7.7	13.0	6.2	1.5	6.8
1993	6.9	41.6	18.1	4.8	36.8	13.3
1994	3.5	8.7	11.9	6.2	2.5	5.7
1995	2.2	—	—	4.7	—	—
1996	0.1	—	—	3.2	—	—
1997	(0.1)	—	—	3.9	—	—
1998	(14.0)	—	—	7.5	—	—
1999	—	—	—	0.8	—	—
2000	—	—	—	2.3	—	—

(*continued*)

TABLE 5.10 (*continued*)

Year	Budget Balance[1]	*Changes*				
		Currency	M2 Stock	Price Index	Currency−CPI	M2 Stock−CPI
2001	—	—	—	4.1	—	—
2002	—	—	—	2.7	—	—
Averages	—	—	—	—	—	
1953–61	0.5	42.1	47.3	25.2	16.9	22.1
1962–71	(6.5)	26.9	26.6	14.9	12.0	11.7
1972–86	(8.3)	23.3	24.6	12.7	10.6	11.8
1987–98	1.4	18.5	18.0	5.0	12.1	11.6
1953–94	(3.7)	27.3	28.7	14.7	12.6	14.0
1953–02	(3.6)	—	—	12.9	—	—

[1]The ratios represent the percent of its expenditures.

Sources: Bank of Korea, *Economic Statistics Yearbook*, various years; Hanguk Eunhaeng 1995: 169, 224.

commercial banks, at an average annual increase of about 43.2 percent per year during the same period, thereby increasing its deposit holding from 9.8 percent of the total to 61.6 percent, which was larger than those of banks. The market share of NBFIs in terms of deposits climbed from 6.7 percent in 1955 to 17 percent in 1971, 31 percent in 1980, 51 percent in 1986, and 70 percent in 1994 (Table 5.9).[75] On average, they held less than a third (27.7 percent) of all deposits in the organized financial institutions during the 42-year period between 1953 and 1994.

Government

The financial resources of the government for investment were derived from both the domestic and foreign sources. Domestically, it borrowed money for investment largely from the central bank, which in turn resorted to the printing machine and credit creation, thereby contributing to price inflation, as shown earlier in this chapter. In this way, the government acquired purchasing power with the borrowed money, which resulted in raising prices of goods and services. In this sense, the government levied taxes upon resource users in order for the government to divert resources for its investment, since exactly the same result would have been achieved without the rise of prices, if the government levied a tax on the community at large. With unemployment, if the proceeds of "taxed revenues" are used to pay the workers for the construction of capital goods, it is self-destructive, since sooner or later it would have created not only capital goods but also eventually produced more consumer goods as well, thereby increasing the supply of goods to the market. Thus, inflation which stemmed from the creation of money for the purpose of accelerating investment resulted in capital formation.[76] Inflation differs from taxation in that it also tends to raise profits and may therefore stimulate investment by private entrepreneurs. In this respect, increase in money and credit creation for investment might

have been superior to taxation for financing investment, although it tended to have adverse consequences, such as unequal distribution of income.

OTHER SOURCES

The sources other than organized financial institutions in the country were of other organized domestic sources and the unorganized financial market. According to the best data available for the period between 1970 and 1994, other sources contributed a little more than a quarter (26.6 percent) of the total (Table 5.1). They were other organized domestic sources and the unorganized financial market, which are briefly examined in the sections that follow.

Other Organized Financial Institutions

Miscellaneous organized sources of financing investment included portfolio investment, insurance premiums, pension funds, and suppliers' and short-term loans. Portfolio investment, which represented passive holdings of securities such as bonds or other financial assets, none of which entailed active participation in managing business operation, increased over time from very little in the early years to as much as a tenth of total business capital in more recent years. Between 1970 and 1994, it financed about an eighth of total investment on average. No information is available concerning the source and uses of portfolio investment, but it appears that the major providers of the funds were financial institutions, including unorganized, other financial institutions, and wealthy individuals. The funds were used largely to refinance existing loans rather than for new investment.

Other miscellaneous sources included the supplier's loans that financed the purchase of input goods and services such as capital, intermediate goods, raw materials, and technical services. Businesses resorted to these loans largely when they were unable to obtain loans from the organized financial intermediaries at reasonable rates of interest, or for the convenience of not having to be granted government permission, a requirement of formal loans through banks. The figures under this group (mostly short-term loans) varied over time, but it did not consist of much, and these types of loans made Korean businesses more vulnerable to short-term lenders, which often has contributed to financial crises.

The extent of financing investment through sources other than organized financial markets varied among different industries. The shares of other organized financial market of financing investment in the real estate and retail/wholesale sectors during 1971–98 were the highest, constituting 46.7 and 42.9 percent of the total, respectively (Table 5.11). In contrast, the ratios of other sources of financing investment in the SOC and manufacturing sectors were low, 13.6 percent and 30.5 percent, respectively, during the same period. Likewise, the share of other sources of financing investment varied in accordance with the scale of businesses. They were lower among large businesses than among the small or medium-sized firms. On the whole, the contribution of other organized financial market to financing of investment was not significant, probably less than 3 percent of domestic savings.

TABLE 5.11 Financing of Investment with Miscsellaneous Organized Financial Resources (as percent of total capital)

Year	Elect. Power	Manufacturing	Mining	Construction	Transportation and Communication	Entertainment	Trade	Real Estate	Total[1]
1971	9.6	23.9	22.9	31.5	27.9	22.0	32.9	31.7	23.0
1972	10.6	24.4	21.1	29.6	28.3	19.7	32.8	32.2	22.3
1973	12.7	34.7	20.1	22.7	23.8	16.3	34.7	23.2	21.7
1974	20.8	26.3	27.0	27.1	29.9	16.7	32.7	38.8	24.6
1975	10.4	30.2	19.4	36.1	31.1	29.7	44.0	56.4	26.2
1976	8.5	31.7	30.4	50.5	23.2	26.4	45.5	44.5	28.5
1977	8.4	30.8	37.4	48.9	37.7	25.6	47.3	31.4	31.5
1978	7.6	30.6	39.5	55.3	38.2	33.2	47.4	31.2	34.1
1979	9.9	30.6	44.1	52.9	33.9	46.7	41.6	31.1	36.4
1980	8.7	33.7	48.2	44.3	35.0	57.4	48.7	34.0	37.9
1981	16.9	32.5	48.8	39.4	36.8	51.8	47.9	48.5	37.7
1982	6.2	33.5	44.5	35.4	38.7	58.0	44.2	43.6	36.1
1983	7.9	34.6	44.0	40.0	38.8	51.3	41.8	41.0	36.1
1984	7.7	35.9	36.0	33.7	42.3	43.1	43.9	53.8	33.1
1985	8.0	31.0	40.0	33.9	40.5	36.5	38.5	51.3	31.7
1986	9.3	31.8	42.4	29.9	42.8	34.6	36.5	49.0	31.8
1987	10.7	34.4	42.2	37.7	46.9	35.7	42.4	50.4	34.6
1988	17.0	35.2	40.2	37.7	44.9	41.6	43.7	57.3	36.1
1989	18.1	33.3	41.8	38.4	47.0	44.6	44.5	59.2	37.2
1990	19.0	29.5	31.1	42.3	42.3	50.4	45.0	64.0	35.8
1991	22.8	30.9	34.4	41.6	40.7	51.3	45.1	47.9	37.0
1992	18.6	28.9	35.3	39.0	38.8	53.7	44.4	48.7	35.7
1993	18.7	27.9	34.4	39.6	37.7	39.4	50.1	64.3	33.0
1994	19.5	30.7	37.5	34.9	48.6	37.7	49.1	53.1	34.8
1995	21.9	29.4	33.4	34.6	49.3	39.3	48.6	55.7	34.7
1996	17.7	28.4	34.7	35.0	47.2	44.5	47.3	50.4	34.6
1997	16.5	25.6	27.9	35.6	43.3	39.5	44.6	56.6	31.4
1998	17.0	24.4	29.6	34.9	35.1	40.5	35.0	58.8	30.3
Averages[1]									
1971–75	12.8	27.9	22.1	29.4	28.2	20.9	35.4	36.5	23.6
1976–86	9.0	32.4	41.4	42.2	37.1	42.2	43.9	41.8	34.1
1987–98	18.1	29.9	35.2	37.6	43.5	43.2	45.0	55.5	34.6
1971–98	13.6	30.5	35.3	37.9	38.2	38.8	42.9	46.7	32.4

[1]The figures below represent the averages of entries of each column in the row. The weight is not assigned to each entry.

Sources: Hanguk Eunhaeng 1995: 236–43; Bank of Korea, *Economic Statistics Yearbook* 1999: 84–86.

The Unorganized Financial Market

The remaining portion of financing investment from other sources came from the unorganized financial market (UOFM). It long held an important position in the economy and played a unique role in financial intermediation in South Korea, especially during the early years. The UOFM is basically a curb market in which formally unorganized individuals and/or groups as sellers of financial services met borrowers and transacted their business. The UOFM included the *gae*, traditional mutual savings and loan associations and other financial groups, as well as individuals. The government sporadically attempted to regulate some aspects of the UOFM

operation, such as interest rate, without directly controlling or systematically policing it, as was the case with the organized financial institutions. Otherwise, the market operated relatively freely: sellers channeled financial resources to the borrowers of their choice under the shadow of the government. The government more or less winked at the UOFM as it allocated funds to high-yielding bidders.

Because the UOFM engaged in many activities that were proscribed by law but tolerated in practice, few curb-market loans were reported to the government, not least because most lenders wished to avoid paying taxes on their interest incomes. Therefore, information about their operations is scant and imprecise, and the exact size of informal financial market is hard to determine. Nonetheless, it is generally thought that the financial resources of the UOFM were substantial, especially during the early years. Despite the risks of loss of unsecured curb market savings, the UOFM apparently attracted a substantial amount of personal savings. One estimate shows that as much as 15 percent of personal savings was channeled into the traditional *gae* in the early 1960s.[77]

The volume of curb market loans was also fairly large, though it fluctuated over time. The financial power of the curb market peaked during 1964–65, when its loans were reputed to have equaled about 40 percent of total regular bank loans,[78] which accounted for more than half, or between 56 and 63 percent, of total domestic credit at the end of 1964.[79] There were 100 billion *won* of curb loans in 1969,[80] and more in 1969–72. It was estimated that such loans increased from 40 billion *won* in 1969 (Minister of Finance figures) to more than 330 billion *won* with total of 201,856 loans in 1972, when the government mandated the unorganized financial institutions to report to the authorities their loan activities in compliance with the Presidential Emergency Decree.[81] The total amount of curb loans was tantamount to 88 percent of M1 (currency in circulation plus demand deposits) and 32.4 percent of outstanding loans and discounts of the deposit banks in the country as a whole.[82] Another government survey reported that informal market loans in 1982 continued to be about 80–90 percent of the total money supply, equivalent to 33 percent of outstanding bank loans.

The extent of the UOFM's financing of business is not well known, but clearly banks lacked the funds to meet the needs of all borrowers. That and the difficulties of obtaining bank loans made many businesses resorted to the curb market. These loans were more readily available, but at interest rates usually two or three times higher than in the organized financial market. Between 1965 and 1970, the volume of reported monthly loans increased from 12.5 to 90.9 billion *won*, averaging about 47.6 billion won (about $176.3 million), while the number of borrowers increased from 303 to 987. The number of suppliers of loans on average thus exceeded the number of potential borrowers 3.5 times.[83]

A substantial share of the UOFM's financial resources was loaned to businesses, especially during the early years. The amount of these loans to businesses was not reported, but it probably was more than a fifth of the total in the country, the sum of loans to businesses being much larger than loans to individuals.[84] Many Korean companies, including the *jaebeol*, relied on the UOFM for loans to finance their business management, in addition to bank loans. The extent of the financial resources of businesses supplied by UOFM loans is clearly shown in the balance

sheets of private corporations. According to one source, as much as one-quarter of the financial resources of private corporations were furnished by the UOFM during 1963–69.[85] Another estimate shows that of all funds borrowed by private corporations, about 18 percent came from miscellaneous sources, most of which was probably from the curb market. Others estimate that as much as 36 percent of corporate financing in 1972 came from this source, while the ratio of business reliance on banks and curb markets was reported to have been 4 to 1.

The businesses that resorted to the UOFM were typically those in untargeted sectors of the economy, industries, and businesses. Typically, the firms that relied on this market were small and borrowed relatively small sums. While 68 percent of the loans averaged about 3 million *won* ($6,000), nearly 50 percent of the loans were for 1 million *won* (a little more than $2,000). One report indicated that during 1968–73, more than 1.6 billion *won* ($3 million) was needed to recall 1,727 loans averaging about 1 million *won* each.[86] The average business loan in the curb market increased to 8.35 million *won* (about $20,000) in 1972, while a typical bank loan was between 10 million *won* (equal to $25,000) and 50 million *won* ($125,000). They often had weak collateral or were disreputable. The curb market also served individuals who engaged in speculative businesses. They lost out on loans in the formal organized financial institutions but relied on loans from the UOFM, mostly for operating funds and cash.

Despite the fact that most curb market loans were small and made to small borrowers, a significant share were made to large businesses as well. For instance, 60 percent of private curb loans were made to *jaebeol* businesses in 1971. Loans amounting to 1 to 2 billion *won* (about $1.67 to 3.3 million) were made to *jaebeol* daily in 1979.[87] When the government froze curb loan interest in 1972, many of the curb loans were diverted to large prime corporations, away from small and medium-sized businesses.[88] A total of 64 percent of corporations had curb loans, in contrast to 29.3 percent of single proprietorships in the same year. Among the corporations, more than two-thirds (67.7 percent) of large firms had private loans, in comparison to 44.1 percent for the small and medium-sized businesses. Some of them paid interest rates as high as 40 percent per annum as late as 1982.

The role of the UOFM in financing investment in business and its extent are not fully known, but it is quite clear that the curb market financed a considerable amount of the nation's private investment, especially as venture capital to launch new businesses during the early years.[89] It also helped to enlarge many businesses that could not have expanded without its financial infusions. It has been estimated that 86 percent of curb loans were used to meet operating expenses, while curb market loans rescued many businesses by meeting their immediate financial needs. The UOFM was thus drawn into the active role of allocating scarce domestic credit to satisfy the short-run operational needs mostly as working capital,[90] including the purchase of raw materials for processing, while the organized financial intermediaries provided long-term investment funds. In this way, the UOFM played a unique and important role by diverting personal savings into business investment. The extent of its influence waned somewhat in later years, but it continues to exist today, complementing the roles of the organized institutions and helping mitigate the deleterious effect of considerable mismanagement of the organized financial institutions.

INTEREST RATE POLICY

The government not only controlled the allocation of loans to borrowers for investment, it also regulated the prices of loans and deposits in the form of interest rates throughout most of the period of South Korea's independence. The interest rate policy pursued by the government after World War II followed five distinct stages in two facets, namely, financial repression, freely fluctuating interest rates, and single/multiple interest rates, at different times.

Financial Repression

From the end of World War II to the Korean War armistice in 1953, there were huge gaps in interest rates charged on loans and paid on deposits by banks, both public and commercial, on the one hand, and a free UOFM on the other. In the late 1940s and early 1950s, funds for investment were scarce and inflation was rampant and fierce, but bank interest rates were set low and remained far below the market rates. The South Korean government adopted a harsh financial repression policy, keeping official rates of interest ranging between 7.3 and 14 percent on loans and only 3.2 percent on deposits in 1947, when the country was experiencing hyperinflation.[91]

Similarly, during the second phase of the interest rate policy, from the Korean War armistice to 1964, the government continued to follow a repression policy, though less harsh than in the first stage, by maintaining low bank rates of interest. The average officially sanctioned bank interest rates on commercial loans to business borrowers were typically set at about 17 to 18 percent per annum, while interest rates in the curb market were more than 50 percent per year (Table 5.12), while the interest rate paid on deposits was 10 to 15 percent per annum.[92] The ratio of bank loan rates to market rates thus more than one to two and a half. This was the period when loans to purchase most of the former Japanese assets divested by the Korean government took place, as well as the practice of repaying them in installment payments (see chapter 4).

After having followed the artificially low interest rate policy for some time, the South Korean government entered the third phase during 1965–71, when it pursued a so-called high-interest policy, together with a fairly complicated multiple interest rate structure, as examined in the next section. The Interest Reform Law, which was enacted in 1964 and became effective on September 30, 1965, substantially raised interest rates on loans and deposits to levels closer to market rates. The interest rate charged on an ordinary commercial bank loan rose from 16 to 26 percent per annum while doubling the maximum rate on one-year time deposits from 15 to 30 percent per annum.[93] At the same time, if the interest payment on a corporate loan was more than 12 percent per annum, the government instructed banks to lower it to 8 percent, in contrast to 30 to 40 percent curb loan rates.[94] This allowed major businesses and public enterprises to pay off high-interest short-term curb loans. At the same time, in order not to hamper private investment, the government also let banks charge lower interest rates on loans than those paid on deposits. The banks paid 22.8 percent interest on deposits while loaning money at

TABLE 5.12 Annual Interest Rates on Loans and Deposits

Year	Curb Market	*Government Sanctioned*		Discount on Bills[1]	Government Overdraft	Trade
		Deposit	Loans			
1953	60.0	4.8	18.3	—	2.0	—
1954	60.0	12.0	18.3	—	2.0	—
1955	60.0	12.0	18.3	—	2.0	—
1956	50.0	12.0	18.3	—	2.0	—
1957	50.0	12.0	18.3	—	2.0	—
1958	50.0	12.0	18.3	—	2.0	—
1959	50.0	10.0	17.5	—	2.0	—
1960	50.0	10.0	17.5	—	2.0	—
1961	50.0	15.0	17.5	13.9	2.0	13.9
1962	50.0	15.0	15.7	13.9	2.0	9.1
1963	52.6	15.0	15.7	13.9	2.0	8.0
1964	61.8	15.0	16.0	14.0	2.0	8.0
1965	58.7	26.4	26.0	24.0	2.0	6.5
1966	58.7	26.4	26.0	24.0	2.0	6.5
1967	56.5	26.4	26.0	24.0	—	6.0
1968	56.0	25.2	25.2	26.0	—	6.0
1969	51.4	22.8	24.0	24.6	—	6.0
1970	49.8	22.8	24.0	24.0	—	6.0
1971	46.4	20.4	22.0	22.0	—	6.0
1972	39.0	12.0	15.5	15.5	—	6.0
1973	33.4	12.0	15.5	15.5	—	6.0
1974	40.6	15.0	15.5	15.5	—	9.0
1975	41.3	15.0	15.5	15.5	—	7.0
1976	40.5	16.2	18.0	—	—	—
1977	38.1	14.4	16.0	—	—	—
1978	39.3	18.6	19.0	—	—	—
1979	42.4	18.6	19.0	—	—	—
1980	44.9	19.5	20.0	21.5	—	15.0
1981	35.3	16.2	17.0	16.5	—	15.0
1982	32.8	8.0	10.0	14.0	—	11.0
1983	25.8	8.0	10.0	10.0	—	10.0
1984	24.8	10.0	10.0–11.5	10.0–11.5	—	10.0
1985	24.0	10.0	10.0–11.5	10.0–11.5	—	10.0
1986	23.1	10.0	10.0–11.5	10.0–11.5	—	10.0
1987	22.9	10.0	10.0–11.5	10.0–11.5	—	—
1988	22.7	10.0	11.0–13.0	—	—	—
1989	19.1	10.0	10.0–12.5	—	—	—
1990	18.7	10.0	10.0–12.5	—	—	—
1991	21.4	10.0	10.0–12.5	—	—	—
1992	20.0	10.0	10.0–12.5	—	—	—
1993	20.0	8.5	8.5–12.0	—	—	—
1994	20.0	10.0	8.5–12.5	—	—	—
Averages						
1950–53	60.0	4.8	18.3	—	2.0	—
1954–60	52.9	11.4	18.1	—	2.0	—
1961–64	53.6	15.0	16.2	13.9	2.0	9.8
1965–71	53.9	24.3	24.7	24.1	2.0	6.1

TABLE 5.12 (*continued*)

Year	Curb Market	*Government Sanctioned*		Discount on Bills[1]	Government Overdraft	Trade
		Deposit	Loans			
1972–80	39.9	15.7	17.1	16.7	—	8.6
1981–86	27.6	10.4	12.3	13.5	—	11.0
1987–94	20.6	9.8	—	—	—	—
1950–94	40.8	14.2	13.7	14.5	2.0	8.7

[1]The discount rate of commercial banks.

Sources: Hanguk Eunhaeng 1995: 171; Bank of Korea, *Economic Statistics Yearbook*, various years.

18 percent.[95] The government also legally allowed the interest rate ceiling on curb loans to rise from 40 to 72 percent per annum in 1969.

This government policy had swift, significant, and positive and negative consequences to both the organized financial institutions and borrowers. First, deposits in the organized financial institutions skyrocketed overnight. The interest rate reform had a particularly significant impact on time and savings deposits in banks. Following the interest rate reform, total time and savings deposits shot up by 25 percent in one month, and 50 percent in three months. It tripled in one year and doubled again the following year. The interest rate reform caused time and savings deposits in banks to grow at a compound annual rate of nearly 100 percent over the next four years and ultimately brought about a fourfold increase in such deposits in two years. The ratio of such deposits to GNP increased from 3.8 percent at the end of 1965 to 21.7 percent by the end of 1969.

Second, the policy resulted in skyrocketing interest costs to many businesses, including the *jaebeol*, many of which got into serious financial difficulties. It was reported that the average interest payment on business loans was as much as 9 percent of the cost of production in 1971 and 8 percent in 1972. The rising interest payments threatened a wave of bankruptcies.

Third, the lower interest rates on loans than those paid on deposit during 1965–71 brought about huge losses to the financial institutions and ultimately the government. On average, banks were paying 22.8 percent interest on deposits,[96] while deriving only 18 percent from loans, incurring an average loss of 4.8 percent. In the case of the NIF, since it made loans to businesses at an 8 percent rate, the government lost enormous sums of money and had to subsidize 4.2 percent from its own coffers. To refinance these low interest rate loans, the government, after the curb loan freeze, issued a special finance bond (Industrial Bond of 200 billion *won*, paying 12.2 percent interest) to set up the NIF, which was managed by the Bank of Korea.

Fourth, in spite of the less repressive policy than that which had prevailed during the 1950s and early 1960s, the official interest rates charged on loans after the mid-1960s continued to be lower than market rates of interest, although the gap had narrowed substantially. Market rates ranged between 30 and 40 percent per year at the minimum. Commercial bank interest rates ranged from 22 to 26 percent during

the entire period, while those charged by lenders in the UOFM were, conservatively, between 48 and 60 percent.[97]

Fifth, because of the increased number of loans, financial resources from bank deposits quickly dried up. Businesses immediately experienced a shortage of financial resources and operating funds, and reliance on curb loans increased rather than diminished as anticipated. In the mid-1970s, numerous companies, especially the small and medium-sized ones, reported difficulties in obtaining loans, curb market as well as bank loans. By 1976, curb loan interest was back to its pre-reform level, more than 40 percent per year. Within the curb market, the average interest rate charged to the top-rated large corporations was 32.4 percent per year (or 2.7 percent per month), while the interest rates charged to medium-sized and small corporations were 42 percent per year (or 3.5 percent per month). Small proprietors and individuals paid 48 percent per year (or 4 percent per month). In 1978, the best credit-rated, A-class borrowers could not even borrow money at 42 percent per year (or 3.5 percent per month). The B-class borrowers paid 43.2 to 44.4 percent (or 3.6 to 3.7 percent per month), and C-class borrowers paid 45.6 to 48.0 percent per year (or 3.8 to 4.0 percent per month).[98] The curb loan interest rate rose between 37.2 percent and 60 percent per year in 1979. As a result, interest payments in 1979 were reported to have risen to about 12 percent of the cost of doing business. Shipping companies spent 14.5 percent of their total annual income in interest payments on their debts, in contrast to 5.4 percent for the small manufacturers and 4.9 percent for the Japanese shipping industry.

Because of these difficulties, the high interest rate experiment initiated in 1965 was abandoned. The Private Loan Freeze Law, promulgated on August 3, 1972, as an emergency measure, restored the low interest rate policy and initiated the fourth phase. The emergency decree lowered the sanctioned interest rate to 15.5 percent on loans and 12 percent on deposits. Furthermore, this law required that all curb loans be registered with the government and "frozen." To bail out the heavily indebted business firms, the law nullified all curb loan agreements and ordered that after a grace period of three years at an interest rate of 16.2 percent, curb loans be repaid in installments within five years or be converted into equity shares. Official bank loan interest rates were lowered to a level substantially below the real cost of the loans. Toward the end of the 1970s, the rates actually were substantially negative in real terms.

This examination clearly indicates that irrespective of its variations during the nearly 30-year period following the World War II until about 1981 the one overriding feature of the policy was financial repression. Although the financial repression policy was moderated during 1965–72 and especially after 1981, interest rates for ordinary commercial bank loans were about 50 percent of market interest rates on average in the early years. Not only were bank interest rates lower than market rates, curb market rates, and equilibrium interest rates, they were also lower in real terms and in the most conservative estimates of the opportunity cost of capital. The financial repression policy of South Korea after 1980s, however, differed significantly from those of other low- and middle-income countries, for interest rates in South Korea were both more stable and typically positive in real terms.

Multiple Interest Rates

Another feature of the government's interest rate policy during most of the early period was the application of different rates to different groups of borrowers in different economic sectors and industries. The rates also varied depending on the use of loans and even among different firms within the same sector. Rates also depended in part on the degree of competition for particular types of credit, the interest of the government in promoting a particular type of investment, the political climate or financial exigencies of the ruling political party, and the political influence of the borrower. Nonetheless, there were certain common features in the multiple interest rate policy, which are examined below.

Among the varied features of the government's interest rate policy on business loans, the application of low interest rates to targeted industries and businesses, including foreign aid loans, and import, export, and "policy loans,"[99] had the most significant impact on the nation's investment. Interest rates charged by banks varied widely, from 3.5 percent for an export loan during the 1968–72 period to 18.3 percent for the government-sanctioned loan during the 1951–58 period, under the interest rate control regime (Table 5.12). Under the foreign aid programs of the early years and the loan programs in later years, interest rates charged to the SOC and specific "modern manufacturing industries," which were considered crucial for the country's industrialization and economic development, were lower than those charged to other sectors. Included in the modern manufacturing industries were the import-substitution, export-goods industries (e.g., textiles and foreign construction), and strategic industries (e.g., the HCIs). Throughout the 1960s and the 1970s, the policies were selective in the sense that some groups were singled out for favorable treatment. For example, even after the interest reform in 1965, when interest rates in the country effectively doubled, the rate charged to exporters was about 20 percent below general bank short-term rates.[100] Interest rates on loans to exporters declined even during the high interest rate policy period of 1965–71 (from 8 percent to 6.5 percent).

The preferential interest rates extended under the policy loan program were much lower than those on ordinary business loans, which in turn were lower than those prevailing in the curb market. The average official bank rates of interest charged to privileged borrowers under the policy loan program were typically 5 to 6 percent per annum,[101] about one-half of those charged for ordinary bank loans sanctioned by the government and one-sixth to one-seventh of market rates. Even when the Interest Reform Act of 1964 raised overall interest rates during the so-called high interest rate policy period in 1965–71, the official rates for policy loans were considerably lower than the officially set ceiling rates for commercial banks (Table 5.12). These rates were lower than the general bank loan rate of 18.25 percent sanctioned by the government and much lower than the curb rate of 48 percent (4 percent per month), although the gap between these rates narrowed considerably over time. In 1965, the rate dropped as low as one-eighth of the loan rate on discounted commercial bills.

Under the policy loan program, exporters received loans at 6 percent interest in the late 1960s, when the bill rate was 24 percent. The loans to promote exports were

made at interest rates ranging from 3.5 to 6.57 percent per annum and at one point were as low as 1.9 percent.[102] The policy loan program particularly favored the strategic industries. It included loans for establishing export industry plants and the purchase of equipment related to export activities.

Interest rates under the government credit policy were also set on the basis of their use. To establish new facilities or expand existing ones in the import-substituting or export industries under the foreign aid programs, loans were made at rates between 5 and 12 percent per annum.[103] Likewise, under the foreign exchange lending program, banks lent foreign exchanges at similar low interest rates for the importation of capital, intermediate goods, and raw materials for the production of goods and services for export and for the payment of royalties or insurance. Long-term (more than one year) export loans for the acquisition of capital goods were made at relatively low interest rates and were subject to continuing loan ceilings and other rationing devices. Equipment loans to manufacturing companies in 1971–75 were extended at nominal rates that were between 3.5 to 8.5 percentage points below the general bank loan rates. These rates were higher than the interest rates on export loans but lower than those on "ordinary" commercial loans. Similarly, to discourage foreign countries from resorting to protectionist policies and also to acquire foreign technology, the Korean government awarded low interest loans to businesses to invest abroad as a financial inducement to acquire new technology.

Interest rates charged to different business borrowers were also based on the size of the loan as well. Large loans carried lower interest rates than small loans. Very large loans were typically made by the specialized public banks, such as the Bank of Korea and the Korea Development Bank, at lower rates, while the commercial banks typically handled small loans at higher interest rates. For instance, a large loan was made when Chungju Fertilizer Corporation was sold to a private business on April 1, 1964, with repayment to the Industrial Bank of Korea for a 20-year period at 5 percent interest. During the construction period, the interest rate was even lower, 2 percent for five years. Starting out with 3 billion *won*, the capital invested increased to 5 and 7 billion *won* ($15 and 20 million) in 1966 and 1967, respectively.[104]

Interest rates charged to business borrowers varied on other grounds, such as geographical location. There were some attempts to equalize the rates charged in different regions, but the disparity persisted throughout the entire period.[105] After 1987, the government attempted to make amends for the discriminatory interest rate policy by reversing it. The annual interest rates for the loans to small and medium-sized firms investing abroad were set at 8 to 9 percent, while those for large business were set at 9 to 10 percent. Nonetheless, for most of the period, discrepancies between the large and small firms persisted, favoring large borrowers. Interest rates charged to business borrowers also varied depending in part on the institution from which the loan was obtained and the government agencies involved in the approval process. Likewise, businesses that had close relationships with financial institutions located in Seoul were provided with lower interest rates (up to 4 percent lower) and longer maturities than the regional banks provided.

Specific arrangements for short-term loans changed from time to time, but the export industries were given loans to import all inputs on a three- to four-month deferred payment schedule at 6 to 7 percent per annum interest rates by the domestic commercial banks. Short-term, low-interest loans were extended without limit against any letter of credit. These loans were made at 6.5 percent, compared with discounts on commercial bills, which were 24 percent following the 1965 interest rate reform. In the case of the NIF's short-term loans to exporters, interest rate was initially made at 8 percent per year, but later the rates increased, varying between 10 to 11 percent, still lower than ordinary bank lending rates.[106]

Freely Fluctuating Interest Rates

The fifth phase came into being in 1981, when the repressive interest rate policy was abandoned in favor of a new commercial paper market that was not subject to government control. The government also made its first move toward free-floating interest rates. Because of the heavy financial burden placed on banks and the government, preferential lending rates for policy loans were raised after 1981. With this, the interest rate gap began to narrow and gradually was eliminated. As a result, the commercial paper and corporate debenture markets rapidly expanded in the early 1980s while the low preferential lending rates to strategic industries and firms faded away. Interest rates, which were substantially increased in early 1980, moved downward in a relatively short period beginning in 1981. The interest rate on one-year time deposits, which was raised from 18.6 to 24 percent in early 1980, rapidly dropped to 8 percent by June 1982. Private rates in the curb market also declined, from an average of 40 percent in 1979 to 25.2 percent (or 2.1 percent per month) in 1983. At the same time, bank interest structure was simplified by unifying all bank loan rates into one.

In their place, something akin to a prime rate system was introduced in 1984. Banks were allowed to charge varying rates to different clients within a limited range depending on their credit standing. In the same year, the government reduced the interest rate gap between banks and NBFIs. Major interest rate deregulation was introduced in 1988. Private rates in the curb market also declined to around 20 percent in 1992.[107] Interest rates on discounted paper in 1988 were slightly less than twice those of 1964, similar to the interest rates on deposits. As a result, the differentials between regulated and free market rates was substantially narrowed, though not completely eliminated. The financial repression policy was then abandoned. As of February 15, 2003, short-term interest rates in South Korea were 4.53 percent, which still were considerably higher than those of other neighboring countries, such as Taiwan's 1.5 percent, Singapore's 0.75 percent, and Thailand's 1.82 percent.[108]

The government is now moving toward an incentive system that would be neutral with regard to industries and firms, which would likely allow the effective cost of capital to reflect the true cost more accurately.[109] However, interest rates are still controlled under the "window guidance" system. Also, while lending rates are free from government control, deposit rates (with the minor exception of some

long-term rates) are expected to continue to be subject to government control in order to prevent "overheated competition" for deposits among commercial banks. Thus, in contrast to the government's announced intentions, the monetary market is still being regulated by the government.

SUMMARY AND CONCLUSIONS

The examination in this chapter has revealed several significant features of South Korea's financing of investment for economic development after World War II. First of all, the major portion of the nation's investment was financed with domestic resources, in both the public and private sectors. In the case of public investment, the government relied heavily on the private sector's savings, borrowed mostly through banks. In the case of private investment, the major portion of investment funds were also financed with loans from both organized and unorganized financial intermediaries, the government, and other sources, since a relatively small portion (less than one-third on average) of business capital was financed with owners' equity. In private investment, nearly half of it on average was financed with loans from banks during most of the period, while nearly a quarter came from other sources, such as NBFIs, the government, portfolio investment, supplier's loans, and the UOFM.

Second, most loans were extended to promote the designated industries and sometimes particular enterprises that were considered by the government to be critical to the nation's economic development. Loans to the targeted industries and firms were used to construct industrial facilities and purchase capital goods, intermediate inputs, and raw materials for the import-substitution and export-goods industries and often involved foreign exchange transactions. "Entrepreneurial" projects, capital- and technology-intensive industries, and large corporations were favored. A relatively small number of large businesses, especially the *jaebeol*, received the lion's share of loans after 1953.

Third, loans to the targeted industries and firms were made on favorable terms, including low interest rates and often with a long maturity period, to both public and private enterprises, which varied depending on the type of industry to which the loans were extended and the personal connections and contacts the borrowers had with the government. On average, interest rates for ordinary commercial loans to business borrowers were about half of the market interest rates for many years after World War II. The industries that received the greatest benefits tended to be capital- and technologically intensive, well established, and large, typically *jaebeol.*

Fourth, in comparison to most developed countries, the South Korean government played a major and more crucial role in financing investment in both the public and private sectors. It had nearly complete control over the entire spectrum of organized financial institutions, especially banks, and "ran" them almost at its will. It took control of all forms of organized institutional credit and allocated their financial resources, in addition to its own funds, to business enterprises from the time of their establishment, which also gave the government considerable power over the business community. It relied heavily on financial loan tools to induce

private investment. Extensive loan programs were carried out by the government directly as well as indirectly. Initially, it allocated most of the credit to private businesses directly through a number of government funds, such as the NIF, followed by indirect credit allocations through banks in later years, for strategic investment in both the public and private sectors. The government directly allocated about 70 percent of domestic credit until about 1978, and the allocation of loanable funds did not become subject to market forces until about the early 1980s. Commercial banks were instrumental in implementing a comprehensive system of selective credit allocation to ensure the flow of funds to chosen industries and firms. The South Korean government has been flexible with its financial policies over time, however.

Along with its credit policy, the government controlled the organized financial intermediaries and regulated interest rates for most of the period after World War II. For most of the period, it followed a repression policy, starting with a very harsh policy in the early years and gradually relaxed more recently to the point where the capital market has more or less returned to a normal free market. One overriding feature of the policy, however, was financial repression in the form of low "official" rates of interest, compared with those of the curb market, for loans to privileged businesses. Bank interest rates were lower than the market rates, curb market rates, or equilibrium interest rates and often low in real terms and far below the most conservative estimates of the opportunity cost of loans. In some years, the nominal bank loan rates were even below the inflation rates, constituting negative real interest rates.

Fifth, not only had the businesses that received bank loans met the official and objective benchmarks based on both economic rationale, but they were also subjected to unofficial, subjective, and administrative discretion. Business borrowers who received loans had to be in strategic industries, primarily SOC and certain new manufacturing industries in the public sector in the early years and the three industrial sectors (import-substitution, exports, and "basic" strategic industries) in the private sector in later years. Sectors such as agriculture, real estate, retail/wholesale, and entertainment/recreation relied more on short-term loans from the UOFM. Unofficial, subjective, and administrative discretions were also often applied: the borrowers that had connections or ties with those in power had the upper hand in receiving government and/or bank loans.

In contrast to the dominant role of allocating financial resources in most other countries, the banks in South Korea were critical players in mobilizing savings but rendered a rather limited role in allocating its financial resources for investment until very recently. The allocation of credit below market-clearing interest rates involved the government's discretion, not the banks'. Especially in the absence of a well-functioning capital market and businesses supplementing the major portion of their investment funds through the financial markets, where savers and entrepreneurs were linked, financial intermediaries were and still are the most important source of business funds. The volume and pattern of investment examined in chapter 3 was no accident, but rather a clear reflection of the government's industrial and financial policies in pursuit of its goals, not the banks' interest. The policy

orientation legacy established under Japanese colonial rule lingered for many decades, until very recently. The financing of investment with other sources of organized financial institutions, including portfolio investment, was relatively insignificant.

While the organized financial intermediaries provided long-term investment funds at discounted interest rates to fulfill the government policy goals, the UOFM was largely limited to furnishing mostly working capital loans for business operations, including the purchase of raw materials for processing. Yet, there is some evidence showing that it also has financed a considerable amount of the nation's small private investment, especially during the early years, and supplemented some large businesses' financial needs as well. In the curb market, loans were generally more available than at conventional banks, but at much higher interest rates. The distorted allocation of financial resources by the organized financial intermediaries thus was ameliorated somewhat by the UOFM, since it was drawn into an active role in allocating scarce domestic credit, typically to meet the short-run operational demands of underprivileged sectors as well as some large businesses.

6

ECONOMIC IMPACTS OF INDUSTRIAL AND FINANCIAL POLICIES

Having examined in the previous chapter the magnitude of investment, the domestic institutions and means used to finance it, and the government's role in the process, this chapter assesses the impact of the government's industrial and financial policies on the nation's investment and economic development. Were these policies the best measures for achieving the two principal economic goals of the country, namely, the industrialization and expansion of the nation's economy? It is difficult to determine whether the South Korean economy would have done better with a less interventionist and more laissez-faire government policy. Especially difficult is developing quantitative measures of the government's contribution to financing investment in targeted industries and businesses. Notwithstanding these difficulties, there is no doubt that the government's financial policies had major effects on the nation's investment and economic growth. It is, therefore, not only useful but necessary to examine the effects, even though the analysis may be crude, less than definitive, and somewhat guarded.

Examined in this chapter are seven broad areas of economic impact: (1) interest subsidies, (2) net bounties, windfalls, and subsidies, (3) costs of production and profits, (4) aggregate and sectoral economies, (5) resource allocations, (6) industrial organization, and (7) financial burdens and the disciplining of financial intermediaries.

INTEREST SUBSIDIES

In addition to the wealth bounties and inflation windfalls examined in chapter 4, a major economic consequence of government credit policy was the provision of substantial interest subsidy to privileged business borrowers. In chapter 5 it was shown

that interest rates charged to privileged business borrowers in most cases were far below the prevailing market rates. Considering the repressive government interest rate policy for most of the post–World War II period, even until about 1997, examined in chapter 5, the average interest subsidy being about 50 percent of market interest seems reasonable. By creating such a deep and prolonged gap between the real and the effective cost of capital, the financial policy produced a significant amount of interest subsidies for privileged borrowers that had access to loans. The interest subsidy was equal to the difference between the official and market rates of interest, which meant that business borrowers received an average interest subsidy amounting to about half of what would probably have been the interest costs on their loans in the open and competitive capital market.

The low interest rate policy thus enabled the privileged borrowers in selected industries to overcome the obstacle of high interest rates typically prevalent in developing economies, including South Korea. With this subsidy, the lending terms were in line with international norms, or even better in most years, and the competitiveness of local industries was not impaired but improved. In all likelihood, the subsidy provided an opportunity to exploit and acquire as many resources as were needed, and sometimes more, through bank loans. Businesses resorted to any means possible to obtain more of these subsidized loans. In fact, it became an important measure of success in business itself. The larger the loan, the greater the potential for success, especially in terms of the expanding business empire many businesses, particularly the *jaebeol*, clamored for. Interest subsidies comprising loans on installment payments of former Japanese property and public enterprises, facility expansion, and foreign exchange loans are calculated at about 8.9 percent of the entire bounty, windfall, and subsidy, which were estimated at 10, 12.6, 12.3, and 4.7 percent on average, respectively (see Table 6.1).

The estimated interest subsidy to business borrowers also varied depending on the sectors, loan duration, and the time of the loan, as examined in chapter 5. They are grouped and examined under four different categories, namely, loan programs for the divestitures of former Japanese property and public enterprises, loans to accommodate the reconstruction and construction of production facilities, and loans to purchase capital, intermediate goods and raw materials.

Loans for Divestiture of Government Properties

The first major government program to apply a repressive interest policy was in connection with the installment payment program for the divestiture of former Japanese property, for which there were no stipulations of paying interest. However, it seems prudent to assume that buyers of the divested properties on an installment payment basis have paid the government-sanctioned rates of interest typically set by banks for commercial loans to business borrowers, ranging from 18.3 to 26.4 percent per annum after the Korean War for the unpaid portion of the price of the property. Assuming conservatively that the interest subsidy was about 50 percent of the market rates of interest on average for the installment payment for former Japanese property during 1953–71, as shown in chapter 4, the interest subsidy may be calculated at about $250 million, or 10 percent of the value of the former Japanese property, at

TABLE 6.1 Estimated Subsidies/Bounties/Windfalls, 1953–94 (in millions of U.S. dollars and percent)

Subsidy Programs	Realistic Value in Millions of U.S. Dollars	*In Percent of Estimated Value*							
			Bounty, Windfall, and Subsidy						
				Income				*Shares in*	
		Beneficiary's Costs	Divestiture	Inflation	Interest	Total	Grand Total	Millions of U.S. Dollars	Percent
Japanese property	2,500	13.0	50.0	27.1	10.0	37.1	87.1	2,176	61.4
Public enterprises	1,000	28.1	10.0	49.3	12.6	61.9	71.9	719	20.3
Facilities expansion	800	67.8	—	20.0	12.3	32.3	32.3	258	7.3
Foreign exchange:	2,200	82.3	13.0	—	4.7	4.7	17.7	389	11.1
1953–61	500	53.0	33.0	—	14.0	14.0	47.0	235	6.6
1962–71	700	87.0	10.0	—	3.0	3.0	13.0	91	2.6
1972–81	1,000	93.8	5.0	—	1.3	1.3	6.3	63	1.8
Total in millions of U.S. dollars:	—	—	—	—	—	—	—	—	—
In 1961 prices	6,500	2,958	1,635	1,329	578	1,907	3,542	3,542	—
In 2000 prices	37,375	17,009	9,401	7,644	3,321	10,965	20,366	20,366	—
Total in percent	100.0	45.5	25.2	20.5	8.9	29.3	54.5	54.5	100.0
Shares of benefits	—	—	46.2	37.5	16.3	53.8	100.0	—	—

a minimum (Table 6.1).[1] In the case of divestiture of public enterprises, for which interest subsidy was assumed to have been four-tenths, not a half, of market interest rate for the installment payment, the interest subsidy may be calculated at $126 million, or 12.6 percent of the value of public enterprises, at a minimum.

Production Facility Expansion Loans

In the case of loans for the construction and expansion of production facilities, the maturity dates typically ranged between 3 and 10 years. Business borrowers appear to have paid about 12 percent interest on average, thus realizing a subsidy of nearly 12 percent of the value of the loan. In the case of loans to establish strategic industrial facilities, the interest paid to banks and the government was no more than 8–9 percent on average, in contrast to more than 15 percent in the government-sanctioned interest rate for commercial loans and at least 35 percent of the market rate, thereby realizing a subsidy of about a third of the market interest rate. This situation prevailed up to the early 1980s to a large extent. Production facility loan subsidy is estimated at about $100 million, or about 12.3 percent of the value of the assets.

Foreign Exchange Loans

In the case of foreign exchange loans to purchase foreign capital, intermediate goods, and raw materials, the maturity dates were relatively short, usually ranging from a few months to no more than three years, and the interest subsidy was limited to less than five years. Interest paid to banks and the government was no more than 6–8 percent on average, in contrast to 18 percent to 26.4 percent of the government-sanctioned interest rate for commercial loans and at least 35 percent of the market rate, thereby providing a subsidy of about a third of market interest rate during the years between 1952 and 1961, 10 percent between 1962 and 1971, and 5 percent between 1972 and 1981. Therefore, the foreign exchange loan subsidy was estimated at 14, 3, and 1.3 percent for the respective periods. This situation prevailed up to the early 1980s to a large extent. Total interest subsidy to business for purchasing foreign input goods, such as intermediate, capital goods, and raw materials, therefore, was relatively small, approximately $100 million or 4.7 percent of the value of loans.

Variations of Interest Subsidy within Programs

There were variations in interest subsidy within each loan program in a number of ways. First, since interest subsidy to business borrowers depended on the difference between the official and market rates of interest, the year the loan commenced made the difference in the amount of interest subsidy. Because the extent of the gap between the official and market rates of interest was larger in earlier years, borrowers in earlier years in general received larger subsidies. For instance, if a business borrowed a sum of money in 1953, it received larger subsidy than that in 1973, because the gap between the official and market rates of interest was larger in 1953 than in 1973. Similarly, the interest subsidy on loans that had a long maturity period would have received a larger subsidy than those with a short maturity period, since

the number of years for which borrowers received an interest subsidy were simply more numerous in the case of the former.

Second, since the interest charged to borrowers differed based on the economic sectors, the size of loans, the purpose of loans, the type of banks that granted the loans, and the location of the bank, as examined in chapter 5, interest subsidies to different borrowers obviously varied widely. Regrettably, there is no way to calculate quantitatively the interest subsidy based on the economic sectors and the size of businesses in them, but it seems reasonably clear that those that benefited the most were those large enterprises/businesses in the social overhead capital (SOC), import-substitution, and export-goods industries.

Beneficiaries

The beneficiaries of interest subsidies were obviously those who received loans under different programs. As examined in the preceding chapter, subsidized loans were provided under three main loan programs: government property divestiture loans, industrial facility expansion loans, and foreign exchange loans to purchase foreign raw materials and intermediate and capital goods. The main beneficiaries of industrial facility expansion loans were those who were interested in constructing or expanding plants in targeted sectors, namely, SOC and certain types of manufacturing. The main beneficiaries within the SOC sector, which captured the major portion of public investment, were the public enterprises, which operated the electrical power, transportation, and communications networks. They received the largest amounts of loans among all economic sectors relative to their assets, and at lower interest rates than all others.

The beneficiaries of industrial facility expansion loans in manufacturing in the private sector, which received the largest portion of business financing by the government and banks, were those who engaged in the import-substitution industries in the early years and in the export-goods industries in later years. Most of the beneficiaries were those that received long-term, interest-subsidized loans. They included those in targeted industries and those that were internationally competitive. Many of them were large firms with political ties to those in power. To a limited extent, the construction industries also received large interest subsidies, especially when they were active abroad in the late 1970s and 1980s. It is interesting to note that the two economic sectors that received the most government subsidies after the Korean War were included in the list of industries that realized high profits, along with the real estate, retailing, and wholesaling industries.[2] Likewise, the beneficiaries of loans to purchase foreign raw materials and intermediate and capital goods at subsidized interest rates were also those engaged in import substitution and exporting and those who demonstrated that they could compete in international markets.

ECONOMIC IMPACTS OF INDUSTRIAL AND FINANCIAL POLICIES

Having examined, in chapters 4 and 5 and the preceding section in this chapter, government industrial and financial policies and their economic impacts on capital

formation in the private sector, wealth bounty, inflation windfall, and interest subsidy, it is in order to briefly recapture their values and evaluate their relative importance with respect to the policy consequences on costs of production, business profits, aggregate and sectoral investments, including their nature and outputs, and industrial organization.

Bounties, Windfalls, and Subsidies

As examined in chapters 4 and 5 and the preceding section in this chapter, the government industrial and financial policies provided financial benefits to business enterprises via three venues, namely, wealth bounty, inflation windfall, and interest subsidy. In the following sections, their impacts are separately aggregated in each category, followed by their assessment in each policy program, namely, government property divestitures, facility expansion loans, and foreign exchange sales and loans.

Among them, the most significant benefit bestowed upon businesses was the wealth bounties, which stemmed from the government selling its properties and foreign exchange at prices less than market value. As shown in Table 6.1, their total bounties were more than a quarter (25.2 percent) of the value of government properties divested and foreign exchange sold to businesses. Their financial benefit to business enterprises is estimated at nearly half (46.2 percent) of all three financial incentives provided to businesses examined in this study, and their total value may be estimated at more than $1.6 billion in 1961 prices and $9.4 billion in 2000 prices.

The second most significant benefit bestowed upon businesses through the government financial policies was the inflation windfall, although it was not necessarily intended to grant such assistance to businesses in this form. The inflation windfall, which was equal to a little more than a fifth (20.5 percent) of the value of assets involved in the transactions, accounted for nearly two-fifths (37.5 percent) of all three financial incentives provided to businesses. The total value of inflation windfall is estimated at more than $1.3 billion in 1961 prices and more than $7.6 billion in 2000 prices. In all probability, runaway inflation also stimulated a flight out of investment in money and into investing in bricks and steel, as well as in real estate. In addition, inflation indirectly raised profits to the business sector relative to other incomes, as is typically found in countries that suffer from inflation. Rising prices after World War II assured that manufactured goods could be sold at higher prices in domestic markets and yielded handsome profits for businesses.

The key questions are whether inflation helped to increase the aggregate level of productive investment in the long run, and, if it did, whether the costs of inflation were too great to justify the benefits. The runaway inflation that made quick fortunes for business borrowers, for instance, left most other members of the population, including government officials, badly underpaid and short-changed, as examined in chapter 7. The policy question concerns a marginal difference but possibly an important one. It may have been possible to have inflation, expand investment, maintain a high rate of growth, and efficiently allocate resources, but it seems such an outcome probably is unlikely. There is general agreement that inflationary spending cannot achieve more than a minor increase in aggregate investment, because the additional income causes an increase in the demand for consumer goods as well.

The least amount of benefit, about a sixth (16.3 percent) of all three financial incentives, provided to businesses was the interest subsidy, which contributed less than a tenth (8.9 percent) of the values of assets and loans targeted in the government industrial and financial policy programs. The total value of interest subsidy is estimated at about $578 million in 1961 prices (and $3.3 billion in 2000 prices).

These bounties, windfalls, and subsidies resulting from the government industrial and financial policy measures affected the business investors differently under different government programs. The largest sum of financial incentives, which constituted nearly two-thirds (61.4 percent) of the total, provided under the government's industrial and financial policies was the divestiture of former Japanese property. The program accompanied all three benefits, namely, wealth bounty, inflation windfall, and interest subsidy, constituting 50, 27.1, and 10 percent of property value on average, respectively, totaling nearly nine-tenths (87.1 percent) of the value of assets and/or loans (Table 6.1). In other words, the business buyers ended up paying less than 13 percent of the value of the property on average.

In the case of the divestiture of public enterprises, the business buyers also derived three benefits. They were able to purchase the property at no more than about nine-tenths of the value of the property and realize the wealth bounty of at least about a tenth of the market value of divested public enterprises on average. In addition, the business buyers also realized the inflation windfall of nearly a half (49.3 percent) of the value of the property, and interest subsidy of 12.6 percent, making the total benefits nearly three-quarters (71.9 percent) of the market value of divested public enterprises. It is thus estimated that the buyers paid less than a third (28.1 percent) of the value of the assets on average.

The divestitures of these assets, excepting foreign exchange sale, to the businesses enabled the private sector to acquire a large portion of the nation's production facilities and accumulate capital in the private sector at nominal costs in very short periods of time, largely as a result of the bounties, windfalls, and subsidies. The enterprises that transferred into private hands in this way might have represented nearly two-thirds of all private business capital (not including agriculture) in the country in the early 1970s, which was a huge sum in relation to the total amount of capital in private hands and the country at that time. They laid the economic foundation and became the backbone of the private sector, as well as the principal actor in the rapid expansion of businesses and economic growth. Among all the business beneficiaries of the government industrial and financial policies, the *jaebeol* benefited the most, through their large purchases of government property, as examined in chapter 4.

The third most rewarding policy to privileged businesses was the sale and loan programs of foreign exchange, which constituted more than a tenth (11.1 percent) of all bounties, windfalls, and subsidies. They made up 13 and 4.7 percent of foreign exchange sale bounty and interest subsidy, respectively. In other words, the business firms bought and received loans at a little more than four-fifths (82.3 percent) and received bounties and subsidies of 17.7 percent of the value of foreign exchanges and loans.

The financial policy that yielded the least amount of reward to privileged businesses was the facility expansion loan program, which constituted less than a tenth (7.3 percent) of all bounties, windfalls, and subsidies. They comprised 20 and 12.3

percent for inflation windfall and interest subsidy, respectively. In other words, the business firms received loans for a little more than two-thirds (67.8 percent) of the value and received windfall and subsidy of 32.3 percent of the value of the facility expansion loan.

By no means are the estimated values shown here and in Table 6.1 meant to be definitive values for each category; they are just meant to indicate the impacts of the government industrial and financial policies on capital formation and economic development in a crude summary fashion, based on detailed scrutiny in chapters 4 and 5 as well as earlier in this chapter. Should this estimate be considered reasonable, then the wealth bounty, inflation windfall, and interest and foreign exchange subsidies deserve a more careful evaluation to obtain more definitive estimations. Whenever more detailed data become available for further study, they need to be refined.

Costs of Production and Profits

In addition to transferring government production facilities to the private business sector, the government industrial and financial policies resulted in significantly reducing the costs of production, as found in chapters 4 and 5 and in the earlier discussion in this chapter. The wealth bounty, inflation windfall, and interest subsidy contributed to lowering the input costs of production to business beneficiaries on four fronts. First of all, by selling production facilities formerly owned and operated by Japanese and the government far below their real value, combined with the double-digit inflation in the country, reduced the real cost of using divested government property for production of goods and services, one of the major input costs. The charges against them, namely, their depreciation charges, were low.[3] Second, the government's selling of foreign exchange at below the market rate reduced the prices of raw materials and intermediate and capital goods, thereby reducing the costs of the production of goods and services.

Third, since the interest subsidies made interest charges on loans under the financial repression policy less than the real (market) costs of capital, interest costs charged against the goods and services produced were lower than what would have been the case in the competitive market. In open and competitive financial markets, bank loans to businesses would have been set at the market rates of interest, which are determined by the demand and supply of loanable fund and thus would not necessarily provide any subsidy, thereby charging full costs of capital for production. By reducing the costs of production, the privileged business firms were able to acquire capital goods at prices below their true market values, purchase raw materials and intermediate and/or capital goods inexpensively, produce goods and services at low cost, and then sell the output competitively in domestic and international markets. One of the principal reasons for high profits, thus, was the generous bonuses, which in turn promoted more investment in these industries. Had these government supports not been received by the manufacturing and construction industries, returns on investment in them would not have been as high as they were.

Sectoral Investment and Output

Government financial policies during the last half of the twentieth century offered privileged businesses not only the means to reduce the costs of production, meet foreign competition, and increase borrowers' ability to realize profits, but also an attractive financial inducement. The increased investment would not have occurred to the extent it did if the financial incentives had not been available to them. Initially, reflecting the focus of the policy on the public sector, South Korea invested heavily in SOC, including the electric power grid, subway systems, and communications networks, which enabled the reconstruction of the old and construction of the new facilities to meet the nation's expanded needs. This was followed by pioneering investment in a few new modern manufacturing enterprises, such as cement and chemical plants, including fertilizer and steel mills, initially by the government and later by the private sector. Once the urgent need for the reconstruction of public utilities and the establishment of new industries had been met, the focus of the government's financial policy shifted from public to private investment in manufacturing. By rapidly expanding Korean manufacturing in the private sector with generous loans, the government transformed the nation from a mostly agricultural and semi-industrial economy to a dynamic industrial state, which was the main engine of economic growth of the country.

Within manufacturing, the industries that increased investment and expanded the most in the early years were the import substitution industries, such as flour, sugar, and textiles. This was followed by the expansion of export-goods industries, which received even greater financial support from the government in the form of subsidized loans combined with inflation windfall. These industries included woolen goods, flat glass, newsprint, rubber tires, fertilizer, cement, and petrochemicals, which also replaced foreign imports domestically, in the early years. With the expansion of exports, manufacturers earned foreign exchanges, which were then used to import raw materials and intermediate and capital goods.

The continual financial support of the government during most of the post–Korean War period through preferential access to subsidized loans also enabled certain strategic industries, mostly manufacturing designated by the government, to expand their investment in the private sector in the later stage. The development of the heavy and chemical industries (HCIs) may be ascribed to government support, as could be the export performance of iron, steel, and shipbuilding. Rapid growth was also experienced by metal, machinery, automobile, shipbuilding, construction, and high-tech industries. They were able to expand their facilities under the government's financial policy and grew by an impressive 51.8 percent in 1981. Their exports accounted for 45.3 percent of total output at the end of the fourth five-year economic development plan (1977–81). As a result, the output of the HCIs increased from 8 percent of GDP in 1970 to 18 percent in 1990, while their contribution to exports rose from 13 to 51 percent over the same period. Investments doubled in the manufacture of integrated machinery, diesel engines, and heavy construction equipment, as well as electric power generation. The increases clearly showed that they benefited from the generous financial assistance program.

The Nature of Investment

The government's discriminatory industrial and financial policies not only led to uneven growth in different economic sectors but also affected the nature of investment, including industrial organization. The government's financial policy contributed to expanding pioneering industries and "entrepreneurial" firms.[4] Ordinarily, the risk of doing business is borne solely by entrepreneurs, who borrow money to engage in business, but not by those who lend money. This type of loan privilege obviously reduced the risks of doing business, although it substantially increased the risks to the lending institutions, namely, the government or banks. In other words, the borrower's risks of doing business were partly shared by the lending banks or the government, or both. Perhaps more important, business investors were more or less protected from failure by the implicit assurance of bail-out financing from the government. Consequently, they pioneered in new, often risky, but potentially promising fields. The government's and banks' "entrepreneurial loans" enabled South Korean businesses to expand in new and innovative ways with low risk. Industries that developed especially rapidly under the entrepreneurial loan projects included those in the import-substitution and export-goods sectors, such as the metal, machinery, automobile, shipbuilding, and high-tech industries.

The discriminatory financial policy also had a positive impact on capital- and technology-intensive investment, as well as promoting large-scale investment, which resulted in their expansion, as shown in the following analysis. There were significant increases in imported technology and ample diffusion of it. Enos and Park rated Korea as having been highly successful in acquiring, absorbing, and diffusing imported technology.[5] Production methods were mastered very rapidly, atypically so, with the fastest absorption where the demand for output exceeded capacity. New strategies for promoting exports, and the adoption and improvement of foreign technology, also made a positive contribution to the overall expansion of the economy.

Some scholars, as well as most laymen, believe that among all businesses, the *jaebeol* were the single most important group and the epitome of successful businesses in South Korea in terms of introducing advanced technology[6] and expanding capital-intensive industries in South Korea. They argued that the *jaebeol* were superior innovators for two reasons. First, their diversified business structure was an advantage for productivity and technological upgrading, since it provided an effective hedge against risks. They also had experience in mastering new technologies. In addition, their partnership with the government was an important asset. If a project was successful, the profits would belong to the *jaebeol*, and if the project failed, the government would bear the burden. *Jaebeol*, therefore, could afford to be aggressive in acquiring new technology, however risky or expensive it was. Second, the *jaebeol*s' "militaristic managerial structure" with the "absolute power at the top" helped them catch up with the advanced technology of advanced countries, because it allowed for speed and flexibility in management decisions, similar to a benevolent dictatorship.

This reasoning aside, the hindsight offered by the recent economic crisis raises serious doubts about the *jaebeol*s' role as innovators. Notwithstanding their contri-

bution to the expansions of output, employment, exports, asset values, the acquisition of intellectual property rights (such as patents), and investments in technologically sophisticated capital goods, the critical question is whether their contribution to technological advancement was beneficial to them. The latest evidence, based on previously unexplored firm-level data, seems to reveal that the *jaebeol*'s productivity performance, in terms of total factor productivity (TFP) was, on average, lower than that of the non-*jaebeol* during the decade leading up to the 1997–98 crisis. Since TFP captures only the "free" growth (or surplus) in outputs that is not "paid for" by the costs of inputs, the relatively low TFP performance of the *jaebeol* suggests that the patents, technology licenses, and sophisticated capital equipment they owned perhaps had been acquired at too high a cost (in comparison to benefits) and hence yielded very little return on investment.

This conclusion has been confirmed by the recently revealed poor performance of some of the large *jaebeol*. Among the top 30 *jaebeol* before the financial crisis of 1997, more than 14 went bankrupt or entered restructuring programs by the end of 1999 and a number of others lost major subsidiaries. Korea's leading *jaebeol*, which represented core sectors of the Korean economy, such as Hynix (semiconductors), Hanbo (steel), Hyundai Petrochemical, and Daewoo (automobiles), were either bankrupt or on the verge of bankruptcy despite their ownership of factories filled with technologically sophisticated machines, their vast numbers of patent and technology license holdings, and their up-to-date manufacturing know-how.

One cannot help but wonder whether the *jaebeol*'s way of doing business has been more of a liability than an asset in the development of the South Korean technology and economy. Their excessive diversification perhaps undermined efficiency and competitiveness by diverting resources away from their core activities that they had competitive advantage. In some respects, the diversification itself may be seen as an outcome of the *jaebeol*'s technological incompetence in some fields. The lack of core technological capacity makes specialization a less viable choice and led the *jaebeol* to seek profit opportunities in unrelated fields. Furthermore, the *jaebeol*-government risk partnership may have been a key source of the rampant crony capitalism and corruption rather than a venue for speedy technological upgrading. Their failures also may have been classic examples of the problem of moral hazard.[7]

Industrial Organization

One obvious economic consequence of the government's selective credit policy was the nation's industrial organization relative to the scale of business. The advantages of the financial policy accruing to a small number of large companies well into the 1990s resulted in the rapid expansion and increased domination by large businesses, especially the *jaebeol*, of all aspects of the country's economy. The *jaebeol* had almost monopsonistic access to the best bank loans. Not only were most of the privileged loans extended to the large firms but the terms of the loans were, until recently, more generous, with higher interest subsidies and longer maturities, than those of the loans extended to small and/or medium-sized businesses.

This situation prevailed because the large businesses were able to borrow money from domestic and foreign sources with generous government support without much fear of becoming insolvent. Typically, investors are deterred from leveraging too much because large debt-to-equity ratios magnify the risk of bankruptcy. However, if the debt never had to be repaid because of a government guarantee, as was the case in South Korea, the risk no longer existed. The *jaebeol* therefore borrowed money from external sources with the help of circular interlocking ownership among subsidiaries or cross-shareholdings among many affiliated firms, both listed and unlisted, within the *jaebeol* group. Moreover, subsidized rates increased the returns on equity if businesses succeeded. The large firms became *jaebeol* primarily because of their ability to acquire subsidized loans. As they prospered in one field, both their financial strength and their political influence enabled them to prosper in others as well.

This was the reason for the *jaebeol*'s ability to build business empires using large amounts of leverage from domestic and external financial sources. The more the loans—as well as other privileges firms acquired from banks, the government, or both—the larger they became. In this sense, the *jaebeol* were literally built by the government. The government's ability to distribute financial resources through credit rationing or allocation was perhaps the single most important instrument that nurtured the *jaebeol* and ensured the economic success of the country.[8] In this way, the large industrial conglomerates were able to produce goods at a lower cost, sell goods competitively, and enlarge and concentrate corporate ownership through heavy reliance on debt financing rather than equity capital.

The selective and discriminatory credit policy that favored the large firms in turn resulted in the concentration of economic power in their hands,[9] enabling them to dominate the market. By the late 1970s, the *jaebeol* had attained a dominant economic position, not only in manufacturing but also in other businesses as well, including trade, construction, insurance, and real estate. Easy examples may be found in Samsung, Ssangyong, and Daewoo *jaebeol*. The origins of the Samsung *jaebeol* may clearly be traced to the granting of credit by a state-controlled bank and its ability to borrow from banks to build the country's biggest conglomerate.[10] It has also been said that the origins and success of the Ssangyong and Daewoo *jaebeol* can be traced to the credit they acquired from state-controlled banks.

In contrast to the fortuitous position the conglomerates held in acquiring credit from banks or the government, small and medium-sized enterprises in Korea have historically been denied ready access to loans. The credit situation was not favorable for them until about the end of the twentieth century. Before that time, more than 50 percent of all new funds raised in Korea went to the top five *jaebeol*, largely in the form of corporate bonds.[11] When small and medium-size borrowers were edged out of the bank credit market, their only recourse was to borrow from the curb market at much higher interest rates, thereby increasing the cost of funds to them. Some small borrowers without established credit were not able to borrow at all. Many small and medium-sized firms collapsed partly because of the lack of financial credit. It could therefore be argued that the *jaebeol* grew at the expense of small and medium-sized firms. If the small and medium-sized businesses could have obtained more subsidized credit, it probably would have served more productive purposes.[12]

Aggregate Investment and Output

Government financial policies during the last half of the twentieth century offered privileged businesses the ability to reduce the costs of production, meet foreign competition, and increase borrowers' ability to realize profits and sectoral growth. In addition, according to some government officials, an attractive financial inducement also brought about increased aggregate investment and economic growth. This view indicates that one of the most powerful impacts of the government's financial policy was the expansion of aggregate investment and its effect on the nation's output. As examined in the preceding chapter, the government, working with organized financial institutions, directed more than a third or, some argue, nearly half of the nation's saving to investment. Since the government and domestic financial intermediaries financed the nation's investment during the post–Korean War period, it resulted in the expansion of the nation's output.

It is doubtful, however, that increased private investment was entirely the result of the government's financial policy. By no means were all new entries into the import-substitution and export industries, for instance, attributable to the funding of investment by the government and organized financial intermediaries. The expansion of investment and exports of selectively promoted infant industries did not account for much of South Korea's manufactured exports. For most exports, targets worked together with market incentives to promote rapid expansion. Therefore, the positive contributions of the government's financial policy should not be overstated.

Furthermore, it is questionable whether the benefits of the financial repression policy were worth its economic costs. The chronic excess demand for credit that stemmed from the government's efforts to finance investment ultimately aggravated inflation, especially in the 1960s and 1970s. On the financial side, the expanded supply of policy loans for HCI promotion, combined with the sudden improvement in the balance of payments owing to construction industry remittances from the Middle East, for instance, caused domestic liquidity to grow rapidly. The narrowly defined money supply (M1) increased 30.7 percent in 1976 and 40.7 percent in 1977, while the money supply (M2)[13] expanded at an average annual rate of 36 percent from 1976 to 1978. Rapid economic growth through export-led industrialization required high levels of investment, which was supported by a rapidly growing money supply and credit creation. The specialized financial institutions and commercial banks, which were owned and controlled by the state for most of the period, were also heavily involved in policy-based financing.[14] With the expansionary monetary policy, bank credit was a principal source of funding for policy-based loans. As a result,[15] throughout the era of rapid growth, South Korea was under persistent pressure from "developmental inflation." As examined earlier, the level of prices in the country expanded at an average annual rate of about 17.3 percent between 1953 and about 1981. The persistent inflationary trend was broken only after 1982, when inflation declined to single digits for the first time in 20 years.

The expansionary financial policy also brought about financial crises, such as the 1997–98 financial disaster, which led to a sharp contraction of economic activity in 1998—with 6.7 percent decline in GDP—the worst downturn in modern South Korean history. The government's financial policy contributed to a slowing of

economic growth.[16] Another study suggested that financial liberalization, instead of following a selective credit policy, might have raised the growth rate by as much as 3 percentage points. Hence, active and selective interventionist industrial policies were neither necessary nor sufficient for successful industrialization. In addition, this dangerous combination sowed the seeds of the political instability of the early 1990s and led to bankruptcy, dissolution, and ongoing weakness among the leading *jaebeol* later in the decade, both before and after the Asian economic crisis.[17]

RESOURCE ALLOCATION: INEFFICIENCIES

The analysis in the preceding chapter examined the government credit allocation policies, including extensive interest rate controls, to maintain a low cost of capital, which played a major role in allocating funds through intermediation markets, and mirrored the government's micromanagement of the real sector. Notwithstanding the accomplishments of the industrial and financial policies, the incentive framework for the financial sector did not always lead to an efficient allocation of resources or promote the institutional development of financial institutions that adequately appraised risk, especially in that Korea's financial system remained protected from foreign competition. There were clear indications of inefficiency in resource allocation, which resulted in nonperforming loans and economic rent-seeking activities and affected varying sectors of the economy differently. They are examined below.

Sectoral Misallocation of Resources

In spite of the speedy development of the targeted sectors, preferred industrial firms, and South Korea's economic growth, the government's discriminatory industrial and financial policies have brought about macroeconomic distortions, imbalance, and disruptions in the nation's economy and misallocation of resources in a number of areas. First of all, the discriminatory financial, as well as industrial, policies introduced serious structural imbalances between privileged and unsupported industries, such as HCIs vis-à-vis light industries, and large versus small businesses. They led not only to reckless business investments but also to overexpansion in privileged industries. Generous loans to the targeted industrial sectors yielded poor returns. The imbalance may easily be seen between manufacturing and service industries, import-substituting/export industries and producers of nontraded products.

The discriminatory allocation of credit contributed to "excessive" expansion in so-called strategic sectors while leaving the unprivileged sectors without much available credit, resulting in their underdevelopment. It has been estimated that nearly 80 percent of all fixed investment in the manufacturing sector was in the HCIs in the latter part of the 1970s,[18] for instance, resulting in capacity utilization rates for certain of these industries falling as much as 10 to 20 percent below average. The overly ambitious promotion of the HCIs in the latter part of the 1970s resulted in their overdevelopment, that is, their excess supply capacity, while incurring shortages in light industries. Consequently, the rate of return to capital in

those industries was substantially lower than in light manufacturing at the beginning of the forced-investment period of the early 1970s, as Noland and Pack have shown.[19] They contend that plowing more funds into a sector that already suffered from low returns was a costly misallocation of resources, specifically, capital. A study found that the misallocation of capital resulting from high debt financing (high leveraging) of HCIs also brought about political discontent.[20] The benign neglect of light manufacturing industries, which were important exporters as well as producers of daily necessities, created serious shortages. Similarly, the government's selective credit and interventionist and discriminatory policy contributed to inefficient allocation of scarce resources between the import-substituting and export-goods industries. Typically, the import-substituting sectors received higher than average export incentives, as well as being subjected to import barriers, in the early years, which caused distortions in resource allocation.

Second, there also was an inefficient allocation of financial resources between large firms on the one hand and small and medium-sized businesses on the other, and between preferred and non-privileged firms. In contrast to the generous loans extended to the *jaebeol*, the medium and small businesses were often unable to borrow from the banks.[21] The Korean Development Bank's research on selected corporations and the Bank of Korea's related official statistical data clearly show that the ratio of preferential loans allocated to the medium- and small-scale firms was much smaller than that of the large enterprises. The vast majority of manufacturers and retailers were small businesses that were concentrated in traditional light industries in cities, towns, and villages, each with poor access to bank loans. They were left with insufficient funds to finance investment, especially during the mid-1970s, when the focus of industrialization was on HCIs and the government's low interest rate policy.[22] About 13 percent of medium-sized and small businesses reduced their operations, while about 44 percent experienced a shortage of funds. Many did not even earn enough to cover their costs, thus putting equity at risk.[23]

Third, the government's financial and industrial policies created a serious problem for the nation's banking sector and its financial system as a whole. Korean officials declared that debt had "reached an unhealthy level."[24] Many *jaebeol* collapsed at the time. The financing of large businesses reached such an extent that the financial health of the entire economy was threatened; this arrangement turned a *jaebeol*'s financial troubles into a group disaster, which was revealed in the financial crisis that rocked South Korea in 1997.

Finally, the government's interventionist and discriminatory financial policy shifted spending away from socially beneficial investments in health, housing, roads, and communications toward unnecessary "white elephant" projects or low-quality infrastructure. Could Korea have grown as fast or faster if it had adopted a different development strategy? Notwithstanding the success in capital formation in certain sectors, it is questionable whether some of the so-called benefits of the government's policies were worth their financial and economic costs. Noland and Pack maintain that infant-industry arguments, potential gains from higher rates of return in preferred industries, and TFP growth do not support the proposition that industrial policy was essential to Korea's economic growth.

Economic Rent-Seeking Activities

Another symptom of the inefficiency of resource allocation was widespread rent-seeking activities, which became the most effective method of realizing economic gains to privileged businesses. The government's interventionist financial policy, combined with its control of the organized financial market, created the potential for lucrative economic rents. Precisely because of the profit opportunity established by the repressive interest rates and discriminatory credit allocation policies, there were numerous rent-seeking, rather than productive, activities, which led to scandals resulting in the misallocation of financial resources. It is impossible to make an aggregate estimate of the size or composition of what might be called the rent-seeking sector,[25] but some illustrations may help to show the extent of these activities.

Rent seeking occurred in the abuses and misuses of preferential loan funds. With easy access to loans at subsidized interest rates, targeted industries and firms often used the funds for unproductive or nonpriority purposes, or both. Entrepreneurs who borrowed money from banks at low rates realized economic rents by depositing the money in a bank and collecting interest at a higher rate, especially when interest rates on deposits were higher than those on loans in the late 1960s and early 1970s. Often an interest-subsidized loan was reloaned in unorganized financial markets (UOFMs) at a higher interest rate, with the lender thus realizing a handsome bounty.[26]

Government-subsidized loans were also used for speculation in real estate. Many businesses, including the *jaebeol*, were frequently accused of procuring land with subsidized loans and realizing much rent from "nonbusiness" real estate transaction.[27] Whether or not the *jaebeol* held real estate for speculation, there is no doubt that they held much larger amounts of real estate than needed for their businesses.[28] Easy access to the subsidized loans often ended up in personal use as well.[29] In addition to explicit costs associated with subsidies and the alleviation of the nonperforming loan overhang, lost tax revenues due to tax exemptions and deductions and foregone dividend payments to bank shareholders were also substantial.

Cronyism and Corruption

Another consequence of interventionist industrial and financial policies pursued by the powerful government that controlled the organized financial markets was a keen competition for the special privileges of obtaining generous government favors, which became a breeding ground for cronyism and corruption, as examined earlier. Human ingenuity appeared to have ensured that the effectiveness of government controls eroded over time through avoidance, evasion, corruption, and rent seeking. The fact that an unusually large number of irregularities committed by government and banking officials and incidents of mismanagement by businessmen have been brought to the public's attention over the years, even recently, is attributable to competition for privileges, excessive concentration of power in the national government, and cronyism.[30] Successful businesses typically had good personal connections with men in power to obtain government favors, and there was a preponderance of relationship-based connections in business dealings in secrecy, otherwise known as cronyism.[31]

Many businesses also resorted to other means to obtain government favors and incurred expenses well beyond ordinary transaction costs. Special government favors or benefits were not free, and there were costs to the business beneficiaries. These included entertainment expenses, forced charitable or "national defense" contributions, political contributions, outright bribes, and kickbacks and other ransoms, which were delicately called "quasi-taxes."[32] The South Korean economic machine was lubricated with bribes and reciprocal favors, which in turn tempted government officials to engage in corrupt practices. Financial resource allocations to favored businesses—specifically, large conglomerates, or *jaebeol*—could have been the result of interest-group pressure or corrupt influence rather than the product of neutral government policy decisions.[33] The danger inherent in conducting business through connections is the ease through which close personal relationships can become corrupted and lead to crony capitalism.

Reeve observed that "no import or export permit could be obtained unless a cash 'present,' graded according to the value of the consignment, were given to the issuing officers and their subordinates."[34] Cole and Lyman also noted that "the system gave the greatest rewards to those who were most competent at obtaining favorable government actions with the least sharing of the resulting profits."[35] A U.S. General Accounting Office report likewise noted that there was "laxity" in the Bank of Korea's allocation of aid dollars to importers and incidences of shipments of defective merchandise, kickbacks, and overpricing.[36] Firms that gained access to finance typically paid "commissions" for their bounties.

Since government favors were dealt in privacy (opacity) in a society where cronyism and under-the-table business dealing were a way of life, most corruption was driven by the basic lack of transparency. It is difficult to state the exact magnitude of these costs because of the nature of the activities involved; the amount of these bribes and sundry costs varied widely, but they typically were a function of the value of favors or bounties involved. A survey by an office of the International Monetary Fund (IMF) in one country (not South Korea) suggested that "informal payments" to various officials accounted, on average, for almost 40 percent of total enterprise expenses during the first year of operation.[37] The available information, though limited, seems to indicate that average bribe and sundry expenses in South Korea were at least 5 percent of the value of the favors acquired.[38] In the case of bank loans, the usual kickback rate in Korea was reported to have been about 20 percent of the loans.[39] On the basis of available information, it seems reasonable to presume that the average bribe and sundry cost in South Korea was conservatively about one-tenth of the value of the loans or the assets involved in the transaction.

Personal relationships also tend to support the status quo rather than encouraging change.[40] Furthermore, it has been observed that cronyism and corruption have affected nations' economic growth adversely. A study has estimated that, if corruption had been reduced to the level of Japan, the annual economic growth rate could have been pushed up by 1.4 to 1.5 percentage points.[41] Furthermore, the government's financial policy, coupled with the concentration of power in its hands, made Korean businesses vulnerable to it. Also, because of the interventionist policy in the past, businessmen continued to worry that the government might interfere with the

management of companies after privatization, as was the case with the commercial banks after they were privatized in 1981–83.

Nonperforming Loans

A clear indication of serious inefficiency in the financial resource allocation was a large number of the so-called nonperforming (*busil*) loans—those that were burdened with significant amounts of uncollectible interest charges, principal, or both.[42] There were about 300 nonperforming business borrowers in 1977, and by the mid-1980s the nonperforming loans held by Korean banks reached alarming proportions. In 1986, the bad-loan total was unofficially estimated at about $6 billion, or nearly 7 percent of GDP. According to a report in a daily newspaper in 1988,[43] the "bad loans" (loans considered uncollectible or questionable) extended by the 17 major commercial banks in South Korea amounted to nearly $4.1 billion (over 2.8 trillion *won*), or 6.35 percent of total loans. If the loans in arrears for more than three months and loans with bad credit that required concrete measures to collect were added, the sum of loans considered to be nonperforming loans equaled $14.8 billion (10.14 trillion *won*), or 22.9 percent of total outstanding loans, in the same year. Among the 17 major commercial banks in South Korea, only the Korea-America Bank had a small percentage (1.7 percent) of "unsafe loans." In 1992, the nation's 23 major commercial banks had about 2 percent "bad loans."[44] Many of them involved venture capital and bailout financing. Similarly, as many as 22 short-term financial companies had a total of 241 billion *won* in nonperforming loans in the same year.

The problem of nonperforming loans not only continued thereafter, it worsened. The amount of uncollectible bills issued by insolvent companies soared to 127 billion *won*, representing 52.8 percent of all bad loans.[45] Loans considered unsound or risky were also revealed in the financial reforms resulting from the 1997 financial crisis. Official estimates of nonperforming loan rates as of September 1997, combined with unofficial estimates developed by other studies over the period from 1973 to 1992, clearly reveal the long-standing inefficiencies of the *jaebeol*.[46] Thomas Cargill estimated that nonperforming loans for Korea in 1998 ranged between 30 to 45 percent of GDP, which was almost twice the level as that of Japan's 20 percent of GDP, which was also considered too high.[47] This was a cause of the major financial crisis in South Korea in the fall of 1997, and South Korea had to be rescued by the IMF in that organization's biggest bailout in its history.

There appear to have been a number of reasons why nonperforming loans were so pervasive in South Korea before 1998, especially among large conglomerates, and why the problem was allowed to persist for so long. Many businesses, especially *jaebeol*, simply borrowed money recklessly to expand their business empires. Compared with common practice in other, developed countries, the borrowings of many Korean businesses were excessive. According to a J. P. Morgan Company estimate, bank loans held by businesses in the United States represented about 20 percent of their assets. In comparison, the ratio of current liabilities to net worth of manufacturing firms in South Korea soared from 56 percent in 1965 to 113.3 percent in 1968.

When the government was confronted with the adverse consequences of the nonperforming loans of major corporations, it faced with two options: leaving business borrowers to "sink or swim" in meeting their loan obligations or initiating a government bailout, the challenge of moral hazard. Notwithstanding the government assistance, in the heady environment, cases of insolvency and bankruptcy became frequent and conspicuous. If they "were not a threat to [the] national interest," some borrowers were allowed to default. Sometimes, these included a few pillars of South Korean industries, such as cement, shipbuilding, shipping, textile, and construction companies.[48] Sometimes, banks took over the "unsound and nonperforming loans" of financially troubled large businesses. As early as 1966–67, the Korea Reconstruction Bank, for instance, took over several enterprises that had "unsound and nonperforming loans."[49]

While allowing some businesses to go, however, if certain corporations were a threat to the national economy, it bailed some of them out to contain the total economic costs of financial crises.[50] In 1982, for instance, the Finance Ministry directed the major creditor banks to notify 82 out of 144 heavily indebted Korean companies (each of which owed more than $60 million in bank loans) to repay them early. At the same time, the government granted the companies an additional 300 billion *won* in soft loans from the state coffers. In 1987, when it was necessary to expand the policy, the Office of Bank Supervision and Examination directed banks to speed up their bailout financing and reschedule loans for heavily indebted businesses in order to prevent them from obtaining new, uncollectible loans and to minimize the ripple effect on the economy.[51]

This step was thought to be necessary if these companies were to remain solvent.[52] In explaining the situation to the Korea Yarn Company, a former minister of finance announced that relief financing was unavoidable to protect the national economy.[53] The president of the Bank of Commerce reinforced the government's determination to prevent businesses from failing, declaring that the government "cannot afford to [fail to] honor overdrafts of conglomerate corporations in view of [the] national interest."[54] Korean businesses, in turn, came to understand that the government would always rescue them. Some element of moral hazard—a greater willingness among creditors and debtors to take risks—was an unavoidable consequence. The argument that government financing in South Korea created moral hazard cannot be lightly dismissed, although its role has often been seriously overstated. Such a step, nonetheless, tended to perpetuate inefficient allocation of resources.

Alarmed by such a high debt-to-equity ratio, one U.S. banker warned as early as 1987 that "this could be the point of critical mass for Korea's private sector. . . . The companies, especially the big ones, will either have to get their financial structure and balance sheets in line with international standards, or it's going to be harder and harder for them to borrow." Foreign bankers noted that Korean companies were among the most highly leveraged in the world and warned that South Korea's domestic banking and corporate debt situation was a house of cards that sooner or later was going to tumble.[55] In the case of South Korea's shipbuilding industry, which was ranked the second largest in the world in 1988 (and has ranked number one since 2000) with about 30.2 percent of the world market (compared with Japan's 34.5

percent and the European Union's 18 percent), the combined debts of the four major shipbuilding firms amounted to more than $5.4 billion (3.71 trillion *won*).[56]

While the early expansion of the *jaebeol* came about largely in response to goals set by the government under its industrial policy, the later expansion was mostly in response to goals set by the conglomerate groups' own chairmen. The chairman of one of the largest *jaebeol* in Korea asserted even as recently as 1993 that "large Korean companies should make themselves even larger in their specialized areas so that they can compete with huge foreign businesses."[57]

The distorted and hyper-leveraged Korean corporate economy was vulnerable, particularly during downswings in the business cycle. Some firms long accustomed to the inflationary milieu of earlier times could not adjust to the stabilization of overall prices and the shifting demand pattern that developed in later years without substantial government subsidies. Large businesses with a heavy debt burden were faced with bankruptcy. Some of these loans, according to many observers, were "sure to become delinquent."[58] Consequently, defaults on loans were higher in South Korea, especially during the HCI drive in the 1970s and 1980s, than in most other countries, and the losses from the overly ambitious program have still not been fully absorbed.

The extensive borrowing of many South Korean businesses, especially the *jaebeol*, resulted in hefty interest costs. The proportion of interest costs to total expenses in many debtor businesses, large and small, was way out of justifiable proportion and imposed a heavy financial burden. The shipbuilding industry, for instance, spent 14.5 percent of its total annual income on interest payments on its debts. The 14.5 percent figure compares with 5.4 percent for manufacturing and 4.9 percent for the Japanese shipbuilding industry. Even under the government's low-interest loan policy, the interest burden on companies was not reduced by much. For *jaebeol*, the interest expense share reached 6.9 percent in 1998, its highest level since 1990, for instance, although it declined drastically after the 1997–98 financial crisis. Manufacturing companies' average ratio of interest expenses to sales revenues declined only a little, from 6.4 percent in 1997 to 5.1 percent at the end of 2000. This level is still far higher than the 2.0 percent ratio of interest expenses to sales in the United States and the 0.9 percent in Japan.

Interest coverage ratio (operating income divided by interest expenses) was clearly too low. The ratio was less than one in nine out of 16 *jaebeol* even in 1999, meaning that their operating income was not even sufficient to cover their interest expenses, not to mention their total debt service obligations. In the same year, 4 of the 64 largest Korean firms did not even earn sufficient gross profits to make the interest payments on their loans. Consolidated financial statements revealed that many Korean *jaebeol* were in trouble. In a report entitled "The Problems with the World Financial System," Standard and Poor's noted that 11 of the 15 *jaebeol* surveyed had interest coverage ratios of less than one in the year 2000. Hyundai's financial performance was the worst, with an interest coverage ratio of only 0.91. It is noteworthy that even the small reduction in the debt-to-equity ratio and the fall in interest rates after the crisis did not bring about a real reduction in interest expenses as a share of total expenditures: the market yield for corporate bonds was 13.9 percent in 1997, and it declined to 7.0 percent in 2001.[59]

The above indications clearly reveal that many of the bad loans were simply the result of too much credit granted to unprofitable ventures.[60] Rather than targeting toward its profitability, which was more important for the viability of a firm relative to its financial expenses, the financing of unprofitable businesses was largely due to the widespread belief among *jaebeol* businesses that expansion was more important than efficiency and profits as their priority and primary goals.[61] Market share, asset size, and revenue growth, thus, were their main focus, while profitability, cash flow, and the mounting debt burden were systematically ignored. Unfortunately, as expansion progressed, disregard for profit maximization often led them to invest in activities that earned low returns on investment. This unprofitable situation due to large indebtedness was found even in the supposedly highly successful shipbuilding industry, which benefited from numerous low-interest loans and government subsidies.

In the early years, low profitability was partly made up apparently for with various government subsidies.[62] By making loans at less than the real cost of capital by keeping the interest rate below the market rate and maintaining a gap between the real and effective costs of capital, in addition to low depreciation, imported raw material, and wage costs, the production cost of goods was lowered. Abundant access to bank loans by privileged borrowers to finance unprofitable business projects gave rise to chronic excess demand for debt capital, imposed high debt-to-equity ratios, and, most important, burdened the indebted businesses with heavy interest payments, one of the key cost factors that contributed to poor corporate profitability, even though interest charges were lower than they would have been without government interest subsidy.

Other studies found fresh reasons for unprofitable investments and thus nonperforming loans to businesses. Some Korean export firms, including the large ones that were targeted for subsidized loans, were not particularly efficient. Timmer and van Ark found that there was a large gap in labor productivity in manufacturing between Korea and the United States. With the same amount of capital per hour worked, Korea generated only about half as much output at the end of 1990s as did the United States in the 1960s.[63] Similarly, South Korean product quality was poor. Because managers in Korea were judged almost exclusively on output, rather than on quality, there were more defects in Korean cars than in Japanese cars, for instance. Korean automobiles were sold at prices 20 percent lower than those of comparable Japanese-made automobiles in the United States. Baily and Zitzewitz found that while Korea was able to transfer technology embodied in capital goods but not in management practice. The members of the IMF team working in Korea also identified among its weaknesses a feeble financing sector with a limited ability to assess risk.[64]

One way to reduce companies' debt-to-equity ratio in recent years in South Korea has been to increase equity rather than repay debt.[65] Yet, out of total securities assets, the proportion held by affiliated companies soared during the corporate restructuring process, with the trend being most conspicuous among the *jaebeol*. Their share, 26 percent of total securities assets in 1996, leaped sharply to 48.4 percent in 2001. This increase in equity investments in affiliated companies was made possible by circular and pyramidal ownership among affiliates after a legal ceiling on such investments was removed in 1998.[66] Standard and Poor's noted in its report

that the reduction of the debt-to-equity ratio of Korea's four top *jaebeol* in 2000 to 174 percent was cosmetic and that their absolute burden had been reduced only marginally, with interest payments virtually unchanged. Similarly, a recent IMF report noted that the corporate sector remains highly leveraged by international standards, leaving the Korean economy vulnerable. With further improvements in corporate governance and the spinning off of subsidiaries, they were expected to reach the government's goal, but the outcome was not certain.

FINANCIAL BURDENS, DISCIPLINE, AND REFORMS

Other major impacts of the government's interventionist financial policy were related to financial intermediaries on two fronts, namely, the imposition of a significant financial burden on and the lack of financial discipline of the financial intermediaries.

Financial Burdens

The economic burdens on the financial institutions were of two kinds: lost interest income and entrepreneurial risk. First, loans at low subsidized rates of interest inevitably caused banks to experience financial losses and other difficulties. Under the financial repression policy, financial intermediaries were forced to charge low (much lower than the market) interest rates on loans, well below the real value of the loans in markets, subsidizing the borrowers by foregoing higher interest revenue. In spite of losses, since commercial banks were guaranteed a profit in making loans to businesses, they had an interest in seeking export business by making loans to them at the interest rate below the market value. The financial losses from charging low interest rates were substantial, especially during the early period. Even under the so-called high interest rate policy of the 1965–72 period, the economic burden on the financial intermediaries was enormous. In 1969, for instance, the public banks received deposits of 15 billion *won* at 22.8 percent interest on average and loaned the same amount at the 18 percent interest,[67] thereby incurring a loss of 4.8 percent. The difference in that year alone was estimated at $2.4 million (720 million *won*).

In the latter half of the 1970s, especially hard hit was the profitability of commercial banks when the government control of banks and a steady homogenization of commercial and specialized banks were retained, while the regulations of nonbank financial institutions (NBFIs) were relaxed over time. As a result, the gap between the profitability of commercial banks and that of NBFIs widened in favor of the latter.[68] Despite substantial restructuring of the banking sector in the late 1990s, the IMF observed that bank profitability had not improved much, mainly because of low net interest margins and big reductions in net noninterest revenues.[69]

Second, since the selective credit policy transferred entrepreneurial risks to the lenders in a significant degree, it placed a financial burden on the nation's organized financial intermediaries. As noted above, South Korean domestic banks bore the losses of many of the nonperforming loans, including foreign bank debt, of

troubled companies. The failure to repay business loans contributed much to the losses of the lending banks and precipitated financial crises. When the government rescheduled the $3.87 billion (3.2 trillion *won*) debt in 1984, for instance, the major credit banks shouldered part of the financial burden. As recently as the end of September 2000, South Korean financial institutions were still strapped with $64 billion (76.3 trillion *won*) in bad loans.[70] The overarching problem of nonperforming loans reached the point at which even the viability of banks in Korea was seriously affected.[71] As a result, in spite of the vast financial resources of the banks, their relative share of the financial market declined over time.

Likewise, NBFIs were burdened with nonperforming loans. The nation's short-term financing companies were saddled with huge amounts of bad loans made to shipping and construction firms that had come under court-appointed management, for instance. Bad loans made at the direction of the government and the collapse of many shipping and construction companies encumbered NBFIs with about 18 percent of 2 trillion *won* (360 billion *won* or roughly $426 million) in bad loans in 1987, which represented more than 30 percent of the combined net worth of the nation's investment and finance companies.[72] The Jungwoo *jaebeol*, which went bankrupt in late 1987 with more than $300 million (203 billion *won*) in total debts, for instance, defaulted on loans of about $161.8 million (110 billion *won*) from the short-term financiers. During fiscal year 2000, up to September 30, mutual savings and finance companies and merchant banks held $14.35 billion (16 trillion *won*) in bad loans, insurance companies held $3.95 billion (4.4 trillion *won*), and securities firms held $3.6 billion (4 trillion *won*), in addition to the $46.55 billion (51.9 trillion *won*) of doubtful loans held by the banking industry.[73]

Financial Discipline

Another impact of the government's credit policy was a decline in the financial discipline of banks. Recent attempts to enhance the efficiency of operations notwithstanding, government control and excessive intervention denied the banks their independence, their initiative, and the financial and other management prerogatives that are normally accorded to them. The government was the single major shareholder in all of the nationwide banks, and it had a virtual monopoly over all the organized financial institutions, including the so-called commercial banks. Until privatization, it was the government that directed the crucial flow of financial resources from savers to investors.[74] It used the banks to implement a series of financial policies to supplement business investment during most of the period following the Korean War (though they were somewhat relaxed in later years). Almost all the important allocations of credit to businesses were made by the government directly and indirectly via the nation's banks, including the commercial banks.

Under these circumstances, it is natural that the overriding concern of the management of banks was to obtain a higher "grade" from the government based on criteria of fulfilling the government demand, but not necessarily to operate efficiently or maximize profits. The rate of increase of deposits was the key criterion in this grading for a long time. Thus, annual and quarterly deposit targets were established for each bank and branch office. The top management of the banks paid

little heed to efficiency or profitability but placed a great emphasis on achieving deposit goals and extending credit as directed by the government. The government thus deprived banks of the ability to perform their functions judiciously and of allocating loans efficiently and profitably.

Furthermore, once introduced, directed credit programs proved difficult to remove. Banks lacked the incentive to improve their efficiency and thus failed to introduce advanced financial techniques, which led to a decline in financial discipline. According to a Korean CEO who managed the Seoul Bank's restructuring and the successful privatization of a national bank in 2000–2, the bank "was in bad shape even before the onset of the Asian [financial] crisis." According to him, before restructuring and privatization, the tradition among Korean banks was simply to provide credit for industrial development at the government's direction. This left the banks with a weak commercial orientation, limited risk-management discipline, and generally lax prudential regulations.[75]

Banks in South Korea continue to operate precariously. Based on financial strength and external support from governments or parent organizations, Moody's Investors Service, a U.S. credit-rating agency, ranked Korean banks 70th overall out of 79 countries around the world and assigned them a weak (D–) grade on a scale ranging from exceptional (A) to very weak (E).[76] According to the Financial Supervisory Service, Korean banks were given poor scores because the financial system as a whole was still undercapitalized and its provision for bad debts totaled only half that of banks in developed countries. South Korea's banking system as a whole had a financial strength rating of "E+." Banks that had greater intrinsic financial strength, essentially those that had played a lesser role in Korea's government-directed industrialization drive, were graded "D." Banks that had been subjected to government intervention and had the weakest intrinsic financial strength were given an "E" rating by Moody.

In sum, the factors that contributed most to the financial crisis of 1997 were poor governance, the loose credit policy, and the losses incurred from financing over-ambitious investment schemes. One of the important reasons why commercial banks played a subsidiary role, unlike their counterparts in many developed countries, was their inability to allocate loans. For the government's part, to sustain effective capital controls indefinitely it had to intervene heavily throughout the trade and financial system—a policy that had highly undesirable side effects—and it was not disciplined enough to limit excessive capital inflows during boom times.[77]

Financial and Corporate Reforms

As examined above, the core of Korea's financial problems lay in difficulties in both the financial and corporate sectors, the distress of which have reinforced each other. Given that Korean corporations are excessively leveraged, corporate financial positions, and, consequently, the health of the portfolios of creditors, financial institutions have been particularly vulnerable to interest rate spikes. Examined in the following are the financial and corporate reforms to address the poor performance of the financial institutions and corporations.

Financial Reforms

In earlier analysis, it was shown that the government's financial policy resulted in poor management of financial institutions, especially banks, thereby tending to hinder efficiency and productivity and endanger their financial health, like in many developing countries. In a broader perspective, the inefficiencies in financial resource allocation probably slowed economic growth. Moreover, cronyism and protection of the banks resulted in discrimination against foreign businesses.

Specifically, the incentive framework for the financial sector did not lead to an efficient allocation of resources or to the promotion of the development of financial institutions that adequately appraised risks. Yet, Korean banks did not have adequate loan-loss provisions. Thompson Financial BankWatch noted that, in an attempt to boost profits, most banks had lowered their loan-loss provisions to below what was actually needed.[78] However, the actual nonperforming loans at Korean banks reached 110 percent of loan-loss provisions, proving that the country's financial sector was far from healthy.

Restoring confidence and expediting the resolution of troubled financial institutions was the most urgent priority. The main goals of the financial sector reform program thus were to avoid systemic risks and restore the solvency of financial institutions while keeping fiscal costs manageable. The government dealt with the 16 national and 10 regional commercial banks,[79] which have been a central part of the restructuring strategy, by taking over 2 of them. The 2 major commercial banks, namely, the Korea First Bank and Seoul Bank, were recapitalized by injecting public resources to stabilize them, temporarily assuming their ownership control, and then initiating their privatization with the objective of attracting foreign capital and expertise into the system. Of 12 commercial banks that failed to meet the 8 percent Bank of International Settlements capital adequacy standard, 5 were acquired or merged with stronger banks, and the remaining seven banks either merged with other banks or remained in operation. Similarly, all NBFIs underwent restructuring.

Recapitalization with government resources led temporarily to significant government ownership stakes, however. The government controlled the two intervened banks (Korea First Bank and Seoul Bank) and Commercial Bank of Korea and Hanil Bank, whose assets equaled about 40 percent of GDP.[80] By restructuring financial institutions, government provided financial support in addition to private recapitalization efforts. Also, the restructuring opened up the financial sector to foreign investors, which would be beneficial to accelerating the improvement of the efficiency of the financial institutions. Before the crisis, Korea had limited the entry of foreign financial institutions, which slowed the banks' institutional development and led to more costly financial services. To strengthen the supervision of financial institutions, the Financial Supervisory Committee (FSC), under the Financial Supervisory Board (FSB), was established in 1998.[81] The regulatory framework was to confirm more closely to international norms. Changes have been made in rules for accounting, disclosure of nonperforming loans, asset classification criteria, and foreign exchange liquidity and exposure criteria.

As a result of the reform after the 1997 financial crisis, the problem of nonperforming loans was brought under control. The financial Supervisory Service reported that banks' bad loan ratio had dropped from 12.9 percent in 1999 to 3.41 percent in 2001 and 1.9 percent in 2004, and ranged from 1.37 percent at Citibank of Korea to 2.64 percent at Kookmin Bank.[82] However, the number of credit defaulters increased from 2.64 percent in 2002 to 3.72 percent in 2004.[83]

To deal with the troubled merchant banks, the government first closed some of them. A number of nonviable financial institutions—including 16 merchant banks, 2 securities companies, and 1 investment trust company—were closed, while the operations of other troubled financial institutions, including insurance companies, were suspended. In total, 94 financial institutions had their operations suspended or were closed as of September 1998.

Corporate Reforms

In the past, as examined earlier, major corporations had undertaken ambitious expansion and diversification drives, including numerous investment projects in both domestic and emerging markets abroad after about 1986. The expansion drives were funded with very aggressive borrowings from Korean commercial and merchant banks, often short-term, which enabled large businesses, especially the *jaebeol*, to build their empires, but it also contributed to a number of unprofitable investments, which gave rise to nonperforming loans. Also, the perception that large corporations were too big to fail had led them to emphasize asset size instead of profitability and to take out risky and unprofitable corporate loans.[84] For instance, Hyundai, Samsung, LG, and Daewoo accounted for 68 percent of total bonds outstanding in 1997 and 78 percent in early 1998. Thus, adding to the financial sector problems were difficulties in the corporate sector and concerns about its competitiveness.

In addition, heavy borrowing from banks and the resulting high debt-to-equity ratios made businesses, including the *jaebeol*, vulnerable not only to external shocks but, perhaps more important, to the whims of the banks and government. The government's control over credit served to enhance the probability of compliance of private businesses to government policy, in addition to influencing the allocation of resources.[85] The potential threat of losing credit lines was more detrimental to Korean firms than to their counterparts in other countries, where debt-to-equity ratios were not as high, banks were outside the direct influence of government, and capital markets were better developed. Therefore, the needed corporate restructuring involved both financial and operational restructuring.

Notwithstanding government efforts, serious problems in the industrial sector began to surface in 1997 and drew attention not only to the weakness of the banks closely related to the business groups but also to many *jaebeol*. In January 1997, Korea's second largest steel maker, Hanbo, was unable to honor its promissory notes and was forced to file for bankruptcy, followed in quick succession by a series of other business failures. Key financial ratios deteriorated and, by the end of 1997, the debt-to-equity ratio of the 30 largest *jaebeol* was reported to have reached an average of 500 percent (600 percent if the debt of their financial subsidiaries is included).[86] Total corporate debt in 1998 was estimated to have been on the order

of $500 billion (or more than 150 percent of GDP at the then prevailing exchange rates), of which around 90 percent was domestic.

Corporations' financial difficulties, in turn, led to a cutback in demand for new lending. The financial system's nonperforming loans increased rapidly and, including those classified as nonperforming on a precautionary basis, amounted to almost 9 percent of all bank loans in the early 1998, compared with less than 1 percent in 1995. Banks, in the face of rising nonperforming loans and the need to restructure and recapitalize, resorted to loan recalls and higher spreads. In spite of government attempts, though lukewarm, the Korean *won* also began a free-fall in late 1997, reaching a low of almost 2,000 *won* per dollar and the Korean crisis. Compounding the effect of the depreciation of the *won*, albeit now stabilized, the domestic demand plunged and the only slowly growing external demand, which has further lowered firms' profitability, became a triple predicament, namely, balance of payments, banking, and corporate predicaments.

After the 1997 financial crisis, the government announced in January 1998 five principles of corporate restructuring: (1) enhancing transparency in corporate management, (2) eliminating cross-debt guarantees, (3) improving corporate governance, (4) streamlining business activities, and (5) improving financial structures. Under the five principles, a number of laws relating to corporate reforms were passed, providing for many changes in the framework for corporate transactions. Overextended *jaebeol* needed to restructure their balance sheets and increase equity, thereby creating the financially sound maturity profile of their debt and for public information. Reducing debt-to-equity ratios was essential to reducing vulnerability to future financial shocks.

Measures adopted prohibited any new debt guarantees and improved the operation of the bankruptcy law. Regulations were revised to induce a more expedited process for financial restructuring by fixed deadlines, to promote the expertise of the courts by creating a separate administrative body, and to strengthen the creditors' role by adding creditor committees. New cross-guarantees were prohibited while all existing guarantees were lifted by the year 2000. Other changes included permission for takeovers of nonstrategic companies by foreign investors without government approval and raising the foreign stock ownership ceilings; accelerated introduction of consolidated financial statements and requirements for audit committees; and strengthened minority shareholders' rights.

The longer-term process of real restructuring also included improved corporate governance, product line rationalization, increases in productivity, and a fundamental change in corporate strategies and culture, with a new focus on profitability and liquidity away from aggressive expansion at virtually any cost. The government opted so far for bank-led voluntary corporate debt workouts for *jaebeol* not in the top five. Hence, the recapitalization and restructuring of banks was a central element. A series of policy measures were implemented, which included (1) curtailing emergency or rescue loans to corporations, (2) tightening prudential limits on large exposures and connected lending by banks, and (3) reducing cross-guarantees.

Transparency and accountability in corporate governance were being facilitated by the following measures: consolidated financial statements were required; legal changes were being made so that domestic accounting practices confirmed to

international standards; and all listed companies were required to appoint a board consisting of a minimum of 25 percent outside directors. The presumption is that banks would try to bring in genuine new equity from strategic investors to take over some of the loans.

Under these policy measures, of the 41 conglomerates that have been in and out of the top-30 list since 1997, a total of 17 have been placed under court receivership, mediation, or debt workout or have received life support from creditors for three years.[87] In June 2000, the Financial Supervisory Commission reported that loans classified as "substandard and below" amounted to about 14 percent of total loans, while bad loans in NBFIs accounted for 25 percent of the total.[88] Among them, South Korea's third-largest *jaebeol* at the time, Daewoo, went under in 1998 with a reported $80 billion in debt. It was the world's largest corporate collapse, and its executives were charged with accounting fraud amounting to 41 trillion won ($33 billion). The Daewoo Group was forced into bankruptcy proceedings in 1999, which was believed to have cost taxpayers $80 to $100 million a month.[89] Daewoo Motors alone was reported to have racked up debts and liabilities of $12 billion. After one of the largest *jaebeol*, the SK Global group, was found to have overstated its earnings for 2001, 10 executives of the SK Global group, 2 of whom were being held by police, were indicted. As one observer noted, "The tycoons made the mess and left the treasury and taxpayers to clean it up."[90] However, the prosecution's anti-*jaebeol* talk touched off a wave of withdrawals of investment funds and sent the stock and bond markets reeling. A new South Korean government quickly backed away from the reform initiative. It was persuaded to reverse course because of concerns about the economic effect of the scandal.

As a result of the reform after the 1997 financial crisis, the bailout loan was not as extensive as it had been in the past. Also, as a result of the government's "big deals" of business swaps, in which *jaebeol* sold or disfranchised their subsidiaries at the government pressure, the total number of affiliates of the nation's top 30 *jaebeol* decreased from 821 in 1997 to 584 in September 2000.[91] Similarly, due in part to the massive injection of public funds, the Korean financial intermediaries by now seem to have regained their sound financial health, and their lending activities have been normalized.[92] Moreover, the reform restored exchange rate stability, with the currency strengthening from a low of near 2000 *won*/dollar to less than 1,000 *won*/dollar and experienced a significant improvement in its external reserve position.

Notwithstanding the above accomplishments, the reform after the 1997 financial crisis did not bring about the reduction in corporate debt. Superficially, the debt-to-equity ratio has declined significantly in recent years, However, since the reforms, the beneficiaries of the privileged loans in reality did not reduce their debt substantially even as recently as 2003. Under a new government requirement, in 2000 the *jaebeol* groups released consolidated financial statements, which revealed that improvements in their debt-to-equity ratios had not been made much and that their 1999 figures were largely fiction.[93] As noted earlier, they reported the increases in their equity with interlocking ownership with cross-equity shareholdings (that tended to inflate the value of their equity shares), as well as cross-debt guarantees among subsidiaries and cross-equity shareholdings within *jaebeol* business conglomerates.

In spite of more than five years of reform, not all that much had changed with respect to the way the *jaebeol* managed and conducted their businesses. The government's efforts addressed mostly the symptoms rather than the causes of the problem—distortions in the financial and product markets—and it provided little guidance as the controlling shareholder of the nationalized banks. The "bank-led corporate restructuring" turned into, more often than not, a "bankruptcy suspension exercise," since the banks rescheduled just enough debt to keep the firms from going bankrupt.

As a consequence of the reform, those firms that actually reduced their debt showed improvement in business performance, while those still heavily burdened with debts remained unprofitable. The economic miracle was still problematic, and the economy as a whole was weak. The report further pointed out that, when the corporate sector was in financial trouble, it led to a weak economy.

The previous and new government advisers, some of whom were viewed as liberal reformers, wanted to correct the "*jaebeol* problem" by cracking down on their excesses and reducing their power over the economy. To provide opportunities for all Koreans to realize the benefits of economic growth, they recommended that the companies under the control of the *jaebeol* should open up so that ordinary Korean citizens, including the companies' workers, could invest in them. Also recommended were government reform of the securities markets, especially the stock market, and increased foreign investment. Obviously, South Korea did not fully meet these goals as yet.

Financial Costs of Reforms

Most of the financial burden of the reforms was initially borne by the financial institutions, including commercial banks, themselves. But the cost of the interest subsidy was then made up by the Bank of Korea, which discounted the loans of the commercial banks. Granting loans of 6.5 percent interest rate to domestic exporters at a 3.5 percent rediscount rate gave the commercial banks a 3 percent spread.[94] In this way, the Bank of Korea covered the banks' losses, since it rediscounted the commercial bank loans to make up for them. Likewise, the Bank of Korea had to extend special loans of about $3.7 billion (2.9 trillion *won*) to three debt-stricken investment and trust companies at an annual interest rate of 3 percent in 1992.[95] As a result, the central bank incurred deficits totaling $761.3 million (623.2 billion *won*) between 1982 and 1986.[96] The rediscounting, in turn, was covered partially out of profits of the central bank and partly by direct subsidies from the government.

The burden of the losses of the financial intermediaries from nonperforming loans was borne directly by the government, since the loans were made at its instigation.[97] Commercial banks and NBFIs were relieved of the heavy losses of nonperforming loans to a large extent. In this way, the government in effect transferred the entrepreneurial risks from the lending banks to itself. The amount of public funds injected into the restructuring of the nation's financial sector amounted to $65 billion (78.5 trillion *won*).[98] The lion's share, or 64 percent, went to banks, 11.1 percent went to investment and trust companies, 10.9 percent went to merchant banks, and 9.6 percent went to insurance companies.[99] The Korea Deposit Insurance

Corporation also had to inject additional funding into other banks and NBFIs to raise the Bank of International Settlements ratios to more than 10 percent.

However, the resolution of the overhanging debt problem has yet to be completed, and the total public costs incurred in paying off depositors of failed banks, purchasing nonperforming loans, and recapitalizing the system up to the late 1990s were enormous, estimated at more than $100 billion,[100] and the interest costs at $3 billion (3.6 trillion *won*) for 1998 and $450 to $500 million (8 to 9 trillion *won*) for 1999. The government announced in 2000 that it also needed an additional $44.63 billion to recapitalize and clean up the financial sector so that the financial and corporate reform could be completed (to put the ailing companies back on the right track). The public burden caused by the government's public debt as of December 2001 totaled about $116.1 billion (139.3 trillion *won*), including $37.3 billion (44.8 trillion *won*) in interest, $70.5 billion (84.6 trillion *won*) in lost principal, and $8.25 billion (9.9 trillion *won*) in opportunity costs. It is not certain whether further recovery of public funds will be possible, but the total necessary costs to the government may be as much as $120 billion, which includes the losses from foreign loan guarantees (see chapter 9).

In relation to GDP, the "fiscalization" costs to the South Korean government and its agencies, according to the Ministry of Finance and Economy, were estimated at somewhere in the neighborhood of more than 20 percent, after taking into account recovered funds and funds reinjected after recovery, as of year 2000.[101] Other assessments calculated that nonperforming bank loans were as much as a quarter of GDP, and nonperforming assets nearly two-thirds of GDP.[102] Some estimates even suggest that a more realistic assessment of the final fiscal costs would be approximately 30–35 percent of GDP, or at least 125–150 trillion won. Neither the Korea Deposit Insurance Corporation nor the Korea Asset Management Corporation is in a position to pay off its public debts without government assistance.

The large size of the problem placed a heavy burden on the fiscal resources of the government, and government efforts to support strategic industries thus have contributed to swelling budget deficits. Assuming that the government would restore bank solvency quickly and finance the costs primarily by the issuance of government bonds, the stock of public debt would rise sharply. If the government fails to come up with a long-term solution, the burden posed by its maturing bonds will likely only become greater. It is thus pessimistically speculated in some quarters that South Korea's looming public debt will be the most formidable barrier to renewed economic growth. However, even if the financial restructuring costs are 35 percent of GDP, from a point of simple public-debt-to-GDP ratio, it would be at levels of public debt that are lower than or comparable to that of other countries. Obviously, the costs of the interest subsidy and losses from nonperforming loans were made up ultimately by the nation's taxpayers.

PERSONAL SAVING

In contrast to positive impacts on investment in certain favored sectors, the repressive interest rate policy appears to have been generally negative on personal

saving for most of the period after the Korean War, although it varied over time. Low and sometimes negative official real interest rates have tended to discourage saving, especially in the organized financial intermediaries. Not only did the volume of time and savings deposits in banks remain low, but savings actually decreased in real terms in some years, especially before the 1965 interest rate reform. The average annual rate of interest on savings deposits paid by banks between 1953 and 1964 ranged between 4.8 and 15 percent, less than a third of the market rates of interest, which averaged 3 to 5 percent per month, or 36 to 60 percent per year.

There were, however, differences between periods as to the extent of financial repression and its impact on saving. During the high interest rate policy between 1965 and 1972, the positive relationship between interest rates and saving was clearly visible, especially in organized financial institutions. The rise in interest rate after the middle of the 1960s, in response to reform for the high interest implemented in 1965, provided the financial incentives for saving to increase in relatively safe organized financial intermediaries.[103] Deposits in the organized financial intermediaries were made more attractive as reform raised the government-sanctioned interest rates on deposits to more realistic and competitive levels—interest rates on time deposits ranging from 15 to 30 percent per annum. The high bank interest rates were such that average deposit rates in some years were even higher than loan rates. When banks began offering deposit interest rates of 20 percent or more on savings accounts, the savings in the organized financial institutions skyrocketed overnight.

The interest rate reform had a particularly significant influence on time and savings deposits in banks: total time and savings deposits increased by 25 percent in one month and 50 percent in three months. They tripled in one year and doubled again the following year. The level of time and savings deposits in banks grew at a compound annual rate of nearly 100 percent over the next four years and brought about a fourfold increase in savings/time deposits in two years. The ratio of such deposits to GDP jumped up from 3.8 percent at the end of 1965 to 21.7 percent by the end of 1969. Observing this development, some economists became convinced that high interest rates had a significant impact on real household and gross domestic savings in the country as a whole.[104] They estimated that the portion of income dedicated to personal savings increased while decreasing personal consumption during 1966–68, when the government-sanctioned interest rates were raised. They attributed the rise in the share of personal savings from about 20 percent of the nation's gross savings in the early 1960s to over 25 percent in the early 1970s and about 45 percent in the mid-1980s to the rise in interest rate.[105] If personal savings increased because of the rise in interest rates, then this development is significant in that it counters the widely held notion that personal savings in poor countries are not very responsive to changes in interest rates.

It is not clear, however, whether the interest rate reform alone caused the overall relative increases in personal savings and accompanying decreases in consumption ratio. There are reasonable grounds to suspect that the extent of the rise in personal saving in relation to GDP was not accurately estimated. No doubt the interest rate reform resulted in large increases in personal savings and helped to channel funds from the curb market to banks, for depositing savings in organized financial

institutions was less risky. However, it would also have caused personal saving in the UOFM to decrease substantially, though perhaps not enough to offset the increases in deposits in banks. The high interest offered by banks enabled the organized financial intermediaries to compete for deposits successfully with unorganized money markets, which experienced withdrawal of savings in UOFMs. In other words, the increases in bank deposits were largely, but not entirely, offset by the decreases in deposits in UOFMs. The ratio of real personal saving in the country as a whole, therefore, could not have gone up to that extent in such a short time period. It is clear, however, that by providing incentives to saving, the interest rate reform did allow the domestic banks and NBFIs to attract more financial resources away from the UOFMs.

More realistically, personal savings in South Korea during the expansionary period increased due to a host of factors. There were continual increases in personal savings even after the high interest rate policy was abandoned in 1972–81, and theses increases persisted until end of the 1980s. In terms of net financial savings, which excluded total debt from total savings, personal saving increased at an average annual rate of about 30 percent per household between 1980 and 1987. The ratio varied somewhat from year to year, but it increased from negative 1.2 percent in 1962 to 21.1 percent in 1986, including those years when the government reinstituted the repressive low interest rate financial policy after 1972.[106] Likewise, the household savings ratio—personal savings divided by personal disposable income—between 1962 and 1986 shows a similar result. Thus, many factors contributed to the rise in personal saving, including higher incomes and more optimism about the success of South Korea's economy.

After briefly experimenting with a high interest rate policy between 1965 and 1972, the low, repressive interest rate policy was restored in 1972, though a more moderate repressive one. The government-sanctioned interest rates on deposits, as well as on loans, were set at levels higher than the earlier one but clearly below the market rates. The emergency decree in 1972 lowered the government-sanctioned interest rate to 12 percent on deposits. The average annual rate of interest on savings deposits paid by banks was even below the rate of inflation toward the end of the 1970s, which was about 17.3 percent per annum on average until the early 1980s. It seems reasonable, therefore, to state that the financial repression policy for almost the entire period after the Korean War tended to restrain personal savings, although it was moderated considerably during 1965–72 and after 1981.

CHALLENGES FOR FUTURE FINANCIAL POLICIES

The foregoing analysis makes it clear that active and selective interventionist financial policies were neither a necessary, a sufficient, nor an optimal path to industrialization and economic growth. In recent years, with a combination of encouraging developments, including the establishment of a democratic civilian government, much debate about the government's pursuit of direct intervention in the past, and the detection of its inefficiencies, the views of the government have changed. Many leaders in South Korea now realize that the country's economy is much too large

and sophisticated to allow the same degree of government intervention as in the past. Countries without such directed financial policies (most recently Ireland) have done well when the flow of international investment is large and technology crosses borders with ease.

South Korea is now moving away from its old restrictive/protective industrial and financial policies toward liberalization and is attempting to rely more on free markets in the allocation of resources. The financial repression policy has largely been replaced with a free capital market in which government intervention appears to be diminishing. It is reported that Korea's 19 banks earned record levels of net income in the first half of 2004 and have reduced their holdings of bad loans.[107] Lenders have applied stricter credit standards to companies and households, and fewer corporate and retail customers are defaulting on loans.

Despite the many financial reforms introduced in recent years, especially since the 1997–98 financial crisis, the country is still faced with challenges in a number of areas. There still is some lingering government intervention. For instance, Hynix, the world's third-largest manufacturer of memory chips, has been accused of receiving government favors in the form of low-interest loans as recently as 2003. It faced potentially crippling import duties on shipments to the United States and the European Union, after authorities in Brussels found the company guilty of receiving illegal state aid.[108] In 2005, the World Trade Organization upheld U.S. duties on imports of computer memory chips from South Korea, imposed because Hynix received illegal subsidies from state-controlled banks.

To continue its economic success in the decades to come, South Korea needs to meet the challenges of financial markets. It must continue to loosen government control and regulation of financial markets and introduce a genuine market-oriented environment. In spite of substantial liberalization measures taken recently, the reform efforts have yet to produce fundamental changes. The government still guides the private sector's financial decisions. The country has yet to witness full market forces at work with respect to lending. Loan approval is based on detailed government appraisals and checks to ensure that the credit will be used to finance approved investment projects and not diverted to other uses.

The government also maintains certain managerial controls over the banks through the Bank of Korea's Office of Bank Supervision and Examination, which, under the guidance of the Monetary Board, supervises and regularly examines banking institutions. Likewise, the government continues to impose restrictions on shareholding by individuals. At present, no one, including businessman, can hold more than 5 percent of the total shares of a commercial bank. Also, the government has yet to lift a limitation on the number of bank executives a bank may employ—now at five directors plus one auditor. This clearly contrasts with its declared intentions and the situation in other industrialized countries. The remaining task of the government thus is to further relax its control over the allocation of the financial resources of banks and broaden the freedom of the market by allowing financial institutions to facilitate an easy flow of funds from savings into investment and maximize the efficient use of their limited financial resources.

In addition, in spite of the change in policy, the government has not confronted the adverse consequences of making decisions based on moral hazard. It will have

to confront the moral hazard of investment financing in South Korea, which has occurred to the extent that the government supported programs that tried to contain the total economic costs of financial crises. Some element of moral hazard is, in principle, an unavoidable consequence. The argument that government control of financing in South Korea created moral hazard, an atmosphere in which creditors and debtors are too willing to take risks, cannot be lightly dismissed, but the role of moral hazard often has been seriously overstated. But what is really worrisome is that all of these policy introductions and reversals are driven by short-term political and business-cycle considerations rather than guided by meaningful economic goals.

The second challenge facing the country is continued privatization of financial institutions. In the past, the government had a virtual monopoly over them. Banks are now given more freedom of operation and are able to expand their financial resources and maintain financial health. The government has relaxed its control and lifted restrictions on competition among different types of financial institutions. Moreover, in the initial round of restructuring, five large commercial banks were shuttered and scores of merchant banks were forced to close their doors or merge with stronger financial institutions. The capital adequacy ratio of local banks increased from 7 percent in 1997 to 10.5 to 10.8 percent in 1999–2001, and the ratio of nonperforming loans decreased from 13.6 percent in 1999 to 3.4 percent in 2001.[109] However, without the privatization of all commercial banks, the financial market will not be free, and a free market will enable the financial intermediaries to function efficiently. As one of the most distinguished and respected economists in Korea has suggested, the country's banking system needs to play a more active role in loan decisions, including the ability to declare nonperforming loans to be bad loans.[110]

Third, in order to address the problem of excessive indebtedness in certain sectors and large corporations and to improve transparency and accountability, as well as to help tackle *jaebeol* reform, the excessive favoritism accorded to certain designated sectors and larger business borrowers needs to be discontinued. The financial crisis of 1997 has placed the *jaebeol* at the focal point of the most ambitious corporate restructuring effort in Korea's history.[111] Holding them directly responsible for the crisis, the government initially sought to end the so-called *jaebeol* problem by introducing various measures to control and restrict their access to privileged bank loans, their diversified business structure, their debt exposure, and their interlocking ownership of and cross-debt guarantees among subsidiaries.

To address the problem, the government mandated that *jaebeol* lower their debt-to-equity ratio to under 200 percent. Although this ratio is still high by Western standards, it is a quarter of their former debt levels. Hyundai, Samsung, SK Group, and LG, 4 of the top 5, were supposed to reach this level by the end of 1999, along with 28 second-tier business groups. Progress has clearly been made, but many *jaebeol* have taken only halting steps to improve transparency and accountability, and they continue to face a crushing burden of debt. Their success in restructuring since the 1997 financial crisis has not been great. The top 4 were at 254.6 percent in 1999, while 12 of the 28 second-tier business groups have met the goal. Also, loans to the privileged *jaebeol* borrowers have been tightened.

In the meantime, the Federation of Korean Industries has put heavy pressure on the government to lift its ban on the type of large-scale borrowing that dragged the country down in 1997, forcing it to seek a $58 billion rescue from the IMF. Unfortunately, after nearly five years of restraints imposed by the government, the sprawling conglomerates that dominate South Korea's economy are again on the verge of obtaining the freedom to expand their holdings. Lately, the government seems to have reversed itself, taking measures to relax or even eliminate some restrictions on the *jaebeol*. The government's Fair Trade Commission has agreed on new rules under which business groups will be able to circumvent the regulation forbidding any group or company to invest more than 25 percent of its assets in other enterprises.[112]

A change in the corporate debt structure has been another consequence of corporate restructuring as the *jaebeol* have shifted their main source of debt financing from bank loans to corporate bonds. Such reform is difficult and problematic because it is a challenging task politically, having unfolded in many corruption scandals. The share of corporate bonds in their long-term liabilities, which was 41.1 percent in 1997, rose to 45.2 percent in 2001.[113] Furthermore, the government still works more closely with large businesses than with medium-sized or small firms, and it still discriminates in allocating financial resources to small-business borrowers in nonstrategic sectors of the economy.

Fourth, cronyism has led to an economy controlled by monopolists and oligopolists, and South Korea has little hope of a vigorous market economy as long as monopolies and special concessions to a few privileged *jaebeol* are pervasive. Since cronyism may be embedded in Korea's culture, it may take years for the practice to be eliminated completely and a legally oriented Western business practice to be adopted. The basic principle of transparency should be the norm in governance and business practices.

SUMMARY AND CONCLUSIONS

With the examination of interest subsidy, this chapter has completed the assessment of the economic impacts of the government's industrial and financial policies relative to interest subsidy as well as wealth bounty and inflation windfall in aggregate and sectoral investment, economic growth, allocation of resources, financial burdens, the disciplining of financial intermediaries, financial and corporate reforms, and challenges facing financial planners.

The analyses in chapters 4, 5, and 6 have revealed that wealth bounty, inflation windfall, and interest subsidy have been a tremendous boon to business investment, industrialization, and growth of Korean economy. Altogether, they reduced the ultimate costs of the properties, loans, and foreign exchange by more than half and enabled the businesses to buy and borrow at less than half of the value of capital. Of them, the wealth bounties that accompanied the divestitures of former Japanese property, public enterprises, and the sale of foreign exchange have contributed the most, with nearly half of the value of total bounty, windfall, and subsidy. Of all the financial incentives provided to businesses, these were the greatest financial

incentives provided to businesses. The inflation windfalls were not necessarily intended, but the rampant inflation in the country until about 1981 constituted nearly two-fifths of all bounties, windfalls, and subsidies to business buyers of government properties and borrowers for facility expansions.

The most easily discernible impact of the government's financial policy was the handsome interest subsidy. By creating a wide and protracted gap between the real and the effective cost of capital, the discriminatory financial policy predictably produced significant subsidies to privileged business borrowers, given the number of years during which the government's repressive credit policy was in force and the large number of beneficiaries. Interest subsidy on divestitures of government properties, facility expansion loans, and foreign exchange loans generated a benefit of nearly 16 percent of all bounties, windfalls, and subsidies since the Korean War.

The above assessments may be crude and need further refinement, but they show the probable extent of bounty, windfall, and subsidy. The wealth bounty and inflation windfall have probably contributed nearly half of the value of industrial capital in the private sector and have been the most important element in the realization of private capital, which became the foundation of its contribution to future economic growth.

These financial incentives also had the effect of reducing the input costs of capital, intermediate goods, and raw materials in terms of depreciation, interest charges, and raw materials costs, which enabled the businesses to produce goods inexpensively. This, in turn, enabled them to sell the output competitively in the world market, which bolstered profits. In an open and competitive market, government properties, foreign exchange, and bank loans to businesses would have been set at prices and rates of interest determined by the market forces of demand and supply, without providing any extraordinary financial incentives. These financial incentives, therefore, provided a competitive edge in international and domestic markets and opportunities to gain greater profits.

These opportunities also offered privileged businesses an attractive financial inducement to expand their investment. Businesses' success, thus, may largely be attributed to the subsidies as well as to the forgone higher workers' wage earnings. Most businesses, including large *jaebeol*, were not very efficient, especially in the early years, and without all sorts of subsidies, they would not have been competitive in the world markets. In addition, the government likewise indirectly promoted industrial producers' efficiency of operations and world competitiveness by inducing them to modernize.

The government's financial policy not only financed critical investment and expanded output, it also changed the nature of investment and the rates of growth in different sectors of the economy. The expansionary credit policy contributed to an impressive record of financing the reconstruction of the destroyed production facilities of the Korean War and the expansion of investment in new industries, both public and private, after the Korean War. The major beneficiaries of interest and inflation subsidies/windfalls were in the public sector, mostly SOC, to meet the ever expanding need to reconstruct and expand these facilities and launch a few new enterprises.

Likewise, in the private sector, modern industries—especially in the manufacturing sector—received the most generous subsidies. Within modern manufacturing, the most privileged were the targeted industries designated by the government. They included the import-substitute industries in the early years and the export-goods industries in the later years. In this way, the private sector not only expanded its economic activities and primed the nation's economy for development, it transformed the economic structure from a predominantly agricultural, semi-industrial economy to an industrialized one. The government's financial policy likewise promoted entrepreneurial and capital- and technology-intensive industries.

The primary beneficiaries of the government's financial policy were the well-established, large, capital- and technology-intensive industrial enterprises. Access to the subsidies allowed many large businesses to expand their investments and become *jaebeol*. Those that had connections with those in power in the government and the banks received the most favors. The government's ability to allocate financial resources through credit rationing or allocation with a handsome interest subsidy was an important instrument. It nurtured the privileged businesses and provided them with the incentives to cooperate with the government to bring about speedy industrialization and economic success.

Notwithstanding the accomplishments, the expansionary and discriminatory financial policies were not solely responsible for the expansion, nor did they bring about the efficient allocation of resources in the economy. Not all new entries into the import-substitution and export industries were the result of financing through the government's credit policy. Moreover, the discriminatory financial policy introduced economic distortions between privileged and unsupported businesses and resulted in macroeconomic disruptions, even in the environments where the government had the best intentions and strongest institutions. It also led to serious structural imbalances between economic sectors, such as manufacturing versus service industries, HCIs versus light industries, and large versus small firms.

The expansionary and discretionary financial policies thus resulted in less than optimal allocation of the nation's economic resources and carried significant economic costs in a number of areas, namely, debtors' economic rent-seeking activities, nonperforming loans, and inflation. Likewise, the policy introduced corruption and cronyism, which might have contributed to a slowdown in export growth, especially in the early years,[114] and may also have had an adverse impact on economic growth. Government control of the financial market likewise discriminated against foreign businesses. In addition, the concentration of economic power in the government made Korean businesses vulnerable to it. Initially, the policy also imposed a heavy burden on financial institutions and the government and ultimately on the taxpayers. Furthermore, it contributed to a lack of financial discipline and independence, as well as depriving financial and other management prerogatives of financial intermediaries, especially banks. Consequently, banks lacked the incentive to improve efficiency, resulting in their failure to introduce advanced financial techniques. It is thus questionable whether the benefits of government intervention were worth the economic costs. These problems perhaps might have arisen largely because of South Korea's rush for fast-track development in order to catch up to

other developed countries, particularly Japan, without regarding efficiencies of resource allocation.

It is difficult to determine the net impact of the government's financial policies on the nation's economy, but their positive contribution does not appear to greatly outweigh their negative impact. It is clear that they were neither necessary nor sufficient for optimal industrialization. This fact is well demonstrated by the fact that the government's policy of targeting strategic industries and large firms has changed considerably in the last decade and a half and that South Korea is now moving toward a less active government role and toward liberalization. The South Korean economy is much too large and sophisticated now to allow the degree of government intervention it has seen in the past.

7

DOMESTIC SAVING AND INCOME DISTRIBUTION

It has been argued that in less developed countries, such as South Korea before the Korean War, it is nearly impossible to save or obtain the economic resources for even the minimum investment needed to support a growing population at the prevailing standard of living, let alone to enable a developing country to mobilize sufficient savings for large investment for rapid economic development. A crucial challenge facing developing economies, as in many developed countries before is thus the mobilization of savings for investment. One pioneer economist in the field of economic development has pointed out: "Capital is made at home. . . . External sources can scarcely make a significant contribution to economic growth unless there is complementary action on the home front."[1]

A critical problem that South Korea after the Korean War, as are all developing economies, was confronted with the mobilization of adequate domestic savings to fill the gap between the country's investment needs and available foreign savings to foster the needed investment and economic development. It has been suggested that to finance the investment needed for even a moderate rate of economic growth, developing economies need to set aside at least 20 percent of their GDP. It is therefore necessary to investigate how South Korea has mobilized domestic savings to finance investment for a rapidly growing economy.

The obvious question is: How did South Korea acquire sufficient economic resources for investment from both domestic and foreign sources? The task in this chapter is to investigate the extent of domestic savings as well as the institutions and methods for mobilizing them to finance the expanding investment needs of the country. Since domestic saving is determined largely by the level and distribution of income, wealth, and people's propensity to save, these are examined more extensively than other determinants of saving. In the process, income and wealth transfers, their beneficiaries and benefactors, and the government's role in them are

scrutinized. Domestic sources of financing investment are traced to domestic incomes and the savings of different income groups. Although the analysis covers the entire period following the Korean War, the greatest emphasis is placed on the period before the financial crisis of 1997, especially 1994. Whenever needed to make analysis more comprehensive, the period beyond 1994 is also examined, as has been the case in earlier chapters.

DOMESTIC SAVING

Statistics compiled by the Bank of Korea between 1953 and 1994 show that the country enjoyed remarkable success in mobilizing domestic savings. Domestic saving was small soon after the Korean War. It was a little more than a tenth (11.2 percent) of GDP on average between 1953 and 1961,[2] which was inadequate to meet the country's investment needs (Table 7.1). However, it increased not only in absolute terms but also in relation to national income thereafter. The marginal propensity to save during 1962–65 increased at a 10.2 percent rate,[3] while the gross domestic saving during 1963–65 increased at an average annual rate of nearly 8 percent, more than doubling its ratio to the country's GDP. The saving ratio increased to 15.8 percent of GDP on average between 1962 and 1971. It was a roughly 45 percent rise in just 10 years. However, it allowed the country to finance only 82.2 percent of its own investment.

As its economic growth took off and the nation's production and income increased, so did domestic saving. The domestic saving ratio increased to an average annual ratio of 18.7 percent of GDP during 1972–75. This was substantial progress in such a short period of time, but the rapidly increasing investment required equally speedy increases in domestic saving, and the modest level of domestic saving was still insufficient, meeting less than three-quarters (73.1 percent) of the total required during the period. South Korea was unable to bring about a substantial amount of domestic saving to finance all investment.

Domestic savings continued to expand, surpassing a benchmark of a quarter of GDP with an average of 27.4 percent of GDP between 1976 and 1986. Largely because of the world oil crisis with its price surges and plummeting world production, domestic savings plunged temporarily to below a quarter of GDP or an average annual ratio of 23 to 24 percent range between 1980 and 1982, but it rebounded to a 30 percent level between 1983 and 1985. The ratio of domestic savings to the nation's investment increased to more than nine-tenths (90.8 percent) of the total between 1976 and 1986, but this was still decidedly inadequate for South Korea's investment needs during this stage of development and less than the savings levels of many developing economies. South Korea was not able to bring about an adequate amount of domestic saving until after 1986, when it began to export more goods than it imported.

After 1986, there was a dramatic rise in domestic saving, which reached 37.3 percent of GDP in 1987 and 39.3 percent in 1988. National saving actually exceeded the needs of gross investment, rising to 124.3 percent in 1987 and 126.4 percent in 1988. For the period between 1987 and 1994, the saving ratio was 36.3 percent of GDP,

TABLE 7.1 Domestic Saving for Investment, 1953–94

Year	*In Percent of GDP*				*Ratio of Domestic Saving*		
	Domestic Saving				to Domestic Investment	*in Sectors*	
	Total	Private	Public	Investment		Private	Public
1953	13.1	11.1	2.0	14.7	89.1	84.7	15.3
1954	10.4	10.3	0.1	11.4	91.2	99.0	1.0
1955	10.3	9.7	0.6	11.7	88.0	94.2	5.8
1956	8.6	4.0	4.6	8.0	107.5	46.5	53.5
1957	13.9	10.5	3.4	14.0	99.3	75.5	24.5
1958	12.8	9.8	3.0	11.8	108.5	76.6	23.4
1959	10.8	8.2	2.6	10.4	103.8	75.9	24.1
1960	9.0	5.0	4.0	10.0	90.0	55.6	44.4
1961	11.7	7.0	4.7	12.0	97.5	59.8	40.2
1962	11.0	6.8	4.2	11.8	93.2	61.8	38.2
1963	14.4	10.4	4.0	17.0	84.7	72.2	27.8
1964	14.0	9.8	4.2	13.2	106.1	70.0	30.0
1965	13.2	7.7	5.5	14.1	93.6	58.3	41.7
1966	16.6	11.3	5.3	20.4	81.4	68.1	31.9
1967	15.4	9.1	6.3	20.9	73.7	59.1	40.9
1968	18.2	10.7	7.5	24.9	73.1	58.8	41.2
1969	21.4	14.6	6.8	27.9	76.7	68.2	31.8
1970	18.1	12.1	6.0	24.3	74.5	66.9	33.1
1971	16.1	11.1	5.0	24.8	64.9	68.9	31.1
1972	17.3	15.0	2.3	20.9	82.8	86.7	13.3
1973	22.6	19.6	3.0	25.2	89.7	86.7	13.3
1974	20.2	18.1	2.1	31.8	63.5	89.6	10.4
1975	18.1	15.6	2.5	28.6	63.3	86.2	13.8
1976	24.2	19.7	4.5	26.5	91.3	81.4	18.6
1977	27.5	23.1	4.4	28.3	97.2	84.0	16.0
1978	29.9	24.7	5.2	32.5	92.0	82.6	17.4
1979	28.5	22.2	6.3	35.8	79.6	77.9	22.1
1980	23.2	18.1	5.1	31.9	72.7	78.0	22.0
1981	22.9	17.6	5.3	29.9	76.6	76.9	23.1
1982	24.4	18.7	5.7	28.9	84.4	76.6	23.4
1983	27.6	20.8	6.8	29.4	93.9	75.4	24.6
1984	29.8	23.4	6.4	30.6	97.4	78.5	21.5
1985	29.8	23.7	6.1	30.3	98.3	79.5	20.5
1986	33.7	27.7	6.0	29.2	115.4	82.2	17.8
1987	37.3	30.8	6.5	30.0	124.3	82.6	17.4
1988	39.3	31.5	7.8	31.1	126.4	80.2	19.8
1989	36.3	28.4	7.9	33.8	107.4	78.2	21.8
1990	35.9	27.4	8.5	37.1	96.8	76.3	23.7
1991	36.2	28.3	7.9	39.1	92.6	78.2	21.8
1992	34.9	27.1	7.8	36.8	94.8	77.7	22.3
1993	35.3	26.7	8.6	35.2	100.3	75.6	24.4
1994	35.2	25.9	9.3	36.1	97.5	73.6	26.4
Averages							
1953–61	11.2	8.4	2.8	11.6	97.2	74.2	25.8
1962–71	15.8	10.4	5.5	19.9	82.2	65.2	34.8

(*continued*)

TABLE 7.1 (*continued*)

	In Percent of GDP				*Ratio of Domestic Saving*		
	Domestic Saving				to Domestic	*in Sectors*	
Year	Total	Private	Public	Investment	Investment	Private	Public
1972–75	18.7	15.3	3.5	25.9	73.1	80.8	19.2
1976–86	27.4	21.8	5.6	30.3	90.8	79.4	20.6
1987–94	36.3	28.3	8.0	34.9	105.0	77.8	22.2
1953–94	22.1	17.0	5.1	24.3	91.3	75.4	24.6

Sources: This table is constructed on the basis of data shown in Hanguk Eunhaeng 1995: 178–79; Bank of Korea, *Economic Statistics Yearbook*, various years.

which financed more (105 percent) than its domestic investment needs. Economic growth made it possible for the South Korean people to set aside and save more resources than needed for domestic investment. After 1988, however, the savings ratio declined somewhat as consumption grew more rapidly than income. Increased government spending on a social safety net fueled the drop in the saving ratio. Eventually it recovered, reaching 34 percent in 1998 after the financial crisis.

On the whole, domestic savings accounted for more than a fifth (22.1 percent) of GDP and more than nine-tenths (91.3 percent) of the nation's investment during the last half of the twentieth century. Overall, the domestic saving ratio increased by about 5.25 percent per year on average in the post Korean War era, and domestic savings financed all unincorporated businesses and many corporations. South Korea thus moved quickly from an economy of virtually no net domestic saving to one of the few that saved a large amount in one of the briefest periods of recent record and used it for investment. This feat of domestic saving for a war-ravaged country was an astonishing accomplishment. Notwithstanding the rapid rise of the saving ratio, South Korea had yet to reach the levels of saving in neighboring countries. According to one calculation, South Korea's ratio was 26.2 percent of GDP between 1981 and 1984, which is less than the annual average ratio of 32.2 percent in Taiwan and 31.4 percent in Japan during the same period.[4]

PRIVATE SAVING

Who were the domestic savers, how much did they save, and how did they do it? They may be grouped broadly into the private and public sectors, which are examined below. Like most other developed countries, a majority of the domestic saving in South Korea was in the private sector, and it expanded rapidly. The increased saving in the private sector is clearly seen in its propensity to consume during the last half of the twentieth century. While GDP in the country rapidly increased, the ratio of consumption to the former slowly decreased, thereby indicating a rapid rise in saving. The percentage dedicated to consumption in the private sector decreased from about 85 percent of GDP in the early 1950s to the

70 percent level in the early 1970s, the 60 percent level in the early 1980s, and the 50 percent level in the early 1990s, a decline of about 50 percent during the latter half of the twentieth century.

As to private saving, it was very modest: 8.4 percent of GDP during the nine-year period between 1953 and 1961 immediately after the Korean War and contributed less than three-quarters (74.2 percent) of domestic savings (Table 7.1). The low income and pessimistic outlook for the future of the country immediately after the Korean War appeared to have retarded most Koreans from saving much. After 1962, as the economy slowly recovered, private savings increased not only absolutely but also relative to GDP. The marginal propensity to save in the private sector during 1960–65 swelled to 23 percent of disposable income, and the saving ratio inched up 28 percent in the next 10-year period (1962–71) to 10.4 percent of GDP, contributing about two-thirds (65.2 percent) of domestic savings.

Private savings continued to increase absolutely and relative to GDP. It leaped up to 15.3 percent of GDP during the first half of the 1970s, which was nearly a 50 percent rise, contributing more than four-fifths (80.8 percent) of domestic savings. The marginal propensity to save was calculated to have increased to 30 percent of disposable income during the second five-year economic development plan (1967–71).[5] After 1976, private saving continued to expand briskly as incomes increased. Between 1976 and 1986, it jumped to more than a fifth (21.8 percent) of GDP on average, contributing about the same percent (79.4 percent) of domestic savings during the nine-year period, as was in the previous five-year period. The rate of increase in the sector, however, slowed in the early 1980s, largely due to the second oil crisis. Because of a sharp drop in income during the oil shock, average annual savings in the private sector dropped to 19.2 percent of GDP between 1979 and 1982. After the nation's recovery from the second oil crisis, as income sprang back, so did private saving. The private sector saved nearly 23 percent of GDP between 1983 and 1985, surpassing the rate of the previous decade by 3 percent.

The up-swing movement of private savings continued in later years, hitting the record high level of 31.5 percent of GDP in 1988, after which it slowly declined, to about 26 percent in 1994, as consumption grew more rapidly than income. Increased government spending on the social safety net also fueled the drop in the savings ratio. It then recovered to 34 percent in 1998 after the financial crisis. Annual savings climbed to 28.3 percent of GDP during 1987–94 and accounted for 77.8 percent of domestic saving. Economic growth made it possible for the private sector to set aside more resources for investment and development.

On the whole, private savings for the 42-year period between 1953 and 1994 increased from less than three-quarters of domestic savings to more than three-quarters and was equivalent to about 17 percent of GDP. This was substantial progress in a short period of time. The increase in private saving took place in both personal/household and business sectors.

Personal/Household Saving

It is easy to ascertain who the personal/household savers were, although it is difficult to determine how much was saved by different groups. No accurate data are

published, nor are they readily available for calculation and systematic analysis. Only scattered information enables us to draw some meaningful inferences. It is clear that personal/household savings after World War II was insignificant until about the early 1960s, probably less than 3 or 4 percent of income during the years immediately after the Korean War, as can be surmised from the amounts of small private savings. Subsistence levels of income and the pessimistic outlook for the future seemed to have discouraged most Koreans from saving.

After 1963, as the economy expanded and disposable income grew, household saving also increased correspondingly. The marginal propensity to save increased to 10.2 percent rate during 1962–65, more than doubling the average propensity to save, and reached an average annual rate of nearly 6 percent of the country's GDP. The share of personal savings was about 30 percent of nation's gross savings. After 1966, household saving increased even faster as the economy stabilized and showed clear signs of growth. The marginal rate of saving rose to 37 percent in the late 1960s. The relatively high rates of household saving during the later years after the Korean War were largely due to the substantial volume of imports of foreign resources, as examined in chapter 8, in addition to the growth in GDP.

In spite of paucity in reliable data for household savings, an increasing trend in the household savings ratio until the 1980s is unmistakable.[6] One estimate even shows that "individual savings" increased to over 40 percent of the total in the early 1970s.[7] The average personal/household saving rate during the five-year period between 1971 and 1975 is estimated at nearly a tenth of GDP. This reflected a marginal propensity to save of more than 30 percent during the period. Considering the rapid rise in private saving, household saving thereafter must have expanded quickly as well, perhaps to more than 10 percent of national income. Although this was substantial progress in a short period of time under dire economic conditions, the level was still well below that required in a developing economy. Korea's household saving ratio was about half of that of Japan (18 percent) in comparable years (1964–66).

Other than a sharp decline between 1980 and 1982—largely brought on by the second oil crisis and the ensuing price surges, and the nation's plummeting disposable income, which temporarily resulted in a sharp drop in the average annual ratio to below 9 percent of GDP—personal savings were maintained at high ratios, as incomes sprang back quickly after 1982. South Korea's household saving, however, represented a mere 9.9 percent of GDP as late as 1984, in contrast to 13.8 percent for Taiwan and 13 percent for Japan in 1982. In the 1980s, the personal/household sector regained its saving at a level more than 13 percent of the nation's GDP and accounted for nearly half (48 percent) of domestic savings, increasing from a little more than a third of the total in the first half of the 1970s. After 1986, the personal saving ratio fluctuated a little but expanded further to more than 17.5 percent of GDP during the eight-year period between 1987 and 1994, constituting about a half of the total domestic saving. After peaking at a record high, the household savings ratio dropped off a little, to about 17 percent of GDP. Economic growth has made it possible for the South Korean people to set aside more resources for consumption.

The household savings ratio, that is, household savings divided by GDP, between 1953 and 1998 varied somewhat from period to period but, on the whole, increased over time. It probably averaged a little more than a tenth (about 13 percent) of GDP,

accounting for more than half (54 percent) and about two-thirds (66.7 percent) of domestic and private savings, respectively, during the last half of the twentieth century.

Many factors contributed to the rise in personal/household savings after the Korean War: the rise in personal income, unequal distribution of income, the increasing desire to improve one's lot, stable prices, the government's efforts to curb consumption and promote saving, the security of savings in banks, and relaxation of the government's repressive financial policy. The level, growth rate, and distribution of personal income appear to have had a positive effect, as shown below. As shown in chapter 2, per capita income in current prices increased from about $80 in 1953 to $2,000 in 1986 and nearly $11,385 in 1996. Even discounting inflation, the increase in real income was substantial. Korean consumers' savings were buoyed especially by double-digit wage increases each year from 1987 to about the mid-1990s. Average wages in 1987–90 were almost double what they had been in 1977–86 (Table 7.2). The faster the income growth, the less time there was for expanding consumption habits to adjust, thus the higher saving rate. Relative to GDP, private consumption steadily decreased from about mid-80–90 percent in the 1950s to about 53 percent in the 1990s.[8]

The second reason for the rise in personal saving may have been the widening tendency toward unequal income and wealth distributions. It is generally believed that there is a positive relationship between the saving rate and inequality in income and wealth distributions. There was more equality in the distribution of income in the country during 1969–71, for instance, but on the whole it deteriorated, indicating that income distribution has become less equal over time.[9] South Korea thus has followed the typical decline in equality in household income distribution in the early periods, implied by S. Kuznets' U-curve during its period of high growth.[10]

The third cause for the rise in personal saving is the desire to improve one's lot. This was revealed in a survey of the reasons for saving. According to a nationwide survey of 3,000 urban households conducted in 1992, the main purpose of saving was to purchase a house (28.8 percent), to acquire property, such as real estate (20.5 percent), and to prepare for retirement or old age (19.8 percent).[11]

The fourth reason was South Koreans' realization that the more stable prices they were experiencing—prices increased on average by only about 1.9 percent per year after 1982—would not erode the purchasing power of their savings.

Fifth, South Korea's high average propensity to save also seems to have reflected in the fact that a large proportion of Korean households' incomes was spent on education, larger than those in most other societies, including Western countries. The survey found that about 31.8 percent of respondents were saving for educational expenses or weddings for their children, and 31.3 percent for emergencies.

The sixth reason for the increase in household/personal saving was government efforts to curb consumption. The common habit of Koreans was said to have been consumption beyond their means, which traditionally led them to spend their disposable income more profusely than did the Japanese and Chinese. According to one study, Korea's short-run marginal propensity to consume on a logarithmic scale ranged between 0.466 and 0.510, in contrast to Japan's 0.389 to 0.353.[12] National income statistics reveal that the average propensity to consume for the 42-year

TABLE 7.2 Changes in Manufacturing Wages and Per Capita GDP Relative to Producers Price Index

	Current Prices (in 1,000 won*)*				*1994 Prices (in 1,000* won*)*			
Year	Wages	GDP	Wages[1]	GDP[1]	Wages	GDP	Wages[1]	GDP[1]
1953	—	2.4	—	—	—	—	—	—
1954	—	3.2	—	33.3	—	—	—	—
1955	—	5.3	—	65.6	—	—	—	—
1956	—	6.9	—	30.2	—	—	—	—
1957	2.0	8.7	—	26.1	—	—	—	—
1958	2.2	8.8	10.0	1.1	—	—	—	—
1959	2.4	9.1	9.1	3.4	—	—	—	—
1960	2.6	9.9	8.3	8.8	69.1	235.7	—	—
1961	2.8	11.4	7.7	15.2	65.1	237.5	(5.8)	0.8
1962	3.0	13.4	7.1	17.5	64.4	257.7	(1.1)	8.5
1963	3.3	18.4	10.0	37.3	58.5	292.1	(9.2)	13.3
1964	4.0	26.6	21.2	44.6	52.5	312.9	(10.2)	7.1
1965	4.7	28.1	17.5	5.6	56.4	302.2	7.4	(3.4)
1966	5.5	35.2	17.0	25.3	60.8	348.5	—	15.3
1967	6.7	42.5	21.8	20.7	69.9	397.2	—	14.0
1968	—	53.6	—	26.1	—	462.1	—	16.3
1969	—	68.3	—	27.4	—	550.8	—	19.2
1970	15.4	83.2	—	21.8	127.3	616.3	—	11.9
1971	18.4	104.0	19.5	25.0	139.7	707.5	9.7	14.8
1972	21.2	125.0	15.2	20.2	140.8	744.0	0.8	5.2
1973	23.3	158.0	9.9	26.4	145.3	882.7	3.2	18.6
1974	31.6	219.0	35.6	38.6	138.3	858.8	(4.8)	(2.7)
1975	39.9	287.0	26.3	31.1	138.3	891.3	(0.0)	3.8
1976	—	388.0	—	35.2	—	1,074.8	—	20.6
1977	71.0	490.0	—	26.3	201.1	1,243.7	—	15.7
1978	95.2	653.0	34.0	33.3	241.4	1,484.1	20.0	19.3
1979	122.3	825.0	28.5	26.3	261.5	1,580.5	8.3	6.5
1980	150.3	971.0	22.9	17.7	231.4	1,339.3	(11.5)	(15.3)
1981	180.7	1,186.0	20.2	22.1	229.5	1,349.3	(0.8)	0.7
1982	207.2	1,341.0	14.6	13.1	253.0	1,467.2	10.3	8.7
1983	231.9	1,563.0	11.9	16.6	282.8	1,708.2	11.8	16.4
1984	249.7	1,763.0	7.7	12.8	302.2	1,912.1	6.9	11.9
1985	—	1,952.0	—	10.7	—	2,098.9	—	9.8
1986	300.4	2,264.0	—	16.0	365.6	2,468.9	—	17.6
1987	334.4	2,647.0	11.3	16.9	405.2	2,874.0	10.8	16.4
1988	398.4	3,138.0	19.1	18.5	470.0	3,317.1	16.0	15.4
1989	496.5	3,498.0	24.6	11.5	577.2	3,643.8	22.8	9.8
1990	—	4,165.0	—	19.1	—	4,165.0	—	14.3
1991	—	4,957.0	—	19.0	—	4,734.5	—	13.7
1992	—	5,471.0	—	10.4	—	5,113.1	—	8.0
1993	886.8	6,031.0	—	10.2	911.3	5,553.4	—	8.6
1994	1,023.4	6,817.0	15.4	13.0	1,023.4	6,108.4	12.3	10.0
Averages								
1953–61	2.4	7.3	8.8	23.0	67.1	236.6	(5.8)	0.8
1962–71	7.6	47.3	16.3	25.1	62.9	424.7	(0.7)	11.7

TABLE 7.2 (*continued*)

Year	*Current Prices (in 1,000* won)				*1994 Prices (in 1,000* won)			
	Wages	GDP	Wages[1]	GDP[1]	Wages	GDP	Wages[1]	GDP[1]
1972–76	29.0	197.3	21.8	29.1	140.7	844.2	(0.2)	6.2
1977–86	178.7	1,217.8	20.0	20.9	215.3	1,611.5	6.4	10.2
1987–94	627.9	4,590.5	17.6	14.8	423.4	4,438.7	15.5	12.0
1953–94	154.3	1,225.0	17.2	22.0	202.3	1,752.4	4.6	10.3

[1]Change in percent.

Source: Based on data in Bank of Korea, *Economic Statistics Yearbook*, various years.

period between 1953 and 1994 was about four-fifths.[13] Korea's long-run marginal propensity to consume was between 0.732 and 0.797, in contrast to the lower rates of 0.469 and 0.549 for Japan. South Korea's average propensity to consume was 61.2 percent in 1978, when its per capita GDP was $1,242, compared with Japan's 55 percent in 1966–68, when its per capita GDP was $1,000. South Koreans' personal consumption in 1983 represented 89 percent of their disposable incomes, compared with 83 percent among Japanese and 78 percent among Taiwanese.

Koreans tended to spend more on festivities and ceremonials, the practices ingrained in the traditional period, than did the Japanese or even the Taiwanese. It has been widely argued that expenses for tradition-oriented activities in South Korea, such as weddings and funerals, were greater than those in other East Asian countries. Most middle-class South Korean households, for instance, spent about twice the amount of money ($6,000) for a wedding in 1979 than the estimated average expenditure (between $3,000 and $4,000) in the United States, though the average per capita GDP in South Korea ($1,546) in the same year was only 14 percent of that in the United States ($11,362). It was calculated in 1985 that members of the wealthiest class in South Korea spent about $18,800 (15 million *won*) each for wedding gifts, while members of the upper middle income class spent about $12,500 (10 million *won*).[14] The government estimated that an average of $26,000 was spent on each nuptial in 1992, which amounted to $10 billion in the country as a whole.[15] The percentage of expenditures by both urban and rural households increased over the years, from 4.4–4.5 percent of all household expenditures in 1965 to 6.2–13 percent in 1985 and 6.1–11.1 percent in 1988.[16]

The high propensity to consume in South Korea caused the government to mount well-advertised campaigns to curb personal consumption. The government-controlled press ran editorials reminding Koreans that "this is not [the time] for Koreans to indulge in excessive consumption."[17] It imposed stringent controls and high interest rates on loans for consumer items, as well as stiff taxes on so-called luxury consumption. The success of policies based on exhortation and coercion, typical of the authoritarian government's efforts for most of the early postwar period, is not fully measurable, but it appears to have been real.

Another important factor was the government's efforts to promote personal savings. Saving also is a habit, which can affect people's behavior to some extent. The

government used a variety of interventionist mechanisms, sometimes coercively, to promote it, as was done by the Japanese under its colonial government leadership. The military government went so far as to freeze all demand deposit accounts in commercial banks in 1962 and tried to force their conversion into longer-term savings deposits. Likewise, in an effort to mobilize domestic savings and resources, the government established in 1965 a national Taxation Administration Office to monitor the compliance of tax law. It also encouraged savings primarily to channel the mobilized funds into investment in industry.

Likewise, in 1962, the government initiated a program to increase savings by requiring all civil servants and employees of public enterprises to set aside 1 percent of their salaries or wages in bank deposits, insurance, or stocks, the mandatory savings rate of which was increased to 2 percent in 1972. Two years later (1974), forced saving was extended to farmers and fishermen, who were required to save 5 *won* per day per family and to contribute 50 percent of the sale price of harvests exceeding 10,000 *won* to savings deposits that paid 6 percent interest. In addition, government workers (civil servants and workers in government enterprises) were directed to keep their savings for at least three years (mandated to extend them beyond the initially required period). Savings could be withdrawn only when the workers retired or resigned. In like manner, the workers had to contribute 5.5 percent of their salaries or wages to a pension fund.

The government also attempted to increase savings by selling public bonds. In July 1969, it conducted a 30 billion *won* (about $100 million) public bond sale, which consisted of 15 billion *won* of industrial bonds, 5 billion *won* of the road construction bonds, 5 billion *won* of the housing construction bonds, and 2.5 billion *won* each of railroad construction bonds and regional development bonds. It was reported that the interest rates they carried were lower than those on bank deposits and that 56 percent of the sales to banks and other financial institutions were "forced." The remainder was forced on other groups, although one report claimed that only 24.7 percent of these sales were voluntary. Other factors that contributed to the increase in personal savings were the government's efforts to stabilize commodity prices and prevent real estate speculation, its guarantee of high minimum interest rates for private savings through mandatory provident fund contributions, and the security provided by banks and other financial institutions.

People generally save more if they are given an acceptable reason for saving, as during a war, for instance. They can be persuaded to save in their own individual or family interest, such as for education, old age, a house purchase, wedding or funerals, or as a safeguard in the case of sickness or disaster. The government-controlled press, therefore, ran editorials to remind Koreans "to increase our savings to ensure sustained healthy growth of the economy. We must keep in mind that our national savings rate of 27.9 percent in 1984 was much lower than those of some other Asian countries."[18] It is not certain whether these efforts paid off, and if they did, by how much, but South Korea's personal saving was high in comparison to many developed economies, other developing countries, and its own past record, though it was low in comparison to Japan and China.

Many reasons may be cited for the lower savings rates in Korea than in its neighboring Asian countries, including the relatively low level of per capita income,

high inflation, uncertainty about the political future, social instability, the question of the survival of the country, the lack of a habit of saving, and the lack of institutions in which to accumulate savings profitably. According to one study, having experienced frequent political upheavals, the Korean people's attitude toward the future was myopic: the time preference factor was large—the present being more precious than the future—resulting in a relatively low average propensity to save.[19] Reflecting this outlook, financial intermediaries seldom made long-term commitments: the average length of a consumer loan was seven years during 1953–81, while that in Japan was about 20 years.

Relatively low personal saving might also reflect the lack of financial incentives to do it. Other than the period between 1965 and 1972, when financial incentives were nearly adequate, the government harshly restricted interest rates on deposits during most of the period after World War II. Even when lending rates were freed from government control in later years, interest rates on deposits were kept low by the government "to prevent overheated competition among commercial banks," which might not have induced people to save more. Although the substantial increases in household savings after the Korean War enabled Koreans to finance their own investments and others, they remained relatively low in comparison to neighboring countries, though higher than many others.

To increase household savings was quite a challenge in the war-ravaged country, where the weakened domestic banking system, coupled with corruption and cronyism, created a high degree of uncertainty. Most savers, as well as investors, are reluctant to save or invest in countries that do not provide attractive financial incentives. It is notable that the South Koreans did save and invest in the country and did not engage in capital flight, as often occurs in developing countries. The questions now are: Who were the contributors to household savings and to what extent? The primary savers examined below are landlords, farmers, wage earners, and high income earners.

Landlords

The group that first comes to mind in a country like Korea in the 1940s would have been landlords, who were wealthy and who wielded political power and social prestige in the traditional period. However, after the Korean War, landlords no longer owned large tracts of land or received rental income from peasants. Under the nationwide land reform program, which was enacted in June 1949 and became effective in April 1950,[20] the real estate from which most landowners' incomes were derived was taken away from them. Under the land reform law, holdings in excess of 7.35 acres (3 *jeongbo*) were bought by the government in exchange for "land bonds," a kind of voucher called Farmland Price Securities.

The farmland reform redistributed farmland to the actual cultivators, farmers whose holdings for farming were usually less than 2.4 acres (1 *jeongbo*) before World War II. Since about 60 percent of farmland cultivated by tenants had been privately sold before the farmland reform was implemented, the reform was applied to what remained. Farmers who wanted to buy land had to pay 150 percent of the average annual harvest, 30 percent per year for five years, with farm products. As of

March 1955, only 56.8 percent of the total sales had been paid in, largely because the burden placed on the new owners was heavy.

The land reform delivered a crushing blow to the landlords: their wealth and source of future income were being taken away from them forever, and the compensation for their land being minuscule. The payment for their land was 150 percent of the value of the average annual crop, which was assessed by the government at about 30 to 40 percent of the market price. This assessment put the computed value of their land between 45 and 60 percent of an average annual crop.[21] The cash the landlords could get by selling their vouchers was limited to 300,000 *won* per month, and vouchers could not be put up as security for bank loans except when they were used to purchase former Japanese factories. In addition, if landlords wished to exchange their vouchers for cash, they received the cash equivalent of the number of bushels (*seok*) of rice specified on the voucher at the official price.

Even more devastating to the former landlords was the fact that the market price of land bonds plunged to levels between 30 and 70 percent of their nominal value immediately after the land reform and eventually fell to a 10 percent level.[22] In other words, their compensation was equivalent to 13.5, 42, and 4.5 percent of the average annual harvest, respectively.[23] Since most of the vouchers were traded at 20 to 30 percent of their face value,[24] landlords were compensated for their land at the amounts equivalent to 9 to 18 percent of the average annual crop or one-fourth to one-sixth of the value of their former land assets.[25]

Neither did the reform convert former landlords into industrial capitalists. The government had hoped to transform landlords into entrepreneurs by offering them the opportunity to purchase the confiscated Japanese factories and businesses with their vouchers, a scheme patterned after the one used in the Meiji Land Reform in Japan in its modernization drive in the 1870s. Most former landlords and voucher holders did not take advantage of the opportunity, and this effort failed. By the end of March 1953, less than 7 percent of the former Japanese properties (29,906) had been sold to former landlords.[26] Only 5 percent of the largest 1.4 percent of landlords who owned more than 49 acres (20 *jeongbo*) of farmland participated in the former enemy property privatization program, and only 40 percent of the vouchers were used to buy the properties before 1958.

The attempt to convert landlords to businessmen failed not only because the real value of vouchers plummeted, but also because of the landlords' aversion to business, which was one of the legacies of the Confucian beliefs in traditional societies in East Asian countries.[27] Another contributing factor was the fact that the bulk of the government's land reform was not carried out until after 1958. Only about 28 percent had been implemented by May 1955, when most Japanese property was divested.

In any case, the land reform probably did not affect landlords' contribution to savings much anyhow. Even if the landlords had continued to hold land and collect rent, most did not think in terms of saving their income for productive investment. Their income would have been used to buy more land, lend to less fortunate peasants, extend charity, build tombs and monuments, and/or entertain lavishly, as they had done for centuries. Most of the landlords did not become business investors

or entrepreneurs, and the land reform in South Korea delivered a serious blow to their future income, which prevented them from saving much for investment.[28]

Farmers

Traditionally, the peasants were the majority of the Korean society, who paradoxically combined a thrifty temperament with a high propensity to burden themselves with debt. Peasants were thrifty because they knew how near they lived to the brink of disaster. However, faced with heavy financial burdens, there is very little evidence of voluntary savings out of farm income, especially during the years immediately after the Korean War. They seem to have depended heavily on debt to continue farming. Nearly 90 percent of all farm families had some sort of debt. According to one study,[29] a farm family's debt rose 4.4 times during 1953–56 and 1.7 times in subsequent years. Most of these debts, about 70 to 80 percent, were high-interest curb, not bank, loans.

As noted above, the landless farmers were given new life after World War II and became the landowning farmers; but they carried a heavy burden on their shoulders as well. In spite of their lack of household saving, farmers were forced to save a substantial amount of their income for the purchase of land (which was owned by the repatriated Japanese and/or the former Korean landlords) from the government under the "land-to-the-tillers" reform program, as well as from the former landlords. Under the confiscated Japanese farmland divestiture program, which was implemented by the U.S. military government in 1948, farmers were given the opportunity to purchase land at 300 percent of the value of the annual average harvest, payable over 15 years, for less than 5 acres (two or less *jeongbo*). About 61.4 percent of the total confiscated farmland (199,000 out of 324,000 *jeongbo*) was sold to 505,000 farm families, while the remaining 38.6 percent was transferred (in June 1949) to the Korean government for later divestiture.

With the implementation of this reform, the number of landowning farmers increased from 14 percent of the farm population in 1945 to 88 percent in 1957. Payments for land were 98 percent completed by 1968. The land reform clearly benefited the peasants. About 50 percent of farmers who had owned no land under the tenancy system, before the land reform, became landowner-cultivators. Partial tenants (and small part–land owners) also received land formerly owned by landlords. When the redistribution of land was completed, over 80 percent of the cultivators ended up with two acres or more of farmland. As a result, the income and wealth distributions among rural families became visibly more equal.[30]

To purchase land under the government land reform and divestiture program, the farmers had to set aside 20 to 30 percent of their harvest annually for 5 to 15 years, which constituted forced saving. They also had to pay the so-called wartime temporary farm family income tax, which was levied based on the revised land tax law in September 1951. The tax rate was applied progressively from the 15 to 28 percent level and was paid in kind, which accounted for about one-third of government revenue during the Korean War (38.1 percent in 1950, 22.5 percent in 1951, 30.4 percent in 1952, and 20.6 percent in 1953). The burden of this tax was heavy

enough to discourage farming and led to a decline in agricultural productivity. Thus, the overall financial burden to new land-owner farmers, all of which they had to pay to the government, was approximately 50 percent of the value of their annual harvests by the end of 1954. Thus, until the payment for land was completed, the situation of farmers was not much different from tenancy.

In addition, farmers had to sell one-third of their products to the government at the officially set low price according to the law of grain management enacted in 1950. During the war, the government purchased about a third of the annual harvest at officially set low prices, which were said to have been as low as 74 percent of "the average production costs." This was continued until 1963.[31] The low grain price policy was pursued by the government to lessen the redemption price for the former landlords and also to keep a low price index in the country. The maintenance of a low price index was necessary for two reasons: to support the high real purchasing power of industrial workers' earnings and a high foreign exchange value for Korean currency. According to the agreement with the foreign aid donor country, if the wholesale price index rose more than 25 percent per year, South Korea had to devalue its currency against the U.S. dollar, which it did not wish to do.

It is thus clear that the real beneficiary of the farmland reform was the government, not the landlords or the farmers. The farmland reform provided war supplies of grain at low prices. The government acquired needed rice for war supplies at low prices and also took in the difference between its sales revenue and the redemption payments as a form of "tax." While landlords lost land with very little compensation and new independent farmers gave up substantial portions of their incomes, the government received the revenue from the sale of the former enemy properties and made up its fiscal deficits. Only 1.5 percent of the sales revenue during 1949–55 was transferred to the government, however.

In addition to the government's low grain price policy, the importation of large quantities of foreign grain under foreign aid programs, either through the U.S. International Cooperation Administration or Public Law 480, contributed to depressing the prices of Korean farm products and stifled the income of farmers. Between 1945 and 1960, on average, grain constituted one-third of all economic aid to South Korea, which was equivalent to 15 percent of domestic production. The importation of agricultural products accounted for more than 40 percent of total aid in 1965.[32] As a result of the low grain price policy and the inflow of foreign grain, the grain price index fell by 35 percent between 1956 and 1959, when prices of nonagricultural consumer goods rose by 72 percent during 1953 and 1954. Also, the grain price index rose only 20 percent during 1955–59, while that of other consumer goods rose by 64 percent during the same period. Consequently, the prices of agricultural products remained low in spite of rapid inflation, and the terms of trade tended to harm the agricultural sector, particularly when the foreign aid program was in full swing (e.g., 70–71 percent of aid in 1961–62 on the basis of 100 in 1974).

Because it depressed grain prices, the direct benefit to farmers from foreign aid also was limited. The agricultural and related sectors received only 6.3 percent of investment funds allocated for development projects supported by economic aid programs, despite the fact that more than 60 percent of the population based its livelihood on agriculture. Even the importation of fertilizer apparently did not

provide much direct subsidy to farmers. During 1960–63, for instance, the U.S. aid program shipped approximately $150 million worth of fertilizer to South Korea. Although the government set the official price at $3.72 (188.6 *won*) for a 100-pound bag of nitrogen fertilizer, in accordance with the aid agreement, U.S. aid agency economists found that Korean farmers were actually being charged an average of $9.60 (480 *won*) per bag.[33]

As a result of these financial burdens and lack of support, many newly independent farmers reverted back to tenant status soon after the land reform. About 58 percent of those who bought farmland of less than 1 acre (0.735 acre or 0.3 *jeongbo* or smaller) and 32 percent of those who bought farmland of 0.735 to 1.23 acres (0.3 to 0.5 *jeongbo*) sold their farmland.[34] Many of those who sold their land stayed in rural areas, working as farmers on leased land. Consequently, 26 percent of all farmland returned to tenant farming. This was one of the main reasons that farmers were not able to save in the early years.

After about 1970, when many of the forces that suppressed disposable farm income and that required compulsory payments were removed, and farmers' income increased as the nation's economy and agricultural production expanded, their ability to save improved. However, their income still lagged behind the urban income. Peasant's incomes were not only below that of the urban population, but the gap between them widened considerably in the late 1980s. In 1988, the average income of people in rural areas amounted to about eight-tenths (about $12,000) of that of people in cities (about $15,000), comparable to the 84.7 percent in 1985. Farm families accumulated debts averaging about $4,620 per household in 1988 and had average assets of about $66,057. The long-term prospects for agriculture were not encouraging. Traditionally the peninsula's rice basket, South Korea had not been self-sufficient agriculturally for many years. In the late 1980s, almost half the nation's foodstuff needs were imports, mostly in the form of wheat and animal feed corn. The share of the GDP provided by the agriculture, forestry, and fishing sector share of the GDP shrank to 5.2 percent in 1987.

Moreover, the large portion of the modest increases in income went to consumption. Although rural households consumed about 85 percent as much as urban households between 1965 and 1988, peasants' consumption expenditures after the land reform have increased and consumed practically all of their additional income.[35] Under these circumstances, it is not surprising to find that few former landlords or farmers saved much, especially during the early years. Although the sum of private saving in the agricultural sector increased over time, the proportionate share of savings gradually decreased from 87.7 percent of the total in the early 1950s to 30–40 percent of the total in the 1960s, 16.7 percent in 1982, and less than 10 percent in the late 1980s, while savings in sectors such as business expanded. As a consequence, net voluntary savings in the agricultural sector were a very small part of the nation's private savings. The major portion of savings had to come from sectors other than agriculture, in spite of the fact that the farmers continued to be the largest segment of the country's population until about 1985.

It is difficult to determine who in the nonagricultural sector did most of the saving, but the only remaining groups in the country were the industrial and white collar workers, aside from high income earners, business proprietors, and corporations.

Wage Earners

The income and savings of wage earners clearly increased over time. There are no adequate, consistent, and comprehensive data showing the rise in wage earnings during the period, but based on limited and scattered data it is clear that, as the nation's GDP climbed, so did wages. The real wages have multiplied during the last half of the twentieth century: they increased at an annual average rate of 4.6 percent per year during the period between 1953 and 1994. Particularly, wages of those workers who were employed in large enterprises, such as the *jaebeol*, were even higher than those at smaller firms, in addition to enjoying better fringe benefits and working conditions, despite a rash of strikes against the *jaebeol* beginning in 1987. This was significant because an increasing number of workers drew wages from large corporations over time. As a result, the level of income among the nonagricultural wage earners has substantially increased, not only absolutely but also relative to farmers over time. Approximately 40 percent of the population lived below the poverty line in 1961, but less than 10 percent did by the late 1980s.

Notwithstanding the improvement, the increase in the real wages lagged far behind most other economic parameters. In comparison to the increases in the real wage at an annual average rate of 4.6 percent per year during the 42-year period between 1953 and 1994, per capita GDP increased at 10.3 percent during the same period, pushing up the latter 2.2 times faster than the former. Similarly, the difference between the real wages and the real per capita GDP widened from 3.53 times to 10.48 times during the same period. In manufacturing, the real wages of workers increased about 6.3 times during the period between 1953 and 1994, while the per capita GDP multiplied 18.8 times during the same period, as shown in Table 7.2.

Increases in real wages lagged behind the rise in labor productivity.[36] Real wages, for example, increased only 173.3 percent, averaging 8.67 percent per annum during the 21-year period between 1968 and 1988, in contrast to the rise in labor productivity of 227 percent, averaging 11.35 percent per year during the same period.[37] There were gaps of 53.7 percent in total between 1968 and 1988 and an average of 2.68 percent per annum. Likewise, in terms of annual increases, wages in real terms increased by a mere 3.5 percent during the 1971–75 period, while labor productivity moved upward by an average of 9.2 percent per year, as shown in Table 7.2.

Particularly, the rise in the wage rate for those in the manufacturing sector lagged far behind the growth of labor productivity in that sector, although their wages climbed faster than in other areas of the economy, as shown above. While productivity in manufacturing advanced by 10 percent per year on average, annual growth in real wages was only 3.7 percent, far lower (6.3 percent) than the productivity increases. Also, according to a study by the Economic Development Board in 1970, real wages inched up by only about 20 percent, while labor productivity skyrocketed 250 percent.[38] The improvements in incomes of the workers and their standard of living were certainly less than South Korea's economic growth, especially in the early period. This led many workers to agitate for a greater share of the nation's prosperity.[39] It is generally believed that, due to inflation, the rise in real wages

lagged behind business income especially in the early stages of the country's development.

Likewise, in comparison to high income groups, the rise in wages lagged. Consequently, the share of the income of the bottom 40 percent of Korean households decreased from 19.34 percent of all household income in 1965 to 16.06 percent in 1980.[40] Similarly, another study finds that the poorest 10 percent suffered a decline of more than 20 percent in total wage income during the 1997–98 financial crisis, while the richest 10 percent actually gained. Moreover, since resources were diverted from the production of consumer goods to investment, consumers as a whole acquired fewer consumer goods until enough investment projects were completed to restore the flow of consumer goods. Consequently, the income earners that were most likely to have found their standard of living reduced relative to others were the wage and salary earners who have not shared the benefit of rising prices. Especially, wages for manual workers, who were responsible for much of the production and export that fueled the economy, were much lower than the national average.

Three situations appear to have prevented wage income from rising commensurate to the productivity increases. In the years following the Korean War, there was a large pool of unskilled unemployed workers that far exceeded the demand for them, resulting in low subsistence wages. In the later years, there was a relatively high youth unemployment rate. As of November 2004, the youth unemployment rate was 4.2 percent, compared with 3.3 percent for the overall labor force. The second cause appears to have been the government's suppression policy of workers in support of employers, as noted in chapter 4, which tended to restrain the rise in wages. The third factor was the impact of inflation, which gripped the country for about three decades until about 1981. Many studies suggest that the costs of inflation are borne most heavily by the working class, since wage increases tend to fall behind prices rises.[41]

Workers were caught in a revolution of rising expectations as a wave of rising urban land values and housing costs outpaced average real wage increases by more than 70 percent during the 1980s. Still in the late 1980s, working families found themselves struggling to meet minimum standards of living. In 1986, for example, the average wage of a South Korean worker was $381 a month, including overtime and all allowances. According to the government, the basic wage necessary to sustain a "decent" way of life was $588. Thus, the average worker only earned two-thirds of what the government thought necessary to sustain a decent living standard for a family of four. In 1987, semiskilled workers' wages typically ranged from $357 to $520; unskilled workers toiled twelve hours a day and often seven days a week but earned $125 a month. In addition, South Korea was known for having the world's longest working hours. In 1986, the Korean worker averaged about 54.7 hours a week. The wage and salary earners, however, had somewhat higher, more regular, and more stable incomes than did the peasants; even the unskilled urban workers typically earned more than the average peasants.

The savings of wage earners increased from virtually none immediately after the Korean War to a discernible amount. But their saving rose very little, amounting to

probably no more than 3 to 4 percent of GDP. Wage earners generally save very little in comparison to other groups, such as profit earners, because their orientation is more toward spending than saving. Needless to say, the 3 to 4 percent of national income saved by wage earners in South Korea was not very large, but neither was it negligible, particularly in comparison to the experiences in other less developed countries. The savings rate of wage earners in South Korea was somewhat higher than the typical ratios found in many less developed countries, which is typically nearer to 1 percent of national income. Evidence from other countries suggests that even in the richest countries, the savings of wage earners seldom exceeded 4 percent of national income, except in Japan, where figures as high as 8 to 10 percent have been reported.

There appear to have been two main reasons for the modest rise in saving, namely, the increased costs of living in urban settings and the rising propensity to consume. The prices of daily necessities, produced for the most part by investment-starved small and medium-sized industries, rose faster than the overall inflation rate, and thus the cost of living for average workers' households increased relatively more than that for high-income households. Likewise, rising urban land values and housing costs outpaced average real wage increases of more than 70 percent during the 1980s, for instance. Working families in the late 1980s still found themselves struggling to achieve a minimum comfortable standard of living. As a result, the real income of ordinary Korean wage earners shown in statistics is somewhat misleading.

At the same time, the perpetuation of low proclivity to save meant the average and marginal propensities to consume among the wage earners in urban areas were high. They started out with near one soon after the Korean War and remained fairly high during the entire period, although they declined somewhat over time. No data are available, but as national income increased, workers' consumption appears to have risen proportionately more in the meantime. Consequently, the portion of wage income saved was relatively small. One positive indication of wage earners' contribution to savings was from the income derived from foreign sources. It seems that personal savings of wage earners depended not only on earnings at home but also on income derived from foreign sources, especially private transfer payments that came from Koreans working overseas (e.g., in Vietnam, Middle Eastern countries, and Germany)[42] and emigrants abroad.

Among wage earners, professional and white collar workers seem to have devoted more of their income to saving than average wage earners, as is found in many developed countries. Middle class earners in South Korea had the ability to save a larger percentage. Income distribution among wage earners in the country was more skewed toward the educated and upper income class than in many developed countries. College graduates in 1971, for example, earned, on average, three times more than workers with an elementary school education, while middle and high school graduates earned about 20 percent and 80 percent more than those with an elementary school education, respectively. Moreover, the gap between the average incomes of college and elementary school graduates has widened over time, while the difference between middle and high school graduates has narrowed somewhat.[43]

As is found in many developed countries, the propensity of middle income urban workers in South Korea to consume was high, with the demonstration effect of the

upper income classes affecting their consumption habit. Because South Korea had to attract middle class skills from the developed countries, the middle classes tended to have a higher standard of living. Most members of the middle class were engaged in the perpetual struggle to keep up with the Joneses, resulting in high consumption and low saving levels. If they managed to save enough to buy the house in which they lived, they were doing well. Some reports, however, suggested that they did save sizable amount of income, which increased over time. It has been calculated that even during the early years, urban households' savings increased by 8.3 percent per year, and a Citizens National Bank survey showed that the average urban household's savings grew by 20.4 percent per year between 1980 and 1987.[44] This development is supported by the fact that there were substantial increases in bank deposits, housing construction, and the financing of children's education.

The savings of the middle income classes, however, may not have contributed much toward productive investment. The income they saved seems to have been used to educate their children, improve their well-being (e.g., in terms of housing), or provide for retirement. This would be virtually offset by the savings used up for the same purposes by the earlier generation, although the offset might not be complete, as income and population grew and the amount set aside by the later generation was larger than that set aside by the previous one. The savings was important to the individual savers, but because it was merely a postponement of future consumption, it was not particularly significant in the context of financing productive investment in businesses. The salaried middle classes thus saved some, but the savings of the middle classes out of their salaries could not have been of major consequence for productive investment. In addition, the South Korean middle class was still relatively small.

High Income Earners

Most personal/household savings in South Korea after the Korean War came from high income earners that included primarily entrepreneurs, business owners, and investors, as in many developed countries. A significant portion of the income of the high-income earners was saved with unearned income. While the top 10 percent of high income earners received monthly salaries more than 9 times higher than those in the bottom 10 percent, they made 21 times more from assets than did the bottom 10 percent, and the high income earners deposited more in savings accounts in banks than did the low and middle income earners, as shown in the GINI coefficient (a key measure of income disparity, where 1 signifies total disparity among the classes and 0 indicates completely equal distribution). The estimated GINI coefficient for financial assets (based on a Bank of Korea survey) was 0.56 compared with 0.36 for household income distribution in 1988. According to a Korea Development Institute's survey, the GINI coefficient for financial asset ownership was even higher (i.e., 0.77, in contrast to 0.40 for income distribution in 1988).[45] In other words, savings deposits in banks were more unequally distributed than income distribution, as financial asset was distributed more unequally (for it was mostly held by rich people) than that of income distribution (for which most workers had certain shares).

There are no reliable and consistent data available for income distribution in South Korea except for recent years. However, it appears the equality of income distribution changed over time and seemed to have followed a unique path of fluctuation. The high income earners' share of national income increased over time for most of the period after the Korean War, excepting the period between the early 1980s and the mid-1990s, when wages increased rapidly. The savings of high income earners rose proportionately more, as shown in the rise of bank deposits and business investment after the Korean War. In terms of the GINI coefficient, the income distribution in the country was more unequal during the early period of development, specifically, between 1953 and the 1970s, and after the 1997 financial crisis, while the income distribution was more equal between 1969 and 1974, as the GINI index increased from 0.308 in 1968 to 0.413 in 1974,[46] and from 0.29 in 1996 to 0.35 in 2000 and 0.344 in 2004, in the shape of an inverted U curve.

In terms of share of income, the top 20 percent of households increased from 41.8 percent of total income in 1965 to 45.4 percent in 1980, and the average annual income of families in the highest 20 percent bracket increased by 26.6 percent between 1996 and 2000.[47] This means that the difference between the top 20 and bottom 20 percent increased from a 4.7-fold difference in 1996 to a 6.7-fold difference in 2000. A report of the Korea Chamber of Commerce and Industry, however, found that the gap between the high and low income groups in South Korea narrowed in 2002, reversing a steep widening in the wake of the 1997–98 crisis.[48] On the other hand, the National Statistical Office reported that the average monthly income of urban households in the top 20 percent grew 2.8 percent in 2005 to 2.98 million won, while those in the bottom 20 percent saw their income rise by only 2 percent, to 1.62 million won. The report also showed that the top 20 percent earned 5.43 times the income of the bottom 20 percent in 2005, the highest disparity since the 5.49 ratio recorded in 1999. The income gap between the haves and the have-nots grew to its widest level in the first quarter of 2005 since the government first began collecting the statistics in 1982. During the first three months of 2005, the average monthly income of the top 20 percent grew by 5.6 percent, to 5.59 million *won*, while that of the bottom 20 percent increased by only 2.5 percent to 1.12 million won. In the meantime, the rich have also gained substantial wealth through investments in stocks and properties.

Similarly, the share of the income of the top 10 percent of households was even higher and increased more, expanding from 25.8 percent of GDP in 1965 to 29.5 percent in 1980.[49] The richest 10 percent enjoyed a 10 percent increase in their total income and only a 2 percent decline in their earned income even during the 1997–98 financial crisis, when the income of the lowest 10 percent of population fell by more than 20 percent, showing a widening income inequality.[50] The income gap between the haves and have-nots has, thus, increased since the financial crisis in 1997. Also, the number of people filing for personal bankruptcy has been on the rise since 1997, when the first case was filed. The number rapidly increased from 329 people in 2000 to 1,325 in 2002, 3856 in 2003, 12,317 in 2004, and 38,773 in 2005. It appears the growing number of personal bankruptcy filings was due to the widening income gap, in addition to the prolonged economic slowdown.[51] Inequality in

income distribution in South Korea as a whole appears to have resulted predominantly from the inequality of income distribution among urban households, because the income, as well as wealth, distribution of farm households became more equal after the land reform.[52]

It thus appears that equality of income distribution in South Korea after the Korean War peaked in the middle of the development stage (the latter 1970s–1980s in South Korea's case), which does not seem to conform to the conventional U-curve pattern. It took a shape with an added phase of the inverted U-curve in the middle, instead resembling a letter W, which included downward, upswing, and downside phases. The period that showed more equality in income distribution was between the 1980s and the crisis of 1997–98. The share of the income of the top 10 percent of households decreased from 29.5 percent in 1980[53] to 27.6 percent in 1988, and that of the top 20 percent decreased from 46.4 percent in 1980 decreased to 42.2 percent in 1988. Also, while income distribution in South Korea has become less equal, the income distribution in the country as a whole appears to be more equal than that in some developed countries. Income distribution in South Korea as a whole during the period between 1980 and 1997 was more equal than in some developed countries. The richest 20 percent in South Korea accounted for 39.3 percent of the total national income, compared with 46.3 percent for the United States, 40.3 percent for Switzerland, and 40.2 percent for France. As income distribution in South Korea as a whole during the period between 1980 to 1997 has become more equal, however, the rise in personal savings slowed down somewhat.

Channels of Personal/Household Savings

Personal/household savings in South Korea were held in five main venues: (1) savings deposited in financial institutions, (2) savings invested in owners' equity, (3) insurance premiums and pension funds, (4) portfolio investments and bonds, and (5) other forms of financial assets, such as personal assets and savings in unorganized financial markets (UOFMs) (or the curb market), as shown in Table 7.3. These are examined in the sections that follow as to their extent, impacts, and implications in order to discern their contribution to capital formation.

The Korean people were inclined to deposit their personal/household savings in organized financial institutions. However, in the early years, because of massive dislocations of the economy after World War II and the Korean War, on the one hand, and the inflexibility and inability of the organized financial institutions to keep up with the rapidly changing economic conditions in the country and the world, on the other, the organized financial institutions were not able to attract much personal savings until after about 1965, as examined earlier. The deposits were rather small, when the harsh financial repression policy was pursued. However, as personal income rose, and with the interest rate reform in 1965, the organized financial institutions were able to attract a major portion of personal savings in their deposit accounts. The amount of household savings deposited in the financial institutions varied widely from one point in time to the next, but deposits in the organized financial institutions increased from about a third (32 percent) of all personal savings in 1970 to about

TABLE 7.3 Allocation of Personal Savings (in percentage of total)

Year	Stock Shares	*Deposits in Financial Institutions*			Insurance & Pensions	Portfolio Investment	Other Financial Assets	Total
		Banks	NBFI	Total				
1970	7.3	32.6	(0.4)	32.2	5.7	8.7	46.1	100
1971	18.2	22.4	10.7	33.1	5.4	1.4	41.9	100
1972	17.9	45.7	5.6	51.3	5.2	2.4	23.2	100
1973	18.3	22.3	12.3	34.6	3.2	2.9	41.0	100
1974	15.8	26.4	13.7	40.1	5.7	2.8	35.6	100
1975	22.5	21.3	11.3	32.6	3.5	5.9	35.5	100
1976	23.9	25.8	13.3	39.1	7.3	6.7	23.0	100
1977	16.7	31.3	11.7	43.0	6.3	6.7	27.3	100
1978	28.4	24.8	11.3	36.1	7.1	9.3	19.1	100
1979	22.9	21.8	18.8	40.6	12.8	13.5	10.2	100
1980	18.8	34.5	21.0	55.5	12.5	22.6	(9.4)	100
1981	13.4	30.8	11.6	42.4	11.6	19.6	13.0	100
1982	13.4	34.9	19.1	54.0	13.5	18.4	0.7	100
1983	22.1	24.6	21.4	46.0	26.4	9.6	(4.1)	100
1984	18.5	8.1	24.5	32.6	20.6	11.4	16.9	100
1985	5.1	24.2	22.9	47.1	22.1	6.4	19.3	100
1986	3.0	28.7	22.6	51.3	19.5	15.9	10.3	100
1987	7.5	26.9	28.9	55.8	19.4	10.6	6.7	100
1988	21.5	13.2	21.3	34.5	19.6	18.3	6.1	100
1989	17.7	10.9	27.1	38.0	18.1	21.1	5.1	100
1990	4.0	19.4	37.8	57.2	21.0	13.4	4.4	100
1991	9.5	21.8	32.6	54.4	21.1	10.8	4.2	100
1992	7.5	18.5	42.9	61.4	17.3	11.3	2.5	100
1993	3.5	17.9	40.4	58.3	14.6	16.1	7.5	100
1994	3.0	23.8	46.5	70.3	9.9	14.1	2.7	100
Averages								
1970–77	17.6	28.5	9.8	38.3	5.3	4.7	34.2	100.0
1978–86	16.2	25.8	19.2	45.1	16.2	14.1	8.4	100.0
1987–94	9.3	19.1	34.7	53.7	17.6	14.5	4.9	100.0
1970–94	14.4	24.5	21.2	45.7	13.2	11.2	15.6	100.0

Source: Hanguk Eunhaeng 1995: 214–15.

seven-tenths in 1994 (Table 7.3), attracting nearly half (45.7 percent) of all personal savings during the entire period between 1970 and 1994. More than half (55 percent) of the deposits between 1970 and 1994 were in savings deposits.

The bulk of deposits in the organized financial institutions were made in banks. After the financial market reform of 1965, the majority of the Korean people preferred depositing their savings in banks. During the eight-year period between 1970 and 1977, they attracted nearly three-quarters (74.4 percent) of deposits in the organized financial intermediaries. However, deposits in banks declined over time, to 57.2 percent during 1978–86 and 35.6 percent during 1987–94. For the 25-year period between 1970 and 1994, banks attracted more than half (as much as 53.6 percent) of the deposits into organized financial intermediaries, which was equivalent to about a quarter (24.5 percent) of total personal savings (Table 7.3).

Korean people seemed to have preferred to keep their savings in time and savings accounts in banks. According to the survey of 1,000 people cited earlier, almost half (47 percent) favored time and savings accounts in banks as the principal instruments of holding their savings. Savings deposits in banks rapidly increased, from 0.4 percent of GDP in 1953 to 6.8 percent in 1966, 21.7 percent in 1969, 26.6 percent in 1987, and 31 percent in 1994. Also, more than 90 percent of the respondents to the survey said they favored financial instruments with one- to three-year maturity dates when making deposits at banks. In particular, nearly 55 percent of depositors preferred financial instruments with a three-year maturity. Time and savings deposits after the interest rate reform in 1965 steadily increased from 6.8 percent of GDP in 1966 to 22.6 percent in 1973, 28.4 percent in 1986, and 47.6 percent in 1998. The only period when enthusiasm for deposits dampened was during the low interest rate policy periods before 1965 and between 1972 and 1980, when the ratio of time and savings deposits averaged only about 20 percent of GDP.

The major portion of the remaining sums was deposited in nonbank financial institutions (NBFIs): finance companies, mutual credit unions, cooperative societies, and trust companies. The data available for the period between 1970 and 1994 indicate that deposits in these institutions were rather small—about a tenth of total personal savings in the early years—but they expanded very rapidly to nearly half (more than 40 percent) of total personal savings during the first half of the 1990s. For the entire 25-year period between 1970 and 1994, more than a fifth (21.2 percent) of personal savings was deposited in NBFIs, nearly equaling the share of banks, although their share before 1972 was much smaller (Table 7.3). Their share, however, increased rapidly after 1981, rising from 11.6 percent of the total in 1981 to 46.5 percent in 1994, while the enthusiasm for depositing personal savings in banks waned markedly in favor of NBFIs when the latter were paying higher interest on deposits.

Contrary to the pronounced proclivity to set aside their savings in banks, Korean people tended to shy away from investing in share capital. Private savings allocated to owners' equity fluctuated from period to period, the most notable periods being between the 1970s and the first half of the 1990s. The largest share of personal savings (averaging about a fifth) was devoted to owners' equity during the 1970s and first half of the 1980s, while a much lower level of personal savings (averaging about 5 percent) was dedicated to share capital during the latter half of the 1980s and the first half of the 1990s. On the whole, the data available for the period between 1970 and 1994 indicate that only a seventh (14.4 percent) of total personal savings, which was equivalent to about 12 percent of total domestic savings in the country, was dedicated to investment in businesses in the form of owners' equity.

Instead of funneling personal savings into the organized financial institutions or direct investment in business, a substantial portion of household savings in South Korea was channeled into other forms of savings, such as insurance, pensions, portfolio investment, and "other assets," which seem to have included deposits in UOFMs, such as the curb market and the *gae* (mutual aid societies), especially in the early years. They constituted about a sixth (15.6 percent) of all personal savings during 1970–94 (Table 7.3).

Savings in the form of insurance policies and pensions attracted a rather small sum, about 5 percent of total household savings, but their portion increased to about

a fifth of the total, averaging 13.2 percent of the total for the 25-year period between 1970 and 1994. Savings in this form was particularly prevalent during the 1980s, which averaged more than a fifth of the total. Similarly, savings in portfolio investments, including bonds, increased from less than 5 percent of the total in 1970s to more than 15 percent during the 1980s and the first half of 1990s. Likewise, according to a survey of 1,000 people conducted by a securities company in 1992, only 12.6 percent of domestic savings was invested in securities.[54] During the 1980s, personal savings in this form averaged close to a fifth of the total, and for the entire 25-year period between 1970 and 1994, about 11 percent of the total. The securities market in South Korea was not well developed until the 1980s, and even then it was not the institution in which savers customarily kept their savings.

There are no reliable or consistent data on the channeling of personal savings in "other assets," including UOFMs and real estate, because of the nature of the transactions. However, the available data, though fragmentary, appear to indicate that a substantial amount of personal savings entered these arenas, especially in the early years, when the organized financial institutions did not offer many incentives, such as low or negative real interest rate on deposits, for the savers to deposit their savings, whereas the UOFM paid the market rates of interest, as examined in chapter 5. Personal savings held in other assets was nearly half (46.1 percent) in 1970, and as much as 30 to 40 percent of the total during 1953–65 and 1972–80 (to a lesser extent).[55] Its share, however, rapidly decreased to about 2.5 percent by 1992, as people were no longer concerned about keeping their savings in other markets. However, personal savings in the UOFM have continued to date. According to a survey of 1,000 people conducted by a securities company in 1992,[56] the survey respondents held an average of 24.6 percent of their total savings in financial assets, while only 9.3 percent had no such holdings.

Business Profits and Saving

Conventional wisdom about domestic saving says that, in general, voluntary personal/household saving is limited and that whatever saving is required to finance investment for economic growth needs to come mainly from the income groups enjoying expanding profits. As examined in the previous sections, beyond the high income earners, domestic saving by nonprofit makers, such as former landlords, farmers, and urban workers, was not very significant, although the rising middle and high income earners in South Korea have saved increasing sums. This leaves the major burden of domestic savings for investment to the earnings of business entrepreneurs, investors, and corporations. The experiences in developed countries show that the main source of savings in developed market-based economies has been the increased profits of business enterprises, which tend to grow at a faster pace than national income.[57] The ultimate test of investing in business is thus the making of profits, current as well as future earnings, which directly influence the rate of business savings.

Since the ratio of savings to national income is the function of the ratio of profits to national income, the fundamental explanation of any sudden acceleration of the rate of domestic saving is an abrupt increase in the opportunity to make a profit, whether through recent inventions or institutional changes, which make possible

the exploitation of existing possibilities for profit. The profit maker knows that his power lies in his money; he therefore needs to save and invest his savings as profitably as he can. Likewise, the profit maker knows that the most profitable investments are those that exploit new technology, open up new resources, or both.

Business Profits

No comprehensive statistical data are available, but it is clear from the earlier analysis that business profits during the latter half of the twentieth century were high and multiplied many times. The mere fact of the swift expansion of GDP in private businesses supports the observation of their voluminous and rising business gross profits (business revenues minus the costs of goods sold). The high and increasing levels of business profits were shared with other factors of production ("operating expenses"), namely, employees, capital goods, the government, and foreign investors. When the costs of employing workers, using capital goods, and other miscellaneous operating expenses needed to produce goods and services were subtracted, the net business profits are calculated to have been at high levels. For the 42-year period between 1953 and 1994, businesses paid on average about 34.7 percent of business revenues to employees, 7.4 percent for capital goods (depreciation charges), 8.8 percent to government (taxes), and 3.5 percent to foreign investors. When all of these costs/expenses were deducted, the business was left with net profits[58] of 45.7 percent of gross profits on average, out of which owners and businesses would have been able to save (Table 7.4).

The few available fragmentary data on returns on investment in businesses report high levels of profits. The World Bank found that the rates of return on business investment in South Korea were much higher than the worldwide averages.[59] During the four-year period between 1966 and 1969 and the seven-year period between 1973 and 1979, for instance, average "ordinary" profits were 18.8 percent and nearly 23 percent per annum, respectively. Likewise, the average "ordinary" profits to owners' equity between 1960 and 1998 were recorded at 13.3 percent per year (Table 7.5).[60] Between 1976 and 1978, the average rates of return on owners' equity were as high as 25 to 29 percent per year. Also, high and impressive profits of top 100 Korea Stock Exchange–listed companies were reported in 1987.[61]

The officially reported figures probably were somewhat understated; more accurate returns on investment were considerably higher than the reported amounts, since many business transactions were not fully disclosed, as in the case of most real estate transactions and their profits. The only years during which businesses reported net losses were 1997–98, when South Korea, along with some other Asian countries, were in a financial crisis. As noted earlier, many businesses in South Korea that started out with meager capital quickly grew to be large businesses, some attaining the status of world-class business giant, or *jaebeol*.

Profits of businesses in South Korea after the Korean War, however, varied among different sectors. The highest average profits in all sectors between 1971 and 1998 were in entertainment and sports businesses, with 19.7 percent per year, closely followed by construction, with 19.2 percent per year between 1963 and 1998. On average, profits in the construction industry were reported as high as 45.3 percent

TABLE 7.4 Distribution of Gross Business Profits, 1953–98 (as percent of total)

Year	Employee Compensation	Business Income	Depreciation Allowance	Net Indirect Tax[1]	Income Transfer to Foreigners	Total	Ratio of Employee to Business
1953	22.5	65.0	4.6	3.3	4.6	100.0	34.6
1954	27.1	59.0	5.1	4.7	4.1	100.0	45.9
1955	26.0	60.4	4.5	3.7	5.4	100.0	43.0
1956	23.5	58.6	4.3	3.2	10.4	100.0	40.1
1957	25.0	57.7	4.3	4.1	8.9	100.0	43.3
1958	27.9	53.8	4.5	5.5	8.3	100.0	51.9
1959	31.4	49.9	5.0	6.9	6.8	100.0	62.9
1960	30.0	50.2	4.6	6.9	8.3	100.0	59.8
1961	27.9	52.9	4.5	5.6	9.1	100.0	52.7
1962	28.9	51.3	4.9	6.9	8.0	100.0	56.3
1963	25.5	57.7	4.9	5.6	6.3	100.0	44.2
1964	23.9	61.1	4.9	4.3	5.8	100.0	39.1
1965	26.3	56.6	5.3	5.5	6.3	100.0	46.5
1966	27.3	55.3	5.4	6.6	5.4	100.0	49.4
1967	30.2	52.0	5.8	7.5	4.5	100.0	58.1
1968	30.5	50.9	6.2	8.8	3.6	100.0	59.9
1969	31.6	50.0	6.1	9.1	3.2	100.0	63.2
1970	34.0	48.0	6.9	9.1	2.0	100.0	70.8
1971	34.2	48.1	7.2	8.8	1.7	100.0	71.1
1972	33.9	49.2	7.3	8.0	1.6	100.0	68.9
1973	34.1	48.7	8.0	7.7	1.5	100.0	70.0
1974	32.6	50.1	7.9	8.1	1.3	100.0	65.1
1975	33.1	48.5	7.5	9.8	1.1	100.0	68.2
1976	33.6	46.4	7.7	10.3	2.0	100.0	72.4
1977	35.2	44.4	7.8	10.4	2.2	100.0	79.3
1978	36.9	42.5	7.3	10.7	2.6	100.0	86.8
1979	38.6	40.3	8.0	11.2	1.9	100.0	95.8
1980	40.2	36.9	8.3	12.2	2.4	100.0	108.9
1981	39.8	36.8	8.5	12.2	2.7	100.0	108.2
1982	40.0	35.2	9.3	12.4	3.1	100.0	113.6
1983	41.3	34.2	9.7	12.9	1.9	100.0	120.8
1984	41.3	34.6	10.1	12.1	1.9	100.0	119.4
1985	41.4	35.4	10.2	11.7	1.3	100.0	116.9
1986	40.5	36.6	10.1	11.6	1.2	100.0	110.7
1987	41.1	35.7	10.4	11.3	1.5	100.0	115.1
1988	42.2	35.0	10.6	11.2	1.0	100.0	120.6
1989	44.9	33.3	10.6	10.9	0.3	100.0	134.8
1990	45.9	31.9	10.4	11.5	0.3	100.0	143.9
1991	47.3	31.4	10.1	11.0	0.2	100.0	150.6
1992	47.8	30.6	10.0	11.4	0.2	100.0	156.2
1993	47.2	30.9	10.1	11.5	0.3	100.0	152.8
1994	46.8	30.7	9.9	12.3	0.3	100.0	152.4
Averages							
1953–57	24.8	60.1	4.6	3.8	6.7	100.0	41.4
1958–61	29.3	51.7	4.7	6.2	8.1	100.0	56.8
1962–71	29.2	53.1	5.8	7.2	4.7	100.0	55.9
1972–78	34.2	47.1	7.6	9.3	1.8	100.0	73.0

TABLE 7.4 (*continued*)

Year	Employee Compensation	Business Income	Depreciation Allowance	Net Indirect Tax[1]	Income Transfer to Foreigners	Total	Ratio of Employee to Business
1979–86	40.4	36.3	9.3	12.0	2.1	100.0	111.8
1987–94	45.4	32.4	10.3	11.4	0.5	100.0	140.8
1953–94	34.7	45.7	7.4	8.8	3.5	100.0	83.9

Note: [1]Net indirect tax equals total taxes minus subsidies.

Source: Based on Hangeuk Eunhaeng 1995: 181.

per year between 1975 and 1980 and 38 percent per year between 1966 and 1969, peaking at 62.8 percent in 1977. Those of the entertainment and sports industry were 37.6 percent per annum between 1976 and 1980 (Table 7.6). A high level of profits was also reported in real estate and retail and wholesale businesses. These were 15.8 percent and 14.9 percent, respectively, during the 36-year period between 1963 and 1998. The real estate industry reported profits of 21.2 percent per annum between 1973 and 1992, while the retail and wholesale industry recorded profits of 21.9 percent per year during 1963–68 and 26.1 percent during 1973–78.

The average profits in manufacturing for the 39-year period between 1960 and 1998 were 13.2 percent per year, or sixth out of eight categories of sectors. Profits peaked at 21.7 percent during the seven-year period between 1972 and 1978, followed by 17.4 percent during the seven-year period between 1962 and 1968 (Table 7.6). It is worth noting that profits realized in manufacturing were among the lowest (sixth out of eight categories of sectors)—even lower than some of the financially unsupported sectors—in spite of the fact that the sector received numerous subsidies, indicating that without the subsidies, manufacturing might not have prospered as much it did. Also, it is noteworthy that as soon as most of the active government subsidy programs were withdrawn after 1980s, many manufacturing firms encountered a decline in business profits, and some even faced bankruptcy.

The question is: How did the rapid rise in business profits occur in such a short span of time in the early stages of South Korea's economic development? Examined below are the extent and manner in which businesses, especially *jaebeol*, were able to earn large profits and accumulate savings during the 50-year period that followed the Korean War. Certainly, there were many contributing factors. Some scholars are convinced that the businesses yielded high profits because of entrepreneurs' acumen or exceptional business management. It is, however, difficult to accept the assertion that such large profits were made through management efficiency alone (examined below) in the early formative years of businesses, even if they were shrewd businessmen and there were elements of luck in their successes.[62]

Nor can we accept an allegation that many businessmen amassed their fortunes through illegal channels, as was and still is argued by many laymen and some academics.[63] The implication is that business would not have been so successful if they had been honest and conducted their businesses legally and "ethically." The alleged dishonesty included evasion of taxes, deceptive business practices,

TABLE 7.5 Average Rates of Returns on Investment (in percent)

Year	Net Profit to Owners' Equity	Net Profit to Paid-in Capital	Ordinary Profits to Owners' Equity	Rates of Returns on Manufacturing
1953	—	—	—	—
1954	—	—	—	—
1955	—	—	—	9–18
1956	—	—	—	9–18
1957	—	—	—	9–18
1958	—	—	—	9–18
1959	—	—	—	9–18
1960	15.7	25.66	10.0	9–18
1961	12.5	20.36	23.0	9–18
1962	23.1	38.56	20.6	9–18
1963	18.8	29.42	13.2	9–26
1964	15.0	22.77	12.9	9–26
1965	15.3	26.09	15.7	9–26
1966	16.9	29.59	18.6	9–26
1967	17.0	—	19.5	16–38
1968	16.1	—	20.9	16–38
1969	13.6	—	16.4	16–38
1970	10.7	15.21	6.4	16–38
1971	4.5	5.67	10.9	16–38
1972	16.7	18.54	9.7	17–40
1973	30.0	—	21.5	17–40
1974	22.7	—	19.3	17–40
1975	16.5	—	19.8	17–40
1976	21.6	—	24.7	17–40
1977	21.3	—	28.7	—
1978	22.9	—	25.2	—
1979	15.6	—	20.6	—
1980	(1.3)	—	16.3	—
1981	0.1	—	12.2	—
1982	5.3	—	11.6	—
1983	15.5	—	12.3	—
1984	15.2	—	10.6	—
1985	13.2	—	10.5	—
1986	20.2	—	11.7	—
1987	19.9	—	13.5	—
1988	20.6	—	17.6	—
1989	—	—	—	—
1990	9.1	—	12.5	—
1991	7.1	—	10.9	—
1992	6.0	—	9.6	—
1993	6.4	—	7.5	—
1994	10.5	—	6.8	—
1995	14.0	—	6.1	—
1996	3.7	—	2.1	—
1997	(1.4)	—	(0.9)	—
1998	(6.7)	—	(22.9)	—

TABLE 7.5 (*continued*)

Year	Net Profit to Owners' Equity	Net Profit to Paid-in Capital	Ordinary Profits to Owners' Equity	Rates of Returns on Manufacturing
Averages				
1953–61	14.1	23.0	16.5	9–18
1962–71	15.1	23.9	15.5	9–26
1972–86	15.7	18.5	17.0	17–40
1987–98	8.1	—	5.7	—
1953–98	13.3	23.2	13.3	—

Sources: Hanguk Eunhaeng 1995: 236–43; Bank of Korea, *Economic Statistics Yearbook*, various years.

smuggling, and corruptive dealings, especially in the early years. There were reports that many made money soon after World War II by smuggling.[64] For instance, the so-called Macao merchants after World War II were reported to have exported gold and ginseng to the port of Macao in China and illegally imported prohibited Western-made goods, which were then sold in Korea at "10 to 20 times profit." Some even suggested that they smuggled Korean rice into Japan and imported Japanese cosmetics, cloth, school supplies, medicine, and machinery into Korea at 4 to 5 times profit. According to this widely held view at the time, the windfall profits went to the future *jaebeol*, who engaged in black marketeering[65] and added their own high markups.[66]

A few skeptics also alleged that businesses amassed their wealth by corrupt practices with the foreign aid programs. Others asserted that "laxity by the Bank of Korea in allocating aid dollars to importers encouraged speculation and led to a number of procurement irregularities, such as collusion between suppliers and importers, defective merchandise, kickbacks, and overpricing."[67] It was also alleged that some business dealings with U.S. aid programs promoted profiteering. The cost of imported fertilizer under the aid program in local currency, for instance, was supposed to have been paid into the Korean counterpart reconstruction fund. A special committee of fertilizer consultants sent out from Washington, D.C. reported that "only 13 percent of the amount due had been paid in," and "the other 87 percent or the equivalent of $130.5 million was siphoned off by grafters and profiteers."[68] As late as 1964, corruption in the importation of sugar, flour, and cement under economic aid programs—the so-called three-powder scandal—was reported.[69]

Allegations were made that favorable contracts were often awarded to political persona grata, without considering their business experience and competency.[70] These allegations were made not only by men on the street but also by those who were supposed to have been well informed on the subject.[71] Undoubtedly, there was corruption and some funds were illegally transferred.[72] Unfortunately, reliable statistical data that show how much aid money was illegally transferred to businesses are not known, but it is probable that the aid programs played a part in the formation of the early *jaebeol*. However, no serious investigation has revealed the extent and means by which the business sector made its huge profits. It is impossible to verify any of these claims, though undoubtedly there is some truth to many

TABLE 7.6 Rates of Returns on Owners' Equity in Sectors

Year	Entertainment Sports	Construction	Real Estate, Service	Retail, Wholesale	Transportation and Communication	Manufacturing	Electric and Gas	Mining	Total
1960	—	—	—	—	—	15.7	—	4.3	6.7
1961	—	—	—	—	—	12.5	—	33.4	15.3
1962	—	—	—	—	—	23.1	17.1	21.6	19.7
1963	—	13.6	10.8	26.1	5.3	18.8	2.9	15.3	12.3
1964	—	21.2	4.0	19.5	7.7	15.0	3.9	18.9	12.6
1965	—	15.9	1.5	26.0	17.7	15.3	11.6	21.8	16.2
1966	—	34.4	7.9	17.7	18.5	16.9	13.3	21.3	17.2
1967	—	35.2	6.6	20.4	29.0	17.0	—	8.7	16.8
1968	—	51.9	10.8	17.0	23.1	16.1	—	6.3	14.1
1969	—	30.6	14.6	12.4	22.9	13.6	—	4.0	11.7
1970	—	10.3	(5.4)	7.9	18.8	10.7	10.9	6.0	9.2
1971	7.7	23.0	13.0	8.9	24.5	4.5	5.7	(0.4)	3.3
1972	8.2	19.4	7.2	7.5	12.0	16.7	5.3	1.0	7.7
1973	19.8	18.7	19.9	17.6	27.9	30.0	20.0	18.2	22.7
1974	19.7	19.1	19.8	21.6	13.7	22.7	3.5	34.0	20.1
1975	22.0	26.7	26.8	26.3	12.1	16.5	6.8	20.9	14.7
1976	37.2	48.2	18.8	36.4	10.0	21.6	7.3	17.8	15.6
1977	28.8	62.8	33.9	24.9	22.1	21.3	13.3	22.7	19.1
1978	37.2	58.7	19.4	29.6	20.1	22.9	10.4	3.6	12.3
1979	40.6	43.5	20.7	19.1	17.8	15.6	23.7	(16.1)	7.7
1980	44.0	31.8	17.5	15.2	3.9	(1.3)	21.4	(2.2)	6.0
1981	14.0	18.9	26.1	13.9	5.5	0.1	16.0	2.8	6.3

1982	22.9	15.6	18.2	9.6	6.3	5.3	9.0	5.7	6.7
1983	29.3	16.4	20.0	13.3	(7.8)	15.5	8.5	3.1	9.0
1984	24.7	7.8	13.7	9.5	(1.4)	15.2	13.1	2.0	10.1
1985	18.4	10.7	22.3	5.2	(1.9)	13.2	11.3	4.4	9.6
1986	22.1	(3.3)	13.5	13.5	9.9	20.2	12.3	5.4	12.6
1987	17.0	(8.2)	22.5	16.9	18.7	19.9	15.5	5.9	13.8
1988	12.5	(3.0)	29.9	18.5	37.1	20.6	21.0	4.5	15.4
1989	—	—	—	—	—	—	—	—	—
1990	21.9	9.5	26.2	16.1	14.7	9.1	13.1	(10.7)	3.8
1991	12.3	14.4	29.1	11.6	19.6	7.1	16.1	(23.3)	(0.0)
1992	15.2	12.7	26.7	7.2	18.1	6.0	14.8	(24.3)	(1.2)
1993	9.8	18.0	11.8	10.2	14.3	6.4	13.4	(23.9)	(1.3)
1994	7.6	12.5	6.7	11.7	20.4	10.5	13.9	(28.9)	(1.5)
1995	11.6	5.8	8.1	11.0	17.3	14.0	12.5	(31.5)	(1.7)
1996	12.1	4.4	5.5	8.6	6.5	3.7	6.3	(30.2)	(6.7)
1997	7.9	(0.4)	10.3	(4.9)	(10.4)	(1.4)	6.6	(15.2)	(3.4)
1998	8.0	(25.6)	13.4	(4.3)	10.7	(6.7)	9.2	(187.6)	(61.7)
Averages	19.7	19.2	15.8	14.9	13.8	13.3	11.5	(2.1)	7.1

Sources: Hanguk Eunhaeng 1995: 236–43; Bank of Korea, *Economic Statistics Yearbook*, various years.

allegations. It is difficult to accept, however, the assertion that hundreds of millions or billions of dollars were usurped in this manner under the watchful eyes of officials, the general public, and the mass media. Corruption certainly could not have been the principal source of profits in the business sector. In many cases, these claims seem to have been exaggerated or were hunches by political opponents or sensational journalists.[73] Actually, very few businessmen were seriously prosecuted for alleged offenses involving corruption.

The reasons for the high profits and returns on investment in the service industries, such as entertainment, sports, retailing, and wholesaling, and real estate, were high and rapidly rising demand coupled with limited and short supply. As personal income rose rapidly over time, the domestic demand for entertainment, sports facilities, retail and wholesale services, and real estate also expanded rapidly, while the supplies of those services and facilities were limited due to the lack of necessary resources, thereby creating great opportunities for profits. In the cases of manufacturing and construction, contrary to many reasons presented in the past and as noted above, the principal reason for the prevalence of high profits was the generous government financial support for them, as examined in earlier chapters and briefly summarized below.

As to the government targeted industries, such as social overhead capital (SOC), import-substitution, and exports-goods industries, it becomes clear that much profit making in them was quite legal but rather complex and involved, with a few exceptions. Although there were many reasons, including exceptional entrepreneurship and illegal practices, for large business profits, the government's industrial and financial policies, which provided vast sums in subsidies to certain industries and businesses, appear to have played a major role, especially in the early years. After all, there was a limited absorptive capacity for investment in them in the early stages of development,[74] and in all likelihood most businesses were quite inefficient, so many failed. Beyond the favorable market forces, the government intervened extensively to create opportunities for businesses to acquire production facilities and inputs inexpensively. As examined in earlier chapters, in addition to following the policies of supporting management and suppressing labor union activities to maintain long working hours and low wages that did not reflect the increases in labor productivity, as well as protecting domestic producers by providing tariffs and banning or restricting imports on a noncompetitive basis, the government gave huge financial support to businesses in the form of bounties and subsidies, coupled with inflation windfalls, as well as tax exemptions or reductions.

The lack of comprehensive statistical data does not allow us to quantify the combined net aggregate bounties, windfalls, and subsidies in a definitive manner, but we may approximate their magnitudes combined with the inflation windfall, and summarize the various financial incentives granted to businesses, as examined in chapter 6. The transactions that provided bonuses to businesses involved from one to more than three different financial incentives combined into one transaction. In the case of privatizing government properties, it made available more than three financial incentives, namely, the divestiture wealth bounty, the interest subsidy, and the inflation windfall, and loans to build new facilities and purchase capital goods involved two financial incentives, namely, the interest subsidy and inflation windfall.

The selling of foreign exchanges and accompanying loans to businesses so that they could purchase capital, intermediate goods, and raw materials abroad involved two financial incentives, namely, the foreign exchange bounty and interest subsidy. These financial incentives were in addition to tax breaks.

Based on the estimates made in chapters 4, 5, and 6, the total bounties, windfalls, and subsidies are summarized, though crudely, in Table 6.1. According to Table 6.1, the aggregate sum of bounties, windfalls, and subsidies may be estimated at about $3.5 billion in 1961 prices and about $20 billion in year 2000 prices, which is estimated to be more than half (54.5 percent) of the value of properties divested, foreign exchanges sold, and loans granted to businesses under government industrial and financial policies. The government properties divested to private businesses were estimated to be more than half and nearly three-quarters of all (excluding agriculture) private capital extant in the late 1960s, which became the foundation and pillar of private capital in the post–Korean War era. Even if the average costs of obtaining these privileges (about one-tenth of the value of assets/loans"[75]) were subtracted from the total sum of bounties, windfalls, and subsidies, the combined net aggregate sum to the privileged business firms during about the 29-year period between 1953 and 1981 may be estimated at a minimum sum of $18 billion in year 2000 prices ($3.15 billion in 1961 prices). This sum of subsidies probably represents more than half of all owner's equity in the late 1960s. This financial support contributed to business income and profits, and eventually much of it was invested in the businesses.

From the foregoing analysis, it is easy to discern the beneficiaries of four different government financial favors, namely, government property wealth bounties, foreign exchange bounty, interest subsidy, and inflation windfalls. Their beneficiaries may be summarized in five groups. The first and the earliest beneficiaries of government bounties were businesses that acquired business/industrial facilities formerly owned and operated by the Japanese colonialists. The beneficiaries were typically those who had close ties with the former Japanese businesses in a number of different capacities, such as peer businesses, employees, friends, subcontractors, and/or who had connections with government officials. The substantial sum of the wealth bounties enabled them to found their own businesses after the Japanese were driven away from the country. As noted earlier, this constituted the major portion of the private industrial sector that contributed to Korea's successful industrialization.

The second and third groups of beneficiaries were public enterprises in the SOC sector and private businesses in foreign trade–related manufacturing industries, namely, the import-substitution and export-goods manufacturing industries, which received the foreign exchange bounty, interest subsidy, inflation windfalls, or all three.

The fourth and most prominent group of beneficiaries of government financial incentives were the *jaebeol*, who were not only good businessmen in most cases but also worked very closely with the government and had good connections with the government in power and/or government officials, as elaborated in Appendix 7.1. Many also received government property wealth bounties in the early years. To fulfill its economic goals, the government gave big businesses many privileges, including easy subsidized loans on generous terms accompanied by an inflation bounty, loan guarantees, and access to undervalued foreign exchange. The will on the part of the

government to undertake economic development played a crucial role. Driven by the need to turn the economy toward development, the government was willing to support businesses in any way it could. It set the targets with the support of large businesses and pushed the private firms to meet its economic goals within a given time frame. As noted in chapter 3, the military government was also ready to expand institutions and promote new business activities to meet its economic objectives.

The government also condoned the exercise of the *jaebeol*'s monopoly power. While working hard to encourage competition among *jaebeol* and avoid total monopolies in certain areas, the government tolerated and even encouraged the *jaebeol* to exercise their monopolistic and oligopolistic power in the market. Under the guise of enhancing cooperation between businesses, the government-led industrial organizations provided an improved mechanism for risk sharing and a way of dealing with economic and political uncertainty. The businesses formed cartels, such as the Korea Textile Association, through which they monopolized raw material aid, such as cotton (100 percent of the total), wheat (81 percent), and sugar (27 percent). The associations also practiced sales cartelization. For example, 19 percent of textile firms took 89 percent of the market, while 2 percent of sugar producers took 92 percent of the market. The Che-il Woolen Textile Co. controlled 60 percent of the market, and three leading flour milling companies dominated 50 percent of the market in the 1950s.[76]

The *jaebeol* monopoly extended to all fields of production and trade. By weaving convoluted financial webs between their various affiliates, and by receiving cross-guarantees, the *jaebeol* were permitted to expand into sectors in which they held no competitive advantage but which satisfied the managerial ambition of building a business empire as government controls were relaxed. They acquired many small and medium-sized businesses in new venture areas—93 between 1977 and the first half of 1978 alone.[77] Also, exclusive sales agencies were widely employed to build vertical trusts in major industries. The exercise of monopoly power by *jaebeol* through mergers and other means was facilitated by their close business relationships and lack of competition. These collusive activities were made easier by the fact that the large firms were controlled by a small band of business executives. *Jaebeol* also widely used interindustrial cross-subsidization among them to wield their economic power. They generated so much "economic rent that few of the individual firms under their control ever failed" until recently,[78] and in time they rose to near-total economic dominance.

The exercise of monopolistic/oligopolistic power and the domination of the domestic market by the *jaebeol* reached to the extent that the Fair Trade Commission has threatened to investigate many of them, including Samsung, SK, LG Group, Hyundai Group, Hyundai Motor Company, and Hyundai Heavy Industries Company. The commission recently reported that it has been monitoring these groups since 1998 and found that unfair practices persist.[79] In the past, conglomerates with assets of 5 trillion *won* or more were barred from making equity investments in affiliates or unrelated companies in excess of 25 percent of their net worth. The government has also softened a law recently that limited conglomerate investment in affiliates or other companies and raised the asset threshold for companies

subjected to the investment ceiling to 6 trillion won from the 5 trillion *won*. The number of business groups that are subject to the investment restriction is expected to fall to 8 to 10 from the current 17.

The *jaebeol*'s monopoly power stands out even in comparison to those of Taiwan and Japan. Since monopoly was built not on economic efficiency but on special benefits from the government, they have established neither optimum levels of production nor competitiveness in international markets. In addition, the government also banned the free union movement and closed the protected home market to overseas competition to fulfill the *jaebeol*'s goal of expansion. Largely due to various subsidies, their monopoly positions, and protective barriers, their businesses thrived. Average profits in these large businesses were high especially during the early years, when these practices were more pervasive.

By the late 1980s, they dominated almost all industrial sectors, especially in manufacturing and trading, supported by a significant number of public corporations in such areas as iron and steel, utilities, and communications. The top 10 *jaebeol* added 30 percent of the value of manufacturing and approximately two-thirds of the value of all South Korean exports in 1987. The five largest *jaebeol* employed 8.5 percent of the manufacturing work force and produced 22.3 percent of all manufacturing shipments. In comparison, numerous small and medium-sized businesses—generally those with less than 400 employees—accounted for 32 percent of South Korea's exports in 1986, but thereafter dropped to 30 percent, and contributed only 38.9 percent to the GDP on a value-added basis. By 1990, the *jaebeol* had begun to produce for a growing domestic market. While these activities were important before the early 1990s, real growth was also taking place in the electronics and high-technology industries.

Who were the benefactors of the financial incentives that produced such high profits? In all bounties, windfalls, and subsidies, someone had to pay for them. As the saying goes, there is no free lunch. The generous financial incentives granted to certain businesses had to come from someone's pocket.

In the case of government property divestiture programs, since the divested government property was mostly former colonialists' properties that were left in South Korea after the Japanese defeat in World War II and new facilities that were built principally with foreign aid after World War II, the former Japanese colonists and the people of the aid grantor countries (mostly American taxpayers) may be considered the benefactors. However, since the divested property of the former Japanese colonists was part of Japan's reparation settlement and foreign aid was granted to benefit South Korea, the South Korean people as a whole should be considered the benefactors, since the government is of and for the people. In order to support various financial incentive programs, the Korean people were deprived of their share of reparations and foreign aid.

In the case of the foreign exchange subsidy, because the South Korean government granted the subsidy by selling foreign exchanges to targeted businesses at prices below the market value, it may nominally be designated as a benefactor. However, since foreign exchanges were furnished mostly as foreign aid by donor countries and foreign lenders to the government, the benefactor of foreign exchange

subsidy should be the aid-granting countries, especially the United States and other foreign lenders. Again, following the reasoning cited above, since the government holdings of foreign exchanges belonged to the Korean people as a whole, they were the ultimate benefactors.

In the case of credit subsidies, the government credit policy incurred two types of financial losses to the lenders, that is, banks and the government. First, the loans extended at low subsidized rates of interest inevitably caused the creditors to lose interest revenues. Second, because the credit policy in effect transferred the entrepreneurial risks to the lenders to a significant degree, it imposed the major financial burden of nonperforming loans on the nation's financial intermediaries and the government. In this case, the determination of the ultimate benefactor is somewhat complicated.

The main benefactors of the interest subsidy on the surface appear to be the lending banks and the government, since they lent money to the privileged business borrowers at subsidized interest rates by foregoing their own revenues. They also incurred losses from risky, nonperforming, and bad loans. However, the ultimate benefactors may be the people who supplied financial resources to the banks and the government, which engaged in business mostly with the funds of depositors and a small amount of capital supplied by shareholders and, ultimately, the taxpayers. First, since the majority shareholder of these banks, including the commercial banks, was the South Korean government (the private sector held only a fraction of bank stock shares during the period), the ultimate benefactors were the Korean people.

Second, the depositors, who supplied a major portion of the banks' financial resources, received low interest on their deposits stemming from reduced revenue from bank loans resulting from the financial repression policy. They thus sacrificed their own income so that the banks could provide risky nonperforming loans and credit subsidies to privileged borrowers. The NBFIs were also burdened with bad loans. In this sense, they, too, can be considered benefactors. Since the losses of the financial intermediaries were mostly reimbursed initially by the central bank and later from government coffers, only a small portion of the bank losses were absorbed by the shareholders and depositors of the financial intermediaries.

Since the losses of the financial intermediaries were absorbed only partly by the banks and other financial intermediaries themselves, most of these losses—that is, the difference in actual and market interest rates (the interest subsidy) and losses from nonperforming loans—were made up by government reimbursement, the Korean taxpayers as a whole were ultimately the major benefactors. Likewise, since the majority shareholder in these financial intermediaries was the South Korean government, the ultimate benefactors again were the Korean taxpayers, and the private bank shareholders were the ultimate benefactors only of a small part of interest subsidy and losses from bad loans.

The benefactors of the inflation windfall that accompanied the installment payment program associated with the selling of government-held assets (former Japanese properties, public enterprises, and foreign exchanges) and loans, were the Korean consumers, who paid in terms of the loss of the purchasing power of their income, due to the inflation that resulted from expansionary credit policy, in favor

of borrowers. The large amount of subsidies and the chronic excess demand for credit stimulated the expansion of the domestic money supply, which swelled budget deficits and led to more inflation. To put it somewhat differently, the inflation windfalls realized by business borrowers were extracted by taking away the purchasing power of the entire Korean people, whose income lost purchasing power through inflation. The rise in prices also widened profit margins at the expense of consumers, at least temporarily.

Now that the beneficiaries and benefactors of bounties/windfalls/subsidies have been identified, it becomes clear that under various government industrial and financial policies, combined with inflation bounty, substantial amounts of wealth and income were transferred from benefactors to beneficiaries, the phenomenon known as wealth and income transfer effects. By creating a large gap between the divested price and the real cost of assets, including foreign exchanges (a substantial discrepancy between the official and the market foreign exchange rates), the industrial and financial policies, combined with inflation, produced wealth transfers from the benefactors to the beneficiaries and contributed to the adverse consequences of wealth distribution in the country. Similarly, by creating a deep and prolonged gap between the real and the effective costs of capital (i.e., interest rates) applied to transactions involving selected loans in targeted industries and firms, the discriminatory financial policy also transferred income from the benefactors to the beneficiaries—the income transfer effect—and contributed to an unequal distribution of income.

Also, a double-digit inflation in South Korea until about the early 1980s diverted a substantial amount of income from the typically low-saving income earners to the high saving industrial and mercantile classes, which enabled business borrowers to make large profits but left most of the population, including government officials, badly underpaid. In this way, the redistribution of income must also have increased the share of the nation's savings that was allotted to investment purposes.

These bounties, windfalls, and subsidies also led to lower costs of production, thereby providing competitive advantages to Korean producers in the domestic and world markets and allowing them to sell their goods with healthy profits. The financial supports contributed to increasing business income and profits, much of which eventually was dedicated to business investment. The discriminatory financial and industrial policies, however, contributed to unequal distributions of wealth and income not only among sectors, industries, and firms, which affected capital formation in the private sector, but also between the privileged and nonprivileged firms, especially *jaebeol* and small businesses. It is also clear from this analysis that the chief benefactors of most of the various financial incentives were the South Korean people as a whole, for it was they who supplied the government with taxes while depriving their share of the country's income and wealth.

Business Saving

With high and increasing profits, Korean businesses were able to save a major portion of profits. Such business saving may be estimated by subtracting dividend

payments from net business profits, but comprehensive, reliable, and consistent data showing this in South Korea is difficult to obtain.[80] The only data available to this author was for the period between 1974 and 1998. According to the data, the amount of dividend payments varied somewhat from year to year and from sector to sector, as well as from one business firm to another,[81] but they indicate that dividend payments in Korea were fairly small, ranging approximately from 15 to 50 percent of net profits between 1974 and 1998 (Table 7.7). The average for the period was about a quarter. Dividend payments also varied from industry to industry. Between 1974 and 1998, the electric power and gas industry, mining, and transportation and communications paid the most with 30.6, 30.5, 29, and 29 percent of net profits, respectively, while the lowest paid sector was entertainment and sports businesses, with 10.8 percent for the same period. Real estate and the service, domestic trade, and construction industries paid 26.4, 26, and 16.9 percent, respectively. Another report indicated that the average dividend payment in 1972 was 11.8 percent of invested share value in business firms, while that paid by banks was about 10 percent to private shareholders and 3.5 percent to the government.

The low dividend payments allowed companies to retain a large portion of profits for savings. During the 25-year period between 1974 and 1998, the average business saving was about three-quarters of net profits. Based on available data, it seems reasonable to suggest that for the 42-year period between 1953 and 1994, the best estimate of average business saving was about a third (33 percent) of private saving and a little more than a quarter (27 percent) of the nation's saving. In comparison to other high-saving Asian countries, the saving ratio of Korean businesses was not quite up to par. The ratio of business saving in Japan was nearly 50 percent of domestic savings, or 14.6 percent of GDP. One South Korean official on a savings promotion committee lamented that "such a poor savings rate for local [Korean] companies has hindered the improvement of the firms' financial structure."[82] In comparison to the United States, business saving in South Korea appears to have been somewhat greater, however. Simon Kuznets, for example, found that corporations were responsible for approximately 25 percent of savings in the United States from 1897 to 1949.

By all accounts, the aggregate business saving in the country also increased over the years following the Korean War, as the average rate of dividend decreased over time from about 50 percent of net profits to about 16 percent during the period between 1974 and 1998. Corporate saving was a mere 1.4 percent of the total saving in the country in 1956, and the ratio remained at fairly low levels until about the mid-1960s. But business saving increased rapidly thereafter. The swift rise in profits enabled businesses to set aside an increasing share of profits for saving. Business saving continued to increase and was reported to have made up about 3 percent of GDP in 1982, 11 percent in 1984, and 12 percent in the mid-1980s.[83] In relation to net profits, business savings leaped from slightly more than half of profits in 1974 to about 84 percent in 1998, averaging about 75 percent, thus enabling businesses to finance a large portion of their investment with business savings during the period between 1974 and 1998. Relative to the total savings in the country, the share of savings by incorporated businesses climbed steadily from about 13 percent in the early 1960s to 18.6 percent in 1963–69, 20.8 percent in

TABLE 7.7 Rates of Dividends to Net Profits in Economic Sectors

Year	Electric and Gas	Mining	Transportation and Communication	Manufacturing	Real Estate, Service	Retail, Wholesale	Construction	Entertainment Sports	Average
1974	108.5	39.2	115.7	50.5	18.7	39.1	18.4	7.9	49.8
1975	64.2	60.5	50.2	45.6	26.3	44.5	26.0	9.6	40.9
1976	94.4	56.9	62.6	47.3	64.1	42.8	46.0	10.1	53.0
1977	94.3	46.4	34.3	55.4	29.1	43.5	18.5	13.6	41.9
1978	93.5	53.2	43.7	39.7	37.4	39.0	22.7	38.9	46.0
1979	66.4	70.3	28.8	42.6	24.8	40.8	22.0	11.2	38.4
1980	51.3	65.4	34.0	42.2	16.3	31.0	20.1	10.0	33.8
1981	—	50.8	14.3	29.0	50.1	18.3	20.6	26.0	26.1
1982	—	64.9	17.3	25.2	42.7	15.4	14.8	6.9	23.4
1983	0.2	25.8	16.4	18.6	49.9	16.9	11.1	7.3	18.3
1984	0.5	34.2	16.2	27.1	42.5	22.7	23.3	16.1	22.8
1985	1.4	25.3	26.7	32.8	46.2	23.1	13.3	2.6	21.4
1986	1.2	21.5	16.2	28.9	41.7	15.1	16.0	2.4	17.9
1987	7.3	15.5	17.2	24.8	16.6	21.5	18.1	2.5	15.4
1988	10.3	8.0	22.8	27.2	13.8	25.2	14.3	12.5	16.8
1989	—	—	—	—	—	—	—	—	—
1990	19.0	24.3	34.1	29.3	14.6	26.0	16.9	2.7	20.9

(*continued*)

TABLE 7.7 (*continued*)

Year	Electric and Gas	Mining	Transportation and Communication	Manufacturing	Real Estate, Service	Retail, Wholesale	Construction	Entertainment Sports	Average
1991	14.5	15.0	24.7	25.0	14.3	27.8	13.6	10.4	18.1
1992	15.4	12.1	22.5	24.5	14.3	19.2	16.9	7.5	16.5
1993	27.2	11.6	22.5	20.3	19.4	19.9	14.7	3.8	17.4
1994	13.5	13.5	16.9	18.5	12.2	20.1	10.6	8.9	14.3
1995	15.8	17.3	21.2	14.7	13.9	27.3	12.7	8.8	16.5
1996	16.8	10.7	24.0	23.3	15.7	34.4	11.8	15.1	19.0
1997	24.3	5.8	27.0	17.7	18.5	21.0	12.6	18.0	18.1
1998	24.0	13.8	15.4	15.8	18.0	15.7	7.6	17.8	16.0
Averages									
1974–79	86.9	54.4	55.9	46.9	33.4	41.6	25.6	15.2	45.0
1980–86	7.8	41.1	20.2	29.1	41.3	20.4	17.0	10.2	23.4
1987–90	9.1	11.9	18.5	20.3	11.2	18.2	12.3	4.4	13.3
1991–94	17.6	13.0	21.7	22.1	15.0	21.7	13.9	7.6	16.6
1995–98	20.2	11.9	21.9	17.8	16.5	24.6	11.2	14.9	17.4
1974–98	30.6	30.5	29.0	29.0	26.4	26.0	16.9	10.8	24.9

Sources: Hanguk Eunhaeng 1995: 236–43; Bank of Korea, *Economic Statistics Yearbook*, various years.

1970–74,[84] and between 30 and 40 percent in the 1980s and 1990s.[85] On average, business savings for the 42-year period between 1953 and 1994 may be estimated between 25 to 30 percent of the total savings in the country. The remarkable growth in savings in the 1970s and 1980s resulted not only from the expansion of the Korean economy and the business sector, particularly the sizable surplus in the international trade balance, but also from the rise in owners' equity relative to national income, from which income was derived, and also a decreasing share of dividend payment; for example, from about 45 percent of net profits during 1974–79 to about 17.4 percent in 1995 and 1998 (Table 7.7).

Who were the principal business savers in South Korea in the last half of the twentieth century? There were many groups of savers, but the one that saved the most was the *jaebeol*. Their emergence and rapid rise itself indicates that they were the savers and investors, who clearly met the conditions necessary for an economy with self-sustaining growth. The rise in savings by innovating industrialists and trader-financiers who devoted their available resources to investment had to be one of the most important contributing factors to South Korea's domestic saving.[86]

Notwithstanding the rise in corporate saving, it is perhaps significant to point out that the share of net profits accruing to business owners have shrunk over time, while the shares of most other claimants to gross profits, especially employees, have inched up during the 42-year period. A particularly notable relationship is that between business owners and employees. The share of gross profits to business owners declined to less than half from about 65 percent of the total in 1953 to 30.7 percent in 1994 (Table 7.4). In the early years (for example, 1953), the entrepreneurs' share was nearly three times the employees' share (22.5 percent in 1953), but they were about equal to the former by 1979, and only about two-thirds of the latter by the early 1990s, thus reversing the ratio between the two groups. In the meantime, the share of capital goods (the depreciation allowance) and net indirect taxes increased from about 4.6 and 3.3 percent, respectively, to about 10 and 12.3 percent.[87]

This development obviously had and would continue to have significant consequences on business saving in the future. In spite of the speedy rise in their income in real terms, though it was modest relative to their productivity increases, the savings of wage and salary earners did not seem to have increased much. The employees' share of earnings in businesses as a whole increased much faster than that of employers over time. Employees as a group now earn more (56.7 percent of business earnings) than business owners on the whole. Since wage earners are usually spenders rather than savers, whereas profit earners are savers, the increasing share of gross profits that goes to nonsavers had a dampening effect on the nation's saving in the past and will probably continue to have in the future.

This might explain why the rate of increase in domestic saving has tended to slow down since about the 1970s. The average rates of increases in private savings decreased from 11.8 percent during 1963–68 to 10.2 percent during 1969–76, 2.7 percent during 1977–85, 1.3 percent during 1986–94, and 1.3 percent during 1986–94. This may also foretell a trend in domestic saving in the future. The average private and national saving rate increases between 1953 and 1994 were 6.2 and 3.7 percent, respectively (Table 7.1).

GOVERNMENT REVENUES AND SAVING

To finance fairly substantial public investment, as examined in chapter 3, the South Korean government had to set aside substantial amounts of its available resources for savings during the latter half of the twentieth century. Even during the first nine-year period between 1953 and 1961, when the nation's production facilities were in ruins and the government was faced with large budget deficits, more than a third of the annual budget, equaling nearly 3 percent of GDP, and more than a quarter of domestic saving, was set aside for financing investment (Table 7.1). In the 10-year period between 1962 and 1971, when the country's economy was on the road to recovery from the destructive Korean War and the government revenues were expanding rapidly,[88] both in real terms and as a percentage of GDP, public saving, equaling 5.5 percent of GDP, was more than one-third (35 percent) of domestic saving. The marginal rate of saving of the government after 1964 swelled to 23.7 percent, and the share of government revenues dedicated to saving increased steadily through the period of the first and second five-year economic development plans (1962–71), peaking at more than 41 percent of the budget in 1969.

Since 1972, the percentage of the government budget allotted to investment during the third phase between 1972–75, which was equivalent to 3.5 percent of GDP, has declined to less than a fifth (19.2 percent) of total domestic saving (Table 7.1). In the meantime, the share of the budget allocated to consumption expenditures and transfer payments increased, averaging about 70 percent.

In the fourth phase that covered the last half of the 1970s and the first half of the 1980s, the central government budget stabilized at about 21 to 22 percent of GDP, a level where it was more or less balanced. Average annual public saving was 5.6 percent of GDP during 1976–86, peaking at 6.8 percent ratio in 1983. In relation to government budget, the financing of "economic" or investment expenditures declined somewhat and remained stable at about 22 percent in the first half of the 1980s, while the largest items of government expenditure were in national defense and education.[89] The fifth phase that covered about an eight-year period of most of the latter 1980s to about 1995, the central government's budget was maintained at about 20 to 21 percent of GDP. Public saving averaged 8 percent of GDP during 1986–94, peaking at 9.3 percent in 1994, and accounted for more than a fifth (22.2 percent) of the total domestic saving.

It is clear from this analysis that the government was able to add an increasing amount of savings to the country over time, going from about 3 percent of GDP in the 1950s to 7.8 percent in the 1986–94 period. On the whole, the government contribution to saving during the period between 1953 and 1994 was about 5.1 percent of GDP, which was a bit more than one-fifth of aggregate savings in the country and a little less than one quarter (24.6 percent) of domestic savings for the period (Table 7.1). In relation to the nation's gross savings, the government share of savings decreased over time, from more than a third (35 percent) in the 1960s to about a fifth (20.9 percent) in the later years, that is, the 1980s to 1990s. There were some variations from year to year, but on the whole, public saving as well as its consumption expanded at the rate of growth in GDP and remained fairly constant

during most of the last half of the twentieth century, excepting the first 10 years immediately following the cessation of hostility of the Korean War.

A possible reason for maintaining a relatively high ratio of public savings was not that the government was able to collect taxes to meet both ordinary expenditures and investment needs, but largely because of its ability to obtain the so-called special revenues principally from three sources: foreign aid and borrowings from the domestic private and foreign sectors.[90] The ordinary revenues, namely, taxes, profits of government enterprises, and revenues from public investment, financed the ordinary expenditure needs of the government. As shown in Table 7.8, while ordinary revenues more or less met ordinary government expenditures, special revenues enabled it to finance public investment, as well as some current consumption needs. For the period between 1953 and 1994, special revenues constituted 45.6 percent of all government revenues, when its investment equaled 38.8 percent of total government expenditures.

Let us examine below the borrowings from domestic sources in the private sector, while deferring the contribution of foreign sources to public saving to chapters 8 and 9. The primary domestic sources of public saving were loans and forced allocations of private resources for public investment. The government obtained about a third of resources for public investment directly by borrowing funds from domestic financial institutions (Table 7.9) and by mandating that people save. The savings were largely in the form of bank deposits and bond sales to individuals.

Private sources of public savings came not only in the form of voluntary private loans but also in involuntary, or forced, savings imposed on the entire population with inflation through expansionary credit and monetary policies, as investigated in chapter 5. Inflation was imposed on the nation, motivated in large part by the government's demand for funds for various expenditures, including investment. It resorted to the printing press of the central bank and then allocated the newly printed money for investment in the construction of infrastructure and production facilities (e.g., roads, hydroelectric plants, and steel mills), and the purchase of capital goods. This expansionary policy raised prices and reduced the purchasing power of consumers' income. As examined in chapter 5, prices increased by more than 50 percent per year on average during the first three years following the Korean War, which was followed by about a 20 percent rise in prices on average between 1955 and 1961. Inflation moderated to about 16 percent per year until about 1982. During the 29-year period between 1953 and 1981, the nation's prices increased by more than 17.3 percent per year on average. Thereafter, it subsided to 5.3 percent per year between 1983 and 1994. Since then, it has dwindled to 2 to 3 percent per year.

Through these means, the government indirectly taxed and/or confiscated the citizens' income and diverted resources away from them for investment in public development projects, thereby forcing people to save involuntarily during most of the period following the Korean War. Inflation as a means of financing investment, which has often been abused in many countries, is an easy way to force saving upon people, since levying and collecting the necessary amount of taxes is often more difficult, if not impossible. Moreover, it does not require much administrative skill to administer. But, although it is not difficult to list the involuntary and forced means of public saving, it is not easy to quantitatively measure them.

TABLE 7.8 Financing Public Investment, 1971 and 1994 (in percent of total expenditures)

Year	Public Investment[1]	*Ordinary Revenues*				Special Revenues[4]	Grand Total
		Taxes	Profits[2]	Investment[3]	Total		
1971	40.4	16.9	31.8	5.3	54.0	46.0	100.0
1972	41.8	13.0	35.4	5.6	54.0	46.0	100.0
1973	32.5	5.8	30.9	11.6	48.3	51.7	100.0
1974	35.1	30.7	19.8	6.7	57.2	42.8	100.0
1975	39.4	44.9	3.3	9.3	57.6	42.4	100.0
1976	39.0	43.8	11.6	6.7	62.2	37.8	100.0
1977	38.6	35.0	15.8	7.7	58.4	41.6	100.0
1978	38.8	37.2	11.5	8.7	57.4	42.6	100.0
1979	40.3	35.2	14.9	22.1	72.2	27.8	100.0
1980	40.0	26.5	24.1	7.9	58.5	41.5	100.0
1981	42.0	33.0	16.4	7.8	57.1	42.9	100.0
1982	39.7	34.2	12.1	4.6	50.9	49.1	100.0
1983	37.7	31.7	17.6	4.8	54.1	45.9	100.0
1984	37.0	27.1	13.1	4.5	44.7	55.3	100.0
1985	39.8	28.4	13.3	5.8	47.5	52.5	100.0
1986	38.2	30.7	14.5	5.2	50.5	49.5	100.0
1987	34.4	39.1	3.9	5.1	48.1	51.9	100.0
1988	33.7	45.2	(1.2)	7.4	51.3	48.7	100.0
1989	35.3	46.5	(5.6)	8.7	49.6	50.4	100.0
1990	40.0	46.7	(1.6)	7.6	52.7	47.3	100.0
1991	43.8	49.7	2.0	7.0	58.7	41.3	100.0
1992	41.9	43.3	5.8	7.2	56.2	43.8	100.0
1993	39.2	35.9	8.2	6.1	50.2	49.8	100.0
1994	41.5	44.2	2.3	8.6	55.1	44.9	100.0
Averages							
1971–75	37.5	16.6	29.5	7.3	53.4	46.6	100.0
1976–80	39.3	35.6	15.6	10.6	61.8	38.2	100.0
1981–86	39.1	30.9	14.5	5.5	50.8	49.2	100.0
1987–90	35.8	44.4	(1.1)	7.2	50.4	49.6	100.0
1990–94	41.3	44.0	3.3	7.3	54.6	45.4	100.0
1971–94	38.8	34.4	12.5	7.6	54.4	45.6	100.0

[1]Percent of public expenditures of the total for investment.
[2]Percent of profits from government enterprises.
[3]Percent of revenues from public enterprises.
[4]Loans, foreign aid, and other sources.

Sources: Hanguk Eunhaeng 1995: 248–49; Bank of Korea, *Economic Statistics Yearbook*, various years.

As far as saving out of government ordinary revenues, such as taxes, is concerned, there is no evidence to show that much of it, if any, was invested. As a matter of fact, the government incurred a budget deficit during most of the period after the Korean War, starting out with a substantial sum, nearly two-tenths of budgets, in the period from the early 1950s until about 1985. During the 10-year period between 1953 and 1962, ordinary government revenues were not even sufficient to cover current consumption expenditures; to save was beyond the realm of possibility. This situation continued even until 1963, when the economy was largely recovering and

TABLE 7.9 Public Investment and Special Revenues (in percent of public expenditures/revenues)

Year	Public Investment[1]	*Sources of Special Revenues*				
		Domestic				
		Banks	Others[2]	Total	Foreign[3]	Total
1971	40.4	38.5	19.9	58.4	41.6	100.0
1972	41.8	(1.6)	72.8	71.2	28.8	100.0
1973	32.5	1.5	15.8	17.3	82.7	100.0
1974	35.1	3.3	69.0	72.3	27.7	100.0
1975	39.4	8.2	62.7	70.9	29.1	100.0
1976	39.0	19.9	12.0	31.9	68.1	100.0
1977	38.6	24.8	9.3	34.1	65.9	100.0
1978	38.8	20.1	17.8	38.0	62.0	100.0
1979	40.3	11.9	18.1	30.0	70.0	100.0
1980	40.0	36.0	40.4	76.4	23.6	100.0
1981	42.0	25.8	52.1	77.9	22.1	100.0
1982	39.7	27.4	44.2	71.7	28.3	100.0
1983	37.7	(26.2)	87.2	60.9	39.1	100.0
1984	37.0	121.0	(54.0)	67.1	32.9	100.0
1985	39.8	86.3	(27.1)	59.3	40.7	100.0
1986	38.2	120.6	59.0	179.6	(79.6)	100.0
1987	34.4	15.2	86.1	101.4	(1.4)	100.0
1988	33.7	(11.1)	78.7	67.7	32.3	100.0
1989	35.3	(45.4)	104.8	59.4	40.6	100.0
1990	40.0	(63.5)	231.2	167.6	(67.6)	100.0
1991	43.8	17.8	88.5	106.3	(6.3)	100.0
1992	41.9	13.9	98.8	112.7	(12.7)	100.0
1993	39.2	(1.6)	78.3	76.8	23.2	100.0
1994	41.5	3.5	104.2	107.8	(7.8)	100.0
Averages						
1971–75	37.8	10.0	48.0	58.0	42.0	100.0
1976–80	39.3	22.5	19.5	42.1	57.9	100.0
1981–86	39.1	59.2	26.9	86.1	13.9	100.0
1987–90	36.3	3.2	112.0	115.1	(15.1)	100.0
1991–94	41.6	8.4	92.5	100.9	(0.9)	100.0
1971–94	38.8	18.6	57.1	75.7	24.3	100.0

[1]Percent of public expenditures for capital formation.
[2]Includes the public budget and public purchase of bonds.
[3]Includes foreign aid and loans.

Sources: Hanguk Eunhaeng 1995: 248–49; Bank of Korea, *Economic Statistics Yearbook*, various years.

budget deficits declined. Budget deficits between 1967 and 1982 were more than 10 percent of government revenue, and 4.7 percent between 1983 and 1985.

The only possible source of public saving out of ordinary revenues was profits from government-owned and -operated ventures and public enterprises co-owned and -operated with private investors. As examined in chapter 3, the government owned and operated a fairly large number of government and public enterprises

after the Korean War, which earned profits. However, they were all classified as ordinary revenues of the budget, which typically incurred deficit until about 1985, as noted above.[91] In addition, profits from government enterprises declined from about a third of government ordinary revenues in the early 1970s to about 2–3 percent by 1994, while revenues from public enterprises averaged about 7.6 percent.[92] It is thus clear from the above analysis that the initiation and sustaining of relatively high levels of public saving was partly due to the government's ability to obtain additional domestic resources from the private sector. It derived additional resources by borrowing and "taxing" the private sector through expansionary monetary policy. If the so-called public savings is traced to its ultimate sources, the overwhelming majority of financial resources was supplied by other nongovernment sectors, including the private sector.

Had there been no loans from and savings forced on the private sector, as well as the foreign source, the resources saved in the public sector would have remained in the private sector and the latter's saving ratio would have been higher while leaving the public sector without savings until about 1985. Therefore, the relatively high public saving ratio cited above is overstated and the contribution of private saving for financing public investment is understated. In that case, private saving actually increased from less than one-tenth of GDP in the first few years following the Korean War to the upper 30 percent level of GDP after the mid-1980s, averaging about 23.2 percent, which is nearly nine-tenths (88.7 percent) of domestic saving between 1953 and 1994 (Table 7.1), accounting for almost all domestic saving. Notwithstanding greater contribution of private saving than reported, private savings were still significantly below the levels of other high-saving countries such as Japan and Taiwan. It is noted that in spite of the relatively small amount of public savings, the South Korean government played an active and positive role in the nation's saving for investment in comparison to many other developed and developing countries.

THE CONTRIBUTION OF DOMESTIC SAVING TO FINANCING INVESTMENT

Based on the preceding analysis, the contribution of domestic savings to financing investment is briefly recapitulated in tables 7.10 and 7.11 to show the relative significance of each component of domestic savings. Overall, with all resources available to the country including those of the net imported foreign resources, domestic saving contributed the sum equivalent to nearly a quarter (24.1 percent) of the country's GDP in the country during the 42-year period between 1953 and 1994, which was nearly all (99.1 percent) savings available (Table 7.10) on average. However, without the net imports of foreign resources, domestic sources alone would have saved merely 19.5 percent of the country's GDP at most and financed only about four-fifths (81 percent) of domestic investment in the country on average during the same period (Table 7.11), with the balance of saving contributed by external sources (see chapters 8 and 9).

The financing of investment with domestic savings varied widely among different sectors: savings in each segment of the economy was not confined to

TABLE 7.10 Estimated Domestic Contribution of Saving for Investment with Imported Net Foreign Resources, 1953–94 (in percent)

Sources of Saving and Destination of Investment	*Saving*		*Investment Distribution (in percent)*				Saving Investment (as percent of GDP)
	Relative to GDP	Percent of Total	Relative to GDP	Total	Private	Public	
Private Sector:	19.5	80.9	19.0	78.8	—	—	0.5
Personal/Household:	13.0	53.9	4.0	16.6	21.0	—	9.0
Owners' Equity	2.0	8.3	—	—	—	—	2.0
Deposits/Loans[1]	7.0	29.0	—	—	—	—	7.0
Other[2]	4.0	16.6	4.0	16.6	21.0	—	—
Business	6.5	27.0	15.0	62.2	79.0	—	(8.5)
Public Sector:	—	—	5.1	21.2	—	100.0	(5.1)
Domestic Saving	—	—	—	—	—	—	—
Foreign Saving	4.6	19.1	—	—	—	—	4.6
Domestic Total	24.1	100.0	24.1	100.0	100.0	100.0	(0.0)

[1]Includes household savings deposited in financial institutions that were loaned for investment bonds, and other assets.

[2]Includes household savings and investment in other forms, such as, real estate, bonds, and other assets.

financing only its own investment, but furnished for investment in other sectors as well. With the net foreign resources imported, the private sector saved 19.5 percent of GDP between 1953 and 1994, which was about four-fifths (80.9 percent) of domestic savings on average, while the public sector set aside about 5.1 percent of GDP for saving out of its special revenues (Table 7.10). Also, each segment within the private sector, namely, personal/household and business, did not necessarily

TABLE 7.11 Estimated Domestic Contribution of Saving for Investment without Net Foreign Resources, 1953–94 (in percent)

Sources of Saving and Destination of Investment	*Saving*		*Investment Distribution (in percent)*				Saving Investment (as percent of GDP)
	Relative to GDP	Percent of Total	Relative to GDP	Total	Private	Public	
Private Sector:	19.5	100.0	18.0	92.3	—	—	1.5
Personal/Household:	13.0	66.7	4.0	20.5	22.2	—	9.0
Owners' Equity	2.0	10.3	—	—	—	—	2.0
Deposits/Loans[1]	7.0	35.9	—	—	—	—	7.0
Other[2]	4.0	20.5	4.0	20.5	22.2	—	—
Business	6.5	33.3	14.0	71.8	77.8	—	(7.5)
Public Sector:	—	—	1.5	7.7	—	100.0	(1.5)
Domestic Saving	—	—	1.5	—	—	—	—
Foreign Saving	—	—	—	—	—	—	—
Domestic Total	19.5	100.0	19.5	100.0	100.0	100.0	—

[1]Includes household savings deposited in financial institutions that were loaned for investment bonds, and other assets.

[2]Includes household savings and investment in other forms, such as, real estate, bonds, and other assets.

save enough to finance its own investment. On the one hand, while the personal sector saved 13 percent of GDP, which was more than half (53.9 percent) of domestic savings, it invested only about 4 percent of GDP or 16.6 percent of domestic investment, leaving the savings surplus of 9 percent of GDP to other sectors. A major portion of personal savings was deposited in the financial institutions (7 percent of GDP on average), which constituted the largest portion, that is, a little more than a third (35.9 percent), of domestic savings. On the other hand, the business sector saved only 6.5 percent of GDP while investing 15 percent of GDP, showing a savings deficit of 8.5 percent of GDP.

The economic sectors with surplus savings financed the sectors that were not able to save enough to finance their own investment. The personal/household sector that saved about 13 percent of GDP and 54 percent of domestic savings financed the business sector with deficit savings (8.5 percent of GDP) through owners' equity (2 percent of GDP), loans of financial institutions (5.5 percent of GDP), as well as the rest with foreign savings (see chapters 8 and 9). Surprisingly, personal savings invested in owners' equity (2 percent of GDP) made up a relatively small portion (13.3 percent) of the business investment. Nearly two-fifths (43.3 percent) of business investment was financed with the borrowings from banks and other private and foreign sources, which was nearly three times (325 percent) the owners' equity. Similarly, the public sector depended partly (1.5 percent of GDP) on private savings for financing its investment, while depending largely on foreign savings for the rest (see chapters 8 and 9).

The only exception to relying on other sectors' savings was the personal/household sector, which financed itself with its own savings (4 percent of GDP).

SUMMARY AND CONCLUSIONS

The examination of the sources, contributions, and impacts of domestic saving on investment in this chapter has provided further insight into capital formation and economic growth in South Korea. With its rise in income, South Korea has dedicated an increasing amount of its own resources to investment for economic growth during the last half of the twentieth century. The increase in the nation's domestic saving was not only in absolute terms but also relative to income. The ratio of domestic saving to GDP with all resources available to South Korea, including those of foreign, rose steadily from about 11 percent in the early post–Korean War years to more than 35 percent in the 1990s, averaging approximately 24.1 percent between 1953 and 1994. Domestic savings financed an increasing share of the nation's investment during the period, from less than a quarter of the total during the 10-year period between 1953 and 1962 to more than all domestic investment (105 percent) in 1985–94, averaging nearly 100 percent for the entire 42-year period. South Korea thus moved from an economy of insignificant domestic saving to one of the highest savings rates in the world and became a net exporter of savings in one of the briefest periods of recent record. The high saving ratio in South Korea after the Korean War enabled it to expand investment and maintain high economic

growth rates. This feat of domestic savings in a war-ravaged country was an astonishing accomplishment.

Without the net imports of foreign resources, however, domestic sources alone would have saved less than a fifth of the country's GDP, financing about three-quarters of domestic investment in the country during the 42-year period between 1953 and 1994, while the rest of resources for saving was contributed by external sources (see chapters 8 and 9). Domestic saving is projected to remain high, possibly maintaining the 30 percent of GDP level for the foreseeable future and financing nearly all investment in the country. However, as the share of net profits to businesses declines, there is a threat of the business saving ratio heading downward in the future.

With all resources available, including foreign, domestic savings has been traced to both private and public sources, constituting on average about three-quarters and about a quarter of total domestic savings, respectively. About two-thirds of private savings came from personal/household savings, which included the savings of unincorporated enterprises. The bulk of personal/household savings was contributed by high-income groups, some middle-income earners, and small businesses, while others—namely, farmers and industrial and service sector workers, contributed little savings for productive investment. One of the significant sources of personal savings, though relatively small, was private transfer payments from Koreans working overseas and emigrants abroad.

Personal/household savings was channeled into a number of venues, including direct investment in owners' equity, portfolio investment, deposits in financial institutions, and personal loans, and other miscellaneous channels. In comparison to other developed countries, relatively small shares of personal/household savings directly financed investments in the form of equity or even portfolio investment. Between 1963 and 1974, for instance, new equity financed only about 13 percent of business investment. A major portion of personal/household savings were deposited in financial institutions—banks, NBFIs, and unorganized financial markets—which in turn became the sources for financing investment in businesses and government enterprises. A little more than a third of business investment came through financial intermediaries. Other uses of personal/household savings included the purchase of tangible assets (such as housing) and personal loans.

The rest, a little more than two-fifth of savings in the business sector, came in the form of net profits retained, which resulted from large profits with small dividend payments. Based on the growth of businesses in the past 50 years, it is surmised that businesses had large savings, which increased rapidly after the Korean War. Like personal savings, business savings in the early years started out small, both in volume and relative to GDP, profits, and total savings (foreign as well as domestic), but grew rapidly. Corporate saving, for instance, was merely 1.4 percent of the nation's GDP in 1956 but climbed to about 12 percent in the mid-1980s. Rising business savings is also shown for the period between 1974 and 1998, from slightly more than 50 percent of profits to about 84 percent. In other words, businesses on average saved about three-quarters of their profits. The share of savings by incorporated businesses steadily increased from about 13 percent of gross savings in the early 1960s to

between 30 and 40 percent, averaging about 33 percent in the 1980s and 1990s. Business savings accounted for more than two-fifths of total corporate sources of funds.

The high and expanding business profits were augmented largely with various government financial incentive programs, which led to large profits under the alliance between the government and the burgeoning corporations. By creating a large gap between the divested prices and the real costs of government assets, including foreign exchanges, the industrial and financial policies, combined with inflation, produced wealth and income transfers from benefactors to business beneficiaries and contributed positively to capital accumulation in the private sector and also lowered the costs of input factors of production. It is interesting to note that as soon as the active government subsidy programs were eased out in the later years, business profits declined perceptibly to cause some business firms to encounter financial difficulty to the extent of bankruptcy.

The primary beneficiaries of government industrial and financial policies were those who were close to the Japanese under colonial rule, large firms, in import-substitution and export industries, and those who had close personal or political ties with government officials, in addition to being talented entrepreneurs and businessmen. They were selected on the basis of a number of criteria, both the official and objective benchmarks based on economic strategies and unofficial, subjective, and discretionary considerations.

The major portion of financial incentives including inflation windfall to the beneficiaries was borne directly by the South Korean government initially (because it footed the bank losses), but ultimately by Korean taxpayers as a whole. In this way, substantial wealth and income transfers from taxpayer benefactors to business beneficiaries took place under various government industrial and financial policies. Discriminatory industrial and financial policies also contributed to unequal distributions of wealth and income among different sectors, industries, and income groups, resulting in a more skewed distribution of wealth and income, mostly in the industrial sector, although the middle income groups slowly emerged and land reform distributed land more equally for farming, which resulted in more equal income and wealth distributions.

The group of businesses that benefited the most from the government financial incentive programs was the *jaebeol*, which came to dominate the nation's economy and also contributed the major share of business savings in the country. The *jaebol* were successful not only because they received special privileges and benefits from the government but also because they established symbiotic relationships with the government and worked with it intimately. They assisted each other in working for the growth of the nation's economy and in the formation and expansion of the *jaebeol*, thus fulfilling each other's needs. The government tolerated and even encouraged the *jaebeol* to exercise their monopolistic and oligopolistic power in the market. A symbiotic link between the government and *jaebeol* had real costs, however, as medium-sized and small businesses had few access to special privileges. The rapidly rising role of the entrepreneurial class was also one of the most important contributing factors to South Korea's increased domestic saving.

Unlike private saving, government saving out of its regular sources of revenue was negative in the early years but gradually reached positive levels after about the mid-1980s. With the special sources of revenue, the marginal rate of saving in the public sector rose, while the average rate of saving compared to GDP expanded from negative to positive, showing a faster growth rate than that in the private sector. The government was able to "save" a large portion of its special revenues from mostly in the form of domestic loans as well as net foreign imports.

The primary tools for mobilizing private saving for public investment from domestic sources were both voluntary and forced saving imposed upon the private sector. The government took out loans made by domestic financial institutions, which were derived largely from the personal savings deposited in them, mobilized personal/household savings through selling public bonds, and imposed forced saving upon citizens via inflationary measures. There is no record of the government saving out of its ordinary revenues; even if it did save, the amount would have been minimal. In spite of its inability to save much, the South Korean government played a more active and significant role in promoting saving than occurred in many developed countries.

8

FOREIGN SAVINGS AND DIRECT INVESTMENT

Now that the financing of investment in South Korea with domestic savings and its impact on the economy have been scrutinized, the next logical question is: How did the country acquire economic resources from abroad? Domestic savings met only a part, though a major portion, of the country's investment needs, and there was a substantial gap between investment and domestic savings out of domestic production (GDP). Foreign capital/savings also provided something that domestic savings could not: foreign exchange with which to acquire foreign resources. The buildup of productive capacity in any country requires capital goods imports, domestic materials and components, and labor to put new capital equipment in place. Therefore, the country requires a substantial amount of foreign savings/resources to finance the country's rapidly expanding investment. The task in this chapter is the investigation of foreign sources of savings that financed the necessary investment in South Korea.

The examination will commence with overall foreign savings/resources imported into South Korea and their contribution to the country's economy, especially in capital formation, after World War II. This is followed by a more focused scrutiny of the sources of foreign savings, namely, foreign direct investment, foreign aid, reparations payments, foreign loans, foreign portfolio investment, and other miscellaneous imports. Foreign direct investment is examined in this chapter, while analysis of the other five forms of imported resources listed above is deferred to chapter 9.

IMPORTED FOREIGN SAVINGS

A simple method of determining net imports of foreign savings/resources is to calculate the net inflow of resources from abroad. This figure may be obtained by

calculating overall net imports of resources via trade statistics. If an import surplus (imports minus exports) is indicated, then obviously there is a net inflow of foreign savings/resources, which can be used for investment.

Volume

According to trade statistics, South Korea had imports worth $345.4 million in 1953. This figure increased to $1.46 billion in 1968, $10.8 billion in 1977, $26.5 billion in 1984, $77.3 billion in 1990, $144.9 billion in 1995, and $261.2 billion in 2005. While South Korea's imports fluctuated somewhat during the 45-year period between 1953 and 1997, its imports on the whole expanded by 16.2 percent per year on average. The total value of South Korea's imports of foreign goods and services during that period was $1.29 trillion. On average, South Korea's imports between 1953 and 1997 were equal to about 26.4 percent of its GDP (Table 8.1).

A closer examination reveals that the real value of foreign savings available to South Korea for domestic savings or investment may have been somewhat greater than is shown in the official statistics, since there are a number of statistical and valuation problems in calculating their "real value" relative to GDP, especially in Korean currency. The value of foreign saving, for instance, was understated in South Korean currency in the early years, when it was under the repressive foreign exchange policy regime. Therefore, the worth of imported goods in South Korean currency was substantially understated in the early post–World War II period, and in turn, its value in relation to GDP in South Korean currency was underrepresented.[1]

More than half of the country's imports were from the United States and Japan. Imports from the former accounted for nearly 80 percent of the total in the early years and a little more than 50 percent by the 1980s. Imports from Japan were somewhat larger than those from the former country in the later years—about 35 percent of the total in 1986 and about 20 percent from the United States.

Imports were financed mostly with South Korea's exports. Exports started out meagerly, at merely $39.6 million in 1953, which were only about 11 percent of imports in the same year. But they ballooned to $455.4 million in 1968, $8 billion in 1977, $26.4 billion in 1984, $70.5 billion 1990, $131.8 billion in 1997, and reached as much as $284.7 billion in 2005. Consequently, South Korea's export earnings expanded by 23.1 percent per year on average during the 45-year period between 1953 and 1997 and were as high as 98.6 percent in 1973. The total sum of South Korea's exports of goods and services between 1953 and 1997 was $1.29 trillion, the average volume of exports being equal to 18.3 percent of its GDP. Export growth remains resilient, and exports were the principal source of strength for the Korean economy in 2003 and 2006, the last years for which data are currently available. The current account surplus increased from $5.39 billion in 2002 to $27.61 billion in 2004, and foreign exchange holdings hit about $210 billion in 2005.

South Korea had depended greatly on the United States and Japan as its major trading partners, with more than three-quarters (75.6 percent) of all exports going to these markets in 1970. South Korea then succeeded in diversifying its export market, sending a 55.6 percent share to those two countries and the rest to other countries in 1986. The United States has traditionally been the most important market

TABLE 8.1 Balance of Payments, Foreign Trade, and Transfers (as percent of GDP)

	Balance of Payments			*Foreign Trade*			*Foreign Transfers*		
Year	Imports	Exports	Balance	Imports	Exports	Balance	Imports	Exports	Balance
1953	26.6	3.1	(23.5)	9.8	3.2	(6.6)	16.8	(0.1)	(16.9)
1954	17.4	1.7	(15.7)	7.4	2.1	(5.3)	10.0	(0.4)	(10.4)
1955	24.4	1.3	(23.1)	10.0	2.9	(7.1)	14.4	(1.6)	(16.0)
1956	25.7	1.6	(24.1)	13.2	2.3	(10.9)	12.5	(0.7)	(13.2)
1957	26.0	1.3	(24.7)	12.0	2.2	(9.8)	14.0	(0.9)	(14.9)
1958	19.9	0.9	(19.0)	10.8	2.8	(8.0)	9.1	(1.9)	(11.0)
1959	16.0	1.0	(15.0)	10.3	3.4	(6.9)	5.7	(2.4)	(8.1)
1960	17.6	1.7	(15.9)	12.7	4.1	(8.6)	4.9	(2.4)	(7.3)
1961	15.1	1.9	(13.2)	14.9	6.3	(8.6)	0.2	(4.4)	(4.6)
1962	18.3	2.4	(15.9)	16.6	6.0	(10.6)	1.7	(3.6)	(5.3)
1963	20.6	3.2	(17.4)	15.8	5.4	(10.4)	4.8	(2.2)	(7.0)
1964	14.0	4.1	(9.9)	13.5	6.7	(6.8)	0.5	(2.6)	(3.1)
1965	15.4	5.8	(9.6)	15.9	9.5	(6.4)	(0.5)	(3.7)	(3.2)
1966	19.5	6.8	(12.7)	20.3	11.9	(8.4)	(0.8)	(5.1)	(4.3)
1967	23.3	7.5	(15.8)	22.4	13.6	(8.8)	0.9	(6.1)	(7.0)
1968	28.0	8.7	(19.3)	25.9	14.7	(11.2)	2.1	(6.0)	(8.1)
1969	28.1	9.6	(18.5)	26.0	15.4	(10.6)	2.1	(5.8)	(7.9)
1970	24.5	10.3	(14.2)	24.0	14.9	(9.1)	0.5	(4.6)	(5.1)
1971	25.2	11.2	(14.0)	26.5	16.1	(10.4)	(1.3)	(4.9)	(3.6)
1972	23.6	15.2	(8.4)	25.6	20.5	(5.1)	(2.0)	(5.3)	(3.3)
1973	31.2	23.7	(7.5)	33.5	29.7	(3.8)	(2.3)	(6.0)	(3.7)
1974	36.3	23.6	(12.7)	40.1	28.1	(12.0)	(3.8)	(4.5)	(0.7)
1975	34.2	23.9	(10.3)	28.2	28.0	(0.2)	6.0	(4.1)	(10.1)
1976	20.5	26.5	6.0	34.3	31.2	(3.1)	(13.8)	(4.7)	9.1
1977	29.0	21.6	(7.4)	33.9	31.8	(2.1)	(4.9)	(10.2)	(5.3)
1978	27.7	24.3	(3.4)	34.7	29.9	(4.8)	(7.0)	(5.6)	1.4
1979	30.5	23.5	(7.0)	36.5	28.0	(8.5)	(6.0)	(4.5)	1.5
1980	38.7	32.9	(5.8)	45.8	34.0	(11.8)	(7.1)	(1.1)	6.0
1981	33.5	29.8	(3.7)	47.0	37.5	(9.5)	(13.5)	(7.7)	5.8
1982	33.4	31.0	(2.4)	42.5	35.5	(7.0)	(9.1)	(4.5)	4.6
1983	33.1	31.8	(1.3)	40.2	36.3	(3.9)	(7.1)	(4.5)	2.6
1984	29.0	29.0	—	40.0	36.5	(3.5)	(11.0)	(7.5)	3.5
1985	31.5	36.0	4.5	37.5	35.3	(2.2)	(6.0)	0.7	6.7
1986	35.5	42.6	7.1	36.0	39.0	3.0	(0.5)	3.6	4.1
1987	35.4	43.8	8.4	35.3	41.1	5.8	0.1	2.7	2.6
1988	31.2	33.7	2.5	32.2	38.9	6.7	(1.0)	(5.2)	(4.2)
1989	29.8	28.6	(1.2)	31.3	33.2	1.9	(1.5)	(4.6)	(3.1)
1990	30.5	27.8	(2.7)	31.6	30.3	(1.3)	(1.1)	(2.5)	(1.4)
1991	26.5	25.9	(0.6)	32.0	28.8	(3.2)	(5.5)	(2.9)	2.6
1992	25.9	26.7	0.8	31.2	29.5	(1.7)	(5.3)	(2.8)	2.5
1993	29.4	28.5	(0.9)	29.9	29.7	(0.2)	(0.5)	(1.2)	(0.7)
1994	34.0	32.8	(1.2)	32.0	30.5	(1.5)	2.0	2.3	0.3
1995	29.6	26.6	(3.0)	—	—	—	—	—	—
1996	25.4	24.9	(0.5)	—	—	—	—	—	—
1997	17.6	25.5	7.9	—	—	—	—	—	—
Averages									
1953–61	21.0	1.6	(19.4)	11.2	3.3	(8.0)	9.7	(1.6)	(11.4)
1962–86	27.4	19.4	(8.0)	30.5	23.8	(6.7)	(3.1)	(4.4)	(1.3)
1987–97	30.3	31.0	0.6	31.9	32.8	0.8	(1.6)	(1.8)	(0.2)
1953–94	26.6	17.8	(8.8)	26.7	21.1	(5.5)	(0.1)	(3.3)	(3.2)
1953–97	26.4	18.3	—	—	—	—	—	—	—

Sources: Based on Hangeuk Eunhaeng 1995: 180; Bank of Korea, *Economic Statistics Yearbook*, various years.

for South Korea's exports. It accounted for more than a third of South Korea's export market in the 1980s. Then Japan took over as South Korea's number one export-targeted country, regaining its pre–World War II position: 20.2 percent of all of Japan's imports came from South Korea in 2000, excepting a three-year period between 1997 and 1999 when the United States regained its status as South Korea's number one exporting nation. More recently, South Korean has become increasingly focused on Asia, especially China, while trade with the United States has increased at a much slower pace. According to the Bank of Korea, exports to China expanded by 30.6 percent in 2002, while exports to the United States rose only 5 percent. China is now the number one recipient of goods exported from South Korea.

Net imported foreign savings, too, came mostly from the United States and Japan, whose contribution made up over 80 percent of total foreign savings in South Korea during the 34-year period between 1953 and 1986. Foreign savings from the United States dominated before 1964, but after 1965, South Korea's imports of savings from Japan outstripped that from all other countries, including the United States.[2] Japan contributed about 70 percent of total foreign savings imported by South Korea in the 1980s.[3]

South Korea has gone through two distinct stages of net imports of foreign savings: the periods before and after 1985. More net importing took place before 1985, when South Korea imported more goods and services than it exported. The deficit balance of trade was $32.5 billion, indicating that there was a net inflow of foreign resources. This sum represented more than 15 percent of the country's imports, and its exports were able to finance less than 85 percent of its imports between 1954 and 1984. At the end of 1985, South Korea's foreign debt peaked at $46.8 billion, a sum equal to 57 percent of its GDP in that year, making South Korea the fourth most indebted developing nation in the world at the time.

After 1985, South Korea achieved a more or less a self-sufficient economic status, by not persistently importing more than exporting. In 1986, the country shifted from a chronic deficit to a surplus equal to about 5 percent of GDP and reached the stage where it was able to grow its economy without relying on others' assistance for its investment needs. Although trade balances were negative from time to time after 1989, industrial growth has continued, with growing exports in a broad range of manufactured goods, including the most sophisticated ones, such as electronic products and automobiles. As a result, the need for new inflows of foreign savings waned, and the size of the foreign debt diminished rapidly, from the peak in 1985 to $35.6 billion at the end of 1987.

Economic Impact of the Net Import Surplus

The net inflow of foreign resources (imports minus exports) during the last half of the twentieth century had a number of economic impacts on the South Korean economy. It obviously added a significant amount of resources in the country. In other words, South Korea used larger amounts of resources than were available from domestic production (GDP) during most of the latter half of the twentieth century, especially the 31-year period between 1953 and 1983. Thus, it was living beyond its

means. On the whole, the average net volume of imported foreign resources between 1953 and 1994 was 8.6 percent of GDP (Table 8.2). Especially critical for the war-torn economy, net imports of foreign resources were as much as 22.2 percent of GDP between 1953 and 1957, when the country was struggling to recover from the Korean War, and 15 percent between 1958 and 1971. The contribution of foreign imports to the South Korean economy thereafter decreased to 6.3 percent during 1972–79, and 0.2 percent during 1980–86.

Supplement to Consumption

The added foreign resources/savings to South Korea contributed in the two principal fronts: consumption and saving. It is estimated that net imports of foreign resources added as much as 3.7 percent of GDP on average for consumption during the 42-year period between 1953 and 1994, thus improving the standard of living of South Korean people. The added foreign resources/savings allowed the Korean people to improve their standard of living by more than 5 percent on average during the 42-year periods. The added foreign resources/savings provided more than 14 percent of GDP of additional resources for consumption during the early five-year period between 1953 and 1957 and 6.2 percent during the 14-year period between 1958 and 1971 (Table 8.2).

Contribution to Domestic Saving

Perhaps more important for capital formation, net imports of foreign resources have contributed to South Korea's domestic saving by supplementing additional resources. For the 42-year period between 1953 and 1994, net imports enabled the country to save an additional sum equivalent to 4.6 percent of GDP. With additional foreign resources, the domestic saving ratio was raised by 4.6 percent of GDP on average during the 42-year period, which constituted more than half (53 percent) of net imports (Table 8.2), nearly a quarter (23.6 percent) of domestic savings, and nearly a fifth (18.9 percent) of all savings available for investment in the country. The ratio of domestic saving to GDP without imported foreign savings was calculated at 18.3 percent (chapter 7), which constituted about three-quarters (75.9 percent) of investment between 1953 and 1994.

With imported foreign savings, it was able to increase domestic saving by as much as 31.7 percent and total domestic saving to 24.1 percent of GDP and meet all investment needs. Foreign savings certainly narrowed the gap between the need for investment and lagging domestic savings, thereby enabling South Korea to acquire capital equipment and other input factors, such as intermediate goods and raw materials, from abroad. Had there been no imported foreign savings, more than a fifth of domestic investment (4.6 percent of GDP) would not have taken place and, ceteris paribus, nearly all of the country's output might have been consumed domestically until about 1971, without much saving. Certainly, South Korea could not have rebuilt the industries that were destroyed during the Korean War or added new ones. Nor would it have been able to promote rapid economic development and meet the basic needs of the people at the same time.[4]

TABLE 8.2 Sources of Resources and Their Allocation (in percent of GDP)

	All Available Resources			*Consumption*			*Saving*			
Year	GDP	Net Imports	Total	GDP	Net Imports	Total	Domestic	FDI	Foreign Resources for Domestic Saving	Investment
1953	100.0	23.5	123.5	92.3	16.5	108.8	7.7	—	7.0	14.7
1954	100.0	15.7	115.7	94.3	10.0	104.3	5.7	—	5.7	11.4
1955	100.0	23.1	123.1	85.9	15.5	101.4	4.1	—	7.6	11.7
1956	100.0	24.1	124.1	102.9	13.2	116.1	(2.9)	—	10.9	8.0
1957	100.0	24.7	124.7	95.2	15.5	110.7	4.8	—	9.2	14.0
1958	100.0	19.0	119.0	95.9	11.3	107.2	4.1	—	7.7	11.8
1959	100.0	14.9	114.9	96.4	8.1	104.5	3.6	—	6.8	10.4
1960	100.0	15.9	115.9	99.9	6.0	105.9	0.1	—	9.9	10.0
1961	100.0	13.1	113.1	98.0	5.1	103.1	4.0	—	8.0	12.0
1962	100.0	15.9	115.9	97.6	6.5	104.1	2.4	—	9.4	11.8
1963	100.0	17.4	117.4	92.0	8.4	100.4	8.0	0.1	8.9	17.0
1964	100.0	9.9	109.9	91.9	4.8	96.7	8.1	0.1	5.0	13.2
1965	100.0	9.6	109.6	93.5	2.0	95.5	6.5	0.3	7.3	14.1
1966	100.0	12.7	112.7	89.3	3.0	92.3	10.7	0.3	9.4	20.4
1967	100.0	15.8	115.8	90.1	4.8	94.9	9.9	0.4	10.6	20.9
1968	100.0	19.3	119.3	86.1	8.3	94.4	13.9	0.4	10.6	24.9
1969	100.0	18.5	118.5	82.2	8.4	90.6	17.8	0.3	9.8	27.9
1970	100.0	14.2	114.2	84.1	5.8	89.9	15.9	0.4	8.0	24.3
1971	100.0	14.0	114.0	85.3	3.9	89.2	14.7	0.3	9.8	24.8
1972	100.0	8.4	108.4	83.8	3.7	87.5	16.2	0.5	4.2	20.9
1973	100.0	7.5	107.5	78.0	4.3	82.3	22.0	0.6	2.6	25.2
1974	100.0	12.7	112.7	80.0	0.9	80.9	20.0	0.5	11.3	31.8
1975	100.0	10.3	110.3	81.6	0.1	81.7	18.4	0.7	9.5	28.6
1976	100.0	(6.0)	94.0	76.4	(8.9)	67.5	23.6	0.5	2.4	26.5
1977	100.0	7.4	107.4	73.1	6.0	79.1	26.9	0.3	1.1	28.3
1978	100.0	3.4	103.4	71.0	(0.1)	70.9	29.0	0.2	3.3	32.5
1979	100.0	7.0	107.0	71.7	(0.5)	71.2	28.3	0.2	7.3	35.8
1980	100.0	5.8	105.8	76.0	(2.1)	73.9	24.0	0.2	7.7	31.9
1981	100.0	3.7	103.7	76.0	(2.2)	73.8	24.0	0.1	5.8	29.9
1982	100.0	2.4	102.4	74.8	(1.3)	73.5	25.2	0.1	3.6	28.9
1983	100.0	1.3	101.3	71.4	0.4	71.8	28.6	0.1	0.8	29.4
1984	100.0	—	100.0	69.0	0.3	69.3	31.0	0.1	(0.4)	30.6
1985	100.0	(4.5)	95.5	68.6	(3.6)	65.0	31.4	0.2	(1.1)	30.3
1986	100.0	(7.1)	92.9	65.2	(1.9)	63.3	34.8	0.4	(5.6)	29.2
1987	100.0	(8.4)	91.6	62.3	(1.1)	61.2	37.7	0.4	(7.7)	30.0
1988	100.0	(2.5)	97.5	60.6	5.3	65.9	39.4	0.5	(8.3)	31.1
1989	100.0	1.1	101.1	63.5	3.5	67.0	36.5	0.3	(2.7)	33.8
1990	100.0	2.7	102.7	63.8	1.5	65.3	36.2	0.3	0.9	37.1
1991	100.0	0.6	100.6	63.6	(2.5)	61.1	36.4	0.4	2.7	39.1
1992	100.0	(0.8)	99.2	64.8	(2.6)	62.2	35.2	0.2	1.6	36.8
1993	100.0	0.9	100.9	64.6	0.9	65.5	35.4	0.2	(0.2)	35.2
1994	100.0	1.2	101.2	64.5	0.4	64.9	35.5	0.2	0.6	36.1
1995	100.0	3.1	103.1	—	2.7	2.7	—	0.4	—	—
1996	—	—	—	—	—	—	—	0.4	—	—
1997	—	—	—	—	—	—	—	0.6	—	—
1998	—	—	—	—	—	—	—	1.5	—	—
1999	—	—	—	—	—	—	—	3.5	—	—

(*continued*)

TABLE 8.2 (*continued*)

	All Available Resources			*Consumption*			*Saving*			
Year	GDP	Net Imports	Total	GDP	Net Imports	Total	Domestic	FDI	Foreign Resources for Domestic Saving	Investment
2000	—	—	—	—	—	—	—	3.1	—	—
2001	—	—	—	—	—	—	—	2.4	—	—
2002	—	—	—	—	—	—	—	1.7	—	—
2003	—	—	—	—	—	—	—	1.1	—	—
2004	—	—	—	—	—	—	—	1.9	—	—
Averages										
1953–57	100.0	22.2	122.2	94.1	14.1	108.3	3.9	—	8.1	12.0
1958–71	100.0	15.0	115.0	91.6	6.2	97.8	8.6	0.2	8.7	17.4
1972–79	100.0	6.3	106.3	77.0	0.7	77.6	23.1	0.4	5.2	28.7
1980–86	100.0	0.2	100.2	71.6	(1.5)	70.1	28.4	0.2	1.5	30.0
1987–94	100.0	(0.7)	99.4	63.5	0.7	64.1	36.5	0.3	(1.6)	34.9
1995–98	100.0	3.1	103.1	—	2.7	2.7	—	0.7	—	—
1953–94	100.0	8.6	108.6	80.4	3.7	82.3	19.5	0.2	4.6	24.3
1953–04	—	—	—	—	—	—	—	0.5	—	—

Sources: Hanguk Eunhaeng 1995: 178–79; Bank of Korea, *Economic Statistics Yearbook*, various years.

Net imports of foreign resources played a more vigorous role during the early years following the Korean War, when the nation's production facilities were in ruins, many sources of income were destroyed, and the country was faced with economic disaster. During the five-year period between 1953 and 1957, the volume of net foreign savings imported for investment was equal to 8.1 percent of GDP, while domestic savings were merely 3.9 percent. This level of domestic saving was not even enough to cover depreciation allowances for capital goods or to construct new factories to produce goods and services while sustaining the standard of living of the expanding population of the country at the time. Domestic resources were not sufficient to save a significant volume. Without the imported foreign savings/resources, domestic saving during the first 10-year period between 1953 and 1962 would not have been 11.2 percent of GDP, as recorded (Table 7.1), but only about 4.4 percent on average, which accounted for nearly two-thirds (62 percent) of the total savings (domestic and foreign combined). Net foreign savings thus supplied more than 67 percent of the total savings that financed investment in the country.

This situation continued well into the 1960s, when the economy began to recover. The discrepancies between domestic saving and investment needs ranged from more than 300 percent in 1956 to a little more than 100 percent in 1963. Between 1958 and 1971, the average rate of domestic saving without imported foreign savings was estimated at 8.6 percent of GDP, while it was calculated at 17.4 percent with all available resources (including foreign imports in addition to GDP). The contribution of additional foreign resources available for saving was as much as 8.7 percent of GDP between 1958 and 1971. Thus, foreign savings accounted for nearly half (44 percent) during the nine-year period between 1963 and 1971. Domestic savings

during the same period would have been only 11.7 percent of GDP, instead of 16.4 percent with imported net foreign resources.

It is thus clear that without the net imported foreign resources, it would not have been possible for the country to attain such a high saving ratio, especially in the face of the major economic difficulties that followed the Korean War. The relatively high domestic saving ratio was possible during most of the 27-year period between 1953 and 1979 because the economy had the additional foreign resources available for domestic saving, as well as for consumption. If domestic saving depended solely on GDP in the country, the difference between the neighboring East Asian countries and South Korea would have been much greater. South Korea's saving lagged far behind Japan and Taiwan. Its average propensity to save with only its GDP during the 1953–81 period was only about 9 percent, in contrast to 30 percent for Japan during the same period.[5] Similarly, compared with an annual average ratio of 32.2 percent for Taiwan and 31.4 percent for Japan during the more recent 1981–84 period, South Korea's saving ratio was only 27.2 percent.

In the later years, the importance of foreign savings for capital formation decreased steadily, although the amounts fluctuated from year to year. The ratio of foreign savings to the total decreased from about 62 to 48 percent in 1962–66, to 39 percent in 1967–71, 26 percent in 1972–81, and 9 percent in 1982–86 and then increased somewhat to 12.1 percent in 1990–97. As the contribution of foreign savings relative to total savings declined over time, foreign resources financed a smaller portion of investment.[6]

In addition, regardless of whether South Korea has met a rough rule that the ratio of imported capital goods be about one-third of the total investment in a country with little industry of its own, it appears to have benefited greatly from imported foreign savings in other respects. Westphal and Kim estimated the contribution of total foreign capital to output growth, based on crude marginal capital to output ratios, at about 30 to 40 percent of total growth for the 1960s and 20 to 30 percent between 1972 and 1982.[7] It also raised the productivity of the economy and freed domestic savings for other uses.[8] The inflow of foreign savings also should have inspired natives to invest in South Korea, especially in the early years, and caused its overall investment to rise.[9] According to Bosworth and Collins, an increase of a dollar in capital inflows is associated with an increase in domestic investment of about 50 cents.[10] Moreover, foreign savings freed domestic capital for other investment uses. In contrast to Japan's economic development in the postwar period, which was largely self-financed with a consistently high saving rate, South Korea has relied on imported capital to finance much of its economic development, especially in the early years.

Obviously, South Korea is now able to finance its own investment and maintain a reasonable level of economic growth. In spite of the gloomy prognosis of some worriers and economists, the prospects for continued high rates of saving are clear, since prolonged growth of the economy is anticipated in the coming years. Domestic saving is projected to remain above 30 percent of GDP, and South Korea may continue to be a net savings exporter in the near future. To realize these growth targets, however, South Korea needs the gross domestic savings rate to exceed domestic investment needs, which may be a new and demanding challenge to

overcome. The financing of South Korea's economic development in the future is expected to differ from that of the previous decades in three main respects: greater reliance on domestic resources, more emphasis on equity relative to debt financing of investment, and greater foreign competition in international markets, especially with China.

FOREIGN DIRECT INVESTMENT

Another contribution of imported foreign saving was the financing of foreign direct investment (FDI), which was the most direct means of affecting a recipient country's capital formation and economic development, because it provided additional investment, expanding the recipient country's investment and output, and raised domestic income. FDI in South Korea is examined below by tracing its evolution and the government's FDI policy; determining its volume, industrial fields, and nature; evaluating its economic impact on the South Korean economy and the effectiveness of FDI policies; and projecting its future role.

Policy Evolution and Volume

FDI in South Korea evolved in several stages, from prohibition to promotion, that have reflected the changing political and economic environment, as well as the state of the South Korean economy. Before 1959, FDI was not legally permitted. It appears that, having lived under oppressive Japanese domination for nearly 40 years, the fear of foreign capital and domination disheartened the Koreans from allowing FDI. Korea's traditional xenophobic outlook, which stemmed from frequent foreign invasions throughout its long history,[11] might have infused the fear that increased FDI might lead to endangerment of the country's sovereignty. Even if it had been sanctioned, the poor domestic markets probably would not have attracted much of it. It was several years after South Korea's independence before FDI was allowed to come ashore. Despite these prohibitions, limited amounts of foreign investment did take place in the early years, mostly by Korean residents living abroad, mainly in Japan.

Opening for FDI, 1960–65

Only after 1960, with the enactment of the Foreign Capital Promotion and Inducement Act, were FDI and foreign commercial loans legally permitted, although they were limited in scope. This law was designed to facilitate FDI primarily for Korean expatriates living abroad. It aimed to attract foreign capital by providing incentives to foreign investment in the form of tax concessions, repayment guarantees, guarantees of profit remittances, withdrawal of principal, and equal treatment with domestic firms. Under this law, the foreign investors' income was exempted from individual or corporate income taxes for the first three years and granted a 50 percent reduction in tax for the following five years. There were also full exemptions from customs duties on imported capital goods for approved foreign investment projects

and from capital gains taxes on foreign investment.[12] There was no requirement for local participation in the form of joint ventures.

Notwithstanding the government's anticipation, a full year passed before the first FDI, a joint venture project with an American textile firm, came to South Korea in 1962, with assets totaling $575,000, to produce nylon filament. In the first major FDI project carried out under this law, the Dow Chemical Company and Chungju Fertilizer Company reached an agreement in principle to form a 50-50 joint venture company to manufacture vinyl chloride monomer and polyethylene for domestic consumption. The new company invested $1.37 million initially as part of a $100 million petrochemical complex. Other than these activities, little FDI took place in the country. Political instability and the uncertain economic outlook in South Korea seem to have been the major culprits in discouraging FDI.

When South Korea launched its first five-year economic development plan (1962–66), it recognized the need to attract external funds as well as to mobilize internal sources for financing investment to fulfill its economic development goals. It also recognized the need to import capital goods and acquire foreign know-how, especially in the areas of technology, management, overseas marketing, and brand names. The principal policy emphasis during the first five-year plan, therefore, was the expansion of manufacturing facilities that could substitute imports and promote exports to acquire foreign exchanges. The law on foreign capital was amended in April 1963 and specified that priority in approval for FDI would be given to projects that contributed to import substitution and export expansion, over projects relying heavily on imported raw materials or semifinished products. During the first economic development plan, FDI applications for 39 projects, with $47.4 million in investment, were approved, although the actual investment amounted to only about half ($24.3 million) of the approved amount (Table 8.3). The average yearly inflow of FDI during 1962–65 was a dismal $3.8 million; its share was a scant equivalent to 0.13 percent of GDP, 1.9 percent of net foreign resources imported, 0.97 percent of total domestic saving, and 0.92 percent of investment in the country (Table 8.4).

The FDI Promotion Policy, 1966–72

In 1966, the two extant laws relating to FDI were consolidated into the Foreign Capital Inducement Law of 1966, which was intended to further reduce restrictions and give more incentives to FDI while broadening the government's supervisory authority over FDI projects. The amendment had more liberal tax provisions: it allowed a five-year (instead of three) tax holiday for approved new business ventures followed by partial tax waivers for three (instead of five) more years. Foreign managers and technicians were exempted from Korean income taxes. There was no requirement for local participation in a form of joint ventures. The incentives to foreign investors also included the protection of local markets, absence of antipollution legislation, bargain prices for industrial sites, the virtual absence of pro-labor legislation, and expanding local markets. At the same time, a highly educated and adaptive labor force was available at low wages.

The normalization of diplomatic relations with Japan in 1965, together with the 1966 law, led to a quick rise in FDI in the country. It expanded to more than $10

TABLE 8.3 Foreign Direct Investment in South Korea (in U.S. millions)

Period	*Five-Year Total* Approved	*Five-Year Total* Arrived	Average Annual Arrival	Ratio of Arrival to Approved	Millions of U.S. Dollars	Percent Change
1962–66	47	24	5	51	5	—
1967–71	219	117	23	54	23	382.3
1972–76	879	536	107	61	107	357.2
1977–81	721	800	160	111	160	49.4
1982–86	1,767	1,158	232	66	232	44.6
1991–92	2,291	1,981	991	86	808	249.1
1993–96	7,511	5,394	1,349	72	1,850	128.9
1997–98	15,824	8,369	4,185	53	795	(57.0)
1999–00	30,759	20,971	10,486	68	15,600	1,862.3
2001–04	26,860	8,532	2,133	32	10,000	(35.9)
Averages						69.3

Sources: Koo and Bark 1988; Bank of Korea, *Economic Statistics Yearbook*, various years.

million in 1967, and the number of foreign bank offices nearly doubled. During the second five-year economic development plan (1967–71), the sum of approved FDI leaped to $218.6 million, with 54 percent of the approved amount actually invested in the country. The recorded FDI was $117.2 million during the same period, averaging $23.44 million annually, which was 500 percent over that of the previous nine-year period. FDI assumed increasing importance when it outpaced foreign aid (examined in chapter 9) as the major source of external financing of investment. Yet FDI constituted only a small portion of nongrant foreign capital imports during 1966–72 (0.35 percent of GDP, 4.3 percent of the total foreign saving imported, 2 percent of domestic saving, and 1.5 percent of investment).

The Targeted Industries Policy, 1973–83

A major change in FDI policy came in 1973, when it assumed even greater importance as a principal means of expanding investment in the country. In that year, the government adopted a broad range of policy instruments that conformed closely with a new focus in its industrial policy. South Korea's FDI policy became more selective by shifting from general export promotion to a sectoral development strategy. The export requirements for FDI were now more stringent: even FDI projects approved for import substitution had to contribute to export expansion by producing intermediate products. It also focused on the heavy and chemical industries (HCIs), which included chemicals, basic metals, and fabricated metal products and equipment.

The law gave a higher priority to joint ventures. The government set the basic foreign participation ratio at 50 percent, permitted majority-foreign-owned firms in only exceptional cases, and guaranteed profits of up to 20 percent to foreign investors in joint ventures. The FDI projects that were thought to be beneficial to the South Korean economy were exempted from the 50 percent restriction under the

TABLE 8.4 Foreign Direct Investment in South Korea

	FDI (in millions of U.S. dollars)	*FDI as Percentage of*			
		GDP	Foreign Saving	Domestic Saving	Investment
1962	0.6	0.02	0.26	0.23	0.21
1963	2.5	0.09	1.03	0.64	0.54
1964	4.0	0.14	2.70	0.99	1.04
1965	8.0	0.27	3.51	2.02	1.89
1966	10.0	0.27	2.79	1.63	1.32
1967	15.0	0.35	3.17	2.27	1.67
1968	20.0	0.38	3.50	2.11	1.54
1969	20.0	0.30	3.00	1.42	1.09
1970	30.0	0.37	4.41	2.05	1.52
1971	30.0	0.32	3.13	1.96	1.27
1972	50.0	0.47	9.94	2.70	2.24
1973	80.0	0.59	18.52	2.62	2.35
1974	100.0	0.53	4.51	2.63	1.67
1975	150.0	0.72	7.04	3.97	2.51
1976	150.0	0.52	18.02	2.16	1.97
1977	104.4	0.28	20.26	1.03	1.00
1978	100.5	0.19	5.56	0.65	0.60
1979	126.0	0.20	2.73	0.72	0.57
1980	96.2	0.16	2.01	0.68	0.50
1981	102.0	0.15	2.58	0.66	0.51
1982	69.0	0.10	2.60	0.39	0.33
1983	68.5	0.09	10.70	0.31	0.29
1984	110.2	0.13	(31.27)	0.42	0.41
1985	233.5	0.26	(23.30)	0.86	0.85
1986	435.0	0.41	(7.37)	1.22	1.41
1987	601.1	0.45	(5.85)	1.21	1.50
1988	871.0	0.48	(5.84)	1.23	1.56
1989	758.4	0.34	(12.74)	0.95	1.02
1990	788.5	0.31	34.79	0.87	0.84
1991	1,179.8	0.41	15.06	1.12	1.04
1992	728.3	0.24	14.89	0.68	0.65
1993	586.1	0.18	(88.59)	0.50	0.50
1994	809.0	0.21	35.77	0.61	0.59
1995	1,775.8	0.36	—	—	—
1996	2,325.4	0.42	—	—	—
1997	2,844.2	0.55	—	—	—
1998	5,143.0	1.49	—	—	—
1999	15,500.0	3.48	—	—	—
2000	15,700.0	3.07	—	—	—
2001	11,800.0	2.45	—	—	—
2002	9,100.0	1.66	—	—	—
2003	6,500.0	1.07	—	—	—
2004	12,800.0	1.88	—	—	—
Averages					
1962–65	3.8	0.13	1.88	0.97	0.92
1966–72	25.0	0.35	4.28	2.02	1.52
1973–83	104.2	0.32	8.59	1.44	1.12
1984–86	259.6	0.26	(20.65)	0.83	0.89

(*continued*)

TABLE 8.4 (*continued*)

	FDI (in millions of U.S. dollars)	*FDI as Percentage of*			
		GDP	Foreign Saving	Domestic Saving	Investment
1987–97	790.3	0.33	(1.56)	0.90	0.96
1962–94	255.7	0.30	1.74	1.32	1.12
1995–97	2,315.1	0.44	—	—	—
1998–04	10,934.7	2.16	—	—	—
1962–04	2,137.8	0.61	—	—	—

Sources: Hanguk Eunhaeng 1995: 198–99, 200–201; Bank of Korea, *Economic Statistics Yearbook*, various years.

so-called positive list that listed industries in which FDI was allowed. The positive list included projects that were entirely export oriented and did not compete with domestic firms in overseas markets; projects that were technology intensive and produced or induced the production of important exports or import substitutes; projects that were beneficial to South Korea but invested in by multinational enterprises that permitted only wholly owned subsidiaries as a matter of practice; projects that contributed to the rationalization of the industrial structure but were beyond domestic capacity in terms of capital or technology; projects of a country from which Korea could expect a substantial increase in investment in the future; and projects located in free export zones or other industrial estates designated by the government.

The impact of the new policy on FDI was seen in the foreign investment boom in the 1970s. During the third five-year plan (1972–76), average annual net FDI was about $42.4 million, thus, an increase of about 1.67 times over that of the previous five years. In addition to the relaxation of restrictions on FDI, the boom appears to have been related to a number of external factors: the vigor of the South Korean economy; its attractiveness as a host country for foreign investors, particularly the Japanese; and the South Korean government's promotion of heavy and chemical industrialization rather than light industry.

Applications for FDI slowed in the late 1970s, however, partly due to the first oil crisis. Also, South Korea still was one of a few countries in the world that continued to have restrictive foreign investment regulations, such as selectively targeted industries, stringent export requirements, and high priority given to joint ventures. In the meantime, domestic industries grew and faced international competition in the world market. To cope with these challenges, the government enacted the Foreign Capital Inducement Act of 1977 and set out in a new direction in dealing with FDI. In it, the government reversed its previous position and began to further remove restrictions, instituting a series of liberalization measures to promote foreign capital inflow. It also encouraged those foreign investment projects that would develop new technology and manpower skills and improve energy efficiency while reducing environmental pollution and industrial hazards. The minimum amount of FDI required reached $200,000 in 1979. But until the early 1980s, South Korea maintained a somewhat restrictive policy for FDI.

Net FDI (additions minus withdrawals) sharply declined from $35.1 million in 1979 to $6 million in 1980 (largely due to the second oil crisis), but average annual

net FDI during the fourth five-year plan (1977–81) increased to $65.1 million, an increase of 53.5 percent from the previous five years. The volume of FDI during the period was actually 10 percent larger than the amount approved. The average annual net FDI further increased to $82.6 million during the first three years of the fifth five-year plan (1982–86), a moderate increase of 27 percent over the previous five years. Cheap labor, growing overseas export markets, and favorable government attitudes appear to have been the major contributing factors in the rise in FDI. The share of FDI increased during 1973–83 to 0.32 percent of GDP, 8.6 percent of net foreign resources imported, 1.4 percent of domestic saving, and 1.1 percent of total investment in the country.

Liberalization Policy, 1984–86

A further liberalization policy for FDI was adopted in July 1984, when the positive list system was replaced with a negative list system. Seoul's control policy for foreign investment to a negative list basis meant that any investment not specifically restricted or prohibited was open for FDI. The negative list identified those projects that were not eligible for government approval for FDI. They were those that would disrupt domestic demand and the supply of raw materials and intermediate products; compete against domestic firms in overseas markets; and aim solely to provide financial support for existing domestic firms or profit from land speculation. Under this system, South Korea evaluated applications for FDI against the following three principal categories: "prohibited" industries, such as public utilities, public transport, health institutions, mass media, and publishing; "restricted" industries, such as construction and the production of certain food items, in which foreign investment was prohibited in principle but for which approval might be obtained from the Minister of Finance; and "liberalized" industries, which were not on the negative list and could be approved.

The new policy meant that any project not specifically prohibited or restricted was open to FDI. In this way, an automatic approval system was introduced under which all projects up to $3 million and 50 percent equity in areas not specifically barred or for which no tax exemptions or reductions were sought were automatically approved by the Ministry of Finance. The policy specified that FDI in the restricted industry category must be in the form of a joint venture with a domestic firm and retail business meeting specific requirements as to the number of affiliated shops and the size of the shop floor. To open more industrial sectors to foreign investors, the government twice revised the negative list, first in 1985 and again in 1987.

The revisions included the relaxation of restrictions on the repatriation of profits and principal, maximum foreign ownership ratio requirements, modification of tax exemptions, and the creation of an incentive system to attract FDI in the areas where advanced foreign technology was needed. Market liberalization opened the banking, insurance, and service sectors to foreign interests. Under the liberalization policy, South Korea also recognized the protection of intellectual property rights according to international conventions. It allowed foreign investment in many new fields and approved majority-owned or wholly owned foreign firms. It reduced the

minimum requirement for investment from $200,000 to $100,000 to attract small, technology-intensive investment projects. For the same reason, the minimum amount of foreign investment in a project was further reduced from $100,000 to $50,000 in 1987.

The government likewise allowed foreign firms to establish joint ventures or sign technology licensing agreements with small and medium-sized companies. This permitted them to adapt advanced technology, which in turn made them eligible for financial and tax benefits. Finally, the government took steps to simplify the administrative procedures for FDI approval and eliminated many restrictive measures.

With these changes, the number of industrial sectors open to FDI vastly expanded. The number of items on the Korean Standard Industrial Classification on the negative list (339 of 999 items) in 1984 fell from 34 percent to 21 percent as of July 1987, increasing those open to foreign investment to 79 percent (788). Largely due to these measures, total direct foreign equity investment in South Korea in the mid-1980s was well over $1 billion. FDI more than doubled (to $233.5 million) between 1984 and 1985, almost doubled (to $435 million) again in 1986, and increased by nearly 40 percent (to $606.1 million) in 1987. During the fifth five-year development plan period (1982–86), average FDI was $839.8 million, an increase of 460 percent from the previous five years. As of 1986, outstanding FDI was $1.54 billion. By the end of the year, it had risen to about $3 billion invested in 1,360 ventures.

Not only did the number and volume of FDI approved increase over time, but the ratio of actual FDI relative to those that applied for FDI rose as well, indicating improved foreign investors' confidence in the Korean economy. The ratio of actual FDI to the applied amount increased from 51.3 percent during the first five-year development plan period (1962–66) to 65.5 percent during the fifth five-year plan (1982–86) (Table 8.3). During the fourth five-year economic development plan period (1977–81), more than the approved amount (110.6 percent) was invested. The total FDI in Korea between 1962 and 1987 was 2,229 projects and $5.68 billion, of which $3.78 billion (66.5 percent of the applied amount) was actually invested. Out of this amount, 80 percent had entered Korea since 1982, when the FDI liberalization policy reforms were introduced.[13] The overall average share of FDI decreased during 1984–86 to 0.26 percent of GDP, negative 21 percent of net foreign resources imported, 0.8 percent of domestic saving, and 0.9 percent of the total investment.

The Freer and More Open Policy, 1987–97

In the late 1980s and the 1990s, South Korea faced new economic environments and challenges for FDI. In addition to easing its control of the economy, with the coming of new technology and the communications age the government recognized the need to upgrade the technology in Korean industries. More FDI was needed to increase the share of long-term capital inflows in selected fields. To meet these challenges, the government announced in December 1987 a policy to further liberalize the domestic capital market by 1992. Temporary tax breaks for facility investments, which were scheduled to expire at the end of 1989, were extended. On March 1, 1991, it adopted a notification system for FDI that allowed foreign investment

in manufacturing with a foreign-investment ratio not exceeding 50 percent. Also, except in a few cases, restrictions on the proportion of externally owned equity were relaxed.

As a result, the restrictions on FDI were further reduced. The Ministry of Finance reported that as of May 1, 1991, there were 6 prohibited, 6 restricted, and 510 liberalized industries in the manufacturing sector and 32 prohibited, 125 restricted, and 254 liberalized sectors in the agriculture, forestry, fishery, and mining sector. As of 1992, the liberalization ratio—the number of liberalized industries to the total number of industries—was 97.7 percent (509 out of 522) for the manufacturing sector, 61.8 percent for the services sector, and 43.9 percent for other (mainly agricultural) sectors. The areas in which foreign investment was not allowed included government monopolies (e.g., tobacco and ginseng), explosives, and publishing. It is, therefore, fair to state that there were very few restrictions on FDI in the South Korean manufacturing sector. As to repatriation of capital and dividends, they could be withdrawn anytime the foreign investor desired. The remaining restrictions were found mostly in nonmanufacturing sectors. In addition, foreign-invested firms doing export business in South Korea continued to receive tax reduction and exemption benefits.[14] At the same time, domestic enterprises were given access to overseas stock markets.

The tax benefit criteria for FDI were tightened, however. Tax exemptions and reductions previously granted to all foreign-invested enterprises were eliminated. As the balance of payments situation improved and the nation achieved a positive balance of trade, the government perceived that no special measures were necessary to induce more export support or import substitutes. The new tax policies were intended to subject most foreign firms to the same tax system as domestic firms, putting them on an equal footing. The government realized that tax exemptions offered to foreign investors could put domestic competitors at a disadvantage and that they also resulted in tax losses without compensating incentive effects. Tax benefits were now limited to only foreign investments that would help meet the needs of the South Korean economy; that is, the projects that would improve the balance of payments, advance technology, or require large amounts of investment; projects invested in by overseas Koreans; projects located in a free export zone; projects that would help small- and medium-scale firms; and projects for which tax exemption was essential to attract foreign investment.

The government specified 58 areas (as of September 1992) for which tax exemption would apply. Among these were high-tech manufacturers of precision-testing machines, industrial robots, electronic switching systems, and computers and related instruments; the aeronautic industry; the defense industry; and manufacturers of the biological products, superconductive materials and parts, laser generator equipment and applied instruments. Tax exemption was granted for five years, as under the previous system, but the 50 percent tax reduction for a subsequent three years was eliminated. Foreign investors were, however, free to select any single five-year period for tax exemption within the first 10 years of project registration. Qualified investors were allowed to choose special depreciation allowances instead of a corporate tax exemption. Finally, tax breaks on royalty payments were provided.[15]

Partly as a consequence of the government liberalization measures, FDI expanded swiftly. During the sixth five-year plan period (1987–91) the average annual net FDI increased to about $840 million, a rise of 4.6 times over that of the previous five-year period. During the seventh five-year plan (1992–96), the average annual net FDI was about $1.25 billion, an increase of nearly 50 percent over that of the previous five years. The Korean government attempted to further liberalize FDI in the mid-1990s. It allowed, for instance, FDI into a number of new business sectors. Net FDI increased from $1.78 billion in 1995 to $5.14 billion in 1998, increasing nearly three times in three years. Total FDI was equal to only about 6.1 percent of foreign savings imported (excluding foreign aid) into South Korea between 1958 and 1985, but it increased to 14.5 percent between 1958 and 1998. The upsurge in FDI from 1990 to 1997 appears to have reflected the impact of not only liberalization but also the improved investment environment and strengthened foreign currencies, especially the Japanese *yen*.

For foreign investors, the government planned to raise the ceiling on foreign equity ownership of listed corporations from 12 percent in 1994 to 15 percent in 1995 and considered removing the ceiling altogether in 1998. The total amount of FDI stood at $25 billion between 1962 and 1997. However, the government was not interested in removing impediments to promoting FDI in general, and its basic position toward FDI remained passive. This policy differed from the active pursuit of FDI by China and many Southeast Asian countries. As recently as 1996, South Korea ranked 52nd out of 53 countries (Japan being the last) in terms of the overall role of FDI in the domestic economy, according to the UN's World Investment Report of 1999.

On the whole, FDI after the Korean War was less than 5 percent of total investment in the country. It accounted for less than 1 percent of gross domestic fixed capital formation through the mid-1990s and contributed only about 0.2 percent of total investment in South Korea. Moreover, income transfers to foreigners relative to GDP decreased over time, although the volume of FDI and all forms of foreign loans increased over time. The distribution of business income among different sectors shows that income transfer to foreigners decreased from about 9 percent of GDP during the late 1950s to about 6 percent in the early 1960s, about 4 percent in the late 1960s, about 1 to 2 percent during the 1970s and 1980s, and less than 0.5 percent during the 1990s (Table 7.4). The overall average share of FDI increased during 1984–86 to 0.33 percent of GDP, to 0.9 percent of domestic saving, and also less than 1 percent (0.96) of investment, and decreased to 1.56 percent of net foreign resources imported. The average share of FDI during 1984–86 increased to 0.44 percent of GDP. FDI did not really take off until the financial crisis in 1997.

The Open Market Policy, 1998–2004

The financial crisis of 1997 brought about a fundamental change in the South Korean government's attitude toward FDI. The crisis was a wake-up call for South Korea, which had for decades been complacent on the back of its miraculous export-spurred economic expansion. Recognizing the vital importance of FDI in placing the economy

on a stronger footing and the necessity of foreign funds, authorities now rushed to promote FDI to draw foreign capital to the domestic market. It launched a series of reforms of the foreign investment laws and policies to make South Korea, in the words of the former president, Dae-jung Kim, "the world's best place to invest." The government set an FDI target of $16 billion for 2000 and wanted FDI to be equal to 20 percent of GDP by 2010, an ambitious goal considering the 5 percent level in 1996. Besides undertaking full-fledged liberalization in the area of hostile cross-border merger and acquisition and foreign landownership, the government accelerated the liberalization schedule to expand market access.

Since April 1998, 22 business categories, including real estate rentals and sales, securities trading, the operation of golf courses, investment companies and trusts, and insurance-related activities have been fully opened to FDI. The government has removed most of the restrictions on foreign exchange transactions and domestic transactions in foreign currencies in order to reduce the burden on businesses seeking foreign capital. In November 1998, the South Korean government passed the Foreign Investment Promotion Act, which spearheaded the effort to drastically change its policies regarding FDI from passive liberalization to active promotion. This act aimed to create an investor-oriented support system. South Korea is now a country where FDI can be made with very few restrictions and the government continues to expand opportunities for foreigners to invest in South Korea. Many restrictions on imports have been lifted. The government abolished, for instance, a restraint that had kept Japanese automobiles and electronics out for almost 30 years. The act also sought to make investment incentives competitive with those of Southeast Asian countries. It also augmented exemptions, tax reductions, and rental abatements on factory sites, as well as providing various forms of support.

As a result of these policy changes, FDI inflows increased dramatically after 1998. During 1998 and 1999, South Korea attracted more investment than it had during the previous 40 years combined. The number of foreign-invested companies in Korea rose by more than three times from 4,000 to 15,000 while attracting more than $10 billion in foreign investment on average annually since 1998. Net FDI rose from $5.14 billion in 1998 to $15.5 billion in 1999, a jump of 75 percent over the previous year, and reached the peak of $15.7 billion in 2000. The figures are all the more impressive considering that they came at a time when some Asian countries (notably China) were experiencing a contraction of FDI. While investment in Asia increased by a paltry 1 percent in 1999, South Korea emerged as one of the top destinations for FDI in the region. According to a report by the UN Conference on Trade and Development, the ranking for FDI in 2000 placed South Korea third (with $10.2 billion) after Hong Kong ($64.5 billion) and China ($40.8 billion), but ahead of Japan ($8.2 billion), in the Asia-Pacific region. Their share in domestic production and export has grown to 15 percent.

After reaching the peak in 2000, FDI declined precipitously to $6.5 billion in 2003, but it recovered to $12.8 billion and $11.6 billion in 2004 and 2005, respectively. The total FDI in the eight years between 1998 and 2005 jumped to $91.1 billion, compared with the $24.6 billion received during the previous 36-year period. By the end of 2004, foreign investors owned 42 percent of the share trade on

the main bourse (Korea Stock Exchange, or Kosdaq), up 1.9 percent from 2003. According to the Bank of Korea, foreign ownership of Kosdaq stocks in 2004 was 15.4 percent, up from 14.4 percent. The central bank attributed the increase to foreign investors' growing interest in local blue-chip stocks, which pumped up 2003 dividend repatriation to $2.5 billion, up from the previous year's $1.34 billion. Foreign players owned a combined 54 percent of shares in the top 10 companies on the Korean Stock Exchange, underlining their active role in South Korea's equity markets. The increase of FDI was significant enough for it to exceed the 1 percent of GDP mark during the post–financial crisis era by registering 2.2 percent of GDP between 1998 and 2004.

In spite of the increases in FDI in recent years and its expanding role over time, the total amount was not that large, howver. For the 42-year period between 1953 and 1994, FDI averaged 0.2 percent of GDP, 1.7 percent of all foreign savings imported for investment, about 1.3 percent of domestic saving, and a little more than a percent (1.1) of investment in the country. During the 53-year period between 1962 and 2004, FDI was still 0.6 percent of GDP. In relation to GDP, FDI between 1999 and 2001, even at its highest level, was no more than about a percent and about 10 percent relative to the total investment in the country. In comparison to FDI's more than 35 percent of the total investment in China, 14 percent of the Organization for Economic Cooperation and Development average, an average of 23.3 percent throughout East Asia, and 13.7 percent for the world, FDI in South Korea is very low. There still is room for expanding FDI in the country, as was shown in the aftermath of the financial crisis. However, net purchases of Korean stocks by foreign investors plunged 24 percent in 2004, spurred by weakened earnings in the technology sector.

Notwithstanding the low levels of FDI, South Korea still offers promising opportunities for FDI to foreign investors. Under the current government policy, there is a broad range of exceptional tax benefits for foreign-invested projects that are deemed to make special contributions to South Korean economy. The types of foreign investment that fit into this category include projects that lead to the establishment of small and medium-sized enterprises, projects that lead to the development of technology and manpower, projects that contribute to the balanced development of urban and rural areas, and projects that invest in specific facilities. The latter include enterprises for increasing productivity, saving energy, and reducing pollution and industrial hazards. Foreign investment projects in certain high-tech industries are still eligible for tax reduction or exemptions.

The Fields and Nature

FDI in South Korea evolved over time, but there are a number of distinctive features as well as certain outstanding characteristics typically found in many developing countries. They are related to the sectors in which FDI was most prominent, the type of output produced, the newness of industries, the intensity of the use of capital and modern technology, the scale of business, the nature of ownership, and the differences of FDI between countries. These features are examined in the sections that follow.

Economic Sectors

The most salient feature of FDI in South Korea was its high concentration in manufacturing. According to data compiled by the government, the manufacturing sector attracted more than half (56.6 percent) of all FDI during 1962–2002 (Table 8.5). The share of foreign private investment in fixed capital in the manufacturing sector, where most FDI took place, was 29 percent of the total in 1965, although they declined to 14 to 15 percent during 1972–73. On the whole, it contributed 9.4 percent to fixed capital formation in that sector. Within manufacturing, the first FDI in the country was in the textile industry, which rapidly expanded from the 1950s to 1977 and came to dominate the economy in the 1970s. But it slipped in 1987 to about half that of 1977. The second industry that attracted the most FDI was the electrical machinery industry, which gradually became the largest recipient of FDI. Its share of FDI was about 16 percent of total foreign equity investments. Later in the 1980s, foreign firms' share of exports was largest in electrical machinery, accounting for two-thirds to three-fourths of South Korea's exports. FDI interest in electric-electronics industries, however, seemed to have diminished in more recent years. Other machinery manufacturers attracted about 5 percent of the total foreign equity investments up to 1987.

The next were the HCIs. By 1986, the share of HCI products in total exports had expanded to 55.5 percent, as compared to 18.9 percent in 1980, whereas the share of light industrial products had shrunk to 40.9 percent, as compared to 71.1 percent in 1980. Another important industry that attracted FDI was transport equipment. Its share of FDI increased from 2 percent in 1962–71 to 5 percent in 1972–81, and more than 11 percent in 1982–88,[16] and its share of exports increased after the late 1980s, rising from 6 percent before 1984 to 44 percent in 1986. FDI in high-tech fields, for which tax privileges were provided, was high, though it fluctuated widely during the period. In 1988, 56 percent of FDI was in areas designated as high-tech. Later, however, the proportion was drastically reduced to 25.1 percent in 1989 and only 6.6 percent in 1991. Others included manufacturers of paper, wood products, and electronic machinery, reflecting changing world demand and the government's industrial policy.

TABLE 8.5 FDI in Economic Sectors, 1962–2002 (in percent of total)

Economic Sector	1962–97	1998	1999	2000	2001	2002	Total
Manufacturing	54.6	56.6	65.6	59.2	49.8	41.0	56.6
Electric-electronics	12.5	5.9	27.5	20.5	17.2	8.5	16.7
Petrochemical	13.2	9.7	13.0	2.4	7.7	5.5	9.6
Transport. Equip.	7.4	2.2	5.2	9.1	3.3	13.0	6.8
Services	43.7	42.9	34.3	40.7	50.2	59.0	42.8
Finance/Insurance	10.7	10.3	19.4	18.1	31.5	22.7	16.8
Distribution	18.3	30.6	9.8	8.2	16.2	13.3	15.2
Primary Industries	1.7	0.5	0.1	0.1	—	0.0	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Republic of Korea, Ministry of Commerce, Industry, and Energy 2003 and 2004.

FDI in nonmanufacturing sectors was relatively small, reflecting both the scarcity of natural resources in the country and the restriction on foreign investment in the so-called nonstrategic sectors. In the case of service industries, such as banking, hotels, insurance services, and real estate, foreign firms were prohibited from investing in the country in the early years to protect the monopoly interests of local firms. In the case of financial services, for instance, for most of the period after Korea's liberation from Japanese rule, foreign financial institutions were prohibited or restricted from the country's financial system, and a limited foreign ownership of financial institutions, resulting in fairly low share of foreign investment in the capital markets in the country, prevailed. Up to 1987, the banking and other financial sectors attracted only about 4 percent of foreign equity investments. Other service industries, such as computer leasing firms and engineering firms, received only small amounts of FDI until recently.

However, investments in the service sector increased swiftly after 1982, when its growth was exceptional in that a large proportion (46.8 percent) of FDI went into the service sector. Since 1982, FDI has tended to concentrate in the country's export business in tourism, especially the hotel business. The hotel industry before 1987 attracted about one-quarter of all foreign equity investments, but in that year it was reported that as much as 35 percent of FDI took place in this sector. Nearly 62 percent of Japanese FDI in Korea during 1982–86 went into this business, and it accounted for 56.8 percent of FDI between 1984 and 1986. The Asian Games, held in Seoul in 1986, and the Summer Olympics of 1988 explain the emphasis on tourism in South Korea during this period. FDI approvals in the service sector doubled in 1988.

The financial service sector has seen a rising share of FDI as Korea's capital and financial markets have opened up for foreigners. There were 54 foreign bank branches and 17 representative offices operating in South Korea. According to the Financial Supervisory Service, foreign-controlled banks accounted for 21.5 percent of the domestic banking sector in terms of total assets in 2004, up from 15.5 percent in 2003 and 10.2 percent in 2000. Several other service sectors, including insurance, advertising, trading companies, and movie distribution are beginning to attract FDI. On the other hand, the so-called primary industries, including agriculture and fishery, however, attracted very little, less than 2 percent of FDI, and mining attracted less than 1 percent.

Types of Output Production

The second feature of FDI was its attraction to trade-related manufacturing. It attracted about three-quarters of the total and mostly in import-substitution and export-oriented industries. Between 1962 and 1965, a small amount of FDI took place in import-substitution industries. Then, in 1965–68, it quickly moved into export markets. It was divided about equally: nearly half was in domestic market–oriented and import-substitution industries, while the other half was in the export-oriented industries. However, export-oriented industries were emphasized between 1968 and 1974, primarily to take advantage of low wages in labor-intensive industries. In the 1980s and 1990s, nearly 90 percent of FDI was directed to export-oriented firms.

As a result of FDI being in trade-related industries, foreign firms engaged proportionately more in international trade than did domestic firms. About 30 percent of the output of foreign-invested firms in all sectors and about 40 percent of the output of foreign firms in the manufacturing sector were exported. By the end of 1974, export-oriented foreign firms accounted for more than one-half of the total value of FDI and 86 percent of the total number of foreign firms. The average ratio of exports to output in the manufacturing sector as a whole in 1974 was 22.5 percent. The chemical industry, especially petroleum, accounted for 18 percent of total exports by foreign firms. More than one-third of the exports of foreign firms were concentrated in electric and electronic products. Foreign electrical machinery firms' share of exports was the largest, accounting for two-thirds to three-quarters of all Korean exports in this growing industry. Foreign-invested firms in South Korea were the major exporters of machine parts (93 percent) and electronic components (84 percent). Nearly three-quarters of wholly foreign-owned firms, which were concentrated in the electronic components industry, were exclusively export-oriented. In the 1990s and early 2000s, FDI slowly moved into domestic markets, especially service industries such as insurance and the stock market.

New Industries

Another feature of FDI in South Korea was its tendency to be concentrated in new manufacturing industries. The following are a few examples of industries that were introduced to South Korea by foreign firms, which domestic firms soon followed. The Korean automobile industry was at a very primitive stage in the 1960s, assembling imported parts. The technology improved and the use of domestic parts grew rapidly after the Shin-Jin Corporation established a partnership with General Motors (GM) in the 1970s. Daewoo made similar arrangements with Ford. Along the same lines, the transistor industry was started by Komi-Semiconductor (Japanese), a joint venture, and Motorola/Korea, a wholly owned subsidiary. Likewise, oil refining began with a joint venture between the Korea Development Bank and Gulf Oil. Polyethylene-BCM products were initially produced by the Hanyang Chemical Company, a joint venture between a group of domestic firms and Dow Chemical.

Capital- and Technology-Intensive Industries

In spite of the fact that FDI's role in capital formation was limited, one clearly discernible trait of it was its capital intensity in industries. Their capital-to-output ratio on the whole was 4.8 times higher than that of all foreign export firms, including those that were Korean owned. Likewise, the capital-to-labor ratio of foreign firms with a domestic market orientation was higher than that of all foreign export firms, including those that were Korean owned. The amount of machinery and equipment per worker in foreign-invested firms was at least twice as much as that of Korean firms. From 1984 to 1986, for instance, capital per employee in foreign firms was 8 percent above the average for domestic manufacturers. Especially high was the capital in import-substituting foreign-invested firms.

Foreign businesses were also oriented more toward technologically intensive industries. Evidence of this is that foreign firms had a much higher ratio of research and development (R&D) to sales, and FDI paid proportionately more for R&D than did domestic firms. More than 50 percent of all foreign technology licensing in South Korea was contracted by foreign firms, and foreign firms paid proportionately more royalties than did domestic firms. Statistics for 1984–86 strongly support this conclusion. Likewise, of the three sources of income for investing firms, namely, dividends, reinvestment of earnings, and royalties from technology licensing, royalty payments for technology by foreign firms during 1971–80 accounted for 27 percent of all such payments. Payments for R&D between parent and subsidiary might have been distorted by transfer-pricing behavior, but the difference seems large enough to justify the inference that foreign firms imported proportionately more technology than did domestic firms, both in number and in value. Also, the mere fact that FDI took place mostly in technology-intensive industries, especially those of U.S. and Japanese firms, the two largest supplier countries of licenses, illustrates this point. They accounted for 81.4 percent of the total during 1962–80: about 51 percent of technology transfer during 1962–90 from Japan and 27 percent from the United States.

Not only was the level of technology inflow of FDI high, but the rate of technology inflow expanded more dramatically between 1962 and 1980 than local businesses did. The annual average number of licenses approved increased from 7 in the early 1960s to 250 in the late 1970s.

By industry, foreign firms' ratios were higher in all but electric machinery and electronics. In the case of domestic-market-oriented foreign-invested chemical and pharmaceutical firms, the intensity of technical importation was far greater than in that of foreign electronics export firms. The differential was not as large as the difference for all industries because foreign firms were concentrated in R&D-intensive industries. In terms of industrial distribution, about 73 percent of technology transfers from 1962 to 1990 went to the oil refining, chemical, electrical and electronics, and machinery industries. In the case of semiconductors and chemicals, foreign-invested firms raised domestic productivity by training skilled workers, providing technical guidance to subcontractors, bringing in new capital goods and technology, introducing advanced management know-how, conducting in-house R&D, and enhancing competition. As a result, FDI introduced many new technologies into the country, which was the most important benefit that FDI provided to Korean entrepreneurs, in addition to marketing and the supply of raw materials and intermediate products.[17]

The sophistication level of technology transfer was relatively low, however, in the early years. According to one 1985 survey, only about 10 percent of Korea's imported technology was considered state-of-the-art.[18] Most was somewhat old, outdated, not on the cutting edge, and did not contribute much to South Korea's general technological advancement. Much of it was readily available to South Korea as well as other countries. The country's industrial competitiveness came primarily from combining known and proven technologies with diligent skilled labor and dedicated managers at relatively low wages. In this regard, South Korea definitely had advantages associated with it being a latecomer to development with a

well-educated workforce. The sophistication level of technology transfer, however, improved over time. Technology transfers from more advanced countries have been concentrated in more recent years in the high-technology industries.

The new technologies were introduced with FDI in a number of ways, such as equity participation in technology transfer, licensing, engineering data, operating manuals, technical services, and management consultancies. As vehicles of choice for obtaining production-related engineering technology, the equity participation of FDI in the form of joint ventures or licensing agreements was used as a means of importing new technology, thereby improving Korean business' competitiveness.[19] South Korea's technological and other licensing agreements with foreign firms shifted from joint ventures to direct imports of technological and managerial know-how in later years. Technological licensing agreements were prevalent at all levels, among small and medium businesses as well as large ones,[20] and Koreans typically purchased the technology to apply by themselves. This was clearly reflected in the pattern of foreign firms' R&D and royalty payments. Nearly one-quarter of all foreign-invested firms in Korea have made one or more technological licensing agreements, and the number of agreements and royalty payments increased dramatically in the 1980s.

Reasons why FDI in South Korea tended to develop technologically intensive industries appear to have been mainly two: the government, which promoted technology, and the well-educated and receptive workforce, as examined in chapter 4. Under the government "export expansion" programs, industries such as automobiles, machinery, electric and electronic products, armaments, construction, chemicals, and energy, as well as textiles and footwear manufacturing, were introduced or expanded. Hyundai cars, for example, originally used an engine developed by Mitsubishi of Japan.

Historically, Korea was rather secluded, and it was not until the early 1960s that Korean businesses started to be exposed to the world through FDI, as well as trade and tourism. Foreign firms invested substantial amounts in human capital in Korean workers. New technology was transferred by foreign technical personnel whose stay in South Korea was sufficiently long that they could make a contribution. Foreign workers served as a conduit for advanced technology and operating methods in South Korea. Also, recipients of FDI were often given employee training in the course of operating the new businesses. Overseas training of Korean personnel and on-the-job training programs were intensive. Likewise, management technology and know-how were transferred through FDI. In these ways, FDI contributed to human capital development in the host country.[21] Foreign firms contributed significantly to raising the level of technology at all levels in South Korea, resulting in higher levels of productivity and greater value of output per employee. Therefore, wages paid by foreign firms were about 20 percent higher than those paid by domestic manufacturers.

Size and Ownership

Another distinguishing feature of FDI in South Korea was the relative smallness of the businesses involved. The majority of FDI started out small and remained

relatively modest until recently. More than 95 percent of all foreign firms in 1974 had equity capital of less than $500,000. The range of investments between $100,000 and $500,000 constituted an absolute majority (about 38 percent) of firms in the manufacturing sector and a predominant majority (44 percent) of firms in the agriculture and fishery sector. The rest of FDI ranged from $500,000 to over $10 million. The average value of foreign equity investment briskly increased after the 1980s, however, reaching $2.8 million in 1981 and $4.2 million in 1985. Nearly one-half of FDI in social overhead capital and the services sector was between $1 million and $5 million. As recently as 2001–3, nearly 95 percent of all FDI firms in South Korea had less than $5 million of investment, and less than one-tenth of capital was in foreign-owned businesses (Table 8.6). The number of investments of less than $1 million with only 16 percent of the total capital accounted for 83 percent of all FDI approved through the end of August 1988. The machinery and miscellaneous industries had the least FDI on average, while the petroleum industry had the most.

Large-scale FDI began to emerge after 1988. Investments larger than $5 million approved for FDI accounted for 3 percent of the total number and accounted for 56 percent of the amount of investment during the late 1980s. This was the period when the government pushed for the development of the HCIs. Especially after the 1997 financial crisis, there seems to have been a surge of large corporations investing in South Korea. These included GM in Daewoo Motors, BASF of Germany in chemicals, DuPont Company in chemicals, Hops Cooperative of Holland in the Oriental Brewery, Avon in cosmetics, Bank of America in LG Electronics, J.C. Penney in retailing, Kawasaki in Hyundai Pipe, DaimlerChrysler in Hyundai Motors, AmKor Technology in semiconductors, Nabors steel consortium in steel making, Newbridge Capital of the United States in banking, Allianz AG in banking, and

TABLE 8.6 Number and Volume of Foreign Direct Investment by Scale of Business, 2001–3

	Scale of Foreign Direct Investment									
	In Millions of U.S. Dollars					*In Percent*				
Year	More than 100 m.	10 m to 100 m.	5 m to 10 m.	Less than 5 m.	Total	More than 100 m.	10 m to 100 m.	5 m to 10 m.	Less than 5 m.	Total
					Number of FDI:					
2001	27	98	58	3,157	3,340	0.8	2.9	1.7	94.5	100
2002	23	73	63	2,243	2,402	1.0	3.0	2.6	93.4	100
2003	10	76	54	2,421	2,561	0.4	3.0	2.1	94.5	100
Averages	20	82	58	2,607	2,768	0.7	3.0	2.1	94.2	100
					Volume of FDI:					
2001	7,050	2,850	398	994	11,292	62.4	25.2	3.5	8.8	100
2002	5,942	1,960	422	777	9,101	65.3	21.5	4.6	8.5	100
2003	3,157	2,160	370	780	6,467	48.8	33.4	5.7	12.1	100
Averages	5,383	2,323	397	850	8,953	60.1	25.9	4.4	9.5	100

Sources: This table is constructed on the basis of Republic of Korea, Ministry of Commerce, Industry, and Energy, 2003 and 2004.

Renault in Samsung Motors. The largest foreign investment in the country to date took place in August 2004, when the U.S. private equity firm Lone Star purchased the Korea Exchange Bank for $1.2 billion. There were 20 instances of FDI (which represented 0.7 percent of the total number of FDI) of more than $100 million each on average between 2001 and 2003. They represented more than three-fifths of all FDIs (Table 8.6).

Another feature of FDI since 1984 has been its tendency to move away from joint ventures. Until about that time, the bulk of FDI was jointly owned with Koreans. They included many *jaebeol*, which relied heavily on joint ventures with foreign companies, namely AT&T, Caltex, Honeywell, Dow Corning, Engelhard, GM's Electronic Data Systems, Siemens AG, and Alps Electric of Japan. The relaxation of ownership restrictions in 1984 brought about notable increases in the number of larger wholly owned or majority-owned foreign subsidiaries. By the end of August 1988, wholly owned and majority-owned foreign subsidiaries accounted for 26 percent of the total number and 37 percent of the total value of all approved foreign investments. The wholly owned or majority-owned foreign companies were larger than those associated with other ownership structures. However, the number of wholly owned or majority-owned foreign firms is still relatively small.

It can be seen from the preceding analysis that the extent of FDI in various sectors, types of output production, newness of industries, capital and technology intensity, and size of business have changed over time. They have reflected not only the world market and international specialization of factor endowments but also government policy. The targeted fields of FDI shifted over time. The South Korean government used FDI as an instrument of industrial policy and a vehicle for economic development via industrialization through the expansion of import substitution and export industries in manufacturing, as well as the expansion of technology transfer.

FDI Countries and Differences

Initially, it was the United States that dominated FDI in South Korea. From its commencement, the U.S. investment was small, but it accounted for nearly 82 percent of the total value of FDI in 1962 to 1968. Its dominance, however, quickly dissipated. Since 1969, it has slowed in terms of both the number of investment projects and their volume. Its relative contribution declined to 21.2 percent of the total value of FDI during 1969–74 and to 9 percent in 1975. FDI from the United States, however, made a remarkable comeback after the early 1980s. After 1984, it rose sharply from 15.7 percent of the total in 1972–76 to 43.7 percent by 1984. It accounted for 54.4 percent of the total FDI during 1982–86, although this was followed by a precipitous decline in its share to approximately 24 percent in 1987.

FDI from Japan followed a more or less an opposite path of the United States. Initially, it was minuscule. Between 1962 and 1968, Japan accounted for less than 8 percent of South Korea's total FDI. However, after 1969, its FDI expanded rapidly in both number and value. FDI from Japan between 1970 and 1974 shot up to 77.2 percent of all FDI, though decreased somewhat to 71.3 percent between 1972 and 1976.[22] Japan's largest share during 1972–76 was attributed to a surge in

investment by Japanese enterprises in textiles and other labor-intensive industries.[23] After slowing down in the early 1980s to 36.1 percent in 1984, FDI from Japan regained its dominance. After 1984, it slowly increased and then soared in 1985 and 1987. In 1987, Japan invested 44.9 percent of total FDI, investing mainly in hotels and tourism, followed by the electric and electronics sector. As of the end of 1987, Japan accounted for 58 percent of the total number of foreign firms and 51 percent of the total stock of FDI in South Korea. Overall, of the total FDI in South Korea from 1962 to 1986, which amounted to $3.6 billion, Japan accounted for 52.2 percent, while the United States accounted for 29.6 percent. Between 1962 and 1990, more than 40 percent of total FDI flows, or 58 percent of the FDI cases, came from Japan. In the last decade or so, Japan has supplied a little less than one-tenth of all FDI to South Korea. Of this, about 11 percent was made by Korean residents in Japan. They provided as much as 16 percent of total FDI, or almost one-third of all Japanese FDI, between 1962 and 1981.[24]

Other countries were not major investors in South Korea until recently. FDI from the European Union (EU) countries between 1962 and 1990 was far below that of the United States and Japan. The contributions to FDI by West Germany, the United Kingdom, France, the Netherlands, and Switzerland were 2.6 percent of the total, while Hong Kong contributed 4.5 percent of the total. Until the early 1990s, EU member companies engaged in only low-risk trading agreements, waiting for an opportunity to enter Korea's rigid markets. In 1998, the opportunity presented itself when new rules for foreign investors were implemented. With the relationships between EU and Korean firms already developed after years of trade, mergers and joint ventures were the next step. No longer does the EU view South Korea as a low-cost manufacturing base, but rather it sees it as a new and independent market. In the eight years between 1996 and 2003, the EU supplied nearly as much FDI (30.2 percent of the total) as the United States during the same period (Table 8.7). In 1999, when foreign investment totaled $15.5 billion, the EU invested 40.3 percent of the total and the United States was second with 24.1 percent, followed by Japan with 11.3 percent.

TABLE 8.7 Foreign Direct Investment by Country or Region, 1996–2003 (in millions of U.S. dollars)

Year	U.S.	EU	Japan	Other	Grand Total
1996	27.3	27.8	8.0	36.8	100.0
1997	45.8	33.1	3.8	17.4	100.0
1998	33.6	32.6	5.7	28.1	100.0
1999	24.1	40.3	11.3	24.4	100.0
2000	19.2	30.3	16.1	34.5	100.0
2001	34.4	27.1	6.8	31.6	100.0
2002	49.4	18.3	15.4	16.9	100.0
2003	19.2	31.9	8.4	40.6	100.0
Averages	31.6	30.2	9.4	28.8	100.0

Sources: Republic of Korea, Ministry of Commerce, Industry, and Energy, 2003 and 2004.

In sum, the principal countries/regions of FDI in South Korea were the United States, Japan, and the EU countries. They supplied nearly three-quarters of all FDI to South Korea between 1996 and 2003 (Table 8.7), and their share of profits remitted between 1977 and 1987 constituted almost 73 percent of the total. It is perhaps significant to note that the scale, sectors, and nature of FDI from different countries followed a discrete pattern. There were some outstanding qualitative differences among FDI from disparate countries, especially between Japan and the United States, the two largest FDI countries in South Korea, as elaborated in Appendix 8.1.

Economic Impact

The impact of FDI on the nation's economy may be difficult to measure, but it certainly was significant. It affected the nation's investment, economic growth, economic structure, employment, technology, economic stability, and balance of payments. By all accounts, its volume in South Korea increased and its contribution to investment was positive, but it was relatively minor relative to total investment in the country. FDI was equivalent to about 0.2 percent of GDP (Table 8.8) and equaled 1.4 percent of net foreign resources imported, which was less than 1 percent of total investment in the country between 1953 and 1994 (Table 8.9). It is also generally believed that FDI results in about a one-for-one increase in domestic investment. [25] Even if the contribution of FDI to domestic investment is included, its impact probably was a rise in investment of no more than 2 percent of the total. What these figures indicate is that for South Korea, FDI positively contributed to investment but was not a significant source of capital formation.[26]

Its contribution to economic growth was more discernible.[27] In relation to GDP, output contributed by FDI was no more than 3 percent as late as the 1980s. However, the value added to the Korean economy by industries established with FDI grew much faster than the growth of GDP and the value added by domestic manufacturers. FDI injected 8–12 percent new growth into the nation's economy while contributing even more (12–22 percent) to manufacturing growth. If minority-owned foreign firms are included, FDI augmented by 1 to 1.6 percentage points per year the overall growth rate in 1984–86. Thus, the contribution of foreign firms to total GDP and manufacturing in particular was positive and increased considerably. FDI contributed also to the changing structure of the Korean economy. It expanded consumer goods manufacturing and service industries, such as electric and electronic equipment, hotels, and golf courses, to give just a few examples.

Foreign holdings of equities provide benefits in terms of risk sharing, and FDI also expanded opportunities for employment, though the numbers were marginal. Employment by foreign firms was not significant, largely because of the small size of investment inflows and their capital-intensive nature. Foreign companies accounted for 2.5 percent of domestic employment and 9.4 percent of employment in manufacturing, where most of FDI took place, during the 1980s and 1990s. Furthermore, considering the fact that the establishment of joint ventures may have preempted the entry of domestic firms, the net number of jobs created by foreign investment could have been even smaller than the reported figure.

TABLE 8.8 Estimated Sources of Foreign Saving, 1953–94 (in percent of GDP and ratio)

Year	*Allocation of Foreign Saving Contributed to Domestic Saving*					Domestic Saving of GDP[3]	Aggregate Investment	Foreign Saving/ Investment
	FDI	Aid	Loans	Other[1]	Total[2]			
1953	—	7.0	—	—	7.0	7.7	14.7	47.6
1954	—	5.7	—	—	5.7	5.7	11.4	50.0
1955	—	7.6	—	—	7.6	4.1	11.7	65.0
1956	—	10.9	—	—	10.9	(2.9)	8.0	136.3
1957	—	9.2	—	—	9.2	4.8	14.0	65.7
1958	—	7.7	—	—	7.7	4.1	11.8	65.3
1959	—	6.8	—	—	6.8	3.6	10.4	65.4
1960	—	9.3	0.6	—	9.9	0.1	10.0	99.0
1961	—	8.0	—	—	8.0	2.0	10.0	80.0
1962	0.0	9.2	0.2	—	9.4	2.4	11.8	79.7
1963	0.1	8.0	—	0.9	9.0	8.0	17.0	52.9
1964	0.1	5.2	0.9	(1.1)	5.1	8.1	13.2	38.6
1965	0.3	4.4	0.3	2.6	7.6	6.5	14.1	53.9
1966	0.3	2.8	5.9	0.7	9.7	10.7	20.4	47.5
1967	0.4	2.3	7.0	1.3	11.0	9.9	20.9	52.6
1968	0.4	2.0	7.6	1.0	11.0	13.9	24.9	44.2
1969	0.3	1.7	9.3	(1.2)	10.1	17.8	27.9	36.2
1970	0.4	1.0	6.1	0.9	8.4	15.9	24.3	34.6
1971	0.3	0.5	5.6	3.7	10.1	14.7	24.8	40.7
1972	0.5	—	4.9	(0.7)	4.7	16.2	20.9	22.5
1973	0.6	—	5.2	(2.6)	3.2	22.0	25.2	12.7
1974	0.5	—	4.5	6.8	11.8	20.0	31.8	37.1
1975	0.7	—	6.7	2.8	10.2	18.4	28.6	35.7
1976	0.5	—	5.8	(3.4)	2.9	23.6	26.5	10.9
1977	0.3	—	5.0	(3.9)	1.4	26.9	28.3	4.9
1978	0.2	—	5.3	(2.0)	3.5	29.0	32.5	10.8
1979	0.2	—	4.3	3.0	7.5	28.3	35.8	20.9
1980	0.2	—	2.9	4.8	7.9	24.0	31.9	24.8
1981	0.1	—	2.3	3.5	5.9	24.0	29.9	19.7
1982	0.1	—	1.8	1.8	3.7	25.2	28.9	12.8
1983	0.1	—	1.0	(0.3)	0.8	28.6	29.4	2.7
1984	0.1	—	0.6	(1.1)	(0.4)	31.0	30.6	(1.3)
1985	0.2	—	0.2	(1.5)	(1.1)	31.4	30.3	(3.6)
1986	0.4	—	—	(6.0)	(5.6)	34.8	29.2	(19.2)
1987	0.4	—	(1.8)	(6.3)	(7.7)	37.7	30.0	(25.7)
1988	0.5	—	(1.3)	(7.5)	(8.3)	39.4	31.1	(26.7)
1989	0.3	—	(0.9)	(2.1)	(2.7)	36.5	33.8	(8.0)
1990	0.3	—	(0.6)	1.2	0.9	36.2	37.1	2.4
1991	0.4	—	(0.4)	2.7	2.7	36.4	39.1	6.9
1992	0.2	—	(0.4)	1.8	1.6	35.2	36.8	4.3
1993	0.2	—	(0.9)	0.5	(0.2)	35.4	35.2	(0.6)
1994	0.2	—	(0.2)	0.6	0.6	35.5	36.1	1.7
1995	0.4	—	2.7	—	—	—	—	—
1996	0.4	—	1.5	—	—	—	—	—
1997	0.6	—	—	—	—	—	—	—
1998	1.5	—	—	—	—	—	—	—
1999	3.5	—	0.2	—	—	—	—	—
2000	3.1	—	0.2	—	—	—	—	—

TABLE 8.8 (*continued*)

Year	*Allocation of Foreign Saving Contributed to Domestic Saving*					Domestic Saving of GDP[3]	Aggregate Investment	Foreign Saving/ Investment
	FDI	Aid	Loans	Other[1]	Total[2]			
2001	2.4	—	0.3	—	—	—	—	—
2002	1.7	—	—	—	—	—	—	—
2003	1.1	—	—	—	—	—	—	—
2004	1.9	—	—	—	—	—	—	—
Averages								
1953–61	—	8.0	0.1	—	8.1	3.2	11.3	74.9
1962–68	0.2	4.8	3.1	0.8	9.0	8.5	17.5	52.8
1969–76	0.5	0.4	6.0	0.8	7.7	18.6	26.3	28.8
1977–86	0.2	—	2.3	(0.2)	2.4	28.3	30.7	7.3
1987–94	0.3	—	(0.8)	(1.1)	(1.6)	36.5	34.9	(5.7)
1953–94	0.2	2.6	2.1	0.0	4.9	19.4	24.3	31.0
1998–04	2.2	—	0.2	—	—	—	—	—
1953–04	0.5	2.1	1.9	—	—	—	—	—

[1]Figures in this column show all other forms of foreign savings imported for investment including portforlio investment, ommissions, and errors.

[2]Figures in this column represent aggregate investment minus domestic saving.

[3]Figures shown in this column represent GDP minus consumption.

Sources: This table is constructed on the basis of data shown in Hanguk Eunhaeng 1995: 178–79; Book of Korea, *Economic Statistics Yearbook*, various years.

One of the most significant contributions of FDI lies in the area of technology imports. FDI became an important means of transferring new technologies, contributing a great deal to raising the level of technology in domestic industries.[28] Of $6.1 billion in royalty payments between 1962 and 1990, over 90 percent was for technology imported since 1982, which reflected the rapid application of technology since then. Foreign holdings of equities that facilitated technology transfers included transfers of managerial skills as well. In a country with high-quality human resources such as South Korea, advanced technology can be adopted rapidly and can also be more effectively utilized. As a consequence of the technology transfers, the nation's productivity as a whole has improved, as was found in other countries.[29] FDI introduced modern technologies into the outmoded sectors and newly built facilities in the country, which had the greatest technology gap, and expanded the production of commodities—particularly those for sale in foreign markets.[30] Using the available annual data, one study found that FDI had a significant positive effect on the productivity of Korean manufacturing subsectors, such as textiles and clothing and electric instruments and electronics, during 1970–96.[31]

FDI, however, adversely affected the balance of payments in the short run through the inflow of resources associated with investment. It increased the nation's imports from $2.9 million in 1958 to $93.5 million in 1977, $435 million in 1986, and $5.14 billion in 1998, thus directly contributing to balance of payments deficits. Since, relative to the total imports of goods and services in South Korea, the volume of FDI ranged from less than 1 percent of imports to 3 percent (only in 1997) during

TABLE 8.9 Contribution of Foreign Saving, 1953–94 (in percent of GDP and ratio)

	Relative to Foreign Saving					*Relative to Aggregate Investment*				
Year	FDI	Aid	Loans	Other[1]	Total[2]	FDI	Aid	Loans	Other[1]	Total[2]
1953	—	100.0	—	—	100.0	—	47.6	—	—	47.6
1954	—	100.0	—	—	100.0	—	50.0	—	—	50.0
1955	—	100.0	—	—	100.0	—	65.0	—	—	65.0
1956	—	100.0	—	—	100.0	—	136.3	—	—	136.3
1957	—	100.0	—	—	100.0	—	65.7	—	—	65.7
1958	—	100.0	—	—	100.0	—	65.3	—	—	65.3
1959	—	100.0	—	—	100.0	—	65.4	—	—	65.4
1960	—	93.9	6.1	—	100.0	—	93.0	6.0	—	99.0
1961	—	100.0	—	—	100.0	—	80.0	—	—	80.0
1962	0.3	97.6	2.1	—	100.0	0.2	78.0	1.7	—	79.9
1963	1.0	89.0	—	10.0	100.0	0.5	47.1	—	5.3	52.9
1964	2.7	101.2	17.6	(21.6)	100.0	1.1	39.4	6.8	(8.3)	38.9
1965	3.5	58.4	3.9	34.2	100.0	1.9	31.2	2.1	18.4	53.7
1966	2.8	29.2	60.8	7.2	100.0	1.3	13.7	28.9	3.4	47.4
1967	3.2	21.3	63.6	11.8	100.0	1.7	11.0	33.5	6.2	52.4
1968	3.5	18.4	69.1	9.1	100.0	1.5	8.0	30.5	4.0	44.1
1969	3.0	16.7	92.1	(11.9)	100.0	1.1	6.1	33.3	(4.3)	36.2
1970	4.4	11.9	73.0	10.7	100.0	1.5	4.1	25.1	3.7	34.4
1971	3.1	5.0	55.2	36.6	100.0	1.3	2.0	22.6	14.9	40.8
1972	9.9	—	105.0	(14.9)	100.0	2.2	—	23.4	(3.3)	22.3
1973	18.4	—	162.9	(81.3)	100.0	2.3	—	20.6	(10.3)	12.7
1974	4.5	—	37.9	57.6	100.0	1.7	—	14.2	21.4	37.2
1975	6.9	—	65.7	27.5	100.0	2.5	—	23.4	9.8	35.7
1976	17.8	—	199.5	(117.2)	100.0	1.9	—	21.9	(12.8)	11.0
1977	20.0	—	358.5	(278.6)	100.0	1.0	—	17.7	(13.8)	4.9
1978	5.5	—	151.6	(57.1)	100.0	0.6	—	16.3	(6.2)	10.7
1979	2.7	—	57.3	40.0	100.0	0.6	—	12.0	8.4	21.0
1980	1.9	—	37.3	60.8	100.0	0.5	—	9.1	15.0	24.6
1981	2.5	—	38.2	59.3	100.0	0.5	—	7.7	11.7	19.9
1982	2.5	—	48.8	48.6	100.0	0.3	—	6.2	6.2	12.8
1983	10.4	—	127.1	(37.5)	100.0	0.3	—	3.4	(1.0)	2.7
1984	(30.2)	—	(144.8)	275.0	100.0	0.4	—	2.0	(3.6)	(1.2)
1985	(22.5)	—	(13.9)	136.4	100.0	0.8	—	0.7	(5.0)	(3.5)
1986	(7.2)	—	—	107.1	100.0	1.4	—	—	(20.5)	(19.2)
1987	(5.7)	—	23.9	81.8	100.0	1.5	—	(6.0)	(21.0)	(25.5)
1988	(5.8)	—	15.4	90.4	100.0	1.5	—	(4.2)	(24.1)	(26.8)
1989	(12.6)	—	34.8	77.8	100.0	1.0	—	(2.7)	(6.2)	(7.9)
1990	34.5	—	(67.9)	133.3	100.0	0.8	—	(1.6)	3.2	2.5
1991	14.9	—	(14.8)	100.0	100.0	1.0	—	(1.0)	6.9	6.9
1992	14.8	—	(27.3)	112.5	100.0	0.6	—	(1.1)	4.9	4.4
1993	(88.1)	—	438.1	(250.0)	100.0	0.5	—	(2.6)	1.4	(0.6)
1994	35.5	—	(35.5)	100.0	100.0	0.6	—	(0.6)	1.7	1.7
Averages										
1953–61	—	99.3	0.7	—	100.0	—	74.2	0.7	—	74.9
1962–68	2.4	59.3	31.0	7.3	100.0	1.2	32.6	14.8	4.2	52.8
1969–76	8.5	4.2	98.9	(11.6)	100.0	1.8	1.5	23.1	2.4	28.8
1977–86	(1.4)	—	66.0	35.4	100.0	0.6	—	7.5	(0.9)	7.3

TABLE 8.9 (*continued*)

Year	*Relative to Foreign Saving*					*Relative to Aggregate Investment*				
	FDI	Aid	Loans	Other[1]	Total[2]	FDI	Aid	Loans	Other[1]	Total[2]
1987–94	(1.6)	—	45.8	55.7	100.0	1.0	—	(2.5)	(4.2)	(5.7)
1953–94	1.4	32.0	48.6	18.0	100.0	0.9	21.6	8.3	0.1	31.0

[1]Figures in this column show all other forms of foreign savings imported for investment including portforlio investment, ommissions, and errors.

[2]Figures in this column represent aggregate investment minus domestic saving.

[3]Figures shown in this column represent GDP minus consumption.

Sources: This table is constructed on the basis of data shown in Hanguk Eunhaeng 1995: 178–79; Book of Korea, *Economic Statistics Yearbook*, various years.

the 40-year period between 1958 and 1997, the extent of its adverse impact on the balance of payments was relatively minor. Foreign firms in South Korea also contributed adversely to the balance of payments by importing their inputs—that is, raw materials and intermediate goods—for which they were criticized for being excessively dependent upon imports, especially during the early years. Their import-content ratio (the ratio of imported intermediate inputs to total intermediate inputs) for manufacturing ranged between 32 to 46 percent during 1974–86. But with the passage of time, the ratio went down, as the foreign firms expanded their knowledge of domestic sources and as the ability of the domestic economy to supply the needed inputs increased.

More important, perhaps, in contrast to the adverse impact of FDI on the balance of payments in the short run, FDI in the long run had a positive impact on South Korea's balance of payments. Foreign firms have been major exporters of manufactured products, and the expansion of FDI clearly increased exports, thereby directly reducing the burden on the country's balance of payments in the long run. During 1974–86, they accounted for 20 to 27 percent of total manufactured exports.[32] In light of South Korea's chronic trade deficit before 1986, the contributions of FDI to reducing the balance of payments deficit in the long run were substantial, even though total FDI in South Korea was relatively a small portion of investment in the country. The long-run positive balance of payments probably outweighed the deficit short-run balance of payments for the period after the Korean War.

In economics literature, foreign capital inflow has often been blamed for economic instability in a recipient nation's economy. However, in South Korea, FDI appears to have had a more stabilizing influence and was more resilient than other forms of foreign capital throughout the period, including during the financial crises in 1997–1998.[33] In the event of a crash, investors can suddenly dump securities, and banks can refuse to roll over loans, but multinational corporations cannot quickly pack up their factories and go home.[34] This finding appears to be consistent with the findings of microeconomic studies of cross-country regression that private capital flows are more efficient in higher-income countries[35] and more productive in countries with a better-educated labor force than those with low income and less educated workers.[36] South Korea was no exception.

In sum, while critics view the foreign ventures of multinational corporations as damaging to exports, employment, and wages at home and abroad, FDI in South Korea had a positive impact on the country's domestic investment, the growth and stability of the economy, employment, the balance of payments, the level of technology, and productivity. This assessment confirms the finding of an exhaustive review of research into the effects of FDI that it is far more beneficial than detrimental for both the home and host countries.[37]

Effectiveness of FDI Policies

In light of FDI's contribution to South Korean investment and the economy, were the past interventionist FDI policies of the South Korean government, both promotional and restrictive, the best measures for expanding domestic investment and economic growth? It is difficult to determine whether the Korean economy would have done better with a less interventionist and more laissez-faire FDI policy. Standard neoclassical economics would have predicted that government intervention would be counterproductive, leading to inefficient allocation of resources by bureaucrats instead of markets and having adverse consequences on investment and economic growth. It seems clear that the provisions reducing the tax burden on foreign firms investing in Korea had little to do with its rapid export expansion, nor did it benefit the host economy. Some may also point out the fact that the FDI boom in South Korea after the mid-1980s was clearly related to the liberalization of FDI regulations that preceded it. The question, therefore, is whether government intervention, particularly the restrictive FDI policy, discouraged greater FDI and prevented optimal economic growth in South Korea.

The opponents of laissez-faire FDI policy argue that it would not necessarily have been optimal, given that South Korea lacked a truly free-trade regime. They claim, first, that a laissez-faire FDI policy would not have contributed to South Korea's industrial growth or the expansion of FDI in targeted industries and eventually the nation's economic development. The government saw FDI more as an instrument of industrial policy and a vehicle for promoting import substitution, export expansion, and technology transfer. In this context, the policy was primarily aimed at optimizing the allocation of FDI resources where and when they were deemed compatible with national economic objectives. They therefore believe that the question of whether South Korea's FDI policy was appropriate depends on whether its industrial policy contributed to capital formation and economic development. The opponents to laissez-faire FDI policy believe that until the question of the validity of the industrial policy is answered, there can be no definitive answer as to the effectiveness of South Korea's FDI policy.

There is no doubt that the government's industrial policy contributed to capital formation in certain sectors, certain types of enterprises, sectoral expansion, and possibly the nation's overall economic growth. The positive influence of the policy is apparent in the distribution of FDI in South Korea. The government has made remarkable progress in attracting FDI in certain fields. This can easily be seen in the concentrated flow of investment into two of the rapidly growing industries: electrical machinery and transport equipment. The FDI policy in South Korea inspired the transfer of financing

and know-how into the country. Also, there is no doubt that FDI has fitted the government's policy objectives well. It has clearly promoted export expansion, both directly by allowing projects that were specifically export oriented and indirectly by permitting projects that led to the production of intermediate products.

Had there been no restrictions, a laissez-faire FDI policy and the resulting large presence of foreign affiliates would have reduced the effectiveness of the government's policy implementation. Foreign investors would not have been compelled to follow the government's directives, since they would not have been part of the quasi-internal organization of the government, as Korean firms, especially the large ones, were. Even if they had been, given the fact that South Korea did not have a truly free-trade regime in the 1960s and 1970s and many of the industries were protected from international competition, an FDI regime with no restrictions would not have driven FDI into the targeted, promoted, and protected export industries.[38] Instead, much FDI would probably have gone into other restricted but lucrative fields, making implementation of the industrial policy difficult.

According to the proponents of a restrictive FDI policy, a large presence of foreign affiliates would have made direct, selective intervention less effective in achieving the policy objectives of the government. In their view, a free FDI policy could have led to a decrease in economic welfare by diverting resources away from export industries. In order for the free FDI policy to succeed, the liberalization of the trade regime would have had to precede that of FDI. Thus, as long as certain sectors in the economy were protected, a laissez-faire FDI policy would not necessarily have developed unprotected industries. In this regard, South Korea, which adopted an outward-oriented industrial development policy, appears to have benefited from its regulated FDI policy.

It is, however, questionable whether the government's regulated FDI policy, both promotional and restrictive, was the appropriate or optimal means of accomplishing its economic objectives. The economic costs to other sectors and the entire economy may have been too high, for at least four reasons. The FDI promotion policy (1) lacked the backward linkage effect; (2) was a less than optimal strategy for capital formation and economic development; (3) resulted in production costs that were higher than international market prices; and (4) reduced FDI.

The first basis for questioning the appropriateness of the promotional FDI policy is the linkage effect, as FDI generally lacks a backward linkage effect. Foreign export firms tended to import more from their home countries than did Korean export firms. In spite of their contribution to exports, foreign firms in South Korea have been criticized for their dependence on imported inputs, thus eliminating a backward linkage effect. Their import-content ratio (the ratio of imported intermediate inputs to total intermediate inputs) for manufacturing ranged between 32 and 46 percent during 1974–86. They imported more than a third of their imports of raw materials from their partner companies or their foreign partners' countries. Most foreign firms' export markets were in their home countries. Non-American, especially Japanese, firms imported very little from the United States, and U.S. firms' exports to Japan were minimal.

The second reason for disputing the appropriateness of the promotional FDI policy is the question of whether it was an optimal strategy for capital formation

and economic development. Because the government guaranteed up to a 20 percent profit to foreign investors in joint ventures, investment in physical plants was below international standards.

The third reason relates to the high production costs and monopolistic prices that result from overly protected industries, thereby diminishing the ability of Korean firms to compete in export and domestic markets. The production costs of FDI products were feared to have been higher than international market prices. The price of Korean polyester, for instance, was reported to have been 2.5 times the price in the international market. The companies involved were the Korea Pacific Company, Korea Petrochemical Company, and Oriental Petrochemical Company.[39]

Lastly, the FDI policy in fact tended to prevent some productive foreign investment. The question of the inappropriateness of the restrictive FDI policy on nontargeted industries stems from the numerous foregone benefits of FDI. First, it is questionable whether the government should have restricted the entry of the consumer-goods industries, retail markets, and service industries such as banks and insurance so early. The facts that with less government regulation of FDI in the later years the industrial and home-country distributions of FDI changed and that a new direction for the South Korean economy was established are clear indications that the restrictive FDI policy was less than optimal. These include such high-tech industries as precision-testing machines; industrial robots; electronic switching systems; computers and related instruments; aeronautical, defense, and biological products; superconductive materials and parts; laser generator equipment; and applied instruments. It is also clear that South Korea failed to establish domestic policy priorities that fostered more efficient investment that would have attracted more productive foreign capital and ultimately promoted the domestic economic strength, including a robust and prudent financial sector that would have protected the country from volatility induced by capital flows.[40]

Second, because there would have been numerous benefits to promoting FDI, it is not clear whether the restrictive FDI policy had the desired impact on the Korean economy in the long run. It certainly would have provided employment opportunities. According to the Korea Institute for Economy and Trade in 2001, the percentage of domestic workers employed in FDI-related enterprises increased from 5.9 percent in 1998 to 8.3 percent in 2001. In addition, although it is difficult to prove that FDI provides the only means of securing foreign capital flows, it tends to be a more stable form of external finance than other forms, such as loans.[41]

FDI flows do tend to be more resilient than other forms of capital flows, in part because the relatively long time horizon of FDI makes investors less concerned about short-run reversals, including those that arise from host country policies. FDI dips only slightly and then comes back to previous levels. The key reason for this is that much FDI is bound up in enterprises that, in times of instability, can redirect sales from a country's local markets to export markets. This is particularly true for U.S. firms operating abroad. The most consistent feature of the responses to crises by U.S. manufacturing affiliates is rapid growth in their export sales. The shifts are in response to both host country devaluations and stagnation in host country markets. Crises dampen local consumption of the U.S. firms' products, but the drop in currency values makes those same products much cheaper for foreign buyers and

hence much easier to export. Also, direct investors, unlike other investors, may not have the luxury of simply pulling up stakes in the face of a crisis.

Moreover, foreign equity holdings tend to promote competition and financial development and create pressures for better governance, although these benefits are difficult to measure quantitatively. The entry of foreign firms certainly increased competition, promoted reforms, and improved the efficiency of the South Korean economy, as has been found in other countries, although there are no empirical data available to support this phenomenon in Korea.[42] Consistent with other countries' experiences, FDI in South Korea also tended to bring in more foreign loans, as is shown in the next chapter.

Challenges for FDI Policy

Many, including the Korean authorities, now recognize FDI as something positive for the economy and believe that the benefits of FDI in raising productivity through spillover effects are too great to forego. As noted earlier, one of the most attractive features of FDI is that it tends to be a conduit for technology imports and also more stable over the business cycle than other forms of foreign capital. Considering the fact that no country that has made substantial progress on capital account liberalization has been inclined to reverse that progress in any long-term sense—not even countries that have suffered crises—South Korea, in opening up its capital accounts, seems to believe that whatever problems arise, the benefits of liberalization outweigh the costs.[43] Liberalization will most likely benefit the country in the long run. The South Korean government is expected to further expand the opportunities for foreigners to invest in South Korea in the future. Many foreign, as well as Korean, companies plan to increase their investments, despite the fact that some have low expectations for the economy.[44]

Further market opening and FDI will certainly intensify competition and be a force to propel reforms and improve the efficiency of the Korean economy. For these as well as other reasons, South Korea needs to attract more FDI by removing the remaining barriers. Lawrence B. Krause believes that South Korea cannot follow the old Japanese model of having domestic production of everything under domestic ownership.[45] South Korea has vast potential for the world, given its relatively strong economy, its genuine government attempts to improve the business environment for foreign investors, and its drive to become a regional hub. It is particularly appealing as a regional center for research and development activities, especially in the information technology (IT) and electric/electronics sectors. The reasons are numerous: a well-educated work force, a sound infrastructure, and the development of cutting-edge IT. In addition to its rapid progress in reforming its financial institutions and capital markets, the Korean government has taken steps to tighten competition and enhance foreign investment incentives. These changes should have made the economy more attractive to outside investors and improved its reputation as a good environment for foreign capital. There are currently 124 foreign research-and-development organizations operating in South Korea.

However, South Korea faces a number of problems and challenges. FDI is now on a downward trend. It declined precipitously after 2000, from $11.8 billion in

2001 to $6.5 billion in 2003, although it bounced back somewhat in 2004 and 2005. It is expected to be a challenge for the country from this point on. While most entry barriers have been removed, there remain a few obstacles that are commonly faced by foreign investors. Moreover, new hurdles are preventing the country from achieving growth rates comparable to those of competitors like China or Singapore. The economy needs FDI to sustain growth, yet South Korea has many regulations standing in the way. The challenges are many, including the global business environment, the working environment for foreigners, macroeconomic conditions, the labor market, the taxation system, foreign exchange regulation, and Koreans' English-language skills. Some of these will be briefly examined below.

To begin with, in a very broad context, South Korea has not done well in establishing a friendly "business environment," in spite of its metaphorical attempts. According to a survey conducted in Seoul, Hong Kong, Singapore, Tokyo, and Shanghai by the American Chamber of Commerce in Korea, Seoul finished dead last. Apparently, foreign-invested enterprises experience many difficulties in the course of doing business in South Korea, including bureaucratic red tape and the lack of established systems and procedures related to administrative regulations. While a number of FDI-related restrictions have been eased, foreign investors still face a variety of obstacles during the investment approval process, leading to unnecessary delays and costs. This apparently has prevented rejuvenated FDI inflows. Another challenge confronting FDI is Korea's unique business culture, which confuses international firms by often allowing illegal strikes, promoting misdirected goals, and formulating seemingly strange policies. An example is the ongoing difficulties with international business pacts. South Korea's National Assembly was hesitant to ratify the Korea-Chile Free Trade Agreement, pressed by some of the nation's special interest groups to call it off. There is also a tendency for Korean firms to grossly exaggerate the value of their assets and holdings.[46]

Second, a survey conducted by the Heritage Foundation and the *Wall Street Journal* ranked South Korea 45th out of 161 countries in the economic freedom index.[47] It even ranked below such socialist nations as the Czech Republic (33rd), Slovakia (36th), and Poland (41st). Hong Kong and Singapore, South Korea's biggest rivals, ranked as the world's two freest economies for the 11th consecutive year. South Korea has been promoting the nation as a business hub in Asia, yet the ranking shows that it has a long way to go. The survey pointed to an ongoing dispute between the government and the *jaebeol* over economic priorities. More recently, concern has been voiced over a regulation that would require foreign firms that acquire more than 5 percent of a Korean company to reveal their intention of influencing the management.

Third, despite the government's efforts to streamline investment procedures, South Korea's private sector is still bogged down with regulations, which are as complicated as they are vague. Although many regulations have been relaxed, some licensing procedures remain highly bureaucratic and complicated. Duck-woo Nam, chairman of the International Business Center Forum and a former prime minister, explained in an interview with a local newspaper that "[a] company has to visit more than 10 central and local government agencies to obtain a building permit."

The ambiguous tax laws, as well as cumbersome regulations on customs and import procedures in particular, are regarded as the most serious impediment to foreign investors. A common problem is that regulations are subject to various interpretations by different regulatory authorities. Also among the noted obstacles are complexities associated with corporate registration, notification, and licensing and approval requirements, many of which are a colonial legacy. This is perceived by foreign firms to be bureaucratic stonewalling and interagency rivalry.[48]

Among many of the regulations that the government should modify are rules that have stymied development. For instance, in the case of construction of the world's largest liquid-crystal display factory by Royal Philips Electronics and a semiconductor plant by Donbu Electronics, the government apparently promised that it would allow diesel-powered cars in the country beginning in 2005, provided that they met European emissions standards, which are less strict than South Korea's. There appears to be some progress on that front; the new rules would, among other things, clear the way for the plants' construction. One aim of the government policy should be to remove obstacles to investment in new factories. The proposed rules would also almost double the amount of land available for building golf courses.

Fourth, one area of concern to potential foreign investors identified by the American Chamber of Commerce in Korea is a lack of transparency in rule making and the regulatory system, which adversely affects industries. The real focus should be on market competitiveness, nondiscrimination, transparency and, most of all, the rule of law. Business decisions based on personal ties, combined with corrupt practices and cronyism, discriminate against foreign businesses. There is relatively clear evidence that low transparency tends to depress the level of foreign investment.[49] The International Monetary Fund has reported that corruption and cronyism typically discourage FDI and sometimes lead investors to pull out of a country.[50]

Fifth, currently the investment incentives that South Korea offers include tax breaks and access to business loans for foreign-invested enterprises that introduce advanced technology or conduct operations in free economic zones, as well as reduced rental rates at designated industrial complexes. However, some critics point out that the incentives are meager compared with those in neighboring Asian countries. They also believe that a bevy of institutional and regulatory barriers must be systematically addressed and disassembled, not to mention the xenophobic ethos of the Korean people and their institutions. A few have argued that South Korea's FDI policy places too much emphasis on incentives rather than focusing on the fundamentals: market factors, core competencies, and industrial competitiveness.

Sixth, one important area that has not been adequately addressed is the labor market. Given recent developments, it is likely that FDI attracted to South Korea will no longer be the type that seeks low-cost labor, because South Korea is no longer a country where foreign investors can readily find an abundant supply of well-educated but inexpensive and docile labor. However, perhaps the most critical challenge to South Korea is the labor movement, which has been very active since 1987. Between July 1987 and June 1989, the number of unionized establishments increased from 2,725 to 7,380, and union membership increased from 1.05 to 1.83 million. As a consequence, wages increased at a double-digit rate in 1989, and the

economy experienced cost-push inflation and deterioration of international competitiveness in many of its labor-intensive manufacturing industries.[51] This development has certainly been a deterrent to FDI.

The inflexibility of labor regulations, which allow layoffs only when companies are faced with a serious management crisis, and the confrontational nature of labor-management relations represent the most significant stumbling blocks to FDI. Large-scale layoffs in South Korea are allowed only in exceptional cases. Most foreign businessmen who have worked in South Korea say that frequent labor disruptions were their biggest problem, though others have good working relationships with their employees through fair treatment and cooperative policies. Foreign investors' assessments have gotten worse, however, as the government has considered developing a labor relations model that involves labor union representation in corporate management. Many foreign investors, as most businessmen are, believe that business management is the prerogative of the owners, but not the labor union. A recent agreement between unionists and managers at Hyundai Motors allows the union some input in management decisions. Other such agreements are expected to follow. The requests of foreign investors were to allow companies to adjust the level of their workforce based on changing market conditions and the liberalization of inflexible labor laws and practices.

Seventh, antiforeign sentiment often tops the list of Korea's weaknesses from the viewpoint of foreign investors. The government has vowed to improve business-labor relations and shift from reliance on manufacturing to services, both of which are related to its ambition to become a business hub in East Asia. In spite of the optimism expressed by the heads of GM-Daewoo and Hanaro Telecom, strife in the labor market is a real concern among potential investors. In November 2004, the Ministry of Labor expressed its own concerns about the labor market. The country's legal structure gives significant advantages to labor and provides weak protection to management.

Now foreign investors are also concerned about the government's policies and the rise of antiforeign capital sentiment in South Korea. Recently, the government has strengthened certain regulations regarding foreign investment. Some lawmakers are trying to revise the Banking Act to require foreign-owned banks to have 50 percent or more Koreans on their boards and to impose a one-year residence requirement for foreign directors. The government has also tightened the so-called 5 percent rule, which requires investors who own more than 5 percent of the shares in listed companies to report their investments and transactions to the authorities.

While many Koreans accepted inflows of foreign capital as a symbol of an open economy and the result of structural reforms implemented since the 1997 financial crisis, some Koreans are resentful that foreign investors are making large profits from the government's market liberation. They criticize foreign investors as being more interested in profits than stabilizing Korea's financial markets. They have cited the Carlyle Group and Newbridge Capital, which reported profits of 700 billion and 1.15 trillion *won*, respectively, after selling the Korean banks under their control. Furthermore, they claim that Korean companies are exposed to the threat of takeovers as foreign ownership of shares becomes too pronounced. At the end of 2004, foreigners owned nearly 50 percent of the shares of Korea's largest

companies, including Hyundai Motors, Samsung Electronics, and Pohang Iron & Steel Company.

Eighth, the American Chamber of Commerce's Business Environment Survey of 2002 described the need to increase Koreans' proficiency in English.

SUMMARY AND CONCLUSIONS

The examination of imported foreign savings in this chapter has shown that net imports to South Korea contributed additional resources equivalent to about 8.6 percent of GDP on average during the last half of the twentieth century, while net foreign resources or savings imported into South Korea for investment after World War II were substantial, amounting to as much as 4.8 percent of the country's GDP on average, supplying nearly a quarter of domestic savings. Foreign resources or savings financed nearly a fifth of total investment in the country during the 42-year period between 1953 and 1994.

The inflow of foreign resources/savings thus became crucial for supplementing the country's investment for economic development as the need for investment mounted and domestic savings failed to meet all the needs. Imported foreign savings was especially important during the early years, when net imported foreign savings represented more than twice the amount of domestic savings and nearly two-thirds of investment during 1953–57 and matched the domestic savings during the 14-year period between 1958 and 1971. Foreign capital inflows, which came primarily from the United States and Japan thus narrowed the significant gap between investment needs and domestic savings in South Korea. After the 1970s, the contribution of foreign savings to investment gradually waned.

Had the domestic savings gap not been filled with net inflows of foreign savings, South Korea could not have acquired all the capital equipment and other necessary investment goods, which effectively boosted investment and spurred productivity to the level it was able to achieve. Nor could it have met all the basic needs of the people, such as for consumer goods, especially during the early years. In this regard, the importation of net foreign resources contributed to raising the productivity of the nation, freed domestic resources for other investment uses, and helped raise the people's standard of living.

Among the foreign savings imported, FDI played a unique role. In volume, FDI was relatively small and rather insignificant for capital formation of the country and mostly confined to manufacturing. It was small in volume especially in the early years, reflecting the small domestic market and the restrictive government FDI policy, although it slowly expanded as the restrictive policy was gradually eased. It peaked at $15.7 billion in 2000, although it has declined since then. For the 42-year period between 1953 and 1994, the share of FDI, which accounted for only about 0.2 percent of GDP, was less than 1 percent of total investment in the country. It was mostly concentrated in manufacturing (about three-quarters of the total), producing import-substitution and export goods, which accounted for about 9.4 percent of domestic employment. These included textiles, fertilizer, cement production, and oil in the early years and the heavy, chemical, and high-tech industries

later. FDI entry into the consumer-goods industries, retail markets, and service industries such as banks and insurance was restricted until later years. While the bulk of FDI projects was jointly owned with Korean businesses until about 1984, notable changes resulted in a rise in the number of wholly owned or majority-owned foreign subsidiaries in later years.

In spite of FDI being small in volume and being carried out in small firms, it became an important source of introducing new technologies to the country's industry. FDI took place mostly in new and capital- and technology-intensive industries and raised the level of technical sophistication of domestic industries, which would have been hard to obtain otherwise, either through financial investments or trade in goods and services. Foreign holdings of equities not only provided benefits in terms of risk sharing but also facilitated transfers of technology, including managerial skills. In a country with high-quality human resources such as South Korea, FDI was an effective means of adopting advanced technology efficiently. As a consequence of the technology transfers, the productivity of the nation as a whole was enhanced. FDI in South Korea also tended to attract more foreign loans, as is typically found in other countries. In sum, the effects of FDI were far more beneficial than its volume might indicate for the host economy as well as the investing countries.

Other impacts of FDI were positive, but minor, on aspects of the nation's economy, namely, domestic investment, employment, economic growth, economic stability, and balance of payments. If minority-owned foreign firms were included, FDI contributed 1 to 1.6 percentage points to the overall growth rate in 1984–86. Likewise, FDI's contribution to economic growth was peripheral. In relation to GDP, the output contributed by FDI was no more than 2 or 3 percent as late as the 1980s, although the value added to the Korean economy, especially in manufacturing, by industries established with FDI, grew much faster than GDP, adding about 8–12 percent to total expansion in all sectors and 12–22 percent to manufacturing. Likewise, the arrival of FDI expanded opportunities for employment, although the numbers were relatively small. Foreign companies accounted for about 2.5 percent of domestic employment and 9.4 percent in manufacturing. FDI affected the balance of payments adversely in the short run but positively in the longrun, the net effect being clearly positive.

As to FDI policy, a number of questions were raised regarding whether the government's interventionist FDI policy was optimal to accomplish the country's economic objectives. The reason for questioning the efficacy of the policy was the economic costs imposed on other sectors and the entire economy on the following three grounds: the policy lacked the backward linkage effect; it was a less than optimal strategy for capital formation and economic development; and it resulted in production costs that were higher than international market prices.

South Korea holds vast potential for the world, given its relatively strong economy, genuine government intention to improve the business environment for foreign investors, and hub potential, but it faces a number of challenges. Further market opening and FDI will certainly intensify competition, encourage reforms, and improve the efficiency of the Korean economy. For these as well as other reasons, South Korea needs to attract more FDI by removing the remaining barriers. Yet South

Korea has a lot of regulations standing in the way of expanding FDI and economic development. The main challenges to economic development in South Korea are the development/improvement of the global business environment, the working environment for foreigners, macroeconomic conditions, the labor market, the tax system, foreign exchange regulations, and Koreans' English-language skills.

9

FOREIGN AID, LOANS, AND OTHER SOURCES OF FOREIGN SAVINGS

In addition to foreign direct investment (FDI), examined in chapter 8, foreign savings/resources were imported to South Korea via a number of other sources/channels, namely, foreign aid, loans, portfolio investment, and miscellaneous other means. Continuing the examination in the preceding chapter, this segment examines these sources' volume, orientation, country of origin, and impacts on investment. Also investigated is the role of the South Korean government relative to these sources of imported foreign savings.

Since policy implementation is accomplished mostly through private business responses in a market-oriented economy, the government has to work out an effective system of incentives and create a favorable environment for maximum business response, in light of the risk and uncertainty that business activities entail—especially when unknown foreign markets are involved. By helping to reduce the risks and uncertainties of various sources of foreign savings, governments can more readily elicit positive responses from other governments and business communities.

FOREIGN AID

It is ironic that Korea's geographical location, which had hurt it in the past by leaving it open to invasion, thereby creating a detrimental environment in the form of political instabilities and social havoc, was a principal reason that it received foreign aid from other countries after World War II. In just about 70 years, the country had suffered the Sino-Japan War of 1884–85, the Russo-Japan War of 1894–95, Japanese domination during 1905–45, U.S. and Soviet occupations during 1945–48 after World War II, and the Korean War of 1950–53. In all of these conflicts, wars were fought on the country's soil, which led to devastating property losses and human

casualties. Yet, because of its strategic location, one of the principal means by which Korea's economy was able to recover was the importation of foreign resources/savings through foreign assistance/aid.

Foreign aid to South Korea began when the U.S. armed forces began their occupation of the country immediately after World War II in 1945 to disarm the Japanese Imperial Army. It provided war relief to the Korean people and reconstructed and supported the South Korean economy until about 1971, when for practical purposes it ended. South Korea was one of the major recipients of foreign economic aid that developed from a poor, devastated, and crippled nation into a world economic power. Foreign aid was practically the only source of imported foreign resources/savings in the country immediately after World War II and the Korean War, and with it South Korea was successful in bringing about investment and economic development, as well as relief.

Foreign aid to South Korea after World War II evolved in three principal stages: 1945–52, 1953–61, and 1962–71. A brief survey of foreign aid programs may illuminate their contributions to South Korea's capital formation and economic well-being.

Relief Aid: 1945–52

Foreign aid was the first channel through which foreign resources were imported to South Korea after World War II. To help the South Korean people recover from the economic devastation and dislocations caused by World War II, the United States commenced a foreign aid program mainly for relief purpose when it occupied the country immediately following World War II to disarm Japanese military forces in the land. Aid came under different program names: Government Appropriation for Relief in Occupied Areas (GARIOA) during 1945–49; the Economic Cooperation Administration and Supply and Economic Cooperation during 1949–53; Civil Relief in Korea during 1950–56; and the United Nations Korea Relief Administration (UNKRA) during 1951–60.

Economic aid under GARIOA was conceived to facilitate the U.S. military occupation by preventing disease and unrest in South Korea.[1] The amount of economic aid ranged from about $5 million in 1945 to $180 million in 1948, reducing to $45 million by 1950, but reverting back to $160 million in 1952 after the outbreak of the Korean War. The total economic aid received by South Korea between 1945 and 1952 is officially recorded at $852 million. It averaged about $105 million, or $5.50 per person, annually. It was mostly in the form of food, clothes, other relief goods, and some raw materials. All foreign aid during this period came in the form of outright grants, and virtually all of it came from the United States. Only a very small amount was contributed by other countries, such as, Japan, West Germany, and Sweden, through the U.N. between 1951 and 1955.[2]

It is difficult to measure the extent of economic aid, but large amounts of aid goods were allocated for relief purposes. The orientation shifted briefly in 1949–50, before the Korean War, from relief to development aid or, more precisely, from limited aid for maintaining minimal civilian consumption to broader aid for increasing production as a way to reduce imports, increase exports, and eliminate the

need for further external assistance.[3] By the time of the outbreak of the Korean War in 1950, South Korea had made tangible economic progress. Agricultural output was reported to have climbed 11 percent by 1949, 20 percent above the pre–World War II level, and industrial output, though it accounted for only 10 percent of South Korea's national product, rose by 50 percent. The high and rapid returns accompanying U.S. aid during this period were believed to have been caused primarily by rehabilitation investment in the small industrial sector and the expanded use of fertilizer in agriculture financed by the U.S. aid program.[4]

Whatever economic gains South Korea attained before 1950 were destroyed during the Korean War. As noted in chapter 2, at the end of hostilities in 1953, South Korea was in a state of total economic devastation and chaos. It lost all the benefits of U.S. economic aid that it had had before the war and found its economy totally ravaged when the war was halted and an armistice signed in 1953.

Reconstruction Aid: 1953–61

The immense destruction of the Korean War necessitated large-scale programs of relief and reconstruction aid. With the armistice in 1953, the massive economic aid amounting to $194.2 million was inaugurated, peaking at $383 million in 1957 (Table 9.1). Although it gradually declined thereafter, to $199.2 million in 1961, the total foreign economic aid between 1953 and 1963 was exceptionally large, $2,282.5 million. On average, foreign aid amounted to $253.6 million annually, which was more than twice that of the period before 1953, and averaged per capita aid of $11 per year. Foreign aid gradually declined after 1957 to $199.2 million in 1961. For the nine-year period, foreign economic aid, on average, was equal to 15.3 percent of GDP, 72.5 percent of imports, 76 percent of net imports, about seven-tenths of government budget deficits, almost all (99.3 percent) of foreign savings, and far more than domestic savings.

Virtually all foreign aid during this period came from the United States, which was over one-tenth of the total U.S. aid appropriation to all countries in the world during the period.[5] It was responsible for 99 percent of the total aid to South Korea, and its support for the Korean economy was significant and crucial for the latter's survival and future success.[6] The emphasis was on commodity imports, which accounted for about three-quarters of all aid between 1953 and 1960, one-half of which was agricultural commodities, with the rest being primarily in the form of fertilizer and petroleum products. Of the remaining project-related aid, only 16.5 percent went directly to manufacturing. The Agency for International Development (AID) and its predecessors alone provided $1.5 billion between 1954 and 1960, supplemented with an additional $400 million under the Public Law (PL) 480 aid program in the form of agricultural products, such as grain and cotton, and UNKRA aid, mostly relief programs.[7]

During this period, most foreign aid was grant-in-aid. However, a small amount of loans-in-aid were introduced in 1958.[8] In 1960 in particular, foreign aid came mainly in the form of loans. In 1961, long-term development loans were initiated by AID. Loans between 1958 and 1961 totaled nearly $2 billion, 80 percent of which, however, were soft loans repayable in local currency. The loan programs

TABLE 9.1 Foreign Aid and Investment, 1953–71

Year	*Dollars*	*Percent of GDP*			*Ratio of Foreign Aid to*			
							Investment	
	Foreign Aid	All Aid	Imports	Net Imports	Foreign Saving	Domestic Saving	All Aid	Aid Used
1953	194.2	14.9	56.2	63.5	100.0	90.9	101.4	47.6
1954	153.9	11.0	63.3	70.3	100.0	100.0	96.5	50.0
1955	236.7	16.9	69.3	73.2	100.0	185.4	144.4	65.0
1956	326.7	21.8	84.6	90.4	100.0	(375.9)	272.5	136.3
1957	382.9	22.5	86.6	91.2	100.0	191.7	160.7	65.7
1958	321.3	16.9	84.9	88.8	100.0	187.8	143.2	65.3
1959	222.2	11.7	73.2	57.9	100.0	188.9	112.5	65.4
1960	245.4	12.6	71.4	79.0	93.9	9,300.0	126.0	93.0
1961	199.2	9.5	63.0	72.4	100.0	400.0	79.2	66.7
1962	232.3	10.1	55.1	63.3	97.9	383.3	85.6	78.0
1963	216.4	8.0	38.6	45.7	88.9	100.0	47.1	47.1
1964	149.3	5.2	36.9	38.8	102.0	64.2	39.4	39.4
1965	131.4	4.4	28.4	45.6	57.9	67.7	31.2	31.2
1966	103.3	2.8	14.4	22.2	28.9	26.2	13.7	13.7
1967	96.9	2.3	9.7	14.3	20.9	23.2	11.0	11.0
1968	105.9	2.0	7.2	10.5	18.2	14.4	8.0	8.0
1969	107.3	1.7	5.9	8.9	16.8	9.6	6.1	6.1
1970	82.6	1.0	4.2	7.2	11.9	6.3	4.1	4.1
1971	51.2	0.5	2.1	3.9	5.0	3.4	2.0	2.0
1972–82	13.2	—	—	—	—	—	—	—
Total $3,572.4 Million								
Averages								
1953–61	253.6	15.3	72.5	76.3	99.3	1,141.0	137.4	72.8
1962–67	155.0	5.5	30.5	38.3	66.1	110.8	38.0	36.7
1968–71	86.7	1.3	4.9	7.6	13.0	8.4	5.1	5.1
1953–71	187.3	9.3	45.0	49.8	70.6	577.2	78.1	47.1

Sources: Book of Korea, *Economic Statistics Yearbook*, 1983: 245; ibid., various years.

between 1954 and 1960 were administered by the Foreign Operations Administration (FOA) and International Cooperation Administration (ICA), under which raw materials, grain, oil, and equipment were imported.

Development Aid: 1962–71

The substantial amount of initial aid in the 1953–61 period was followed by steadily declining foreign support during the third stage, 1962–71. Average annual economic aid during 1962–67 was $155 million, or $3.60 per person. Foreign economic aid during the six-year period on average declined to 5.5 percent of GDP, 30.5 percent of imports, 38.3 percent of net imports, 66.1 percent of foreign savings imported for investment, and 110.8 percent of domestic savings. During the mid-1960s, South Korea's economy grew so rapidly that both the donors and the Koreans concluded that the need for foreign aid had lessened. The United States slowly reduced its aid

to the country from $232.3 million in 1962 to $51.2 million in 1971, when U.S. grants-in-aid officially came to an end. Foreign aid plunged to $5.1 million in 1972 and finally to less than $1 million in 1982. Between 1968 and 1971, foreign aid was reduced to $86.7 million per year on average. For the four-year period between 1968 and 1971, foreign economic aid, on average, declined to 1.3 percent of GDP, 4.9 percent of imports, 7.6 percent of net imports, about 13 percent of foreign savings, and only 8.4 percent of domestic savings.

One notable change during this stage is the orientation of foreign aid. The aid donors and recipient concluded that South Korea at this stage needed more economic development assistance than relief. The importation of consumer goods under foreign aid programs was cut back as domestic production capacity was rebuilt, expanded, and eventually became more self-sufficient. It was reasoned that what manufacturers needed were adequate markets and investment to expand production facilities and increase production. Thus, assistance was shifted to financing imports of raw materials and intermediate goods required by the expanded industrial facilities. In this way, an abundant supply of such inputs would be assured at favorable exchange rates (as examined in chapter 4).

Another change in foreign aid after 1962 was its form. Most aid came in the form of loans rather than previously dominant grants. Long-term development loans were initiated by AID, and these were incorporated into South Korea's first five-year economic development plan in 1962. The loans-in-aid expanded to about 30 percent of total U.S. aid by 1965.[9] Before the mid-1960s, substantial amounts of PL 480 Title II grants were extended to South Korea, but thereafter PL 480 aid was given in the form of loans. Through the early 1970s, South Korea received most of its foreign assistance in the form of loans at concessionary rates of interest.

Also, the terms of aid progressively hardened. With the Foreign Assistance Act in 1961, most development aid loans were slowly changed from loans repayable in local currency to loans repayable in hard currency, dollars. By 1967, virtually all loans were repayable in dollars. Likewise, the interest rates on development loans from 1961 to 1968 increased from 0.75 to 2 percent during the grace period and from 0.75 to 3 percent thereafter to maturity. International Monetary Fund (IMF) data show that imports financed through such means as foreign export-import loans at the reduced rates of interest totaled 11.6 percent of all imports from 1975 to 1979.

In addition to a general increase in interest rates on loans, the bilateral assistance aid programs hardened other terms applied to dollar loans. The terms of commodity assistance under the U.S. PL 480 program have progressively hardened, for instance. Between 1964 and 1966, Congress increased the requirements for down payments on sales and raised the portion of local currency proceeds reserved for U.S. uses. Beginning in 1967, loans from the proceeds of PL 480 commodity sales were converted gradually from a local currency to a dollar repayment basis. By 1971, this conversion was complete.[10] Similarly, Export-Import Bank lending increased significantly as a proportion of total U.S. loan disbursements. Between 1962–63 and 1967–68, its share rose from about 7.5 percent to about 23.4 percent. Export-Import Bank lending was on a commercial basis. The interest rate charged by the bank increased from 5.5 to 6 percent in 1964–65, reflecting higher interest rates in general in world financial markets.

The aid component of these loans was only a fraction of their total value, and thus the grant element of aid diminished considerably during this period. The grant element of development loans under the 1961 act was 84 percent (at a 10 percent discount rate). By 1968, the grant element had declined to 67.5 percent.[11] The combination of an increase in Export-Import Bank loans and the conversion of PL 480 and development loans to a dollar repayable basis reduced the proportion of U.S. net bilateral flows on a grant or grantlike (local currency repayable) basis from 81 percent in 1961 to 59 percent in 1967. Most other bilateral donors had terms which were softer on average than those of the United States, and unlike the United States, many of these donors softened their terms somewhat after 1964. On the other hand, the terms of multilateral agencies that borrowed money in financial markets were quite hard and grew harder over time. The World Bank lending rate rose from 4 percent in 1963 to 7 percent in 1969.[12]

CONTRIBUTIONS OF FOREIGN AID

Foreign aid obviously had a significant impact on the South Korean economy and its people in terms of relief, economic and political stability, and investment, as is examined below.

The Aggregate Economy

It is clear that foreign aid injected a significant amount of economic resources into the country and had major impacts on its economy and people in the early years of South Korea's independence. The volume of foreign aid was substantial during the 19-year period between 1953 and 1971, ranging from $51 million in 1971 to as much as $383 million in 1957. Following World War II, the aid package to South Korea was one of the largest in the world at the time,[13] and it became the most important source of additional resources available to South Korea beyond its own. The country, with a population of 25 million in 1960 received $5,046 million[14]—$1,875 million in supporting aid, $115 million in development grants, $440 million in development loans, $1,655 million in PL 480 aid, and $961 million in miscellaneous forms—and a total of over $3 billion in terms of grants, for per capita assistance of more than $200 and $120, respectively.

On the whole, foreign aid brought about $3.6 billion of foreign savings into the country between 1953 and 1971, which accounted for nearly half (45 percent) of South Korea's imports. In relation to total and net imports, foreign aid contributed nearly 45 and 50 percent, respectively, 70.6 percent of all foreign imported savings, supplied economic resources amounting to more than 9.2 percent of South Korea's GDP, and nearly six times the amount of domestic savings. Its contribution was particularly significant during the early years.

Some economists question the "real" value of the officially published figures of foreign aid in U.S. dollars cited above. There are many complexities in estimating their real worth accurately, as was pointed out in chapter 8 in the estimation of the real value of foreign savings imported into the country.[15] There are two views on

the subject: one holds that the official figures overstate the real value of foreign aid, while the other believes that it is understated.[16] In spite of the lack of complete agreement, it seems reasonable to conclude that, in sum, the real worth of foreign aid may be reduced somewhat, say by 5 to 10 percent of its reported dollar value. However, in South Korean currency, it was worth far more than what was officially shown, perhaps as much as 10 to 20 percent more than the official estimate, because of overvaluation of the South Korean *won*. Thus, it seems fair to state that South Korea was supplied with more foreign resources, as much as 5 to 10 percent more than the officially reported sum, in foreign aid.

In contrast to the enormous sums received in foreign aid, South Korea's financial burden was relatively small, since the bulk of the aid came in the form of grants. All aid to South Korea until 1957 was in the form of grants, and during the reconstruction period (the late 1950s and 1960s) in the form of grants-in-aid combined with loans-in-aid. Approximately 94 percent of the total was in grants-in-aid form between 1953 and 1965, and the rest was mostly in loans-in-aid. For the entire period, about 80 percent of the total aid was in the form of grants and soft loans,[17] while only a small fraction was in relatively hard loans.

In addition to economic aid, there was U.S. military assistance to South Korea. Altogether, the United States alone supplied about $12.6 billion in economic and military assistance between 1946 and 1976, together with an additional $1.9 billion from the international financial institutions and approximately $1 billion from Japan. These official transfers, mainly for military assistance, declined from about $130 million in 1967 to less than $40 million in 1976. But they made it possible for the continuous training of more than a half million Korean military personnel in organizational, management, and technical skills.

Relief and Economic and Political Stability

Under the aid programs, many commodities were imported specifically to relieve their shortages in the country and were intended to meet the immediate needs of the Korean people. They were mostly consumption goods, including food and manufactured items. According to the official data, approximately 85 percent of U.S. aid ($3.2 billion) was spent for nonproject purposes during 1953–72.[18] Of the money spent for nonproject purposes, large amounts were allocated for relief, especially during the early post–Korean War period. Approximately $1.66 billion in aid goods (typically agricultural products) were imported under the PL 480 program. South Korea also imported a total of $780 million worth of consumption goods, or about 22 percent of the total foreign aid, consisting of $673 million in food and tobacco and $107 million in finished manufactured goods. A substantial amount of fuel imported under the aid program was used for this purpose as well. Roughly 82 percent of the aid goods imported were of three types: food, about 53 percent; finished industrial (clothes) and miscellaneous goods (cotton), approximately 18 percent; and fuel, 11 percent.

In this way, additional resources available with foreign aid beyond its own production, or GDP, enabled the country to augment domestic consumption, thereby

raising its standard of living. According to the expenditure statistics, national consumption in real terms during 1953–59, when the relief needs after the Korean War were most acute, increased by nearly 6 percent per year on average, and per capita consumption rose at an annual average rate of 26 percent. It is thus clear that the economic aid did provide much needed relief, which enabled the country to avoid a major disaster following World War II and the Korean War. Without the aid, many people would have starved. For all practical purposes, the relief phase of the aid program was successful. Progress was made particularly in food, coal, electric power, transportation, textiles, flour milling, and the manufacture of a variety of products for local consumption.[19] Without foreign aid, consumption would have been limited to what was produced and available in the war ravaged country, which was grossly inadequate.

It is difficult to quantitatively measure the extent of foreign economic aid for relief, which was one of the three main objectives of foreign aid, but all available data clearly show its positive impact. For the 19-year period between 1953 and 1971, foreign aid supplemented 3.5 percent of GDP, thus increasing the level of consumption nearly 4 percent. Foreign aid played a much more important role especially during the six-year period between 1953 and 1958 following the Korean War, when it added 9.3 percent of GDP, which augmented the nation's consumption by more than a tenth (see tables 8.2 and 9.1). Even for the 10-year period between 1953 and 1962, foreign aid supplemented consumption by as much as 6.7 percent of GDP, thereby increasing total consumption by 7.1 percent.

Foreign economic aid also contributed to economic stability. First of all, foreign economic aid was a significant source of alleviating the substantial deficits in the balance of trade, in that it helped to finance more than two-thirds (67.8 percent) of imports and nearly three-quarters (72.3 percent) of net imports during 1953–63. During the 19-year period between 1953 and 1971, foreign aid contributed more than two-fifths (45 percent) and nearly half (49.8 percent), respectively (Table 9.1). Second, it helped to dampen the inflationary spiral by supplying a significant amount of resources to its economy, especially in the early years. Even with it, inflation was acute, ranging from 22.5 to 68 percent per year between 1953 and 1957,[20] although it was considerably moderated between 1958 and 1962, when average price increases fell to single digits. When U.S. aid was substantially reduced in 1963–64, rapid inflation recurred.

More important, not only did U.S. aid contribute to the stabilization of the Korean economy, but it also was very effective in maintaining political stability, as the prime beneficiary of foreign aid was the South Korean government.[21] The financial position of the government following the Korean War was shaky at best. On average, economic aid accounted for more than one-third (34.5 percent) of the government budget during the 15-year period between 1953 and 1967, reaching a peak of 55 percent in 1956.[22] These ratios were even higher than those of the total domestic tax revenues in some years, which were slightly more than 30 percent during the mid-1950s. The ratios for the period after 1961 must have been lower. By 1974, grants authorized under foreign aid were more than $1.1 billion. The South Korean government maintained high levels of expenditure and even managed to

increase them modestly at an average rate of 1.5 percent per annum between 1953 and 1963, when the country was heavily dependent on foreign aid, without having to concern itself with repayment for the aid.

With foreign aid money, the government was also able to maintain a large army for national security, mainly against North Korea. During 1954–60, more than a third (35 percent) of foreign aid (51 percent in 1955 and 42 percent in 1957) was used for national defense. The Mutual Security Agreement with the United States required aid-receiving countries to spend a certain proportion of their foreign aid money for military purposes. The additional resources provided by the aid were just about equal to the direct and indirect burden of the country's national defense.[23] Had the economic aid not been available, South Korea would not have been able to maintain a 600,000-man army while allocating a substantial amount of resources to government services, including war relief.[24]

Since the government dedicated the increased resources from foreign aid to promote the general welfare, the people benefited, without being levied additional taxes, and supported their government. Farmers in newly irrigated farm land, which was done with foreign aid, were better off, even though they believed they did not receive their fair share of aid and paid for their pro rata share of the water they used under the aid-sponsored projects. Likewise, patrons of the modernized railway system benefited, while borrowers from banks had a chance to earn more than enough to repay their loans. In this sense, South Korea's economic achievements and economic and political stability, the second objective of the aid, were made possible through foreign aid.

FOREIGN AID FOR INVESTMENT

Since foreign aid injected substantial amounts of resources into the South Korean economy, the country not only enhanced its ability to consume more but also obtained resources for investment as well—the third objective of foreign aid to South Korea—namely, financing investment for reconstruction and expanding new production facilities for the production of goods and services.

Volume

No precise figures showing the contribution of foreign aid to South Korea's investment are readily available, and there are many complexities in calculating it. It is difficult, for instance, to determine to what extent economic aid was used to enhance, not replace, the country's domestic effort to finance investment. Notwithstanding the difficulties, all indications are clear that foreign aid positively contributed to investment. In addition to relief programs, foreign aid during the early post–Korean War years were carried out to reconstruct the war-torn production facilities, including machinery and equipment as well as social overhead capital (SOC). Foreign aid during 1953–61, the period of reconstruction and the founding of new economic bases for later development, was equivalent to 8 percent of GDP and supplied far more than enough resources (about 137.4 percent) to finance all

of the country's investment during that nine-year period (Table 9.1). Foreign aid between 1962 and 1967 was equivalent to 5.5 percent of GDP, which supplied enough resources to finance more than a third (38 percent) of the country's investment. In the following four-year period between 1968 and 1971, foreign aid supplied 1.3 percent of GDP that enabled the country to finance 5.1 percent of the country's investment. For the 19-year period between 1953 and 1971, foreign aid supplied 5.8 percent of GDP, which permitted the country to finance nearly four-fifths (78.1 percent) of South Korea's investment.

Obviously, all foreign aid was not saved and invested, as noted earlier, but it accounted for more or less the only source of saving (including both foreign and domestic) for investment in the country immediately following the cessation of hostility of the Korean War. In fact, some foreign aid funds were specifically designated for investment in the country. According to the official data, approximately $563 million, or 15 percent, of the total U.S. aid between 1953 and 1972,[25] a sum equivalent to nearly four-fifths of South Korea's gross domestic savings, was allocated specifically for financing prescribed investment projects.[26] Foreign aid dedicated to investment between 1953 and 1961 was nearly three-quarters (72.8 percent) of the total investment, as much as 36.7 percent between 1962 and 1967, and 5.1 percent between 1968 and 1971 (Table 9.1). For the 19-year period between 1953 and 1971, nearly half (47.1 percent) of the nation's investment was financed by foreign aid.

For the entire 42-year period between 1953 and 1994, economic aid from foreign countries and international organizations, equivalent to 2.6 percent of GDP (Table 8.8), supplied more than half (53.1 percent) of foreign savings imported and financed more than a tenth (10.8 percent) of the nation's investment. Particularly, foreign aid played a more crucial role immediately after the Korean War. It has been estimated that foreign aid, equivalent to 8 percent of GDP, supplied nearly all (98.8 percent) of foreign savings imported and furnished thee-quarters (74.9 percent) of gross investment in the country on average during 1953–61.[27] Outside of domestic saving, foreign aid was practically the only resource available for investment in the country at that time; private foreign investors and foreign lenders steered clear of the country until about 1963, and not much domestic income was saved for investment either. Most of the major investment projects—either reconstruction or new projects—were financed with funds obtained from foreign aid programs. The volume of foreign aid that financed investment was nearly equal to domestic savings between 1953 and 1963. Even as late as between 1962 and 1967, foreign aid supplied as much as 5.3 percent of GDP, more than half (66.1 percent) of all foreign savings imported for investment, and nearly a third (36.7 percent) of Korea's investment financing. A similar comparison could be made relative to domestic savings.

In other words, without foreign aid there would have been less domestic investment before 1971, and even thereafter. It is thus clear that following the Korean War, foreign aid was the most important source of funds for the reconstruction, the expansion of new production facilities, and the rehabilitation of the economy. The significance of foreign aid in industrial development is even greater than the figures given here suggest, since imported commodities, including foodstuffs, were distributed

to local enterprises for processing and formed the basis for the development of a number of important Korean firms, including textile and flour mills.

Counterpart Fund

The "Counterpart Fund," which was an instrument of financing investment under foreign aid programs, was jointly established by the United States and South Korean governments. It was used as a conduit for business transactions involving grants-in-aid and facilitated the use of U.S. and other aid funds for investment in the country. Grants-in-aid invariably meant an immediate bolstering of the South Korean government's holdings of foreign exchange reserves, which could be sold to importers, thereby providing business firms with access to foreign exchange to finance their imports, typically from the donor country. When foreign exchange was sold, payment in Korean currency was deposited in the Counterpart Fund, over which the South Korean government had control. The foreign exchange was then used to import needed goods and services from abroad, ultimately infusing foreign resources into the country. These funds were derived either from foreign exchange held by the government or from the Counterpart Fund, which generated funds by selling aid goods to domestic users.

The Counterpart Fund set up the Economic Rehabilitation Special Account, which was funded by transfers from the Counterpart Fund derived from the sale of foreign aid supplies, to handle the fund's transactions. In turn, the Special Account was used for the local currency costs of the capital reconstruction program.[28] Similarly, the export promotion financing was also made possible largely with the Counterpart Fund from 1959 to 1964. In this way, foreign aid inflows played an indirect but critical role in the country's investment by allowing the government to use its foreign exchange holdings to direct investment in basic industries and social infrastructure during the 1950s and 1960s, in addition to helping to maintain a minimum consumption level for the Korean people. One cannot overlook the importance of such a fund, especially in the early years, when foreign economic aid to South Korea came mostly in the form of outright grants or net long-term subsidized loans for nonmilitary purposes by donor countries and international organizations. In this way, aid inflows were made to support both the foreign and the domestic costs of most development projects.[29] Among the important agencies that depended on the Counterpart Fund for their funding sources were Korea Reconstruction Bank and the National Agricultural Cooperatives Federation.

The volume of funds in the account was huge. The South Korean government not only had its own share of the fund, it also had the use of some additional local currency, often having access to the local currency in a U.S.-owned account, for instance, through reborrowing, if the aid came in the form of a loan repayable in the currency of the borrower.[30] The Counterpart Fund financed 90 percent of economic reconstruction, both public and private, and offered loans to economic reconstruction projects, in addition to its contribution to defense expenses. In this way, it served as a major tool that the government used to control the crucial flow of resources from foreign aid to investors, and it played a crucial role in financing investment for economic development. Since the fund was designed to provide

long-term loans to key enterprises without the restrictions of commercial bank lending,[31] it used its funds for purposes mutually agreed upon by the Korean and the U.S. governments.[32]

The Orientation of Foreign Aid for Investment

The financing of investment with foreign aid funds was oriented toward "modern" industries, targeted sectors, and large-scale projects.[33] The aid money used to finance investment projects in which Korea was far behind the advanced countries at the time was concentrated in the "modern" industrial sector. This accounted for over 87 percent of the total project aid. Over 70 percent of the project aid included manufacturing, mining, transportation, construction, and other public overhead capital, as examined in chapter 4. Within the so-called modern sector, manufacturing (including mining) received 30.2 percent of total project aid, while transportation and communications projects were funded with 38.8 percent of the total. International Cooperation Administration (ICA) aid and supplies for plants and technology in manufacturing alone amounted to $57.1 million between 1955 and 1959. Within the manufacturing sector, economic aid programs were more focused on assisting selected industries, such as textile mills, fertilizer plants, cement plants, glass factories, flour mills, and the merchant marine.[34] The modern manufacturers that benefited the most from direct foreign aid, including UN assistance for war damage,[35] in the early years were textile and other large commodity producers,[36] as noted in chapter 4.

In contrast to the industrial sector, investment programs in other sectors (mostly traditional), such as agriculture, fishing, natural resources, and "miscellaneous" segments of the economy received very little assistance, only 6.4 percent of total project aid. Most of the investment in agriculture was in the construction of irrigation dams, land reclamation, flood control, and agricultural research, which was carried out by the government with the help of foreign aid funds and technical assistance. Another notable exception to the contribution of foreign aid to investment was in housing, which was in critically short supply until the 1980s.

Another notable feature of the aid program was its focus on capital- and technology-intensive projects. They included the construction of plants to produce such goods as fertilizer, flat glass, and cement for industrial use, rather than those of consumer goods in the light industries, such as food and footwear, except for textiles, during the 1950s and 1960s. The value of aid goods and related services imported during 1953–72 totaled over $700 million, which represented nearly 20 percent of total foreign aid. These sectors and services included machinery/equipment (4.6 percent), construction (3.9 percent), railway and other transportation (5.8 percent), and technical, educational, health and public administration assistance (5 percent). Technical assistance was on a grant-in-aid basis.

Also, the economic aid programs financed primarily large projects. Many of these investments were in multimillion-dollar projects, which were operated as both public and private enterprises.[37] In the public sector, most of the SOC investment projects were large, while in the private sector most investment was undertaken by a few giants, the *jaebeol*.[38] Unfortunately, no reliable statistical data are available

to indicate how much aid money was transmitted to businesses of different sizes, but there is no doubt that the aid financed more large firms than small ones, contributing to the formation of the early *jaebeol*. There were only a couple of assistance programs for small and medium-sized firms between 1957 and 1963.

One of the programs set up by the United States for small and medium-sized firms was to finance 205 out of 211 industrial plants selected under the Industrial Production Project in 1957.[39] They were small plants, and an average loan to them was about $100,000. Loans under this program were extended by the Korean Reconstruction Bank to private Korean companies for 10 years at 8 to 12 percent interest. Of them, nearly 85 percent were successful, while 18, or 8.7 percent, of the businesses failed and 16 were in trouble, operating at less than 50 percent capacity. These loans had no grace period. Those companies that were in default were assessed interest penalties, ultimately followed by foreclosure unless a new and financially responsible sponsor were found. This was done on a grant basis to government.

The UNKRA similarly sponsored some 700 small businesses that were assisted with dollars and/or *won*. As of 1955, 310 dollar loans totaling $1.32 million and 397 *won* loans amounting to 32.9 million *won* had been approved to provide equipment, raw materials and working capital for small and medium-sized industrial units or plants, manufacturing ceramics, chemicals, drugs, optical goods, papers, ice, wire and wire net, rubbers, soaps, matches, starch, glass, paint, and canned goods have been aided. There were practically no defaults, and when UNKRA was wound up in 1958, it left behind a permanent revolving fund of 71 million *won* for continuous help to Korea's small industries at nominal rates of interest.[40]

The segment that received the most benefit from foreign aid for investment during the 42-year period after the Korean War was the government, which allocated more than three-quarters (76.9 percent) of foreign aid (about 2 percent of GDP) for public investment, while the private sector shared less than a quarter (23.1 percent) for investment (or about 0.6 percent of GDP). A considerable portion of foreign aid was directed toward public investment. Project aid in the public sector covered almost all capital-intensive investment projects that involved the construction of SOC, including the modernization and upgrading of the national railroad system, telephone and telegraph communications systems, electric power, sanitary services, and transportation. Other SOC and public projects (including health, education, housing and public administration) shared 18.3 percent of the total project aid. The contribution of foreign aid was significant in establishing public enterprises in the early years, when such investment was crucial to the country's industrialization and economic development. Many heavy and chemical industry (HCI) plants were established, producing such goods as steel, ships, fertilizer, and cement. In this way, foreign aid enabled the country to establish its key public enterprises: the reconstruction of SOC, the building of new industrial facilities, and the acquisition of new technology.

In the private sector, foreign aid not only assisted in the reconstruction/construction of many production facilities, it also enabled Korean businesses to purchase the resources needed for the country's reconstruction and development. Among the resources were raw materials and intermediate and capital goods from abroad, including the purchase of agricultural (16.4 percent) and industrial raw

materials (17.2 percent), fuel and power (8.8 percent), and fertilizer (14.8 percent). During 1953–72, this financing accounted for over $2 billion and constituted 57.2 percent of the total economic aid. Foreign aid also assisted in the acquisition of raw materials and technology for import-substituting light industrial firms, particularly the textile industry. Supplies and aid for the purchase of raw cotton under the program amounted to $138 million between 1953 and 1959.[41] Without these essential resource ingredients, the reconstruction and development of South Korea's SOC and the modern manufacturing industries would not have been possible.

One cannot leave out the technical assistance provided bilaterally by the United States. and multilaterally through overseas education and training programs administered by AID in the late 1950s and early 1960s. The AID program sent approximately 1,900 experts to Korea between 1951 and 1972, while about 4,000 Koreans went to the United States under the same program, at a cost of about $126 million. Multilateral technical assistance was mostly provided by UN-affiliated foreign aid organizations, the Colombo plan, a UN program to provide technical training and services, and other sources. From 1951 to 1982, approximately 2,300 foreign experts were sent to Korea, whereas about 15,000 Koreans participated in training through these organizations. Some programs, such as the UN Development Program, were specifically designed to build expertise for formulating socioeconomic policies in Korea.

The Impact on Output and Korean Investment

The rise in investment made with foreign aid funds expanded the country's production capacity. As examined above, foreign aid contributed greatly to investment for repairing, rebuilding, and building transportation, electric, water, sanitary, communications, and manufacturing facilities after the Korean War. It, in turn, increased output, brought about the recovery of the South Korean economy by the 1970s, and built the country's economic foundation for further growth in the future. Had foreign assistance not been available, South Korea could not have reconstructed or added industrial facilities that were destroyed during the Korean War within such a short span of time.[42] It is not possible to calculate the exact relationship between investment and output; but if we were to assume the relationship is a three-to-one ratio, the nation's output would have contributed 7.8 percent of GDP on average for the 42-year period.

Also, by financing varying amounts of investment in different economic sectors, foreign aid contributed to the alteration of the nation's economic structure. Foreign aid was instrumental in making major public and private investments that utilized modern technology and providing many opportunities for production, thereby contributing significantly toward their expansion. In manufacturing, for instance, foreign aid enabled the glass, cement, and fertilizer industries to invest and build new production facilities during the 1950s and 1960s, which resulted in their rapid expansion. In addition to financial and technical assistance, foreign aid also contributed to the reconstruction of educational and medical facilities during the 1950s. However, it did not contribute much to other sectors, such as agriculture and housing, thereby limiting the expansion of those sectors. In the case of housing, its supply continued to be in a critical shortage until about the 1980s.

Second, the increase in investment using foreign aid funds must have also encouraged Korean people to invest and save more.[43] According to the findings of Professors Bosworth and Collin, an increase of a dollar in capital inflows is generally associated with a rise in domestic investment of about 50 cents.[44] In addition, foreign aid must have freed up domestic capital for other investment uses. Furthermore, foreign aid contributed to investment indirectly by supplying funds that enabled the government to carry out various subsidy programs to promote investment in the private sector in the early years. These included the foreign exchange and interest subsidies, elaborated in chapters 4, 5, and 6, which promoted investment in selected industries. Moreover, the increase in national income caused by the increased investment financed with economic aid also enhanced the nation's ability to save, thereby making available its own resources for investment.[45]

Third, investing with foreign aid funds also provided opportunities for employment. It is not possible to estimate the number of workers employed, directly or indirectly, as a result of economic aid programs, since there was labor-using as well as labor-saving investment. However, in a country such as South Korea, where abundant surpluses of labor prevailed during the reconstruction period, virtually all capital investments were more labor-using than labor-saving. Since the aid caused the country's investment to rise, employment thus expanded. Employment in the industrial and tertiary sectors—mining, manufacturing, construction, public utilities, commerce, transportation, and communications—where the major portion of aid was allocated, increased especially rapidly, from 0.7 to 2.6 million workers, a 270 percent rise.[46] Obviously, the increases in employment were not all due to infusions of foreign aid, but certainly some were, even when the infusions were small.

It appears that the experience in South Korea seemed to differ somewhat from those found in studies of recent experiences, which revealed that there was no robust association between aid and long-term growth and that the impact of aid on long-run growth was inconclusive.[47] The literature shows that even in countries with good policies, aid inflows have systematic adverse effects on the growth of labor-intensive and export sectors. In countries that received more aid, the labor-intensive and export sectors growth was slower than capital-intensive and nonexport sectors. Also, the manufacturing sector as a whole slow on account of aid. Moreover, studies found that aid had caused exchange-rate overvaluation. These findings raise the bar on the quality of government spending: aid has to be spent effectively so that the productivity or welfare improvements from increased public investment can offset any dampening effects from a fall in competitiveness. The study concluded that it would be far better to build up the supply of the other critical resources that are needed to use aid effectively, such as a larger body of skilled workers, which can take time.

The Efficacy of Foreign Aid as an Instrument of Investment

In spite of vital contributions of foreign aid to South Korean investment, the people's welfare, and economic development, there were vigorous debates in the 1950s and 1960s about its efficacy as an instrument of investment.[48] Powerful arguments, pros and cons, were advanced by influential politicians and economists.[49] Some contended

that more foreign aid money should have been used for investment in economic development rather than relief. Often it was the South Koreans (notably businesses) that insisted that the United States had used too much of the aid funds for the importation of non-project-oriented commodities, particularly manufactured consumption goods, thus allocating too little for project-oriented investments.[50] Many were convinced that what the country needed was more reconstruction and development—not consumption. The proponents of project aid asserted that the aid programs should have imported more project-oriented capital goods.[51] They claimed that the projects should have dealt with tangible investments, which would have produced easily recognizable returns, and internationally prestigious establishments such as steel mills, airports, glass factories, and the like. In addition, economic aid was thought of as a "windfall," which, they reasoned, should have been used for developmental projects. These were viewed as being more conducive to economic development than consumption.[52]

The opponents to greater allocations of foreign aid for investment, on the other hand, argued that project-oriented aid alone would not have fulfilled the goals of war relief. Some, particularly U.S. officials, maintained that the urgent needs in the peninsula after World War II and the Korean War were relief for the war-torn population, economic and political stabilization, and the curbing of inflation. According to them, even those consumption goods that were thought to have been "unessential" for growth were in fact vital not only for relief and curbing galloping inflation but also, in most cases, for needed raw materials, fuel, minerals, and electric power for increased production and development. Moreover, to the extent that foreign assistance for development projects was biased toward capital-intensive technology, it had a tendency to increase the country's subsequent need for capital, prejudice its imports, raise the capital-output ratio and higher dependency ratio, and possibly reduce the rate of economic growth.[53] Because of this tendency, they pointed out that it would have been more economical to import some manufactured goods, such as steel and cars, instead of investing in facilities that produced them at home.[54]

In addition, according to the opponents of project aid, consumption-goods aid could be as effective in increasing the country's investment as any other kind. It made resources available to the country, thereby enabling it to divert scarce foreign exchange to capital-good imports and in some cases to utilize the surplus commodities in conjunction with the expansion of domestic investment. Many others have alleged that South Korea's imports were too biased toward capital goods for new projects, which resulted in the neglect of domestic resources that could have been mobilized for investment.

It is difficult to determine, without a more thorough analysis, whether or not the allocation of project resources among different needs and industries was optimal. However, the available data do not bear out the assertion that foreign aid was biased toward war relief or was inadequate for investment. As shown earlier, only about a fifth of the goods imported under the aid programs were consumer goods. The rest were capital and intermediate goods and raw materials, which were mostly essential for industrial and economic development. It is therefore questionable whether such a contention was justified, considering the fact that one of the main reasons for foreign aid was war relief.

If there was an imbalance between the project and nonproject aid, it was the inadequacy of project aid in creating public overhead capital and developing export-oriented industries. These industries would have further reduced overhead costs and expanded the market in addition to enhancing their demonstration effects on other segments of the economy. The demonstration effects of many projects sponsored by the economic aid programs, such as the establishment of fertilizer, glass, and textile factories and the construction of railroads, were great. These projects became the foundation, mainstay, and backbone of the later economic boom in the country. There could thus have been more of these projects under the aid program; certainly, their necessity was amply demonstrated in the late 1960s and 1970s through private foreign investment. Such undertakings would perhaps have accelerated economic growth even more.

Another reason for opposing foreign aid for investment was based on the understanding that South Korea lacked absorptive capacity. The opponents to greater foreign aid for investment pointed out that South Koreans did not have the capacity to optimally invest all the aid dedicated to investment. It is generally thought that a small, underdeveloped country like South Korea in the 1950s, with a low level of indigenous skills and poor natural resources, could not have funneled more foreign aid into new productive investment for effective development. According to the opponents, because of Koreans' limited technical and management capabilities,[55] much of the economic aid was not utilized effectively or efficiently.

As evidence, they pointed to the fact that the aid money was not used efficiently. It took a long time to import it and the cost was high. Some also pointed out that the completion of projects was often long delayed.[56] Some relatively simple ones took as long as 10 years. The Cheongpyeong dam project was funded in 1956 at a projected cost of $6 million, but seven years later it was still "expected" to be completed in two more years. The delays were said to have been caused by a "great deal of incompetence and bad management."[57] Some projects were poorly planned. Frequently, critics pointed out that the actual capital construction cost far exceeded the planned amount.[58] The construction of the Chungju fertilizer plant cost $34 million instead of the originally estimated $19.6 million and took six years to complete after many delays. A loan for construction of a soda ash plant by the Oriental Chemical Company under the foreign aid program was made in June 1959 for $5.6 million, but five years later, the funds were still tied up because of such alleged difficulties as the selection of a plant site, the fluctuating price of raw material (salt), and the depreciation of South Korean currency. One American aid official called the project "sick."[59]

Certainly not every project was well executed, and some even seemed beyond the technical capabilities of Korean managers and workers. According to this argument, heavy project aid went "against the nature."[60] A chairman of the Foreign Operations Appropriation Subcommittee once observed that the "trouble with the program has been not too little money, but too much."[61] A major Korean newspaper pronounced that $3 billion of foreign aid received in the 1950s had been wasted.[62]

It is difficult to determine the country's true absorptive capacity since such estimation requires wide economic and political judgment in addition to technical assessment. In any country, there is a limit to the rate of capital construction projects

that can be carried out at any given time with a resulting increase in productivity or can be carried out at all without squandering the funds. There are technical and other limitations. Among the technical ones are the size of the construction industry, the availability of materials for capital construction, the capacity of the transportation system to carry capital goods, the number of capable people available to manage ventures after they have been constructed, and the state of the existing production complex into which the new enterprises must be fitted. In hindsight, it appears clear from the experiences of economic development after the 1970s that South Korea did have the absorptive capacity to use additional resources for capital formation above and beyond the level of available domestic savings, except perhaps during the years immediately after the Korean War. Furthermore, the country evidently showed a margin for additional investment even beyond the level attained with the economic aid. South Korea appears to have used its external resources for capital formation and economic development much more effectively than most developing nations did.[63]

Other opponents point out that there were some serious drawbacks to and damaging economic consequences of project aid. They discovered the difficulties with rigidity and excess costs associated with project financing and aid-tying. Project aid often took insufficient account of the need for additional resources to finance expansion in related sectors and to satisfy general increases in demand as incomes rose. The tying of aid to particular projects reduced its effectiveness by limiting the country's choice of the projects and technologies that it deemed most appropriate for its own requirements. Other criticisms were more parochial and charged that project aid tended to nurture socialism (in reference to such government-owned enterprises as the national railroad, the communications system, and the electric power company) and supported potential competitors to U.S. industry (as in textiles).[64] In addition, the steady, long-term diet of U.S. dollars was thought to have created a dependence on Washington that deadened initiative and destroyed caution in economic planning.[65]

Some critics also believed that foreign aid for investment lacked comprehensive long-range planning and continuity. In general, the South Korean authorities were in favor of an aid program based on some form of long-range planning for economic development. They thought South Korea was in urgent need of rebuilding and that foreign aid should be included in a long-range plan. Likewise, the government wanted economic planning based on the assumption that the two Koreas would shortly be reunited.[66] In contrast, many American aid officials were not receptive to these propositions. Perhaps this was due to the uncertain future of the aid programs, reflecting much unfavorable criticism at home in the U.S. and frequent organizational and personnel upheavals, together with the many congressional limitations placed on the programs, especially during the arduous annual appropriations process.[67]

Other opponents believed that foreign aid programs were discontinuous and disjointed. A total of eight different economic aid programs were carried out in the country under seven supervising organizations at different times. Ordinarily, the tour of duty for civilian foreign aid personnel in South Korea was 18 months, a duration much too short for them to get acquainted with the programs and carry out

their duties with adequate knowledge of the country's needs.[68] The long-term development program seems to have received serious consideration by U.S. aid officials only after 1963. Nor did the Americans believe in the possibility of a reunited Korea soon.[69]

To many critics, the investment projects funded by foreign aid should have been more focused. They have argued that project aid programs in Korea were not only excessive in number but were "too wide" and "diffused."[70] One widely cited case was the establishment of a "nonessential" bread and biscuit bakery in Inchon in a country that relies mostly on rice.[71] Some contracts for economic aid projects were alleged to have been awarded to those who speculated with the funds and were not necessarily serious investors.[72] Other critics believed that investment project aid was harmful in that it tended to distort optimum trade patterns and influence the country in the direction of restrictive trade.

Notwithstanding these criticisms and controversies, programs on the whole gave proper and adequate consideration to the interrelationship between project and nonproject aid and among different industries within a coherent overall program and ensured a balance between the supply and use of resources, both physical and financial, reasonably well. Foreign aid had a significant impact on investment, domestic saving, and economic development in three principal areas.

The first is the expansion of overall investment. Of different forms of foreign savings injected into the South Korean economy, foreign aid was the first and practically the only resource available for saving and investment immediately after the Korean War, especially during the 10-year period between 1953 and 1962. With foreign aid, South Korea was able to augment domestic saving to finance investment.

JAPANESE REPARATIONS AND AID

Another foreign source of savings after the Korean War that had a discernible impact on the Korean economy was Japanese reparations payments. The sharp drop in U.S. foreign aid after the mid-1960s was partly offset by growing amounts of other imported resources, particularly from Japan. Japanese "aid"[73] became significant after the signing of the "peace treaty" in 1965.[74] Aside from large concessional and commercial term loans, Japan provided Korea with $300 million worth of goods and services on a grant basis for 10 years beginning in 1966, following the conclusion of an "occupation" reparations agreement between the two countries. At a conference of ministers between Japan and Korea in 1971, Japan also agreed to furnish Korea with $300 million in loans. According to the report of the Japanese Economic Mission to Korea on December 2, 1969, Japan's grant was mainly used for agriculture, forestry, and fishery development.

FOREIGN BORROWINGS

Because of the large amount of foreign aid, foreign loans were not much in demand to finance South Korea's imports and investment; nor did the country have the

ability to repay such loans then. Thus, there were no foreign loans before 1959. However, as foreign aid (particularly, grant-in-aid) slowly declined and the Korean economy recovered, domestic savings were still scarce, and the paucity of FDI combined with the growing need for investment meant that other means of financing were sought out. South Korea obtained loans, portfolio investment, and suppliers' credit from foreign countries.

Foreign Loans and Debts

To Korean borrowers, foreign credits were attractive, because they were much less expensive than domestic bank loans, which were not only expensive but in short supply and, thus, difficult to obtain, as shown in chapter 5. That South Korea relied increasingly on foreign loans as a way to expand its investment is shown in its foreign debt. Ever since South Korea took a cautious first step for foreign loans, its voracity for them quickly mounted. Total foreign loans constituted 1.4 percent of GDP during the six-year period between 1960 and 1965 but rapidly skyrocketed to 7.1 and 7.5 percent during 1966–74 and 1975–79, respectively (Table 9.2). Relative to net foreign imports, foreign loans on average supplied nearly a third (31 percent) and nearly all (98.9 percent) of all foreign savings imported during 1962–68 and 1969–76, respectively, while financing 14.8 and 23.1 percent of the country's investment during the respective periods (Table 8.9). Since then, relative to GDP it declined to 4.8 and 0.4 percent during 1980–86 and 1987–98, respectively. Overall, it supplied about 3.3 percent of GDP during the 42-year period between 1953 and 1994 (Table 9.2).

As a result of foreign loans, foreign debt increased rapidly from the very small sum of $12 million in 1960 to $157 million in 1963, $645 million in 1967, $2.3 billion in 1970, $10.5 billion in 1976, and $32.4 billion in 1981. It peaked at $46.8 billion in 1985 (Table 9.2). Foreign debt during the six-year period between 1960 and 1965 was about 5.1 percent of GDP, but it increased at an average rate of 5.6 percent per year. As a result, foreign loans as a percentage of GDP during the nine-year period between 1966 and 1974 jumped to 25.7 and 34.1 percent of GDP during 1966–74 and 1975–79, respectively.[75] It ballooned to 46.5 percent between 1980 and 1986, peaking at 49.6 percent in 1985, ranking South Korea as the fourth-highest holder of foreign debt among the developing countries,[76] which burdened the nation's economy. Foreign loans continued to expand in absolute amount, but they gradually decreased to 3–4 percent of GDP by 1984–85.

After 1986, the country's outstanding foreign debt was speedily paid off and quickly decreased to $35.6 billion in 1987, when it equaled about 26.1 percent of GDP, and to $29.4 billion at the end of 1989, when it was at 13.2 percent of GDP. For the period between 1960 and 1994, the ratio of foreign debt to GDP averaged 25.2 percent (Table 9.2). After 1986, positive trade balances enabled South Korea to pay off some of its foreign debts. The sixth five-year economic development plan anticipated that outstanding foreign debts would be paid off by 1995 with an account surplus of about $5 billion per year after 1991. The government expected to meet this goal by encouraging the diversification of sources and types of corporate finance, especially equity financing.[77] This outcome would have involved the

TABLE 9.2 Term Loans and Foreign Debt, 1960–98 (in percent of GDP, millions of U.S. dollars, and ratio)

	Loans in Percent of GDP					*Foreign Debt*		
		Long-Term						
Year	Grand Total	Public	Commercial	Total	Short-Term	Debt (in millions of U.S. dollars)	Percent of GDP	Long-Term Loans/ Foreign Debt
1953	—	—	—	—	—	—	—	—
1954	—	—	—	—	—	—	—	—
1955	—	—	—	—	—	—	—	—
1956	—	—	—	—	—	—	—	—
1957	—	—	—	—	—	—	—	—
1958	—	—	—	—	—	—	—	—
1959	—	—	—	—	—	—	—	—
1960	4.3	0.6	—	0.6	3.6	83	4.3	14.5
1961	—	—	—	—	—	83	4.0	—
1962	0.3	—	0.2	0.2	0.1	89	3.9	5.1
1963	2.5	—	—	—	2.5	157	5.8	—
1964	0.7	0.6	0.3	0.9	(0.2)	177	6.1	13.8
1965	1.0	(0.2)	0.6	0.3	0.7	206	6.8	4.4
1966	5.1	0.9	5.0	5.9	(0.9)	392	10.7	55.6
1967	5.9	0.5	6.5	7.0	(1.1)	645	15.1	46.2
1968	10.6	1.9	5.7	7.6	2.9	1,199	22.9	33.4
1969	9.2	3.0	6.3	9.3	(0.1)	1,800	27.7	33.6
1970	5.7	2.0	4.0	6.1	(0.3)	2,265	28.0	21.7
1971	6.9	2.4	3.1	5.6	1.4	2,922	30.8	18.1
1972	6.2	2.1	2.8	4.9	1.3	3,587	33.5	14.7
1973	4.9	1.9	3.4	5.2	(0.3)	4,257	31.3	16.8
1974	8.9	0.6	3.9	4.5	4.4	5,933	31.4	14.4
1975	11.8	1.5	5.2	6.7	5.1	8,443	39.6	17.0
1976	7.1	1.7	4.1	5.8	1.3	10,520	36.2	16.2
1977	5.7	1.6	3.4	5.0	0.7	12,649	33.9	14.8
1978	4.2	1.6	3.7	5.3	(1.1)	14,823	28.3	18.5
1979	8.7	1.7	2.6	4.3	4.4	20,287	32.4	13.3
1980	11.0	2.0	0.9	2.9	8.0	27,170	43.3	6.8
1981	7.5	2.0	0.4	2.3	5.2	32,433	46.3	5.0
1982	6.2	2.0	(0.2)	1.8	4.4	37,083	49.6	3.7
1983	4.0	1.1	(0.2)	1.0	3.0	40,378	48.8	2.0
1984	2.9	0.8	(0.3)	0.6	2.4	43,053	47.2	1.2
1985	3.9	0.3	(0.2)	0.2	3.8	46,762	49.6	0.3
1986	(2.1)	(0.1)	0.1	(0.0)	(2.0)	44,510	41.0	(0.1)
1987	(6.6)	(1.0)	(0.8)	(1.8)	(4.8)	35,568	26.1	(6.8)
1988	(2.4)	(0.6)	(0.6)	(1.3)	(1.2)	31,150	17.1	(7.4)
1989	(0.8)	(0.5)	(0.4)	(0.9)	0.0	29,368	13.2	(6.4)
1990	0.9	(0.3)	(0.3)	(0.6)	1.5	31,700	12.5	(5.0)
1991	2.5	(0.2)	(0.2)	(0.4)	2.9	39,135	13.3	(3.0)
1992	0.8	(0.2)	(0.2)	(0.4)	1.2	41,718	13.5	(2.8)
1993	0.0	(0.5)	(0.3)	(0.9)	0.9	41,743	12.5	(6.8)
1994	2.9	(0.1)	(0.1)	(0.2)	3.0	52,560	13.8	(1.2)
1995	3.3	—	—	—	—	68,800	14.1	—
1996	3.5	—	—	—	—	88,147	15.8	—

TABLE 9.2 (*continued*)

	Loans in Percent of GDP					*Foreign Debt*		
		Long-Term						
Year	Grand Total	Public	Commercial	Total	Short-Term	Debt (in millions of U.S. dollars)	Percent of GDP	Long-Term Loans/ Foreign Debt
1997	0.7	—	—	—	—	91,932	17.8	—
1998	(0.4)	—	—	—	—	89,989	17.7	—
Averages								
1953–59	—	—	—	—	—	—	—	—
1960–65	1.4	0.2	0.2	0.3	1.1	133	5.1	6.3
1966–74	7.1	1.7	4.5	6.2	0.8	2,556	25.7	28.3
1975–79	7.5	1.6	3.8	5.4	2.1	13,344	34.1	16.0
1980–86	4.8	1.2	0.1	1.3	3.5	38,770	46.5	2.7
1987–98	0.4	(0.4)	(0.4)	(0.8)	0.5	53,484	15.6	(4.9)
1960–94	4.0	0.8	1.7	2.5	1.5	18,996	25.2	10.0
1953–94	3.3	0.7	1.4	2.0	1.3	15,830	21.0	8.4
1953–98	3.2	—	—	—	—	21,820	20.6	—

Sources: This table is constructed on data in Hanguk Eunhaeng 1995: 200–201; Bank of Korea, *Economic Statistics Yearbook*, various years.

reduction of foreign debt by $2 billion per year. However, as more loans were obtained after 1986, foreign debt actually increased slightly, to 0.2 percent per year on average, to nearly $90 billion in 1998.

For the entire 46-year period between 1953 and 1998, foreign debt increased at 3.8 percent per year on average and comprised about 20.6 percent of GDP. Despite the repayment of the IMF loan incurred in the 1997 financial crisis, the nation's long-term liabilities stood at $86.3 billion as of the end of July 2001, representing a tolerable proportion of total external liabilities to GDP at 26.8 percent.[78] South Korea's external liabilities further expanded thereafter to $125.4 billion, representing about 25 percent of its GDP in 2002. In the meantime, South Korea's foreign exchange reserves hit more than $200 billion since 2005.

Term Loans

Foreign loans came in two principal terms, namely, long- and short-term loans. It is difficult to make a clear-cut distinction between the two, but the official classification is somewhat useful for evaluating the effectiveness of foreign loans for investment. Long-term loans were those extended for more than three years, while short-term loans were those made for three or fewer years. The former made up more than three-fifths of the total loans, the latter, less than two-fifths (Table 9.2). The remainder of this portion of the chapter is devoted to the examination of their role in capital formation in South Korea.

Long-Term Loans

Foreign borrowing to finance domestic investment was first introduced in 1960 with a $12 million long-term loan, which slowly expanded to $24.5 million by 1964. However, foreign loans constituted less than a half (0.3) of a percent of GDP before 1965 (Table 9.2), and they did not become an important source of financing investment in South Korea until later. After 1966, South Korea relied more upon long-term loans to fill the gap between its investment needs and domestic saving, as grant-in foreign aid gradually dwindled. In the relatively brief period of five years, between 1962 and 1967, the value of foreign long-term loans reached roughly an equal amount to domestic bank loans. Long-term foreign loans increased to $541.4 million in 1971, and equalled 6.2 percent of GDP in the nine-year period between 1966 and 1974, or more than a third (35.4 percent) of all investment in the country. The sum peaked at about 6.5 percent of GDP between 1966 and 1967, the highest level in its history.

Long-term foreign loans continued to expand thereafter, to $898.4 million in 1976, and peaked at $2.1 billion in 1979, although relative to GDP they declined to 5.4 percent between 1975 and 1979 (Table 9.2). South Korea moved from an almost exclusive dependence on foreign government grant assistance to the predominance of foreign loan financing, which South Korea relied on for investment until about 1985. However, long-term foreign loan continued to decline to 1.3 percent of GDP between 1980 and 1986. After 1986, as South Korea started to pay off its loans in significant sums, annual long-term foreign loans became negative. Between 1987 and 1994, long-term foreign loans on average decreased by about 0.8 percent of GDP.

For the 42-year period between 1953 and 1994, the volume of long-term foreign loans averaged 2 percent of GDP and constituted the second largest proportion of foreign savings imported for investment, after foreign aid. South Korea's long-term foreign borrowing contributed $33.4 billion to investment during the 20-year period between 1967 and 1986. The borrowing from international capital markets had almost completely replaced foreign aid between 1967 and 1986 (Table 9.1) and constituted about 9.1 percent of all savings—both domestic and foreign—and 8.6 percent for the period between 1953 and 1994. The volume of long-term foreign loans was substantial (2.5 percent of GDP on average between 1960 and 1994, 2 percent between 1953 and 1994) and occupied a very important position in financing the nation's investment. Long-term foreign loans thus played a substantial role in financing investment, including the construction of production facilities and the importation of capital goods.

Foreign loans through the early 1980s came mostly from the United States, Japan, and international lending organizations. Between 1959 and 1986, the United States furnished the most loans (e.g., about 40 percent),[79] while Japan provided about 35 percent.[80] During the same period, West Germany and France were the distant third and fourth suppliers, with approximately 4 to 5 percent of foreign loans, while the International Economic Cooperative Council on Korea (which was formed by the United States, Japan, West Germany, and 10 other countries in 1966), the World Bank, the Asian Development Bank (ADB), and other bodies contributed

about 15 percent.[81] Foreign loans were negotiated and brought into the country in the form of either public or commercial loans.

Public Loans

Public loans included those received from foreign governments and their public or private agencies as well as multinational organizations, frequently and partly in the form of "aid loans" with concessionary interest rates in early years. Public loans from foreign sources typically supplemented domestic funds for public investment. South Korea's first public loan from a foreign country was received in 1960 and amounted to $12 million, a sum that quickly increased to an annual net amount of more than $164 million in 1970 and nearly $608 million in 1977. Public loans continued to expand, reaching almost $1.5 billion and outstanding sums climbing up to $8.3 billion in 1982 and $10.3 billion in 1985. Although the government continued to borrow from abroad, eventually its repayments exceeded newly borrowed money, thereby reducing the outstanding public foreign debt after 1986. The amount of annual net public loans plummeted to negative values, averaging about $1 billion per year until 1996. Then, with the 1997–98, financial crisis in many Asian countries, including South Korea, public loans shot up to $15.8 and $9.6 billion, respectively. As of 1998, outstanding public foreign loans totaled $26.8 billion, though they decreased to $21.9 billion in July 2001.

Relative to GDP, foreign resources imported under the public loan program started out rather modestly (e.g., 0.2 percent between 1960 and 1965), but they quickly picked up their tempo and increased to 1.7 and 1.6 percent during 1966–74 and 1975–79, respectively. Although their absolute sums continued to increase, relative to GDP, they decreased to 1.2 percent between 1980 and 1986. After 1985, it decreased to 0.4 percent, indicating that the government paid off its debt more than its loans while GDP increased. Foreign loans to the South Korean government were heaviest during the two periods, 1972–75 and 1980–82, with 9 and 13 percents of its revenues, respectively. For the entire period between 1960 and 1994, foreign resources imported under the public loan program accounted for 0.8 percent of GDP on average, as much as a third of long-term foreign loan.

The principal countries from which public loans were obtained were the United States and Japan, followed by EU countries such as West Germany and France. The United States supplied the most public loans to South Korea, especially in the early years. The first long-term foreign loan contracted in 1959 was from the U.S. Development Loan Fund (DLF) in two government economic development loans. It furnished about 68 percent of all public loans between 1959 and 1962 and continued to supply the bulk of public loans even after 1962, in spite of some serious objections in the United States to the public loan program.[82] On a calendar year basis, U.S. commitments peaked at more than $90 million in 1966, thereafter declining to about $24 million in 1975 and $45 million in 1976. Of the $1,023 million worth of public loan agreements concluded during 1959–70, loans from the U.S. government accounted for 59 percent. The cumulative total of public loans from the United States was $11.25 billion as of 1986.[83]

Japan, the second largest public loan granting country to South Korea, accounted for about 12.5 percent of the total of $1,023 million worth of public loan agreements during 1959–70. But it increased its share to about 28.3 percent of all public loans from foreign countries.[84] In 1983, Tokyo gave Seoul some $4 billion in loans, representing nearly 13 percent of the South Korean government's net external debt and more than 5 percent of the nation's GDP, almost one-fifth of its total investment in that year.

The first major concessionary assistance in the form of loans that South Korea received from the European Economic Community (EEC) was from West Germany. It furnished about 13 percent of public loans between 1959 and 1962 and 6.1 percent between 1959 and 1970. Average annual commitments to South Korea were about $10 million over a 11-year period between 1965 and 1975; after 1973, EEC commitments increased to as much as $25 million per year.

International agencies that supplied multilateral aid loans to South Korea were three: the World Bank, the International Development Association (IDA), and the ADB. Loan commitments from these sources increased steadily from $14 million in 1962 to $485 million in 1976. Between 1959 and 1970, the share of international organizations was about 7 percent of all foreign loans, providing about 35 percent of total public loans. The World Bank furnished 13.2 percent, which increased from $5 million in 1968 to $150 million in 1973 and $371.5 million in 1976. These loans represented a significant portion of the increase in total medium- and long-term credit committed to South Korea between 1973 and 1976. IDA loans averaged about $14 million between 1967 and 1973, when they were discontinued. That organization provided 19 percent of all public loans. The ADB committed $552 million to South Korea during 1968–76, or about $61 million annually. Commitments averaged about 7 percent of total medium- and long-term borrowing during the period, while IDA and ADB furnished 10.8 percent between 1959 and 1970.

Public loans came mostly in soft loans. In the early years, the loans carried varying degrees of concessionary interest rate, at least through the early 1970s. These soft-loans were provided for a long term, initially 40 years with a 10-year grace period, with practically no yearly interest or service charges (0 to 2 percent, repayable in Korean currency).[85] According to government sources, concessionary public loans with an aid component between 1964 and 1974 averaged about 6.5 percent of all foreign borrowing. The interest rate on these loans typically was 2 percent during the grace period and 3 percent thereafter. The average maturity of public loans decreased over time, but they were still quite favorable to the recipient country. Public loans in 1965 were reduced to an average maturity of about 17 years, including an eight-year grace period. Government loans for steel mill construction were made at a 5 percent interest rate with a five-year grace period. The aid component of these loans was only a fraction of their total value. Imports financed through such means as foreign-import loans with reduced rates of interest totaled 11.6 percent of all imports from 1975 to 1979.

Hard public loans, nearly comparable to commercial loans, came to South Korea mostly after 1975. Of the nongrant hard loans, public loans accounted for 30.6 percent during 1959–70, which was reduced to 28.6 percent in 1987. Interest rates and maturity had hardened considerably by 1975. Interest rates on U.S. Eximbank

loans increased from 4 percent in 1966 to 6 percent in 1973 and 8 and 9 percent in 1976. The average grant element that reduced the cost of borrowing declined from 30 percent in 1965 to 11 percent in 1975. Foreign loans with reduced rates of interest between 1975 and 1979 totaled 11.6 percent of all imports. Loan maturity declined from about 13 years to fewer than 10 in 1966–76. Among all the loan-granting countries, the United States typically provided the most generous loans terms, with low interest rates and long maturity dates, followed by Japan, which provided loans that often had a concessionary component, especially favorable terms for agricultural and public sector projects. The international organizations granted somewhat less favorable terms for public loans.

The purposes of obtaining foreign public loans were to finance mostly SOC and industrialization projects in the early years. The Korean government—in coordination with its affiliates, namely, foreign governments and international organizations—allocated a large amount of foreign public loans for the reconstruction of the shattered nation's infrastructure and the construction of new industrial facilities. Between 1958 and 1966, nearly 57 percent of the $230 million loaned under the AID program was allocated to SOC projects. More than two-fifths of it was devoted to public utilities such as electric power (20 percent); transportation (15.2 percent); and communications, water systems, and construction (5.6 percent).[86] Similarly, Japan's public loans in the early years were used mostly to expand electric power, communications, transportation networks (including railroads and the merchant marine), the water supply, irrigation services, and various state-run enterprises.

One of the major SOC projects financed with foreign public loans in the early years was electrification of the country. Almost all of a $30 million foreign loan obtained by the Foreign Exchange Bank in 1967 was used by government enterprises for the expansion of a thermal power generating station. Similarly, in 1968, the government obtained a public loan for about $150 million to carry out a crash program of tripling its electricity-generating capacity and credit imports of food because of two consecutive years of drought between 1968 and 1971. The government also financed the Korea Electric Power Company with a $920 million loan for the electrification of the country. Few funds went to private enterprises during the early years.

Another major project financed with foreign public loans was the construction of transportation systems. The government built highway and subway systems, including the Seoul Metropolitan Subway with $400 million in loans and the Busan City Subway with $320 million in loans.[87] Out of Japanese loans of $210 million to help finance six economic development projects in 1971, as well as its pledged assistance in other projects in the third five-year development plan from 1972 to 1976, a sum of $80 million was included in financing the construction of Korea's first subway line in Seoul and $50 million for the purchase of freighters from Japan.

The second principal use of foreign public loans was industrialization. Many foreign public loans were used to finance large industrial projects and import capital goods,[88] many of which were to finance the construction of production facilities for the HCIs. Of the $960 million devoted to HCIs between 1972 and 1981, $580 million, or 60 percent of the total, came from foreign loans. One of the best-known examples of foreign public loans financing large investments in those

industries was the Pohang Iron & Steel Company (POSCO), the country's first integrated iron and steel mill, with an annual production capacity of 1.03 million tons of steel. Following the normalization of relations with Japan in 1965, an agreement was reached at a third South Korea and Japan ministerial meeting in 1969 for the latter to provide $123 million in grants and long-term soft loans for the construction of POSCO's initial plant.[89] The financing included $73.7 million in government grants and loans, $50 million in credit from the Japan Export-Import Bank, and technical assistance from Nippon Steel and other corporations. It topped the list of foreign borrowings with $1.8 billion, in addition to government loans for steel mill construction totaling $215 million.

Another example was the construction of a shipyard, an investment project backed by the United States. The first Korean shipyard was built in 1974 with a $100 million loan, financed largely by Morgan Guaranty Trust Company of New York and the U.S. Export-Import Bank. It was motivated largely by the fact that labor costs in South Korea were generally about a third of Japan's and one-quarter to one-fifth of Europe's. Public loans were also used to expand the country's investment in medium-sized and small strategic industries. The Japanese Economic Mission to Korea in 1969, for instance, reported that Japan's public loans in the early years had been used for "modernization of medium and small industrial firms," as well as SOC. Japan's $210 million public loan in 1971, which helped South Korea to finance six economic projects, included $80 million for four projects to finance the construction of metal and machine plants.

Third, public loans were also used to purchase capital goods, such as machinery and equipment, and raw materials from abroad. More than four-fifth (83.5 percent) of the public loans were used to acquire capital goods.[90] The Export-Import Bank of the U.S. was the major source of financing for equipment purchases abroad; before 1973, its commitments typically were about $20 million annually. Likewise, some of the public loans were to import raw materials and consumption goods, mainly of agricultural products. More public loan funds were allocated to agricultural products, 16.1 percent of the total, than any other materials.[91] Before the mid-1960s, these included PL 480 commitments of about $500 million. Loan authorizations for South Korea under Title I of PL 480 after the mid-1960s were substantial, which enabled the government to import U.S. grain and other agricultural raw materials. PL 480 commitments averaged about $125 million annually between 1966 and 1974. The U.S. Commodity Credit Corporation likewise extended credit to Korean importers of U.S. agricultural commodities and raw materials, including cotton, which was the major source of medium-term trade finance in South Korea.

Commercial Loans

Commercial loans were made mostly on the basis of "commercial transactions" in markets without any concessionary interest rate. All nonpublic foreign loans were classified as commercial loans,[92] which included loans obtained by public enterprises as well as the private sector from foreign private sources with a maturity of over three years. They received commercial credits from foreign commercial banks, the World Bank, other foreign government agencies, and other international

organizations. Korean businesses also arranged loan agreements with foreign banks, often in the form of suppliers' long-term credits when foreign sellers sold goods and services on credit to Korean business buyers. Commercial loans, however, did not include bank borrowings or bond issues.

Having succeeded in obtaining foreign public loans, the Korean government allowed private businesses to borrow funds from foreign private sources. The law governing foreign commercial loans—the Foreign Capital Inducement Promotion Act, first enacted in January 1960—was designed to regulate foreign commercial business loans, as well as FDI. Along with the law, the Ministry of Finance issued the "Guidelines for Commercial Borrowing," setting the conditions for commercial borrowing and specifying qualified projects, eligible borrowers, uses of the loans, and repayment terms. Among the provisions of the law was that a business borrower had to obtain government permission to receive foreign loans. The first foreign commercial loan was obtained in 1962, two years after the enactment of the law, in the amount of $4.5 million, but there was little other business borrowing from foreign sources.

The law relating to commercial loans was amended in April 1963 to allow private Japanese loans, which previously had been banned. It specified government priorities for granting approval to projects that would contribute to its economic policy, namely, the expansion of the import-substitution and export-goods industries, over the projects that relied heavily on imported raw materials or semifinished products. After the amendment, foreign commercial loans slowly dribbled in, the amounts ranging between $31.5 million and $52.1 million and comprising 26.4 percent of private corporate sources of funds during the early 1960s. However, these loans did not occupy an important place in the economy until after the signing of the reparations treaty with Japan and the enactment of the 1965 interest rate reform.[93] During the early years, that is, 1960–65, foreign commercial loans constituted a very small amount (e.g., only about 0.2 percent of GDP) (Table 9.2).

The Foreign Capital Inducement Law, enacted in 1966, merged two earlier laws into one. This new, broadly inclusive law was intended not only to integrate two similar regulations and eliminate overlap but also to stimulate foreign loans and technology imports by granting more generous tax concessions to lenders and to prevent "unnecessary" foreign borrowing. Covered under tax concessions for approved foreign loans was reduced income tax on payments made to foreigners who provided technical services; granted were full and partial exemptions from individual and corporate income taxes on foreign lenders' interest income.

From the late 1960s to the early 1980s, South Korea relied heavily on foreign commercial borrowing. Development projects were financed with a series of foreign loans, two-thirds of which came from private banks and suppliers' credits, and medium-term commercial loans became more prominent. The Korean government regularly used a series of foreign commercial loans to finance the country's development projects. Foreign commercial loans exceeded the $100 million mark for the first time ($108.4 million to be exact) in 1966; and in 1967, they reached $167.3 million. After 1965, commercial loans supplied as much as half of total foreign loans. In addition, Korean businesses arranged loan agreements with foreign lenders, often in the form of suppliers' long-term credits, when foreign sellers sold

goods and services on credit to Korean buyers. Of the $1.53 billion approved for investment projects through 1968, approximately 60 percent was made available through commercial loans. During the two-year period between 1966 and 1967, foreign commercial loans leaped to 5.8 percent of GDP, the highest level in history, comprising nearly nine-tenths of all long-term loans.

An even more rapid ascent in commercial borrowing came after 1968, when the total value of private foreign loans was nearly double that of public loans. In that year, the government entered into $150 million worth of commercial loan agreements, which represented nearly two-thirds of all long-term foreign borrowing. These loans largely replaced foreign aid as the principal means of external financing of investment in the country. With the increase, two-thirds of which came from private banks and suppliers' credits, commercial loans made up 62.7 percent of the total. After about the second five-year development plan (1967–71), there also was a gradual shift from government enterprise loans to private commercial loans. Large inflows of commercial loans came in after Japan agreed to furnish South Korea with at least $300 million in commercial credits over a 10-year period in 1971. This was the period when South Korea entered the initial phase of economic difficulty and a slowdown in growth.

After a sharp drop briefly in 1971–72 (down to $94 million in 1972), commercial loans rebounded dramatically in 1973–74. Since then, they have increased at an average rate of about $360 million per year. During 1974–76, commitments from commercial sources averaged more than $1.3 billion per year, or about 60 percent of all medium- and long-term investment funds imported into the country. Private bank credits accounted for about 30 percent of total commitments from commercial sources. While the share of foreign commercial loans decreased from 26.4 percent of private corporate sources of funds in 1963–64 to 18 percent in 1970–74, the outstanding medium and long-term debt, including private nonguaranteed debt and IMF credits, bounced back. During 1963–74, they supplied about 19 percent of private corporate sources of funds. Between 1966 and 1974, foreign commercial loans leaped to 4.5 percent of GDP, which was slightly slower than the early two years, constituting nearly three-quarters (72.6 percent) of all long-term loans.

Commercial loans increased further to record levels of more than $1 billion in 1976 and $1.93 billion in 1978. After 1978, private businesses pushed ahead with more commercial loans, in order to take advantage of low interest rates, which averaged about 6.5 percent, compared with 11 percent for Korean bank loans. Domestic enterprises, both the public and private, investing in infrastructure or high technology were allowed to apply for commercial loans to finance their plant and equipment purchases abroad. Permission to take out such loans was gradually extended to other corporations as well. The net inflow of foreign commercial loans continued to be positive thereafter, though at a decreasing rate. Between 1975 and 1979, foreign commercial loans continued to expand to 3.8 percent of GDP, which was somewhat slower than the earlier period, making up about seven-tenths of all long-term loans.

Then the net inflow of foreign commercial loans in absolute value decreased from $1.6 billion in 1979 to $253 million in 1981. After 1982, the value of net

foreign commercial loans was negative, indicating that the inflow was smaller than repayments. Between 1980 and 1986, foreign commercial loans barely increased by 0.1 percent of GDP.

In 1986, the government banned commercial loans on the grounds that they would cause the money supply to increase and make monetary control more difficult. The negative foreign commercial loan situation continued until 1997, and outstanding foreign commercial loans decreased at a rate of about $500 million per year. Between 1987 and 1998, foreign commercial loans actually decreased by 0.4 percent of GDP. However, when the 11-year ban on foreign commercial loans with maturities of three years or longer was lifted in 1997, they gushed in and regained their place after 1998. Foreign commercial loans that averaged about $5 billion between 1995 and 1997 soared to nearly $22 billion in 1998.

This examination reveals that the largest volume of commercial loans, amounting to 3.1 percent of GDP, was brought in between 1966 and 1979, constituting 4.5 and 3.8 percent of GDP between 1966 and 1974 and between 1975 and 1979, respectively (Table 9.2). However, almost no net foreign commercial loans were brought in between 1980 and 1994. The infusion of foreign commercial loans during 1980–86 was only 0.1 percent and negative 0.4 percent between 1980 and 1986 and between 1987 and 1994, respectively. During the 42-year period between 1953 and 1994, the average volume of foreign commercial loans to South Korea was about 1.4 percent of GDP, which was double the amount of foreign public loans and made up more than two-thirds of long-term loans.

The process of obtaining foreign commercial loans was more flexible and expeditious than that associated with grants-in-aid project loans or FDI; nonetheless, it was regulated by the South Korean government. The law required that Korean firms obtain government approval before arranging for a foreign loan, so the government was fully in control of foreign borrowing. It determined which industries and borrowers could acquire foreign loans and dictated their use to a large extent. From the very beginning, foreign borrowing was also tightly monitored to make sure that the borrowed funds were used for the approved purposes and productively. The grounds upon which the permission was granted to businesses to borrow money abroad were based not only on financial considerations but on political and often personal connections. The South Korean government announced in April 2003 that it planned to lift completely its restrictions on corporate overseas borrowing, starting in 2004.

The terms of foreign commercial loans were not as favorable as those of foreign public loans and had to meet more stringent profitability tests. Foreign banks freely set their annual interest rates under the maximum ceiling of 1.5 percent over the London interbank rate. Most commercial loans ranged from about 5 to 9 percent interest, averaging about 8 percent, reflecting competitive rates for this type of loan in the world market. The rate for refinancing factories in 1975, for example, varied between 6.25 and 6.5 percent. Interest rates on the oil-facility drawings were 6.875 percent in 1974 and 7 percent in 1975–76. The average interest on supplier credit was 7 percent in 1970 and about 7.6 percent in 1975. Terms for commercial loans and particularly export credits were typically much harder than for official lending. According to World Bank figures, the average interest rates on nonguaranteed loans

were about 8 percent in 1968, while interest rates on officially guaranteed loans were about 6 percent, and both were rising. Even more important was the fact that export credits were often accompanied by extra markups and price premiums on the goods purchased, substantially raising the effective rate of interest.

Most commercial loans had shorter maturities than the aid-financed public project loans. Typically, during the 1950s, maturities were 5 years or less,[94] while average maturity was more than 10 years in the mid-1960s but declined to about 8 years in 1975. The repayment period averaged 7 years, and the grace period was 2 years on average. A maturity of 8.5 years, including a 2- to 3-year grace period, was typical. In later years, Korean businesses were able to attract foreign loans under more favorable terms from international money markets because the nation's credit rating improved when it achieved a current account surplus. Foreign commercial loans were typically given in foreign exchange.

Commercial loans in Korea were of two kinds, private bank credits and supplier credits. Foreign commercial loans by private banks were typically made through foreign branch banks in South Korea, which opened in 1967, but the use of foreign private bank credits was limited then. Commitments of private bank credits were high in 1969 and 1970, followed by a sharp decline in 1971–72 and a sharp rise in 1973–74. In the following years, a multitude of foreign banks were established and operated a thriving banking business in the country. In some years, foreign banks in South Korea lent more foreign currency loans to Korean businesses than did their domestic counterparts. Foreign banks extended $1.44 billion in currency loans to Korean businesses in 1986, while Korean banks extended only $1.43 billion in the same year.[95] However, the outstanding foreign currency loans granted by foreign banks increased at a slower rate than those of Korean banks. Thus, while the sum of foreign bank loans was $2.2 billion at the end of 1986, that of Korean banks was $3.4 billion—larger by more than one and a half times. They expanded especially quickly in the 1980s. Private bank credits have accounted for about 30 percent of total commitments from commercial sources.

Foreign banks performed financially better than their domestic counterparts, since foreign banks enjoyed substantial advantages, including guaranteed profits from the swap and protection from excessive lending risks. As one foreign banker put it, "We had this quasi-safety net for loans to major groups, under which the government guaranteed all of their foreign loans." The result has been sustained profitability for foreign banks, and few have had a losing year in more than 20 years.[96] The ratio of net profits to assets for foreign banks was 1.76 percent in 1987, compared with 0.16 percent for the major domestic commercial banks. The ratio of net profits to paid-in capital was 26.8 percent for foreign banks in 1987, compared with only 3.24 percent for the five domestic banks,[97] and the U.S. and Japanese banks dominated the field.[98] Private bank financing was dominated by United States banks until the early 1970s. Since then, several British and French banks, as well as banks from other countries, have begun financing export credits for Korean importers.

Supplier credits have been a major form of import financing in Korea. Supplier credits with maturities longer than three years increased from less than $60 million in 1965 to $336 million in 1967 and remained at that level during 1968–69. Since that time, their use has fluctuated, declining to $94 in 1972 and rising again to a

record level of more than $1 billion in 1976. The United States and Japan have been the two major sources of supplier credits to Korean importers. Together these sources accounted for more than 60 percent of all debt outstanding on supplier credits at the end of 1975. The average interest on supplier credit was about 7.6 percent in 1975, compared with 7 percent in 1970. Average maturity declined from more than 10 years in the mid-1960s to about 8 years in 1975.

The uses to which foreign commercial loans were put changed over time. However, unlike public loans, commercial loans tended to finance investment projects in manufacturing. While commercial loans chiefly went to public enterprises for SOC projects in the early years, foreign commercial credit in the later years was mostly for private manufacturing enterprises.[99] Of a total of $1.53 billion—mainly in foreign loans but some in FDI—approved through the end of 1968, nearly half went to manufacturing. Likewise, of a total of $2.7 billion in foreign commercial loans in later years, nearly half (47.2 percent) was directed to manufacturing and a small amount to mining. While the focus was heavily on manufacturing and SOC, only small portions of foreign commercial loans were used for agriculture or fishing. While approximately 9.9 percent was directed to the projects in the former, even smaller portions (2.2 percent) were directed to housing and other sectors, such as agriculture and fishing.[100]

Foreign commercial loans were not open to all businesses in the private sector. Borrowers had to meet certain criteria both formally and informally established by the government. First of all, South Korean businesses that were permitted to obtain foreign commercial loans were mostly those in targeted, strategic industries such as SOC and HCIs. Most foreign commercial loans, for instance, were in import-substitution and export-goods manufacturing. Heavily emphasized in the early years were cement (50 percent), fertilizer (40 percent), plastic (70 percent), chemicals and textiles (nylon, 40 percent; acrylic, 100 percent), propritane yarn (*sumyu*) (60 percent), and glass (30 percent). Commercial loans were also used for investment in the paper (e.g., Kleenex), petroleum, and alloy metal industries in 1968. The small-scale loans were predominantly in the export industries. In later years, foreign commercial loans were directed mostly to HCIs, including shipbuilding, plastic, chemicals, sheet metal, and aluminum. The first South Korean shipyard was constructed in 1974 with a $100 million loan, while the large government-owned chemical fertilizer plants were financed mainly with large Japanese private and U.S. government loans. POSCO borrowed a total of $269 million in commercial loans from a syndicate in 1987 to expand its steel mills.[101]

The second feature of foreign commercial loans was their tendency to finance capital- and technology-intensive investment projects, such as electric power generation and shipbuilding. Between 1962 and 1973, there were 395 such transactions—69.1 percent (273) from Japan and 23.3 percent (92) from the United States—followed by 472 transactions in 1974, 69.5 percent of which came from Japan. Also, substantial amounts of commercial loans were made available for the import of capital- and technology-intensive projects. Following the normalization treaty with Japan, a sizable amount of funding through commercial loans was brought in for the importation of machinery and technology from Japan. In 1969, for example, Japan extended $160 million in 39 foreign exchange loans. Most of these (83.5 percent)

were used for the purchase of capital goods. Only 5 percent was used for raw materials, 5 percent for agricultural products, and 6.5 percent for working capital.[102]

Third, many government approvals for foreign commercial loans were given to businesses known for their "entrepreneurial" ventures. According to one report, between 1960 and 1969 about $2.3 billion in foreign loans were granted to 115 firms, including those considered "entrepreneurial" and "economically risky." Moreover, large amounts of foreign commercial loans were used to rescue large businesses in financial difficulty, the ones with so-called nonperforming (*busil*) loans. In 1969, for example, 30 such companies received government approval for foreign commercial loans.

Fourth, most foreign commercial loans went to large government and business investment projects, typically those affiliated with *jaebeol*, designated by the government, which were usually capital- and technology-intensive. This fact was confirmed by the Economic Development Board, which observed that foreign commercial loans tended to go to large corporations. In 1969, for example, of $160 million in foreign exchange loans to 39 borrowers, more than 55 percent went to six companies, including the Korea Electric Company and textile firms. In 1974, 43.3 percent of all foreign commercial loans went to 12 large *jaebeol*.[103] Fifth, the most successful firms in obtaining foreign commercial loans tended to be those that had personal connections with government officials.

Similar to public loans, most foreign commercial loans came from the United States and Japan, while the principal sources of supplier credits to South Korean importers also included West Germany and France. In addition to foreign banks, the international financial organizations, namely, the World Bank, ADB, and others likewise provided a considerable amount of commercial loans, and their contributions were one of the primary sources in the initial stage.

Short-Term Loans

Short-term loans are those extended for up to three years and were used mainly as working capital, to ease business liquidity, and as short-term financing for the purchase of raw materials. The short-term loans fluctuated greatly from period to period and year to year, which seems to have reflected trade fluctuation, but were relatively small in South Korea after the Korean War. They increased from about 1.1 percent of GDP during the six-year period between 1960 and 1965 to 3.5 percent between 1980 and 1986, followed by a decline to 0.5 percent between 1987 and 1994, averaging about 1.3 percent of GDP for the 42-year period between 1953 and 1994 (Table 9.2). The short-term loans constituted a little less than two-fifths (39.4 percent) of all foreign loans between 1953 and 1994.

Short-term trade credits of less than one year generally are on harder terms than comparable financing obtained through suppliers. In 1975, the terms were as high as 1.5 and 2 percentage points above the London interbank offering rate, while their maturities were mostly for six months. All companies still need to obtain government approval to borrow short-term overseas funds, except those with an above-investment-grade rating and a debt-to-equity ratio below the industry average in 2003.

The Impact on Capital Formation and Output

The impact of foreign loans on capital formation and output in South Korea may be discerned in three principal areas. First, South Korea's success in obtaining foreign loans after the Korean War not only enabled the country to finance imports, it also allowed additional resources to save and invest in production facilities in both the public and private sectors. In relation to GDP, the volume of foreign loans to South Korea during the 42-year period between 1953 and 1994 on average was about 2 percent of GDP (Table 8.8) and nearly half (48.6 percent) of the net foreign resources imported for investment and 8.3 percent of investment in the country (Table 8.9). The contributions of foreign loans were great especially in early years (e.g., as much as 14.8 and 23.1 percent of investment in the country during 1962–68 and 1969–76, respectively), and the borrowing from international capital markets almost completely replaced foreign aid.[104]

Similar to foreign aid, most benefit from foreign loans after the Korean War was received by the public sector. Assuming that the government received a little more than a third (as much as 0.5 percent of GDP) of commercial loans, in addition to almost all of public loans comprising 0.7 percent of GDP, it is estimated that the public sector has derived more than half (57 percent or equivalent to 1.2 percent of GDP) of the total, while the private sector acquired the remainder—0.8 percent, of GDP, or 43 percent of total foreign loans—for its investment. Foreign loans provided more than a fifth of private corporate sources of funds and contributed more than half to private investment during the 16-year period between 1968 and 1983.

Foreign loans were particularly significant for capital formation in the public sector.[105] The overwhelming majority of public saving/investment was made possible with the resources supplied by them: more than half of public saving can be traced to foreign saving.[106] Had foreign loans not been available to the country, public saving would not have accounted for as much as 5 percent of GDP on average and 20.7 percent of domestic saving during the 42-year period between 1953 and 1994. In public investment, foreign loans enabled the government to meet at least 60 percent of its budget deficit up to 1985, thereby enabling it to undertake public investment. Without the foreign loans, it would not have been possible to establish the key public and private enterprises that reconstructed SOC, build new industrial facilities, and acquire new technology to the extent that they were able to do. Borrowing from international capital markets provided about 13 percent of private corporate sources of funds (Table 5.1). In comparison to its contributions to the SOC and manufacturing sectors, foreign loans did not make much of a contribution to investment in other sectors, such as agriculture and housing, thereby limiting their expansion.

Some foreign loans in the private sector, however, were not optimally utilized, thereby exposing the country's vulnerability with weak financial markets to banking and exchange rate fluctuations, as revealed in the 1997 financial crisis.[107] According to a special committee of the National Assembly, foreign loans had been endorsed by the government for financially and technically unsound projects undertaken by the *jaebeol* in overly protected industries.[108] They often resulted in a combination of high costs and monopolistic prices, which in turn reduced the ability

to compete in both export and domestic markets.[109] Large businesses' access to foreign loans allowed them to expand their investments and contributed to the rapid growth of the *jaebeol*, but small and medium-sized businesses without established credit standing were not able to acquire foreign loans. For them, the only recourse was to borrow from the domestic curb market at much higher interest rates, if they could, thereby increasing the cost of loans.

Second, foreign loans must have also encouraged domestic investment as well.[110] According to a study cited earlier, private capital flows generally have a significant positive impact on domestic investment, since the relationship between international bank lending and domestic investment is positive and strong, although the relationship in general is not as strong as with FDI.[111] The inflow of foreign loans appears to have had a positive impact on domestic Korean investment. Moreover, foreign loans freed domestic capital for other uses. South Korea was fortunate in that there was a substantial infusion of foreign loans, which assumed an important place in the financing of investment in import-substitution and export-goods manufacturing, especially in the so-called strategic industries.

Lastly, the resulting expansion in capital formation obviously contributed to the increase in the nation's output, as shown in chapter 2. Had the savings gap not been filled with foreign loans, South Korea could not have financed the purchase of new capital equipment, necessary intermediate goods, and raw materials to the extent they did. Also, foreign loans, by financing varying amounts of investment in different economic sectors, contributed to the modernization of the economy and the alteration of the nation's economic structure. As examined throughout this chapter, foreign loans helped to rebuild the country transportation, electric power, water and sanitary services, communications facilities, and manufacturing in the early years of South Korea's economic development. They made possible major public and private investments that utilized modern technology and provided fair opportunities for production, thus contributing significantly toward their expansion.

OTHER SOURCES OF FOREIGN SAVINGS

There were other forms of foreign savings imported in South Korea for domestic investment, namely, portfolio investment, remittances, and other miscellaneous loans and grants. Foreign portfolio investment was somewhat different from FDI in that it did not involve managerial control or the transfer of management skills and technology. In South Korea, foreign securities/bonds were not used as a means of financing its investment until about the mid-1970s. Bond issues by Korean firms were not initiated until 1974, when private placement was made and two bonds were issued in the international bond market in 1976. The first bond issue had a maturity of 15 years, while the two placements in 1976—one for $24 million and the other for $25 million—had maturities of three and five years, respectively.[112] Foreign portfolio investment in the whole country amounted to no more than $40 million until about 1980, however.

Foreign portfolio investment then surged to $188 million in 1983 and $333 million in 1984.[113] When the government banned foreign commercial loans from

1986 to 1997, foreign portfolio investment grew in importance and played a discernible role especially since 1991. With the government encouragement of diversification of sources and types of corporate finance, businesses began looking to portfolio investment.[114] In addition, the terms under which the funds from foreign portfolio investment were obtained became more favorable than those of commercial loans. In 1990, foreign portfolio investment reached the $900 million mark. After 1990, foreign portfolio investment expanded exponentially to $3.2 billion in 1991, $15.2 billion in 1995, peaking at $21.2 billion in 1996. Relative to South Korea's GDP and imports, the ratios during 1991–97 increased from under 3 to 11 percent to a dominant portion (70–85 percent) of all foreign savings that financed investment in South Korea. Foreign portfolio investment in 2005 accounted for 40 percent of the local stock market, compared with 11.9 percent in 1995.

Foreign portfolio investment in South Korea was made mostly in large conglomerate firms. Five big *jaebeol* dominated the corporate bond market with 95 percent of the issuance. This was because they were perceived as the issuers of the safest bonds, since they were regarded as too big to fail.[115] This form of obtaining foreign resources will probably continue to expand in the future. As South Korea is likely to sustain its liberalization policy, foreign investors will probably be allowed to make limited investments in nonguaranteed bonds in the future, including those issued by small and medium-sized companies.

This survey reveals that foreign portfolio investment on the whole accounted for a very small portion of foreign savings that financed new investment in the private sector during the entire last half of the twentieth century, other than in the last decade or so (Table 9.3). The ratio of foreign portfolio investment to GDP and imports between 1976 and 1990 averaged about 0.3 to 1 percent, respectively. Nor did foreign portfolio investment expand much new investment in the country. Likewise, there appears to be virtually no discernible relationship between portfolio inflows and new domestic investment in South Korea.[116] Likewise, South Korea's success in mobilizing foreign portfolio investment did not enable it to improve and expand its production capabilities or output in support of its drive for economic growth. Foreign portfolio investment appears to have mostly replaced previously existing foreign loans.

There were two other sources of foreign financing of investment in South Korea, namely, remittances from Korean residents living abroad and miscellaneous charity donations. Remittances from both permanent and temporary residents abroad were small, but not negligible.[117] Remittances from permanent Korean residents abroad, mainly in the United States and Japan, increased steadily from a few million dollars to about $70 million in 1965, nearly $200 million in 1976, and $638 million in 1985, reaching $1 billion in 1987. Approximately two-thirds came from the United States and one-quarter from Japan. Also, many millions of dollars per year were sent home by Korean military personnel and temporary civilian employees living abroad (e.g., construction workers in the Middle Eastern countries and nurses and others working in Germany in the 1970s and 1980s).[118] Also, export earnings from the Vietnam War helped to save and finance investment. A great deal of the earnings sent home apparently was saved, providing the initial funds to start small businesses in the home country and/or acquire up-to-date machinery and other foreign goods.[119]

TABLE 9.3 Estimated Sources of Foreign Saving for Investment and Domestic Saving, 1953–94 (in percent)

Sources and Destination	*Foreign Saving*		*Investment Relative to*		*For Domestic Saving*[1]	
	Relative to GDP	Share	GDP	Share	Relative to GDP	Share
Aid	2.6	54.2	—	—	2.6	56.5
FDI	0.2	4.2	0.2	0.8	—	—
Loans	2.0	41.7	—	—	2.0	43.5
Other[2]	—	—	—	—	—	—
Total	4.8	100.0	0.2	0.8	4.6	100.0

[1]Figures are expressed in percent relative to GDP, and they represent the amounts allocated for domestic investment.

[2]Includes foreign portfolio investment, remittances, and suppliers loans.

Other foreign savings that financed investment in the country came from suppliers and other miscellaneous sectors. It is risky to speculate on the extent of these sources of foreign savings financing investment, but it may be reasonable to estimate them as being less than a percent of the total foreign savings imported into the country during the last half of the twentieth century (Table 9.3).

LOAN REPAYMENT GUARANTEES

The government also provided loan repayment guarantees to selected business borrowers with the enactment of the Law Guaranteeing Repayment of Loans in January 1960 and the Law Governing the Importation of Capital Goods on a Long-Term Repayment Basis in July 1962 that promoted the inflow of foreign loans. The latter law supplemented the measures to bolster the credit standing of Korean business borrowers, private as well as public, in international financial markets and to reduce the risk incurred by foreign lenders. Under the law, the government, working with the banks, guaranteed repayment of a foreign loan should a Korean debtor company be unable to pay it back. Foreign loans were guaranteed by lending banks after the approval by the Economic Planning Board and the National Assembly.[120] In this way, the government was able to promote capital equipment imports on a long-term deferred payment basis.

The Foreign Capital Inducement Law of 1966 made foreign commercial loans more attractive to lenders by improving government guarantees. Under the law, the South Korean government and its banks offered much more liberal repayment guarantees to Korean businesses issuing corporate debentures than did foreign banks operating in South Korea. South Korean commercial banks guaranteed an astonishingly high 50.2 percent of the total foreign loans in 1986, while those endorsed by foreign banks accounted for only 13.3 percent of the total.[121] More than 90 percent of all outstanding corporate bonds were guaranteed by financial institutions in 1996. In many cases, the abundant and generous low-interest bank credit to businesses was extended on the belief that the government would ensure that the

privileged businesses would repay the loans, including those that were informally allocated by government officials.

This favorable provision encouraged foreign loan inflows and opened the door to massive borrowing. In most cases, these were either contract loans from or accounts payable to the government, and they included loans involving the economic aid programs in the early years.[122] Another consequence of government and bank repayment guarantees to foreign lenders was an upsurge in suppliers' credits and a sharp rise in foreign exchange purchases. Without the government safety net, lending to many Korean companies were considered beyond the acceptable risk limits of most foreign banks at that time.

Unfortunately, government encouragement of foreign borrowing in targeted industries through guarantees sometimes resulted in excessive foreign borrowing. This was especially true when Korean inflation rates and nominal interest rates were much higher than the rates of the trading partners and the foreign exchange rate had not been properly adjusted to reflect this differential. There was a wide gap between domestic and foreign borrowing costs in favor of foreign borrowing throughout the 1960s and 1970s. South Korea's exchange rate policy in the 1960s was broadly stable despite rapid inflation, and as a result the real rate of interest paid on foreign debt was far lower than interest paid on domestic loans and was often negative (examined in chapters 5 and 6). In addition to the differential between interest rates on domestic and foreign credit, domestic credit was severely rationed, whereas export-related suppliers' credit was almost automatically extended, which made borrowing from abroad even more attractive. Under these circumstances, businesses naturally borrowed from foreign sources.

Unfortunately, in some cases the guarantees were extended to dubious borrowers, often at the instigation of government officials. These became the nonperforming loans, which were uncollectible and imposed significant costs on South Korean banks. Banks had to absorb the foreign bank debt of troubled companies, since often the government would not permit them to fail. Consequently, the banks ended up paying for defaulted foreign loans and the government was forced to arrange bailout financing. In the case of default, the Korean Reconstruction (Development) Bank or the commercial banks had to refinance the debt, while in other cases they ended up paying the defaulted foreign loans. Failure to repay these credits helped precipitate banking crises, as examined in chapters 5 and 6. The magnitude of bank losses under the loan guarantee program is not fully known, but it apparently was significant. The large debt burden, in turn, was borne ultimately by the South Korean taxpayers, as examined in chapter 6.

CONTRIBUTIONS OF FOREIGN SAVINGS TO CAPITAL FORMATION

Now that all the principal sources of foreign savings have been examined in this and the preceding chapters, it is time to recapitulate the contributions of foreign savings for capital formation in South Korea. It has been assessed that out of net imports of goods and services equaling 8.1 percent of GDP on average during the

last half of the twentieth century, nearly three-fifths (4.8 percent of GDP) of foreign savings imported was invested in the country (Table 9.3). This comprised nearly a fifth (19.8 percent) of the total savings for country's investment. That this amount of foreign savings was available for investment was by no means out of the ordinary, but foreign savings played a very significant role in capital formation especially in the early years after the Korean War.

Foreign savings contributed to capital formation in South Korea in two ways: one by financing FDI and second by indirectly augmenting domestic savings and financing investment in the country with loans and other sources. FDI gained in importance during the last half of the twentieth century (1953–94), especially after the 1997 financial crisis. Imported foreign savings financed FDI and portfolio investment equivalent to 0.2 percent of GDP on average, thereby expanding by nearly 0.1 percent capital formation in the country during the latter half of the twentieth century, as shown in Table 9.3. In contrast to the small volume, the more significant contribution of FDI lies in the introduction of many new industries and modern technologies in manufacturing.

Even more important than the fact that foreign savings financed FDI was that it augmented domestic savings for investment with resources obtained through foreign loans, aid, and other venues. It has been estimated that net additional resources imported from abroad enabled the country to expand domestic saving equivalent to 4.6 percent of GDP, from 19.5 percent of GDP with only domestic resources to 24.1 percent of GDP with additional resources available from foreign imports, during the 42-year period between 1953 and 1994. This additional foreign resources equal to 4.6 percent of GDP was equivalent to nearly a fifth (19.1 percent) of domestic savings (24.1 percent of GDP) on average and nearly 19 percent of total savings (24.3 percent of GDP) in the country for investment during the last half of the twentieth century. The large proportion of domestic savings, estimated at 24.1 percent of GDP in chapter 7, was thus partly due to the additional resources being made available to the country through imported foreign resources, beyond its own resources (GDP).

Without the additional resources from net imports, the nation's propensity to save would have been limited to less than a fifth (19 percent) of recorded domestic savings. It is thus obvious that initiating and sustaining a high ratio of domestic saving was possible partly due to resources made available to the country from net import of foreign savings. The contribution of foreign savings to domestic savings was particularly significant during the first 20 years or so after the Korean War. Domestic saving out of GDP alone was impossible to meet investment needs between 1953 and 1962. With domestic resources alone, the country was hardly able to feed its people, let alone save for investment. Without foreign savings, domestic savings would have been limited to less than two-fifths (38 percent) of savings in the mid-1950s, less than three-fifths (56.2 percent) in 1963–71, and less than nine-tenths (87 percent) in 1979–95. This feat of increasing domestic savings for investment through the importation of foreign resources was significant in meeting the needs for large investment in the country.

Imported foreign savings contributed to financing investment in both the public and business sectors; however, the public sector relied more heavily on foreign aid

and loans than did the private sector. It is estimated that approximately seven-tenths (3.3 percent of GDP) of imported foreign savings for investment were supplied to the public sector for its investment, in comparison to less than a third (1.3 percent of GDP) to businesses in the private sector, in spite of the fact that the public sector was much smaller than the private sector. Had foreign savings not been made available for investment, pubic and private investment would have been smaller (about a third and nine-tenths, respectively) than the sums calculated in chapter 7.

The major portions of imported foreign savings came in the form of foreign aid and loans and represented 2.6 and 2 percent of GDP, or about 54.2 and 41.7 percent of net foreign savings imported for investment, respectively. In comparison, the contributions of other forms of imported foreign savings, such as foreign portfolio investment, suppliers' loans, and remittances, were relatively small and played a minor role (Table 9.3). Most of the contribution of foreign aid occurred before 1971, while that of foreign loans was mostly after 1965 until about 1981.

The funds obtained through foreign aid and loans were mostly dedicated to the construction and rebuilding of SOC and the industrial sector, such as facilities, capital goods, and raw materials, particularly in the early years. The rapid economic development following 1963 was due, to a large extent, to the establishment of key public and private industries with foreign aid and loans. By expanding these facilities, the foundation of future expansion in the economy was established, employment opportunities were expanded, and the nation's output grew, which enabled the country to improve the standard of living of its people. In addition, it freed domestic resources for other uses.

SUMMARY AND CONCLUSIONS

In addition to FDI examined in the preceding chapter, the foreign savings that financed investment in South Korea took the form of foreign aid, reparations, foreign loans, foreign portfolio investment, loan guarantees, and other, miscellaneous sources. Of them, the most important sources were foreign aid and loans in the early years.

Foreign aid was the earliest, the largest (relative to investment), and for a time the only source of foreign resources available for investment, in addition to supplementing the consumption needs of the people in the war-torn country, given that foreign private investors and to a large extent foreign lenders steered well clear of the country until about 1963. While domestic savings barely covered the depreciation of capital during 1953–65, economic aid supplied 2.6 percent of GDP, more than half (54.2 percent) of net imported foreign savings (4.8 percent of GDP), which was more than enough resources to sustain a reasonable level of net investment in the country at the time. Foreign aid certainly had a dominant influence on supplying resources for South Korea's investment in the reconstruction of economic infrastructure and the construction of the new modern industrial facilities during the early period of the Republic.

In support of the government industrial policy, foreign aid financed the expansion of "modern" industries, focusing on SOC and manufacturing, and accounted

for over 87 percent of the total project aid during 1953–72. Without foreign aid, this would not have been possible. It both helped to initiate the industrialization of the economy and served as a conduit for advanced technology and operating methods of industries in the country. This also introduced new industries, thus making the South Korean economy more capital- and technology-intensive, especially in the import-substitution and export-designated-goods industries. Moreover, foreign aid also provided funds for the purchase of raw materials, and intermediate (such as fertilizer and cement) and capital goods for production. In addition, it enabled the South Korean government to carry out various subsidy programs to expand the nation's investment.

The major contribution of foreign loans, which was substantial (approximately 2 percent of GDP), was the supplying of resources to the country for it to save for investment, although South Korea was initially apprehensive about allowing foreign loans. They came to be the second largest component of imported foreign saving, replacing foreign aid as the main source of foreign resources for investment after the mid-1960s. Foreign loans augmented domestic saving by infusing nearly half (41.7 percent) of foreign savings imported to the country for investment, contributing the sum equal to about 8.2 percent of gross capital formation in the country for the 42-year period between 1953 and 1994. Had foreign loans not been available, the nation's propensity to save would have been more modest in the last half of the twentieth century. Without the additional resources acquired from foreign loans, domestic saving would have been limited to saving out of GDP and much smaller (8.2 percent) than what was realized with imported foreign resources.

Foreign loans, both public and commercial, provided the Korean government and businesses with access to additional foreign exchange to finance imports for investment. Most foreign loans were granted to large companies (both public and private) to finance investment in SOC and the manufacturing sector, typically "entrepreneurial," capital- and technology-intensive, and large projects. Foreign loans were used also mostly to import capital, intermediate goods, and raw materials, mostly from the U.S. and Japan. The principal beneficiaries of foreign loans were the public sector and the *jaebeol*, which undertook major SOC investment projects and helped to expand manufacturing facilities and import capital- and technology intensive capital goods. In contrast, small businesses, agriculture, fishing and natural resources, and housing derived little benefit from foreign loans.

Foreign portfolio investment played a more modest and limited role, particularly until the 1990s. But even after the 1990s, much of it replaced foreign loans at more favorable terms to Korean borrowers, while a relatively small sum was dedicated to new investment. Other forms of foreign savings that augmented resources for investment included loan repayment guarantees, which certainly helped to expand the importation of foreign savings for investment and gave private businesses access to foreign resources on more favorable terms.

The volume, sectoral distribution, and nature of foreign savings imported into South Korea for investment under aid programs and foreign loans were significantly affected by the government's industrial and financial policies as well as by changing market condition. The Korean government pursued the policies of mobilizing various forms of foreign savings selectively by intervening directly in

markets, especially from the 1950s through the 1970s. The reluctant government came to promote the use of foreign loans, portfolio investment, and FDI under its industrial and financial policies, which favored import-substituting, export-oriented, large-scale enterprises and technology-oriented industries while restricting certain other industries, such as recreation and entertainment, since they were deemed incompatible with the national interests. Critics, however, have argued that foreign loans, portfolio investment, and FDI were granted not on the basis of economic efficiency and the financial and technical soundness of projects but on discriminatory government industrial and financial policies, which resulted in a combination of high costs and monopolistic prices in overly protected industries, thereby diminishing the ability of Korean firms to compete in export and domestic markets more efficiently.

10

CAPITAL FORMATION

Capital is formed by restraining consumption of today's income so as to save it for the construction of capital goods to produce goods and services for future consumption. Now that all of the principal sources of savings, both domestic and foreign, that financed investment in the country have been examined, it is an opportune time to link the sources of the savings to investment, in order to gain insight into the contribution of each component to overall capital formation and economic development of the country. In this way, aggregate investment and savings are set forth not only to examine the role and the extent of the contribution of each component, but also to elucidate how capital was formed. The purpose of this short chapter, therefore, is to concisely recapitulate them and assess the value of each component of investment and saving for economic development and structural changes in the 50-plus years since the end of the Korean War.

INVESTMENT

Investment in South Korea increased from a modest level of less than 12 percent of GDP in the early 1950s to the high level of more than 30 percent after the latter half of the 1980s, the aggregate investment averaging nearly a quarter (24.3 percent) of GDP during the 42-year period between 1953 and 1994 (Table 10.1) and 26.8 percent during the 48-year period between 1953 and 2000. South Korea's investment was not confined to the domestic economy alone but also extended overseas in later years. The country thus moved from an economy of low investment to one of the highest in the world in the briefest time span of recent record. In comparison to the average of about 8 percent for developing countries in the past 30 years and about 20 percent for developed countries, South Korea's accomplishment is extraordinary.

TABLE 10.1 GDP, Consumption, Saving, and Investment, 1953–94 (in percent of GDP)

Year	GDP	*Consumption*			Domestic Saving	Investment	Domestic Saving/ Investment
		Total	Private	Government			
1953	100.0	92.3	84.3	8.0	7.7	14.7	52.4
1954	100.0	94.3	84.0	10.3	5.7	11.4	50.0
1955	100.0	95.9	87.0	8.9	4.1	11.7	35.0
1956	100.0	102.9	93.6	9.3	(2.9)	8.0	(36.3)
1957	100.0	95.2	84.3	10.9	4.8	14.0	34.3
1958	100.0	95.9	83.0	12.9	4.1	11.8	34.7
1959	100.0	96.4	82.1	14.3	3.6	10.4	34.6
1960	100.0	99.9	85.3	14.6	0.1	10.0	1.0
1961	100.0	98.0	84.3	13.7	2.0	12.0	16.7
1962	100.0	97.0	83.5	14.1	3.0	11.8	25.4
1963	100.0	92.0	81.0	11.0	8.0	17.0	47.1
1964	100.0	91.9	83.3	8.6	8.1	13.2	61.4
1965	100.0	93.5	84.1	9.4	6.5	14.1	46.1
1966	100.0	89.3	79.2	10.1	10.7	20.4	52.5
1967	100.0	90.1	79.8	10.3	9.9	20.9	47.4
1968	100.0	86.1	75.5	10.6	13.9	24.9	55.8
1969	100.0	82.2	71.8	10.4	17.8	27.9	63.8
1970	100.0	84.1	74.7	9.4	15.9	24.3	65.4
1971	100.0	85.3	75.5	9.7	14.7	24.8	59.3
1972	100.0	83.8	73.7	10.1	16.2	20.9	77.5
1973	100.0	78.0	69.5	8.4	22.0	25.2	87.3
1974	100.0	80.0	70.4	9.7	20.0	31.8	62.9
1975	100.0	81.6	70.6	11.0	18.4	28.6	64.3
1976	100.0	76.4	65.5	10.9	23.6	26.5	89.1
1977	100.0	73.1	62.3	10.8	26.9	28.3	95.1
1978	100.0	71.0	60.6	10.4	29.0	32.5	89.2
1979	100.0	71.7	61.7	10.0	28.3	35.8	79.1
1980	100.0	76.0	64.4	11.6	24.0	31.9	75.2
1981	100.0	76.0	64.3	11.7	24.0	29.9	80.3
1982	100.0	74.8	63.3	11.5	25.2	28.9	87.2
1983	100.0	71.4	60.6	10.8	28.6	29.4	97.3
1984	100.0	69.0	59.0	10.0	31.0	30.6	101.3
1985	100.0	68.6	58.5	10.1	31.4	30.3	103.6
1986	100.0	65.2	55.2	10.0	34.8	29.2	119.2
1987	100.0	62.3	52.6	9.7	37.7	30.0	125.7
1988	100.0	60.6	51.0	9.5	39.4	31.1	126.7
1989	100.0	63.5	53.2	10.2	36.5	33.8	108.0
1990	100.0	63.8	53.7	10.1	36.2	37.1	97.6
1991	100.0	63.6	53.3	10.3	36.4	39.1	93.1
1992	100.0	64.8	54.0	10.9	35.2	36.8	95.7
1993	100.0	64.6	53.8	10.8	35.4	35.2	100.6
1994	100.0	64.5	53.8	10.6	35.5	36.1	98.3
Averages							
1953–61	100.0	96.8	85.3	11.4	3.2	11.6	24.7
1962–71	100.0	89.2	78.8	10.4	10.9	19.9	52.4
1972–75	100.0	80.9	71.1	9.8	19.2	26.6	73.0
1976–86	100.0	72.1	61.4	10.7	27.9	30.3	92.4
1987–94	100.0	63.5	53.2	10.3	36.5	34.9	105.7
1953–94	100.0	80.5	70.0	10.6	19.5	24.3	69.1

Sources: This table is constructed on the basis of data shown in Hanguk Eunhaeng 1995: 178–79; Bank of Korea, *Economic Statistics Yearbook*, various years.

TABLE 10.2 Estimated Investment and Saving, 1953–94 (in percent)

Destination and Sources	*Saving Relative to*		*Investment Relative to*		Saving—Investment[1]
	GDP	Total	GDP	Total	
Domestic:	19.5	80.2	24.1	99.2	(4.6)
Private Sector:	19.5	80.2	19.0	78.2	0.5
Personal:	13.0	53.5	4.0	16.5	9.0
Owners' Equity	2.0	8.2	—	—	2.0
Deposits/Loans	7.0	28.8	—	—	7.0
Other[2]	4.0	16.5	4.0	16.5	—
Business	6.5	26.7	15.0	61.7	(8.5)
Public Sector	—	—	5.1	21.0	(5.1)
Foreign:	4.8	19.8	0.2	0.8	4.6
Aids	2.6	10.7	—	—	2.6
FDI	0.2	0.8	0.2	0.8	—
Loans	2.0	8.2	—	—	2.0
Portfolio	—	—	—	—	—
Miscellaneous[3]	—	—	—	—	—
Total	24.3	100.0	24.3	100.0	(0.0)

[1]Expressed relative to GDP in percent.
[2]Includes portforlio investment, pension funds, life insurance, and real estate.
[3]Includes remittances and suppliers loans.

Sources: Based on tables 3.8, 7.11, and 9.3 and discussions in chapters 3, 5, 7, 8, and 9.

Investment in the country after the Korean War was mostly made by Koreans, while foreign direct investment (FDI) was relatively small. Nearly all (99.2 percent) investment (24.1 percent of GDP) was made by the natives, while a fraction (0.2 percent) of the total was carried out by foreign investors (Table 10.2). This is in stark contrast to the experience of Korea before 1945 under the Japanese colonial administration, when nearly nine-tenths of investment was undertaken by the Japanese.[1] Most investment (19 percent of GDP) in South Korea was in the private sector, equaling about four-fifths (78.2 percent) of the total (both domestic and foreign), while public investment (5.1 percent of GDP) accounted for about a fifth (21 percent) of the total investment during the last half of the twentieth century. Within the private sector, business investment (15 percent of GDP) accounted for more than half (61.8 percent) of total investment, while the personal/household sector, mainly housing and other personal investment, attracted a relatively small portion (equivalent to approximately 4 percent of GDP), roughly a sixth (16.5 percent) of total investment.

SAVINGS

The need for investment in South Korea was met with increased savings, from 11.6 percent of GDP during the nine-year period between 1953 and 1961 to 36 percent

of GDP during the nine-year period between 1986 and 1994, averaging nearly one-quarter (24.3 percent) of GDP during the 42-year period. South Korea was able to increase its savings, which were contributed by both domestic and foreign sources. South Korea increased its domestic savings from about 50 percent of total savings during the nine-year period between 1953 and 1961 to nearly 100 percent during the nine-year period between 1986 and 1994, averaging nearly four-fifths (80.2 percent) of the total savings available (domestic and foreign) for investment in the country. South Korea thus moved quickly from an economy of little domestic savings to one of the few countries that saved a large portion of income for investment in one of the briefest periods of recent record.

The overwhelming majority, about four-fifths, of the nation's savings during the 42-year period between 1953 and 1994 were domestic, that is, out of its national income, equaling 19.5 percent of GDP (Table 10.2). This is quite a departure from the situation that prevailed under colonial rule, when more than four-fifths of savings that financed investment in the country came from the Japanese.[2] The savings in South Korea took place in both the private and public sectors, but all domestic saving took place in the private sector. Within the private sector, personal savings (13 percent of GDP) furnished a little more than half (53.5 percent) of all savings available for investment, while business savings (6.5 percent of GDP) contributed a little more than a quarter (26.7 percent) of the total savings.

In comparison to domestic saving, amounts of foreign resources/savings imported into South Korea for investment between 1953 and 1994 were relatively small and decreased over time. While foreign resources (4.8 percent of GDP) supplied about a fifth of the total, they decreased from more than half of the total in the early years to less than 1 percent of total savings (both domestic and foreign) in the later years. Net imported foreign savings supplemented the rising need for investment in the country after the Korean War. The resources imported from abroad allowed South Korea to save a sum equal to about 4.6 percent of GDP and invest in enterprises in the public and private sectors. They came into the country in the form of foreign aid in the early years and amounted to about 2.6 percent of GDP, foreign loans 2.0 percent of GDP, and FDI about 0.2 percent of GDP for the 42-year period between 1953 and 1994. In other words, foreign aid contributed the most, to finance investment with 10.7 percent of the total, followed by foreign loans at 8.2 percent, and FDI at less than a percent (0.8).

SECTORAL BALANCE BETWEEN INVESTMENT AND SAVINGS

Sectoral balance between investment and savings in the broad and somewhat overlapping economic divisions—the domestic, private, personal, business, public, and foreign—may be grouped into three categories: surplus savings, deficit resources, and self-sufficient segments. The private, personal, and foreign sectors experienced surplus savings, while the domestic, business, and public sectors incurred deficits in savings for investment. The third group, the self-sufficient, met its investment needs with its own savings.

Deficit Savings Sectors

There were three sectors of the economy that had less savings than the amount invested in them, thereby incurring a deficit (savings less than investment) of resources for investment, as noted above. Of these, the domestic sector had a deficit of about 4.6 percent of GDP, as it was able to save only 19.5 percent of GDP between 1953 and 1994, while it invested 24.1 percent of GDP during the same period. The business sector also incurred a major deficit between 1953 and 1994. It invested approximately 15 percent of GDP, which accounted for more than half (61.8 percent) of all investment in the country while saving 6.5 percent of GDP, which was a little more than two-fifths (43.3 percent) of its investment, thus, incurring a deficit of 56.7 percent, equaling 8.5 percent of GDP. The third major deficit savings segment of the economy was the public sector (5.1 percent of GDP), which accounted for about one-fifth of the total investment in the country while contributing no discernible sum of savings from its ordinary revenues.

Surplus Savings Sectors

In contrast to surplus savings sectors, savings in the private, personal, and foreign sectors exceeded their investment, thereby producing "surplus savings" (savings being greater than investment). The private sector produced a small surplus (0.5 percent of GDP) by saving 19.5 percent but investing only about 19 percent in its sector. In comparison, the personal sector contributed a very large amount of savings (13 percent of GDP) beyond its small investment (4 percent of GDP), thereby producing a sizable surplus (9 percent of GDP). Similarly, the foreign sector supplied more resources and savings (4.8 percent of GDP) for financing investment in South Korea, both directly and indirectly, amounting to about a fifth (19.8 percent) of total savings for its own investment and for Korean savings and investment during the more than half century following the Korean War, although they showed a decreasing trend over time relative to total saving from more than half of all savings available for investment to minus 6 percent between 1986 and 1994.

FINANCING INVESTMENT

In financing investment, each segment of the economy, namely, the domestic, private, personal, business, public, and foreign sectors, did not confine itself to its own sectoral resources and savings but complemented each other, mutually depending on each other to finance their investment. The domestic, business, and public sectors that had deficit savings were net borrowers, while the private, personal, and foreign sectors that had surpluses were the purveyors of financing for the deficit sectors. The private, personal, and foreign sectors saved 19.5, 13, and 4.8 percent of GDP, respectively, to finance their investments, or 19, 4, and 0.2 percent of GDP, respectively. The savings of the domestic (19.5 percent of GDP), business

(6.5 percent), and public sectors (none) were less than their investments in their sectors—24.1 percent of GDP, 15 percent, and 5.1 percent, respectively.

In the case of the domestic sector, which saved about a fifth (19.5 percent) of GDP and financed about four-fifths (80.2 percent) of its investment (24.1 percent of GDP), it supplemented the savings deficit with imported foreign savings and resources (4.6 percent of GDP). The gap was filled mainly with foreign aid in the early years and foreign loans mostly in the later period. Foreign aid and loans (including other miscellaneous items, such as emigrants' remittances) are estimated to have supplied about 2.6 and 2 percent of GDP, respectively. In other words, foreign aid and loans furnished about 10.7 and 8.3 percent of total domestic investment. Had imported foreign resources and savings not been available via foreign aid and loans to South Korea, domestic saving, at only about 19.5 percent of GDP, would not have been sufficient to meet all of the investment needs of the country (24.1 percent of GDP). In the case of the business sector, the deficit in savings, which was 6.5 percent of GDP and more than four-tenths (43.3 percent) of its investment, was financed with domestic loans from financial institutions and foreign aid and loans, in addition to owners' equity (2 percent of GDP) and business savings—that is, retained earnings (43.3 percent). The loans from domestic financial intermediaries and the government financed a major portion (5.5 percent of GDP) of the deficiency, and foreign loans and aid supplied the rest, about 1 percent of GDP. In this way, business investment was supplemented with loans from domestic (36.7 percent) and foreign (6.7 percent) sources, foreign aids and loans, while owners' equity (13.3 percent) and business savings (43.4 percent) supplied a little more than half (57 percent) of the total business investment. It is perhaps significant to note that aside from business savings, the contribution of owners' equity was surprisingly small, 2 percent of GDP, constituting only a little more than a tenth (13.3 percent) of business investment.

The savings deficit in the public sector, that is, about 5.1 percent of GDP, which was about a fifth of its investment on average during the last half of the twentieth century, was financed with loans from domestic financial intermediaries (1.5 percent of GDP), which was a little less than a third (29.4 percent) of all public investment, and foreign aid and loans (3.6 percent of GDP) on average, which consisted of an average sum equal to about 2.3 percent of GDP from foreign aid, and an average sum of about 1.3 percent of GDP from foreign loans. Thus, the savings deficit in the public sector depended not only on domestic loans but also heavily on foreign aid for its investment in the early years and foreign loans in later years. During the 24-year period between 1971 and 1994, the value of foreign loans to the public sector was nearly twice as much as that of domestic private loans, 3.3 percent of government revenue in contrast to 1.8 percent, respectively, and met nearly two-thirds (62.2 percent) of the government's budget deficit. Had foreign aid and loans not been available to the public sector, investment in it would have been that much smaller. Even with the infusion of foreign loans, the South Korean government suffered budget deficits until about 1981.

SUMMARY AND CONCLUSIONS

The review of the basic thrust and various aspects of capital formation in this chapter has revealed several salient points. In its broadest context, capital formation during the last half century of the South Korean economy was equivalent to approximately a quarter of its GDP on average, and almost all (99.2 percent) investment was undertaken by Koreans, while a small fraction (about 0.8 percent) was FDI. Domestic investment was largely focused on social overhead capital and manufacturing, with the emphasis on the heavy and chemical industries and modern technology. Although investment was financed with both domestic and foreign savings, a greater contribution was made by the foreign sector in saving than in investment. Foreign savings financed nearly a fifth of all investment on average, while domestic savings supplied approximately four-fifths in the last half of the twentieth century. The deficiency in domestic savings (more than a tenth) to finance investment was augmented with foreign resources in the form of aid and loans.

Almost all domestic saving was contributed by the private sector, while the contribution of public saving was virtually zero. Approximately two-thirds of private saving was personal/household savings, while business savings contributed about a third. In other words, personal savings contributed major shares of public and business investments. The deficiency in savings of the public and business sectors was financed with personal/household savings, such as savings in financial institutions and owners' equity, as well as by foreign savings, principally foreign aids and loans. Foreign savings contributed to Korean investment in both the public and business sectors directly and indirectly.

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SUMMARY AND CONCLUSIONS

This study has investigated the robust economic development of South Korea and its capital formation in the last half of the twentieth century. A little more than five decades ago, South Korea was one of the most dislocated and poorest economies in the world, for it was a divided half of a small former colony with few natural resources, the host of a huge influx of refugees from North Korea and abroad, and a nation ravaged by a bitter war that resulted in millions of human casualties, the destruction of much of its capital structure, and heavy defense expenditures. This is the country that, only a few decades earlier, had gone to great lengths to avoid engaging in entrepreneurial business and condemned risk-taking and adventure-seeking investment behavior as dangerous and antisocial.[1] Moreover, many people thought it had a limited capacity to absorb capital, especially in the industrial sector, and gave it no chance for success in climbing out of the economic doldrums. Few people dared to predict that South Korea would become one of the world's most industrialized economic powers by the end of the twentieth century.

Notwithstanding the seemingly insurmountable obstacles and naysayers, the South Korean economy was in the express lane of economic growth and developed rapidly in the last half of the twentieth century. In a span of a little more than four decades, the country's real GDP expanded nearly 38-fold, with a 16-fold rise in per capita GDP (an annual average of nearly 8 percent and a rise in per capita GDP to more than $16,000 in 2005), and a broad-based improvement in living standards. South Korea has emerged as one of the most energetic and successful developing economies in the world after World War II, and its economy, now among the leaders in terms of sharing major industries in the global market, is one of the dozen largest in the world. The country appears to have reached the stage where its economic growth can be considered self-sustaining.

Accompanying the rapid economic growth were the changes in the nation's economic structure, from an agrarian/semi-industrial economy to an industrialized one. It has the highest penetration rate of high-speed information networking among members of the Organization for Economic Cooperation and Development (OECD). Shipbuilding and thin film transistor–liquid crystal display production account for nearly half (44 percent) of the global market, the highest anywhere. Semiconductors and petrochemicals rank third, digital home appliances fifth, and steel and automobiles sixth. Korea is also an information technology powerhouse. The percentage of Internet users is the second highest in the world, and Korea's airports, seaports, and communications infrastructure are outstanding. According to OECD statistics, Korea's labor skills, R&D capacity, and productivity are among the highest in the world. Approximately 40 percent of Korea's population has completed higher education. Its accomplishments and developments have been truly extraordinary.

Among the many factors attributable to the rapid growth of the economy and its structural changes from agrarian/semi-industrial to industrial after the Korean War, the success of capital formation in physical and human capital appears to have been the key that unlocked the door to success in South Korea. Capital-scarce South Korea was able to accumulate a sizable amount in a short span of time. Investment in the country increased from a modest level of 11 percent of GDP to a high of 30-plus percent, averaging 24.3 percent during the period between 1953 and 1994 (and 26.8 percent per year during the five decades following the Korean War). This ratio not only compares favorably with most developed and developing countries today but also is one of the highest in the world, ranking just behind Taiwan, Japan, and Singapore. South Korea thus moved from an economy of low investment to an economy with one of the highest levels of investment in the briefest time span so far recorded.

Most investment took place in social overhead capital (SOC) and manufacturing (93 percent), principally in fixed capital facilities and goods (namely, construction and installation of machinery and equipment), while only a small portion was in inventory. A large volume of investment in fixed capital took place in both the public and private sectors, mainly in targeted segments of the economy (oriented toward capital- and technology-intensive industries) and in large-scale projects. Public investment averaged more than a fifth (21 percent) of the total and occupied an important position in the field of SOC—electricity, transportation, and communications—and was certainly crucial to large-scale pioneering manufacturing in the early years. It was practically the only major investment for reconstruction and development of the new entrepreneurial projects that provided many venues for private investment in later years. Although the share of government investment relative to private investment declined over time and is relatively small now, it continues to play a critical role in directing investment in the country.

Notwithstanding the important role of public investment, it was the private sector that dominated investment in the country, constituting nearly four-fifths of the total. It was mostly in business (more than three-fifths of the total), while about a sixth of the total was devoted to investment in the personal/household sector. In business, investment was concentrated in manufacturing, starting with the light consumer-oriented goods industries in the early years and later moving on to HCI and

high-tech industries. Private investment also was made initially in the labor-intensive import-substituting and/or export goods manufacturing industries, in which South Korea developed a competitive advantage in the early years. However, when the industries based on low-value-added and labor-intensive products faced increasing competition and protectionism from other developing countries, businesses expanded into HCI and invested massive sums in high-value-added and capital-intensive industries. Strengthening the international competitiveness of South Korean industry also required quality improvements and innovative designs for products. For these improvements, South Korean firms depended heavily on foreign patents and technology. Moreover, South Korea's investment was not confined to domestic industries, but also extended to overseas equity investments in later years.

Likewise, a relatively large share of the nation's resources was dedicated to investment in human capital by both the public and private sectors, which enabled them to learn new technology and skills quickly. The speedy human capital formation among Koreans may be traceable to the nation's Confucian heritage, which values and emphasizes education. The rapid growth of investment in human capital made it possible for labor to acquire new technology and processes and to produce increasing amounts of goods and services. Through investment, economies of scale and technological progress have also contributed to increases in productivity and economic growth.

The resources required to finance investment in capital goods after the Korean War were obtained from both domestic and foreign savings. It is estimated that domestic savings on average financed approximately four-fifths of the total, while the rest was supplied by foreign savings. Domestic savings were traced to the private sector (about four-fifths of all savings), of which about two-thirds were attributed to personal and about a third to business, while the public sector contributed virtually no savings out of its ordinary revenues. Personal savings equaling more than half (53.5 percent) of all savings were invested in three different forms: less than a tenth (8.2 percent) of the total in owners' equity; more than half (28.8 percent) in the financial institutions that, in turn, was loaned out for investment in the private and public sectors; and the rest (16.5 percent) in the household sector.

Business investment was financed with personal savings in the form of equity shares (13.3 percent), loans from financial institutions and others (33.3 percent), and foreign loans and others (10 percent), with the largest sum (43.4 percent) contributed by business savings derived from increased profits and low dividend payments. One of the critical elements that contributed to the high and expanding business profits was various bounties, windfalls, and subsidies. They transferred wealth and/or income from mostly Korean taxpayers as benefactors to the privileged business beneficiaries, especially those who worked closely with the government. The arrangement of an alliance between the government and the burgeoning business beneficiaries appeared to have been simple: so long as business contributed to the country's economic growth, the government was willing to provide numerous financial favors, such as divesting government property at favorable terms, selling undervalued foreign exchanges, giving businesses easy subsidized credit and loan guarantees, banning any meaningful union activities, and protecting domestic markets.

Among the beneficiaries, the most prominent ones were *jaebol* conglomerates who had close ties to the government. In addition, the symbiotic link between the government and *jaebol* diverted economically profitable activities to the hands of a limited number of conglomerates and accommodated the *jaebeol* to exercise the monopolistic and oligopolistic economic power in markets. In the case of divestiture of Japanese property, the prominent beneficiaries of government favors were some of those who were close to the Japanese, except for those who were well known as pro-Japanese businessmen under colonial rule. In the case of divestiture of newly established public enterprises, the conspicuous beneficiaries of the subsidies were large *jaebeol* that had close personal or political ties with those in banking and in government.

The contribution of foreign savings to domestic investment was also fairly substantial and significant, although it declined over time. The imported net foreign savings, which was far greater in South Korea than in Japan during the comparable period, certainly filled the gap (nearly a fifth of the total) between domestic savings and the country's investment requirements, especially in the early years. Foreign savings financed investment in South Korea in two principal ways: foreign direct investment (FDI) and supplying resources for domestic investors to save and invest in the country. The former (0.2 percent of GDP) contributed about 4 percent of the total imported foreign savings that financed foreign investment in the country, while the bulk (equivalent to 4.6 percent of GDP and 96 percent of the net foreign resources imported for investment) was supplied to South Korea to save and fill about 19 percent in total investment in the country during the last half century. Had the country's savings gap not been filled from foreign sources, South Korea could not have imported as much as a fifth of new foreign capital goods for rapid economic development as well as meeting the basic needs of the people at the same time, especially in the early years after the Korean War. In addition to their contribution to capital formation, foreign savings also appear to have encouraged other domestic investment in South Korea.

Net foreign savings were imported mostly in the form of foreign aid and loans, which were supplemented with small amounts of portfolio investment and miscellaneous imports. Most were directed toward SOC and the manufacturing sector, and were typically invested in major projects. These were mostly government-operated and specially designated large firms, including those that became *jaebol*, which were usually involved in capital- and technology-intensive projects. In contrast, a relatively small amount was in FDI, which financed mostly (i.e., about three-quarters of the total) the import substitution and export goods manufacturing industries.

The volume of investment among diverse economic sectors appears to have reflected not only the changing economic needs of the country but also government economic policy. The government initiatives and policies certainly played a crucial role in investment activities in South Korea during the latter half of the twentieth century. The government played a pivotal role in capital formation under industrial and financial policies on two fronts: as an active investor in the public sector and as a supporter and promoter of private investment in certain sectors. In comparison to most developed Western countries, the strong, stable, and able South Korean government actively created the environment and financial incentives to promote

business profits by intervening in markets on several fronts with its selective industrial and repressive financial policies during the latter half of the twentieth century.

In the public sector, the government made the critical decision to invest in what were considered essential industries, especially in SOC and new capital- and technology-intensive manufacturing, for economic development. In the private sector, a number of government programs expanded the targeted sector's investment and its ability to produce goods and services competitively in the world market. The government directed its large financial resources as well as those of the financial institutions for investment in the private sector under numerous programs that accompanied the generous interest subsidies supplemented with inflation windfalls and some with wealth bounties. Perhaps the first and most important government measure was the divestiture of former Japanese businesses and new industrial facilities to private businesses. Due to prices depreciated by inflation, businesses acquired them at a fraction of their real value.

Not only did the government property divestiture programs provide a launching pad for private firms to produce goods and services in early years, but they also provided financial incentives to private investors with generous interest subsidies under various loan programs. With subsidized loans and undervalued foreign exchange, the privileged businesses purchased raw materials and intermediate and capital goods inexpensively, in addition to low labor cost, especially in the early years. Thus the businesses were able to advantageously produce goods and services at low input costs, which allowed them to sell the products competitively in the domestic and world markets and reap large profits for many years to come. This led private businesses to invest in import-substitution and export-goods industries, resulting in their expansion not only in absolute terms but also relative to the aggregate economy.

The loans to the private sector were targeted at entrepreneurial businesses that pioneered new, often risky, and potentially promising fields with the implicit understanding that should the business borrowers default, the government more or less guaranteed repayment of their loans or stood ready to bail them out. Most of these advantages accrued to import-substitution and export-goods industries, especially the basic industries such as HCIs. The main beneficiaries of government financial incentive programs were most often the large businesses and those that had close connections to those in banking and government.

In this way, the government's industrial and financial policies not only allocated loan funds to enable the nation to invest and employ greater amounts of resources (capital goods and labor) for economic growth, they also promoted indirectly the efficiency of industrial operations in the country as a whole. The highly dynamic and responsive industrial sector pulled ahead, leading in such high-profile industries as automobiles, steel, and semiconductors. The expansion of strategic industries was followed by growth in other industrial and nonindustrial sectors as well, resulting in the nation's rapid economic development during the latter half of the twentieth century. Many of the policies pursued by the government were reminiscent of the policies followed by the Japanese colonial government during the late 1930s and the early 1940s (e.g., tax, subsidy, targeting industries, etc.). No

definitive quantitative estimate can be made, but the net effect of these subsidies and bounties on business profits was substantial. This, along with the dynamic leadership of entrepreneurs, was largely responsible for the expansion of output and the transformation of South Korea's economy.

Will the democratically elected government in its infancy continue its efforts to economic development in the fast lane and mark the beginning of a new era in the history of the country? Can South Korea move its economy to a level comparable to such neighboring countries as Taiwan and Singapore, and even Japan? Before the 1997–98 financial crisis, its future economic growth appeared bright and South Korea was confident that it would continue to grow its GDP at an annual average rate of at least 5 percent in the coming decades, barring any future political obstacles. The Korea Development Institute issued a report in 1987 and noted that the industrial structure of South Korea in the year 2000 would be highly developed and would resemble that of advanced countries as high-value-added industries, high-technology industries, and soft industries grew relatively rapidly. It was thought that the country would be in possession of the same qualities that earned it near-double-digit growth rates in the pre-crisis days. It achieved a 5.8 percent rise in GDP in the years between 1999 and 2005, with high rates of saving, an educated and motivated workforce, human resources with favorable work ethics, trade openness, and effective maintenance of suitable institutions. Changes in industrial structure were expected to rapidly increase the demand for professional and technical manpower while simultaneously reducing the demand for unskilled workers, resulting in further change of the employment structure.

South Korea is now at a crossroads, economically as well as politically. When using purchasing power parity, South Korea's per capita income of $15,000 in 2001 ranked 54th in the world.[2] Also, at the present time, its economy is falling farther behind the neighboring countries. Its economic growth has fallen from more than 10 percent per year in the 1980s to 3.9 percent in 2005, and the Bank of Korea has forecasted that the Korean economy will face more difficulties in 2006 as export growth is expected to decline. In the meantime, the growth rates of the neighboring countries have risen from 8.3 to 8.8 percent for the People's Republic of China and from 5.6 to 8.1 percent for Singapore. In the Current Competitiveness Index, which aims to identify productivity factors that fortify current productivity and therefore current economic performance, South Korea slipped from 27th place in 2000 to 28th place in 2001. Although the World Economic Forum raised South Korea's national growth competitiveness index, which indicates the prospects for growth in the next five years, from 28th of 58 in 2000 to 23rd of 75 in 2001, it is still behind that of Japan, and even Spain.[3]

The transformation of the South Korean government from an authoritarian to a democratic regime has provided the country with new challenges as it seeks to meet the goal of continued economic growth. It is not possible to list and comment on all of them, but it may be useful to briefly survey a few. They are related to the tasks involved with government management of the economy (including private enterprise), technology-related industries, the labor movement, economic equity, the *jaebol*, and economic unification of the two Koreas.

South Korea's first task is to meet the challenge posed by a truly global economy by improving the management capability of the government, for its business leaders are innovative, its scientists are creative, and its workers are industrious and highly skilled. To begin with, according to the index noted above, management quality needs to be improved, as management capability was graded low, in spite of the fact that South Korea ranked 8th in terms of macroeconomic conditions. According to the index, the quality of public institutions is ranked 44th in the world. It has been assessed that the government's interventionist financial and industrial policies relative to allocation of loan and interest rate and its excessive promotion of certain sectors and firms have contributed to a slowdown in both exports and economic growth, especially before the 1990s, although the evidence does not support the notion that selective intervention had a decisive (or even necessarily a positive) impact on the Korean economy.[4] Also, according to a survey conducted by the Center for Free Enterprise, reported in a Korean publication, South Korea's economic freedom ranks 38th out of 123 nations in 2000 in the world.[5] It scored 7 on a scale of zero to 10 in the survey on economic freedom. The ranking tied with six other countries, including Jamaica, Kuwait, the Philippines, France, and the Czech Republic. South Korea's score ranged from 5.7 in 1980 to 7 in 2000, and its ranking ranged from 31st to 38th.

Since the establishment of the Republic of Korea after World War II, there has been an effort to liberalize or "de-Japanize" the state-controlled, colonial-developed Korean economy into a more Westernized, market-oriented economy. This has taken nearly a half century, yet it remains somewhat behind that of Japan. South Korea must continue to relax government control of its economy, including banks and private enterprises, so that they will be able to manage their businesses on their own. Korean companies and workers have demonstrated their ability to take advantage of new opportunities and improve their standard of living. Perhaps the Korean people would have realized even greater benefits from their sacrifices in a freer, more competitive market environment. In order to meet the challenge of continual rapid economic development and nurture innovative business leaders, the most important task is to create a fair and competitive economic environment for all players in the market, in place of interventionist government. The low rankings listed above reflect microeconomic fundamentals such as company sophistication and strategies, which helps to explain why some countries sustain a higher level of prosperity than others. South Korea earned a poor ranking (26th place in the world) in the business environment posting, even though the ranking system may not have been well designed.[6] The evidence from Hong Kong demonstrates that a high-productivity growth path is possible.

The highly discriminatory subsidy policy at the expense of the government or taxpayers also should be curbed. To reduce its control of private businesses, government should reform small and medium-sized enterprises (SMEs) and the financial sectors. An International Monetary Fund (IMF) mission found that SMEs were overburdened by debt and threatened by overseas competition.[7] To address this problem, the government should halt the growth of credit guarantees and stop expanding regional guarantee funds. In this way, many SMEs will learn from their

mistakes and start new businesses. It should also deregulate the service sector as a means of creating new opportunities for investment. Additionally, the IMF recommends that Korea's financial sector be deregulated further to encourage competition and innovation. The government should also be more open to FDI, as has taken place in China.[8]

Second, to overcome South Korea's current economic woes, the country must direct more investment toward technology-related industries and improve its competitiveness in the world market. South Korea's technology index, in comparison to those of other developed countries, is relatively low. As recently as 1994, the president of the Korea Institute for Industrial Economics and Technology noted that South Korea's technology index was only 6.55, compared to the United States at 100, Japan at 70.2, Germany at 46.3, and France at 24.4.[9] To be able to compete successfully with the developed industrialized countries, it needs to acquire advanced technology from abroad and dedicate greater resources to human, as well as physical, capital. This will require increasing support for science at all levels of education (e.g., by expanding scholarships and sending able students to acquire sophisticated technology in more advanced countries) and creating financial incentives for firms to pursue technological innovation. South Korea does not yet possess a competitive edge abroad against countries such as Japan, which South Korea has emulated in the past, but prospects are encouraging.[10]

The third and one of the most critical tasks South Korea faces for continued expansion of its economy is to bring about better labor-management relations that include flexibility on the parts of both management and labor for the nation's good. There is an intangible problem of the resolve of South Korea's workers, who labored six days a week with little vacation time in the past. What effect would a slackening of resolve, other than resorting to inflexible labor militancy, have on the South Korean worker? The OECD has recently ranked South Korea 26th out of 27 with regard to labor flexibility. It has been reported that due to a hostile business environment as well as high labor costs, both domestic and foreign companies are leaving Korea at a rapid rate. According to a report by the Samsung Economic Research Institute (SERI) in August 2003, a growing number of South Korean manufacturers have been relocating to other countries, where labor costs are lower. The number of such cases reached 1,800 in 2002, up from 1,000 in 1994. The situation has become so serious in the footwear and textile industries that the country can no longer supply its own textile and footwear needs. FDI inflows have also declined sharply—to $2.4 billion in 2002 from $7.2 billion in 1999, although it regained to $15.7 billion temporarily in 2001. SERI estimates that the manufacturing sector accounts for almost 30 percent of Korea's entire economic output and employs 26 percent of its labor force. Therefore, a massive exodus of manufacturers could lead to higher unemployment and impede the nation's technological advancement, unless it is compensated for by domestic direct investment.[11]

The fourth task is the achievement of more equitable income and wealth distributions. In the past, government financial and industrial policies have tended to promote and widen the gap between rich and poor. As a result, there has been tension in the country for some time over the issue of social equity. This tension was a factor in the election of a new president (Moo-hyun Roh in 2003) who has

worked closely with civil rights and labor organizations. Increasing the income and wealth of a small group of businesses at the expense of the majority of workers was the means to development in the past, but it should not be the model for development in the future.

The fifth challenge facing the country is the task of resolving the so-called *jaebeol* problems. The first problem is *jaebeol*'s propensity to build business empires with high leverage from external financial resources. This practice was made possible because they were able to borrow money from domestic and foreign sources with generous government support and subsidy. The second *jaebeol* problem would be unconstrained family control at the expense of minority shareholders' interests. Also, a symbiotic link between the government and *jaebeol* was a concern of many South Koreans for their gaining monopolistic and/or oligopolistic power of domestic markets.

Finally, the country has the important responsibility of reunifying North and South Koreas into one nation, perhaps by learning from and improving on the German unification experience.[12] This may require major economic sacrifices by South Koreans and will undoubtedly create many difficulties in the short run, but it will be a gratifying experience for the entire Korean people in the long run. According to the Bank of Korea, after more than six decades of Communist rule, North Korea possesses industrial equipment valued at a meager $2 billion, in comparison to nearly a half trillion dollars' ($489 billon) worth of industrial facility in South Korea. The cost of rebuilding North Korea's infrastructure is estimated at $60 to $100 billion, while a recent estimate by Goldman Sachs places it at $3 trillion over the course of 10 years. According to the estimation of Marcus Noland at the Institute for International Economics in Washington, D.C., South Korea's bill for rebuilding North Korea in the first decade of unification could be as much as $600 billion.

The economic challenges listed above and the difficulties of meeting them raise the ante for the government and its leadership, as the country needs an effective, sound, and able government to guide it through its responsibilities and put it on the road to mature and stable democracy and economy.

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APPENDIXES

APPENDIX 2.1: *JAEBEOL*'S BACKGROUND

The one clear characteristic of the *jaebeol* is that a relatively large number of the principal owners came from the privileged classes. (*Jaebeol* refers to either the large and successful businesses or, sometimes, to their founders.) They typically came from families with backgrounds that enabled them to establish a network of "connections" with those in political and financial power. The *jaebeol* owners contrast with the occupational makeup of the total population. A relatively large number (24 percent, or 12 out of 50) of the owners of *jaebeol* came from the traditional gentry (*yangban*) class, which typically included landlords, former government officials, teachers, journalists, and politicians. In contrast, the gentry class represented only 3.7 percent of the total male population in the 1930s, when *jaebeol* founders held their occupations.

Another group of *jaebeol* comes from the business class, which included manufacturers, merchants, and business executives and made up about one-quarter of all *jaebeol* (e.g., 24 percent, or 12 out of 50). The family background of these *jaebeol* also clearly contrasts with the occupational makeup of the total population. In the 1930s, only 2.1 percent of the total male population was in the business class. The rest of the first generation of *jaebeol* founders came from the farming and other classes. About 20 to 40 percent of *jaebeol* came from working farm families. They included owner-operators, owner-tenants, tenants, and farm day laborers. The remaining *jaebeol* (6 to 12 percent) came from "other classes," which included low-skilled technicians, herbal doctors, miners, and day laborers. In the 1930s, 77.2 percent of the total male population in Korea was in farming, and 17 percent fell in the category of "others."

It is clear from the preceding examination of family backgrounds that the gentry and businessmen whose fathers were in business were more likely to succeed in

becoming *jaebeol* owners than those whose fathers were working farmers or "others." The ratio of the distribution of fathers' occupations of *jaebeol* owners to the distribution of occupations of the total male population was 11.43 for the businessmen and 6.49 for the gentry. The ratio for the farmers was less than 1, or only 0.52, while that of the "others" was 0.71.

The discrepancies in the ratio for the different groups may be attributed to a number of circumstances. One is that gentry and/or businessman founders were wealthier than the two other occupational groups and thus were able to provide the initial capital to the future *jaebeol.* In the case of business families, there must have been intergenerational human capital transfers from businessman fathers and sons who later came to be *jaebeol*.

It is also possible that the wealthier gentry and/or businessman fathers were able to provide funds for more education, thereby enabling their sons to be more successful in business. It is clear that the amount of formal education received by the founders of *jaebeol* was much higher than that acquired by the general public. According to comparative educational statistics, nearly all (95.3 percent) founders received a fair amount of formal education, even after making allowances for the sometimes exaggerated claims to formal education. It has been reported that 72 percent of founders have received high school and college educations, although more realistically the amount of education was probably evenly divided among elementary, secondary, and college levels. Only about 6 percent had no formal education. In relation to the general public, the founders of *jaebeol* were 120 times more likely to have a college education, and 20 times and 2.1 times more likely, respectively, to have a high school and elementary school education.

The distribution ratio of founders of *jaebeol* with no education to that of total population with no education was 0.06. The educational level of the general public was skewed toward no education. The percentage of those who had no education in 1944 (a pertinent statistical year for the founders of *jaebeol*) was 87.3 percent, with successively smaller percentages for higher levels of education: 10.6 percent for elementary school, 1.8 percent for the high school, and 0.3 percent for college. In other words, there existed a significant difference in the educational levels of *jaebeol* founders and total male population in South Korea in 1944. The *jaebeol* founders, however, were not as well educated as were the high-ranking civil servants. There were four times more *jaebeol* founders with only an elementary school education than among high-level civil servants and 40 percent fewer *jaebeol* founders with a college education. This discrepancy appears to reflect the traditional Korean value regarding business as a less desirable career than holding a government position.

This finding leads one to speculate about the reasons that better-educated businessmen became successful *jaebeol.* The first is that education delivered a positive rate of return on its investment. In other words, the *jaebeol* developed better technical, managerial, and organizational abilities and skills needed to undertake large, complex projects and manage them. The second is that education and willingness to take risks were positively related; superior access to information reduced subjective risk. Third, the *jaebeol* were able to establish school-related connections" with those

in power. A popular notion in Korea holds that personal connections are established among those who graduate from the same school at all levels. Such connections established close personal contact with those in power in politics and/or in the financial world. See C. H. Bae 1966; K. Yi 1973, 1985; D. J. Park 1979, 1983; and Byong-yun Park 1982.

APPENDIX 3.1: FIVE-YEAR ECONOMIC DEVELOPMENT PLANS

Economic programs in South Korea were based mostly on a series of seven five-year plans that began in 1962. The first five-year economic development plan (1962–66) consisted of the initial steps toward the building of a self-sufficient industrial structure that was neither consumption oriented nor overdependent on oil. Such areas as electrification, fertilizers, oil refining, synthetic fibers, and cement were emphasized. The second plan (1967–71) stressed modernizing the industrial structure and rapidly building import-substitution industries, including the steel, machinery, and chemical industries. The third plan (1972–76) achieved rapid progress in building an export-oriented economy by promoting heavy and chemical industries (HCIs). Industries receiving particular attention included iron and steel, transport machinery, household electronics, shipbuilding, and petrochemicals. The developers of HCIs sought to supply South Korea with raw materials and capital goods and to reduce or even eliminate their dependence on foreign capital.

The fourth plan (1977–81) promoted the development of industries designed to compete effectively in the world's industrial export markets. The major strategic industries consisted of technology-intensive and skilled-labor-intensive industries such as machinery, electronics, and shipbuilding. The plan stressed large HCIs such as iron and steel, petrochemicals, and nonferrous metals.

The fifth plan (1982–86) sought to shift the emphasis away from HCIs to technology-intensive industries, such as precision machinery, electronics (televisions videocassette recorders, and semiconductor-related products), and information. More attention was to be devoted to building the high-technology products in great demand in the world market.

The sixth plan (1987–91) to a large extent continued to emphasize the goals of the previous one. The government intended to accelerate import liberalization and remove various types of restrictions and nontariff barriers on imports. These moves

were designed to mitigate the adverse effects, such as monetary expansion and delays in industrial structural adjustment, which can arise because of a large surplus of funds. The government pledged to continue phasing out direct assistance to specific industries and instead expand manpower training and research and development in all industries, especially the small and medium-sized firms that had not received much government assistance previously. In 1989 the government announced a plan to spend billions of *won* to help small and medium-sized industries make structural improvements so that they could move away from labor-intensive production in favor of technology-intensive production. It hoped to accelerate the development of science and technology by raising the level of research and development investment from 2.4 percent of the GNP to over 3 percent by 1991.

The seventh plan (1992–96) sought to develop high-technology fields such as microelectronics, new materials, fine chemicals, bioengineering, optics, and aerospace. Government and industry would work together to build high-technology facilities in seven provincial cities to better balance the geographic distribution of industry throughout the country.

APPENDIX 4.1: PERSONAL CONNECTIONS

Another distinguishing feature of businesses receiving government favors was the establishment of personal connections. Typically, entrepreneurs with good personal connections have gained access to resources, credit, subsidies, and markets on favorable terms, and new investments became possible for those with considerable political backing at any one time. (For example, a change in conglomerates' lineups is inevitable, business observers contend, as a result of presidential elections.) Korean businesses have undergone ups and downs with the changes in government, since they have not been independent from political influence. But as reported in one International Monetary Fund (IMF) survey, the business practice of using personal connections as a means to obtain financial favors from the government is not unique to South Korea. The survey reported that benefits of political connections may include gaining access to state or local subsidies, cheap loans from public sector institutions, lower taxes, granting import licenses, or tariffs imposed on competing goods, or influence over industry regulation. Politicians, in turn, often receive payoffs in the form of campaign contributions, cash, or some form of in-kind remuneration. Raymond Fishman of Columbia University finds that "political connections may play an important role in many of the world's largest and most important economies and suggests that they may account for as much as 20 percent of some companies' value in countries with high levels of corruption." In the case of Indonesia, a survey of investment bankers revealed that political connections would be worth about 20 percent (International Monetary Fund, *IMF Survey*, 34, no. 19 [October 17, 2005]: 316).

In South Korea, the Lucky-Goldstar Group topped the list of pro-Kim (Yong-Sam) conglomerates in the late 1980s and the early 1990s, and it was speculated that this was the *jaebeol* that stood to gain the most under the new government. The company supported the new president and maintained a good relationship with him.

The Lotte Group was also reported to have shared the rosy outlook, since it had maintained a friendly relationship with the new president Yong Sam Kim. The Lotte chairman was known to be also a close friend of the next president, Dae Joong Kim. In sharp contrast, the nation's largest conglomerate, the Hyundai Group, was worried that it would be hit hardest when its awkward relationship with Kim was taken into account, because Hyundai had campaigned against Y. S. Kim in the presidential race (*Newsreview*, January 2, 1993, 16).

Those who had strong ties to the political party that held the helm in the government received the most favors, according to a former American ambassador to Korea, Walter C. Dowling. Selective credits or loans were granted in a highly discretionary manner that extended down to the level of individual firms. Political-business collusion (*jeonggeong-yuchak*) was routinely practiced, however secretly. Often, those involved in making loans included not only bank officials but the officials in powerful political offices, including the president and intelligence bureau chiefs. In the case of Yong-Bok Park (operator of a shipping company in the 1980s), the bank presidents and section chief of the Korean Central Intelligence Agency were implicated in making a total of 7.4 billion *won* in loans (*Kyeong Hyang Shinmunn*, April 28 and 30, and May 3 and 11, 1974). It was reported, for instance, that in 1970 about 70 percent of foreign loans by banks were made on the basis of factors other than financial considerations (*Dong-A Ilbo*, January 1, 1970: 8).

There were innumerable loan-related political-influence-peddling scandals reported in the mass media. The controller of the Liberal Party during the Rhee government was thought to have had a large interest in 29 projects, and the party was believed to have had a hand in them as well. One of the earliest written records describing the political nature of subsidy granting claims that the practice dates from the 1930s. After the Korean War, Yonsu Kim, who was one of the earliest pioneers and giants in business in modern Korea, decided after World War II to move into food and textiles in order to take advantage of foreign aid. He submitted an application for government permission to set up a sugar mill in 1953 at about the time when the Samsung *jaebeol* also submitted an application. Three other applicants immediately received government approval before he received his in 1954. Kim wrote that this delay was a direct result of his being identified with the major opposition party. Even after receiving approval, Yon Su Kim could not secure a government dollar loan for importing equipment at the privileged exchange rate of 60 *won* to the dollar, as others did. Instead, he received Foreign Operations Administration funds at the much higher rate, 320 to 1 (Sang-A-sa 1966: 27).

Another businessman, Y. K. Choi, a well-off 45-year-old export company executive, observed in 1982, "If you want to make good business contracts, you have to have good political connections or good military connections" (quoted in the *Wall Street Journal*, June 22, 1987). All Korean businessmen, including the most powerful, were fully aware of the need to stay on good terms with the government to assure continuing access to special privileges and avoid harassment from tax officials. According to widely held views, many millions of dollars of foreign exchanges allocated were apportioned to a few industrialists not on the basis of the financial soundness of the project but on noneconomic considerations (U.S. Congress, Senate Hearings for 1958: 734–36). This close relationship may be seen in the

rise and fall of firms as the political situation changes. For example, when a change in the political leadership took place around 1980, there was a sudden change in the makeup of the top 100 manufacturing corporations and in the sales of their businesses.

The state also granted favors to firms that conformed to its policies, while those that disobeyed were excluded. Credit instruments and foreign exchange allocation allowed the government to maintain control over, and obtain cooperation from, the business community. Preferential financing and tax audits were the double edge of the state's ever-present sword. In such circumstances, the demand by private businesses for autonomous decision making from the state required enormous transaction costs. Businesses therefore had to be concerned with how to gain favor. This sort of favor seeking was the most effective way to reduce transaction costs when conducting business in South Korea, as was the case under Japanese rule before 1945. It therefore made better business sense to adhere and adapt to state intervention.

As one manager of a foreign bank in Seoul observed, "Anytime the government chooses to close one [business] down or break it up, it can do so. . . . All it has to do is to call the so-called Korean commercial banks, which it controls, and tell them not to refinance that company's debt. That's what happened to Kukje" (*Wall Street Journal*, April 5, 1988). The sudden decision by the government to dissolve the Kukje *jaebeol* in 1985 was said to have resulted from President Doo Hwan Chun's dissatisfaction over the owner's refusal to donate political funds (*Newsreview*, November 7, 1992, 23). Likewise, after Hyundai's founder, Ju Yong Chung, opposed the government party and ran for the presidency in the 1992 election, the Hyundai Group, which employed 170,000 workers and generated revenues equivalent to about 5 percent of Korea's GNP in 1992, came under official scrutiny. The government authorized a tax audit of Chung and his family that led to a fine equivalent to $181 million. Chung and many employees of the Hyundai Group were indicted by the government prosecution after Chung lost badly in the election (Steve Glain, "Hyundai Group Leader Charged in South Korea," *Wall Street Journal*, February 8, 1993, A6). (A similar situation prevailed with Japan's *zaibatsu*, and Chinese enterprises, which are the most dominant groups in the Southeast Asian economies, also reflect the importance of kin and regional networks.)

Other connections were based on regional ties. An unsuspecting observer might expect the geographical origins of *jaebeol* to be randomly distributed, on the assumption that the place of birth should make no difference in terms of one's business prowess. In reality, there is a clearly discernible pattern in the regional distribution of *jaebeol* in South Korea. A large portion of the *jaebeol* come from particular regions and provinces, especially Gyeongsang-do (particularly the southern province, Namdo). The latter is the home province of 21 of all 50 *jaebeol*, 42 percent of the total. This percentage reflects a much higher ratio than the relative population size in Gyeongsang-do, where 32 percent of the total male population born in South Korea during the 1896–1950 period lived in 1960. In other words, the ratio of *jaebeol* from Gyeongsang-do in relation to the relative male population in the provinces was 1.31, or nearly a third higher than the national average. In the 1950s, only 20 percent of the *jaebeol* came from Gyeongsang-do, which was considerably smaller relative to the population size, with a ratio of 0.625, in that period. Similarly,

Gyeonggi-do, including Seoul, produced relatively more *jaebeol* than the percentage of population in that region, 18 percent of *jaebeol* in comparison to 14.2 percent of the male population. In other words, the ratio between the two was 1.27.

In contrast, only four *jaebeol*, a mere 6 percent of the total, came from Jeolla-do before 1997, in spite of its wealth and reputation for spawning good businessmen. The population in the region was more than 26 percent of the total population in South Korea in 1944. The ratio between the two was 0.23 and, thus, these provinces produced far below the national average and, as a matter of fact, the smallest relative number of *jaebeol* in South Korea. Likewise, Chungcheong-do produced a relatively small number of *jaebeol*, with the ratio of 0.48, the second lowest representation. Not only was the number of *jaebeol* from Jeolla-do small, but even those few *jaebeol* had been founded under colonial Korea, not during the period of independent South Korea. The statistics for the skewing of *jaebeol* toward Gyeongsang-do and away from Jeolla-do are even more accentuated if the place of birth of the *jaebeol* registered as of 1944 were traced to all 13 Korean provinces (including those in the north; many northerners moved to South Korea as refugees after the country was divided into South and North Korea in 1945). Then, the ratio for Gyeongsang-do increases to 2.14, while the ratio for Jeolla-do increases to only 0.36, the former provinces thereby producing nearly six times more *jaebeol* than the latter. Traditionally, there has been rivalry between Gyeongsang-do and Jolla-do, and this strained relationship continues to the present day.

The regional distribution of the *jaebeol* is closely related to the holders of political power in the government, because regionalism is well reflected in presidential election results (Regionalism was the crucial factor in the presidential election results. The election results of 1987 clearly illustrate the strong regional ties of Koreans. Tae-woo Roh, who was elected president with a slim margin and who came from Gyeongsang-bukdo, received 65 percent of the vote from that province. Young-sam Kim, who came from Gyeongsang-namdo, received 50 percent of the vote from that province. Jong-pil Kim, who came from Chungcheong-namdo, received 44 percent of the vote from that province. And Dae-jung Kim, who comes from Jeolla-do, received a staggering 85 percent of the votes from the region. A similar result was seen in the 1992 presidential election.) As a result, change in the conglomerates' lineups is inevitable. Korean businesses undergo many ups and downs with the transition of government, since they depend on political influence.

Several presidents of the country and many powerful political leaders, government administrators, and financial managers came from Gyeongsang-do after 1961, during the period when the majority of the *jaebeol* were formed. It probably was not a coincidence that many of the *jaebeol* came from there too. Obviously, these "connections" would have to be combined with political astuteness and shrewdness in business. Among them are the Samsung, Lucky-Goldstar, and Ssangyong *jaebeol.*

Another group of *jaebeol* that were overrepresented was from the provinces of North Korea. About one-fifth of *jaebeol* came from provinces in North Korea, while only 5 percent of the people living in South Korea were born there. In other words, there were 4 times more *jaebeol* who were born in the north than the relative number of *jaebeol* represented in the entire region of South Korea. The provinces of

Pyeongan-do were especially well represented, with a ratio of 5. There appeared to be numerous reasons for the success of northerners in becoming *jaebeol*, but one of the most important seems to have been their traditional heritage, outlook, and attitude toward modernization. They were discriminated against by the central government during the traditional period; that is, under the previous regime, the Joseon dynasty. As no northerners were knowingly appointed to high offices by the Joseon government, they were outside of the traditional establishment. There also were greater Western influences in that region, especially through the Christian missionaries who came before 1945. Thus, because northerners were less tradition bound, more antiestablishment, and more experienced in business in the early stages of their careers, they had more to gain by discarding traditional values and accepting new and Western ways of life, including those of doing business.

In addition, as many northerners came to power in the government and financial world in the early years of the republic (the 1950s and 1960s), they seem to have had more political and financial connections, clout, and influence. The large representation of northerners in the ranks of the *jaebeol* did not, however, reflect the superiority in entrepreneurial performance commonly noted among different ethnic groups in other countries. According to a number of studies, entrepreneurial performance varies among ethnic groups in some countries, since ethnicity is usually considered to reflect differences in social structure, sanctions, and child-bearing practices which in turn condition an individual's (or group's) attitudes toward risk.

There also were connections established through more personal relationships, such as friendship, blood relationship, and school ties. Numerous reports document the granting of government favors to the relatives of presidents and other high-ranking officials and friends. In a number of cases, businesses received government favors also because officials and businessmen were school- or classmates. Such school ties extend not only to colleges and universities but also to high school and even elementary school. Connections were also established based on village of origin or because the relatives of one person knew the relatives of another. It is well known that Woo-Choong Kim, the former chairman of the Daewoo Group, the second or third largest conglomerate in the country before 1997, made rapid growth in the 1970s under the patronage of President Chung Hee Park. It was widely speculated that Kim's firms were favored by Park because Kim's father had been the president's teacher in elementary school (*Newsreview*, November 7, 1992, 23).

APPENDIX 5.1: INDEBTEDNESS AND THE SCALE OF BUSINESS

There was a direct relationship between the debt-to-asset ratio and the size of the firm. The ratio of preferential loans allocated to the large enterprises was much higher than that of the medium- and small-scale firms. According to a survey conducted in 1969, a total of 732 large firms were financed with loans equaling 76.53 percent of total assets, and nearly all of them were affiliates of the country's largest *jaebeol* (Y. B. Kang 1971). The owners' equity in most large businesses was less than one-fifth of assets (i.e., 17.53 percent, some reaching as low as 3.6 percent). The indebtedness in most large businesses was more than four-fifths of assets (82.47 percent), and some as high as 96.4 percent. The average debt-to-asset ratio of large businesses in 1970 was 80.5 percent.

It was also reported that the large corporations relied on nonequity financing at the rate of 79.5 percent of assets, while the small and medium-sized firms relied on 67 percent (*Hankuk Ilbo*, August 17, 1972). In other words, the loan ratio of large companies was about one-third higher than that of the medium-sized and small companies. A survey conducted by the Economic Federation in 1975 shows that 61 percent of 365 large businesses borrowed more than 100 percent of the value of their assets, in contrast to the indebtedness ratio of the medium-sized and small manufacturers, which was 75 percent in 1973 and 66 percent in 1974 (*Dong-A Ilbo*, March 2, 1976). Large companies with more than 1 billion *won* of assets in 1978 financed nearly two-thirds (66.4 percent) of their assets in loans, whereas the average small companies with 5 million *won* of assets were able to finance only 17.4 percent of their assets. One *jaebeol* that had 2.86 trillion *won* of assets had a sum of loans amounting to 2.61 trillion *won*, which represented 91 percent of the value of the firm's assets. More astonishing, perhaps, was that its short-term loans amounted to 1.1 trillion *won*, or 38.5 percent of the value of its assets (*Dong-A Ilbo,* October 6, 1978).

In terms of bank loans, the average ratio of large corporations equaled 47.6 percent of assets, in contrast to only 38 percent for the medium-sized and small businesses (*Dong-A Ilbo*, August 5, 1975). The average net borrowing of unincorporated businesses (which were typically small) was only 23.1 percent of assets (calculated in L. P. Jones 1975: 82). The Bank of Korea's study reported that the small and medium-sized businesses' borrowings were equal to 22.3 percent of the value of their assets (the Bank of Korea's analysis of business management for 1977 was cited in *Dong-A Ilbo* and *Kyonghyang Shinmun*, August 11, 1978). The above survey reveals that the ratio became successively larger as the amount of assets grew.

The granting of bank loans to favored large businesses is also clearly shown in terms of the debt-to-equity ratio. The ratio of large corporations was higher than that of small and medium-sized businesses. The ratios of most large businesses were reported to have been close to 6 in 1959, while typically they had been in the 3 to 4 range in manufacturing. The ratio decreased somewhat over time, but indebtedness of the largest corporations, the *jaebeol*, was equal to 487.9 percent of the owners' equity in the mid-1970s, while that of the small and medium-sized businesses was equal to 347.5 percent (according to the Bank of Korea's "Analysis of Business Management for 1977," cited in *Dong-A Ilbo* and *Kyeong Hyang Shinmun*, August 11, 1978). The indebtedness ratio of business in general was 313.4 percent in 1972 and 366.8 percent in 1978.

A similar situation prevailed in the 1980s. The ratio of the large firms was higher than that of the small and medium-sized firms. The average ratio of indebtedness to capital shares of 50 *jaebeol* was 714.3 percent, which was twice as much as the average liability ratio of 360 percent for the manufacturing sector as a whole, which included firms of all sizes. The ratio of the 30 companies with the greatest debt in 1987 ranged from 612 to 6,396 percent. Many of these companies were owned by *jaebeol* (*Newreview*, August 22, 1987, 11). The ratio of debt to net worth of Lucky-Goldstar in 1987 was 408 percent. That is nothing compared with the Dong-Ah Group, a construction-oriented *jaebeol*, which had a ratio of 2,930 percent. Even as recently as 1999, the two of the largest *jaebeol* in the country, Hyundai and Daewoo, were reported to have debt-to-equity ratios of 340 percent and 590 percent, respectively (Associated Press, quoted in the *Ann Arbor News*, September 26, 1999).

The ratio of bank loans to equity was directly related. In 1978, for instance, businesses with more than 1 billion *won* in assets had debt-to-equity ratios of 200 percent in contrast to 21 percent for the firms with less than 5 million won in assets. Similarly, the ratio of bank loans to net worth was directly related. It was reported that 59 corporations in 1978 had bank debt equal to 300 percent of owners' equity. In 1983, a total of 874 businesses had outstanding bank loans of more than 200 percent of their capital. In 1987, the average ratio of bank loans to net worth of the 82 businesses that had bank loans of 50 billion *won* or more was 174 percent (*Newreview*, May 30, 1987, 10). The nation's 30 largest business groups had to repay their bank loans first with funds derived from the sale of nonbusiness real estate or stocks (*Newsreview*, February 8, 1992, 16), and the ratio was supposed to have decreased to 137 percent in 1988 (*Newreview*, May 30, 1987, 10).

Likewise, according to a Bank of Korea analysis in 1976, the indebtedness (bank loans, domestic and foreign) of large corporations in 1975 was 130 percent of the

value of their collateral, which was twice that of medium-sized and small businesses (that is, 66 percent). When curb loans and other indebtedness were added, the debt ratio of the former would have reached 2.1 times collateral assets. Other surveys and reports indicate a somewhat less strained relationship. Long-term loans and other forms of liability in most large businesses constituted over four-fifths of their total assets.

APPENDIX 5.2: SAMSUNG *JAEBEOL*

It was primarily borrowing from banks that enabled Samsung *jaebeol* to become the country's biggest conglomerate. Its initial major project was a textile mill, the Cheil Wool Company. With encouragement from the minister of industry and commerce, the firm quickly initiated plant construction with an International Cooperation Administration (ICA) credit of 500 million *won*, about 50 times its founder's original equity investment (Republic of Korea, Ministry of Reconstruction 1958: 50, 72). Thereafter, the textile firm came to rely on access to state-controlled credits for industrial expansion. The company secured a total of $460,000 in ICA loans in September 1957 for the importation of raw materials and a further $250,000 in December—totaling $710,000 (355 million *won*) and more than three times the founder's original equity investment, even at the artificially low exchange rate. The government support continued. The firm received a loan of $28,000 in October 1958 for the procurement of chemicals and $140,000 in November of that year for electrical generation equipment. Cheil Wool put together another major package of foreign aid credits in 1959. A loan of $100,000 was received in July for the importation of raw wool, $500,000 for semirefined wool, and $177,000 for machinery. Loans of more than $1 million in that year alone exceeded the equity capital of the firm. If vested properties were critical to diversification of Samsung's portfolio, state-controlled credit resources were important for its ventures in light industry.

APPENDIX 6.1: CORRUPTION

Corruption in South Korea was significantly higher than the country's level of development, because opacity invariably promoted an environment in which corruption flourished. The preponderance of relationship-based business deals—that is, the number of cases in which individuals at high levels of government or business were perceived to have flouted or broken the law without incurring relevant penalties—is reputed to have been pervasive (A. Salmon 2001: 44–45). South Korea was ranked 18th (out of 19 leading exporters surveyed) in the Transparency International (TI) 1999 Bribe-Paying Index (ahead of China but behind Malaysia and Thailand) and 48th out of 90 countries surveyed in TI's 2000 Corruption Perception Index.

In fact, numerous reports have revealed cases of under-the-table dealings. For example, in the spring of 1962, 4,369 politicians and government officials were forbidden to participate in politics under suspicion of corruption, although all but 74 were cleared after undergoing screening. Similarly, in a screening of 41,000 government employees, 1,863 were found to have been involved in corruption and "antirevolutionary" activities (Haggard, Kim, and Moon 1991: 868). The usual kickback rate for bank loans was reported to have been about 20 percent of the amount of loans (Y. Shin 2000: 277). In later years, special tariffs were introduced and deposit requirements were strengthened in an effort to reduce the windfall gains accrued from importing restricted items, since rent-seeking activities frequently were associated with corruption. Not limiting itself to individual kickbacks, it was estimated that even the political party in power in the 1950s also had an interest in 29 projects and a substantial stake in at least 50 percent of all of the private projects receiving American aid in 1960 (J. A. Kim 1975: 152).

The number of widely publicized cases in which individuals at high levels of government or business were perceived to have flouted or broken the law without

incurring penalties was reported to be substantial (A. Salmon 2001: 44–45). Even as recently as May 2006, there were reports about one of the largest *jaebeol* setting up slush funds to seek government favors. Prosecutors indicted Hyundai Motor Company chairman Mong-koo Chung for transferring $106 million of company money to create a slush fund. The secret money was to be used to seek favors from the government ("Hyundai Chairman Indicted in Scandal," *Ann Arbor News*, May 16, 2006). Also, Korea's largest *jaebeol*, electronics giant Samsung, was the target of a similar investigation a few months earlier (ibid., May 18, 2006).

APPENDIX 6.2: THE INDEBTEDNESS OF SHIPBUILDING AND SHIPPING COMPANIES

The indebtedness of shipbuilding companies was 1.4 trillion *won* for Daewoo, 880 billion *won* for Hyundai, 820 billion *won* for Samsung, and 610 billion *won* for the Korea Shipbuilding and Engineering Corp (*Newsreview*, April 30, 1988, 14). The government announced its bailout offer in 1989. The South Korean government approved a $1 billion rescue package for three of the five largest shipyards. Daewoo Shipbuilding & Heavy Machinery Company, the nation's second-largest shipyard, had debts totaling $1.94 billion and losses of $318 million in 1988 (*Wall Street Journal*, August 29, 1989). The bailout package gave Daewoo $600 million in interest-free state loans and rescheduled its debt to keep it afloat. Under the plan, the state-owned Korea Development Bank granted the company a moratorium on an existing loan of 250 billion *won* ($372.7 million), allowing it to pay in installments over 10 years after a 7-year grace period. The bank also extended a new 150 billion *won* (about $224 million) loan. Daewoo likewise received tax exemptions and other benefits. The minister of trade and industry announced that neither the government nor the state-owned Korea Development Bank, which held 33 percent of Daewoo Shipping, would put any new capital into the company ("South Korea Proposes a Loan, Rescheduling for a Daewoo Unit," *Wall Street Journal*, March 28, 1989).

In another case, the Pan Ocean Shipping Company had outstanding debt at the end of 1986 reportedly amounting to 1 trillion *won* ($1.2 billion). The total assets of the company were valued at 948.5 billion *won* ($1.12 billion), although market watchers saw the value as much lower (Wang-ky Kim, "Pan Ocean Shipping Co. Struggles to Stay Afloat," *Korea Herald*, April 28, 1987). According to one newspaper report, Pan Ocean had 858.5 billion *won* ($1,012.5 million) in debt in 1987. It borrowed from the Korea Development Bank (467.1 billion *won*), the Bank of Seoul (136 billion *won*), the Korea Exchange Bank (97.9 billion *won*), the Cho Hung Bank (28.3 billion *won*), Korea First Bank (27.4 billion *won*), Hanil Bank

(16.8 billion *won*), foreign banks in Korea (20.9 billion *won*), and short-term finance companies (39 billion *won*) ("Bank of Seoul Grants Pan Ocean Debt Moratorium," *Korea Herald*, April 24, 1987). According to another newspaper report, seven banks (Development Bank, Bank of Seoul, Housing Bank, Foreign Exchange Bank, Trust Bank (Shintok), Cho Hung Bank, and Bank of Commerce) "illegally loaned 7.4 billion *won* to 18 corporations connected with Yong-Bok Park, an operator of a shipping company. It was alleged that the borrower even forged a commercial letter of credit (*Kyeong Hyang Shinmun,* April 19, 1974). In addition to the loans, the company had to pay more than 100 billion *won* in interest annually, equivalent to one-third of its operational income of 339 billion *won* in 1973.

APPENDIX 6.3: *JAEBEOL* PROBLEMS

Notwithstanding the successes of the *jaebeol* and the nation's economy, there are a number of so-called *jaebeol* problems. First of all, the goals and orientation of the *jaebeol* have departed from the traditional one: namely, profitability. Despite their tremendous financial success, the principal ambition of *jaebeol* in later years, namely, the building of business empires, came into conflict with profitability. While their early expansion came about largely in response to goals set by the government under its industrial policy, the later expansion came mostly in response to goals set by the controlling *jaebeol* families, especially the chairmen. It was increasingly believed that the Korean government would not let their industrial empires collapse (E. M. Graham 2003: 21). It is generally accepted that the largest of the *jaebeol* were subject to a "too-large-to-fail doctrine" at least until the onset of the 1997 financial crisis. What happened in 1997 was the consequence of the combination of their high leverage with equity cross-holdings and some affiliates with low returns.

The heart of the problem created by this structure has been that, from the early 1970s until 1997, the *jaebeol* expanded and diversified at very rapid rates with borrowed money. As expansion of the *jaebeol* progressed, money was often invested in activities with low returns. These developments had become so profound that they put a number of large *jaebeol* on the edge of bankruptcy and a few, in fact, have gone bankrupt. Moreover, the problem was so extensive that circumstances could be envisaged where, even if the government had been willing to bail out all large failing groups, it could not have easily found the means to do so. The government and the *jaebeol* continued to control most of the financial institutions, but the *jaebeol* dominated the economy. At the beginning of the 1990s, the combined turnover of the top ten *jaebeol* in South Korea equaled 77.3 percent of GDP, while the top 50 accounted for 97.4 percent (D. Kirk 1994).

Second, another source of *jaebeol* problems is the family control structure, and the *jaebeol* families are determined to cling to it. The *jaebeol* may give an appearance of being publicly held companies, but they are tightly controlled by the founders' families. Only about 30 percent of the top 30 *jaebeol* have gone public. But even among these, the majority of their equity shares are held by the original owners or their family members or both, although the extent of their control is variously estimated. According to one study, the ownership of the top five *jaebeol* ranged from 37.7 to 65.5 percent, averaging about 50 percent (Hyundai, 65.5 percent; Daewoo, 48.8 percent; Samsung, 58.3 percent; Lucky-Goldstar, 39.7 percent; and Ssangyong, 37.7 percent (SaKong 1980: 11), while about 46 percent of total paid-in capital of the top 30 *jaebeol* was held by a majority individual shareholder, his relatives, and *jaebeol* companies as of April 1992. The comparable numbers were 57.2 percent in 1983 and 43.4 percent in 1993. According to a former South Korean finance minister, just under half of all the paid-in capital of the top 30 groups was held by a majority stockholder, usually the founder or a second-generation descendant, his relatives, or other group companies (I. SaKong 1980: 11). Some studies have estimated that the average *jaebeol* family ownership was only about 12.7 percent and, for the top *jaebeol*, as low as less than 5 percent. Similarly, Korea Fair Trade Commission data show that the ownership share of the founder's family for the top 30 groups on average declined from 17.2 percent in 1983 to 8.5 percent in 1997 (W-h. Lim 2001: 29). The same data also reveal that while the cross-shareholdings under the direct control of the chairman's office for the top 30 *jaebeol* in 1997 were 43 percent, the actual percentage of shareholdings of the founding families amounted to only 8.5 percent.

In spite of owning not more than half of the stock, the founders or founders' families still tightly control these *jaebeol* corporations. The concentration of economic power is usually in the hands of an individual or a small circle of family owners. At the center of each *jaebeol* is the chairman, who generally is the cohesive force. Typically, he is an entrepreneur, in the truest sense of the word, who founded one enterprise and then left its management to a relative as he moved on to a new venture. Once they established several businesses, they commonly used interindustrial cross-subsidization among firms through such means as cross-equity shareholdings and cross-loan guarantees to wield economic power even greater than the financial resources they possessed. This economic concentration is not just corporate but also personal. In the case of the Hyundai *jaebeol*, the founding member, Ju Yung Chung, perhaps Korea's richest man in 1992, commanded a personal fortune estimated at between $4 billion and $6.5 billion (D. Kirk 1994).

Third, another major concern with the *jaebeol*'s tight control by the founding man or family is the disregard for the minority shareholders' interests. *Jaebeol* families' uncontested management control might have offered speed and flexibility, but it also severely limited the rights of minority shareholders and extracted the family's benefits at the expense of minority shareholders. The chairman of a *jaebeol,* especially the founder, directed and coordinated such key operations as finance, personnel, and investments of the *jaebeol* group's affiliated firms, through the centralized office of planning and coordination, even though the founding families directly owned less than 50 percent of the outstanding shares of their companies. In

spite of the fact that the *jaebeol*'s principal family shareholding was relatively small, their control of the conglomerates was firm in terms of management. Internal monitoring and the supervision of management by an independent board of directors were available, but all the board members were senior executives of the company itself, whose managerial careers were wholly dependent on the chairman and CEO in a system of lifetime employment. In most advanced industrialized countries, boards of directors are a critical element in corporate governance, because they are the link between the stockholders and corporate management. The Korean boards of directors did not function as an important internal monitoring mechanism. Also, auditors were believed to have been appointed by insiders.

In South Korea, before the financial crisis of 1997, the gap between ownership and control widened and the effectiveness of the state-led monitoring and incentive system was greatly reduced. When ownership and control are separated, it is important to devise an incentive and monitoring scheme to make sure that managers work in the best interests of the shareholders rather than their own. Yet, there were no concomitant changes in incentives and monitoring, and few financial institutions or institutional investors were allowed to step in to serve this function. This transaction gap in financial resource allocation and corporate governance formed the background of the 1997 crisis. Large distressed firms have the capacity to destabilize financial markets, and nonviable firms are a drag on the economy.

One consequence of such a set-up is that firms in Korea in which the controlling interests were not majority shareholders earned far less profit than did those firms in which the controlling interests held majority equity positions (S-w. Joh 2003: chapter 9). The consolidated financial statements produced by the *jaebeol* in 2000 under a new government requirement revealed that many had registered very poor operating performances (P. M. Beck 2000: 25). The former firms typically had far higher debt-to-equity ratios than did the latter. This enabled the skewing of risk and return to favor the controlling families. This was because the affiliates—which were often high-risk ventures—were typically also financed by means of leverage, and the loans were guaranteed by larger, more established, and less risky affiliates in which there was substantial nonfamily equity participation. Coupled with weak minority shareholders' rights, the ownership and control structure of the *jaebeol* defied a system that makes for good corporate governance.

Among the *jaebeol* shareholders, the controlling family benefited the most, because of the business setup of cross-shareholdings and intercompany loan guarantees (or interaffiliate debt guarantees) to ensure their preferred credit access to both Korean and international financial institutions (Y. S. Park 2001: 35). The controlling families used nonfamily shareholders of *jaebeol*-affiliated firms to guarantee the debt of other affiliates in which the controlling shareholders, but not the nonfamily shareholders, held equity through interaffiliate debt guarantees. In this way, if the high-risk venture succeeded, the shareholders garnered high returns. If it failed, the costs were borne, via the loan guarantees, ultimately by the shareholders of the established affiliate—shareholders that included not only insiders but also outsiders. Therefore, the *jaebeol* firms in which controlling interests were not majority shareholders earned far lower rates of profit than did those firms in which controlling interests held majority equity positions. In this way, the controlling

family *jaebeol* firms benefited most from the business setup of cross-shareholdings and intercompany loan guarantees.

Jaebeol watchers are in basic agreement on the pressing need for reform but differ in their prescriptions. The World Bank and the IMF proposed that top priority be given to streamlining insolvency procedures so that more *jaebeol* be allowed to go bankrupt. Some go so far as to propose that the *jaebeol* be broken up (for example, E. M. Graham 2003). Some argue that unless healthy subsidiaries are freed from their sickly siblings, South Korea risks prolonging its economic stagnation.

APPENDIX 7.1: *JAEBEOL* AND THE GOVERNMENT

Jaebeol and the government worked very closely. The government elicited the *jaebeol*'s cooperation in promoting the nation's economic growth, and the *jaebeol*, who vied with each other for prestige and influence in the government and defended their common interests through the Trade and Industry Association, were ready to fulfill the government's economic goals. They worked hard to help achieve the goal of speedy industrialization and economic development. When the economic goals were set and provided the blueprint for industrial expansion, it was the *jaebeol* that realized the government's plans, thus contributing to the expansion of the industrial sector and the nation's economic growth. In the initial stage, *jaebeol* that had concentrated on wigs and textiles in the 1950s and early 1960s rushed into the heavy, defense, and chemical industries in the mid-1970s and 1980s, adhering to the government's goals. They had the financial wherewithal and managerial and technical ability to take over public manufacturing enterprises and thus were channeled into targeted sectors and so-called strategic industries. By investing heavily in those sectors, big businesses flourished under the industrial and financial policies. Whenever political domination was secured, the *jaebeol* won a preferential position.

As shown above, the alliance between the government and the burgeoning *jaebeol* was simple: they were willing to fulfill each other's objectives. In this manner, they established a symbiotic relationship and worked intimately with each other as partners, mutually assisting the growth of the nation's economy and the formation and expansion of the *jaebeol.* Also, the close working relationship between the government and big business became a "Korean tradition," very much akin to the situation that prevailed under Japanese rule in Korea, as well as in Japan, before World War II (see Y. Chung 2006). The *jaebeol*, which were often treated like government enterprises, worked closely with the government across a wide range of activities—interventions that went beyond the creation of market incentives. In

this way, the economic system incorporated elements of both state capitalism and free enterprise. The close cooperation of government and corporate leaders was a major element in initiating and sustaining the modernization of the South Korean economy, which was essential to subsequent economic growth and the astounding successes of the *jaebeol*.

The rapidly expanding role of the entrepreneurial class was one of the most important factors in South Korea's record-setting investment and economic development during the last half of the twentieth century. To a large extent, the *jaebeol* were responsible for the successful expansion of South Korea's export capacity and basic industries (e.g., the heavy and chemical industries). As one economist at the Korea Development Institute summed it up, "The *jaebeol* symbolize the success and the failure of the Korean economy. You can't separate the two" (Kyu Uck Lee, quoted in Damon Darlin, "Tougher Times: Korea's Goldstar Face a Harsh New World under Democracy," *Wall Street Journal*, November 8, 1989). Especially favored beneficiaries among the large firms were those that engaged in new, entrepreneurial projects, especially capital- and technology-intensive industries, which introduced new industries and promoted economic growth.

APPENDIX 8.1: FDI OF THE UNITED STATES AND JAPAN AND THEIR FIRMS

There were a number of differences, some of which are rather subtle but notable, in the FDI of the United States and Japan. To begin with, the scale of U.S. investment in Korea was larger than that of the Japanese. U.S. businesses on average invested about $1.6 million in 1971–72, while the average Japanese investment was a little more than a third of that amount ($600,000). In later years, U.S. investment has been about 1.7 times that of the Japanese; specifically, about $1.5 million for the United States and $900,000 for the Japanese. While Japanese firms were much more export oriented, shipping out about 70 percent of their production, U.S. firms were more import oriented. Japanese firms ran up large trade surpluses in 1984–86 and accounted for more than 65 percent of Korea's trade surplus in 1986. In contrast, U.S. firms ran up trade deficits in 1984–86. In addition, the sectoral distribution of FDI from the two countries was different. U.S. FDI was concentrated primarily in petrochemicals, transportation equipment, and electronics, while Japanese investments were heavily weighted toward hotel services, electronics, petrochemicals, and textiles and garments. However, more recently a larger proportion of Japanese FDI has begun to be channeled into electronics and electrical equipment, transportation equipment, petrochemicals, and financial services.

The intensity of the use of labor and capital in their investments was also considerably different. The Japanese investment per employee was much smaller than that of the United States. The same pattern emerges when total capital, including that of local partners, is divided by the number of employees. By that measure, Japanese firms used even less capital per employee than domestic manufacturers. To put it somewhat differently, the proportion of capital goods in U.S. investments was significantly higher than that of the Japanese. When investments are divided among labor-intensive, low-technology, and capital-intensive industries, more Japanese than U.S. FDI was in the labor-intensive industries. Japanese firms hired more

than three times as many workers. Nearly nine-tenths of the products that Japanese FDI firms produced were reported to have been outdated (in terms of reliance on capital goods in contrast to labor) and resembled the type of goods produced in Western countries in earlier decades. U.S. FDI was concentrated in the same group, though to a lesser extent, and the proportion of capital goods in U.S. investments was significantly higher than for the Japanese. Consequently, the value added per employee was much larger for U.S. firms.

Between Japanese and U.S. businesses, the number and sophistication of investment in new technology showed considerable difference. Japanese partners gave more assistance to Koreans in the assembly of machinery and maintenance, whereas U.S. partners apparently provided more patented technology. The number of licenses from Japan during 1962–80 was 2.5 times larger than that from the United States (2,321 vs. 1,057) (*Korea Newsreview*, August 29, 1987), but the largest amount of royalties—$863.5 million, or 44.2 percent of the total—went to the United States, while Japan came next with $608.2 million, or 31.1 percent. The average fee for a Japanese license was less than half that paid to U.S. firms. Korean businesses paid an average of $816,935 for each piece of U.S. technology and $262,042 each for Japanese, which seems to indicate that the latter was rather modest and not as technologically advanced. Nonetheless, Japan's share of royalty payments have increased, while those to the United States have decreased over time. Japan's share increased from 24.8 percent in 1983 to 31.5 percent in 1986, while the U.S. share dropped from 54.5 percent in 1984 to 46.6 percent in 1986.

The investments of the United States and Japan on the whole complemented, rather than competed with, each other over time. While U.S. investments augmented native ones, the Japanese investments often competed against the medium-sized and small Korean businesses. Nearly nine-tenths of their output was in the production of Western goods.

The returns on FDI appear to have been reasonably high, but there was a sharp difference in the ratio of profit remitted to remaining FDI among different countries. The total profit rate (remitted dividends plus reinvested profits and royalties as a percentage of the outstanding balance of FDI) averaged 12 percent per year during 1984–87. FDI in Korea was reported to have been more profitable than commercial loans, and it tended to have higher profits than its Korean counterparts in most manufacturing industries. The average ratio of profits to value added for foreign firms was 45.9 percent, in comparison to 40.5 percent for domestic firms. On the whole, remittances stemming from investment at the end of June 1986 totaled $713 million. The ratio of remittances to investment has largely remained at 5 to 6 percent since the 1970s, with that of 1986 registering 6.8 percent, the highest level since 1978.

The United States and Japan received the most income from South Korea, almost 43 and 30 percent of the total profits of $807 million remitted between 1977 and 1987, respectively. While the Japanese dominated investment (for the period between 1969 and 1986, Japan was the predominant investor in South Korea), topping the list with 52 percent, and their share constituted about 46.6 percent of total FDI (*Korea Herald*, September 18, 1986), they received 30 percent of the total profits remitted between 1977 and 1987. The U.S. share constituted 33.1 percent of total

FDI, but the United States received almost 43 percent of the total profits remitted for the same period. U.S. firms sent home about 10 percent, while Japanese firms returned only about 3 percent. Consequently, the amount of Japan's unrepatriated capital was one and a half times larger than that of U.S. companies.

The management style of the two countries was visibly different. While proportionally more U.S. firms provided assistance in patented technology and technical assistance than did the Japanese firms, Japanese direct investments made a larger contribution to indigenous management know-how than did U.S. direct investments. In the assembly of machinery and maintenance, proportionately more Japanese firms provided assistance. In addition, the ownership distribution between the two countries was quite different. While wholly owned investment was 34 percent for the United States at the end of 1987, it was only 19 percent for Japan (similarly, the large bulk of investment from Europe was directed toward co-owned projects).

APPENDIX 9.1: THE VALUE OF FOREIGN AID

Some observers believe that the real value of foreign aid was understated in South Korean currency. This point is especially important when one is comparing the contribution of foreign aid to domestic investment and GNP in South Korean currency (*won*). There is at least one reason to believe that the actual ratios of U.S. economic aid to GNP in the early years, especially before 1961, were significantly higher than those based on the official statistics. The reason is that the official exchange rates valued the dollar considerably below market levels. This situation led to calculating the value of U.S. aid in Korean currency at lower levels, thereby depressing the ratios. In 1956, for instance, on the basis of the official exchange rate of 500 *won* to $1, the ratio of foreign aid to GNP was 13.4 percent. But on the basis of a realistic free-market exchange rate of 800 *won* to $1, the ratio is about 20 percent. Soon after 1961, however, this type of bias was minimized as a result of the setting of the official exchange rate nearly at the market rate.

Since economic aid figures are available only in U.S. dollars, not in Korean currency, and national income figures for Korea from the early years are reported in Korean currency, it is necessary to convert economic aid values into Korean *won*. Since the exchange rates of South Korean currency were overvalued while U.S. dollars were underrated, especially in the 1950s and the 1960s, the real value of a large share of the foreign aid in South Korean currency was obviously understated. The tendency to "down-value" foreign aid in relation to GNP was probably offset to a considerable degree, though not to the full extent, by the overvaluing tendencies of economic aid. When adjustments are made, the relative contribution of foreign aid to the Korean economy before 1961 was still greater than the figures shown in the calculations based on the official data.

Other observers believe that the "real" worth of foreign aid was overstated by applying higher prices in evaluating tie-in-aid goods instead of applying their

prevailing market prices. Most of the goods and services imported, probably over 90 percent, were the tie-in-aid goods from the United States, while most of the other relatively small amount was purchased from Japan. The importation of goods and services from the United States was mandated by the provisions of aid-in-kind and tie-in aid. It seems clear that the prices applied to these imported aid goods and services were higher than those that prevailed in the international market (*Joong Ahng Ilbo*, August 10, 1967).

Tie-in aid, which was based on the "buy-and-ship-American" policy of the grantor country, not only limited the recipient country's choice as to the most suitable sources of supply but also forced it to buy almost exclusively from the United States, especially after 1961, at prices higher than those in the world market (Controller General Joseph Campbell's report in the *New York Times*, June 26, 1957, 10). The value in dollars of surplus commodities transferred under the aid program of Public Law (PL) 480, for example, is generally thought to have been substantially above the "real" export market value of the commodities. It has been estimated that, on average, South Korea paid 10 to 25 percent higher prices for U.S. goods and services (Nihon Keizai Chosa Kyogikai 1964: 207–8; R. E. Asher 1961: 59). Some have suggested that the tying of aid may have increased costs by as much as 20 to 40 percent, and in extreme instances may have even resulted in price differentials of 100 percent or more (R. M. Stern 1966: 16–17).

The second factor that caused the dollar value of economic aid to be higher than real worth was that a part of the proceeds from the sale of commodities given to South Korea under PL 480 was taken by the United States to cover its administrative costs and other expenses that would ordinarily have required expenditures in Korean currency. To the extent that the proceeds were spent by the United States for its own purposes, they should not be considered aid to South Korea. It is generally believed that about 5 percent of the proceeds were used by the United States for this purpose. Third, the real worth or present discounted value of any long-term loans would be less than the present value of grants.

Finally, some have alleged that foreign aid was not efficiently nor effectively carried out. It has been argued that there was a "significant" amount of waste (Nihon Keizai Chosa Kyogikai 1964: 207–8; R. E. Asher 1961: 59; Controller General Joseph Campbell's report in the *New York Times*, June 26, 1957, 10). One report, for instance, observed that "in Korea tens of millions of dollars of aid money are being wasted outright." One of the causes of the waste was "the simple failure to apply common sense business methods" (U.S. Congress 1958: 734). U.S. government officials complained that there were "inefficiencies" and "deficiencies" in American handling of the program and that exports of U.S. goods to South Korea had suffered from the ineffective use of aid dollars. Among others, two reports may be cited: Controller General Joseph Campbell (*New York Times*, June 26, 1957, 10); and Walter P. McConaughy, Assistant Secretary of State for Far Eastern Affairs (U.S. Congress 1960: 552–53).

Another area of alleged waste was related to U.S. aid missions. All parties connected with the economic aid programs, both the grantor and grantee countries, expressed their dissatisfaction in that the aid programs were too heavily staffed with the expensive grantor country's personnel (U.S. Congress 1961: 200; U.S. Senate

1963b: 14; South Korean President S. Rhee's statement to the press, *New York Times*, December 15, 1953, 2). Some Korean officials protested that aid was always accompanied by a large influx of American advisers and experts (W. D. Reeve 1963: 123). The South Korean government also chided the aid missions for their excessive travel and administrative expenditures.

It is difficult to corroborate all of these allegations, particularly the latter, but subsequent policy changes intended to ameliorate these concerns seem to bear out to some degree the validity of these charges. In 1962, for instance, a new, economy-minded aid mission head slashed the number of U.S. staff from 297 to 144 "without any serious handicap to the mission's operations" (U.S. Congress 1963b: 52). Some fragmentary data available also tend to support the above contention. Money spent for foreign technicians in 1960, for example, was reported to have been equivalent to 31 percent of project investments supported by the economic aid program. This would have come to represent over $25,000 per person, when the annual salary of a technician with the same qualifications in the United States probably commanded no more than $10,000 per year.

Another aspect of the ineffectiveness of the aid programs was corruption and illegal practices. The failure to enforce the "elementary rules of honest administration" is thought to have been one of the causes. The most frequent criticism is that many funds were siphoned off by corrupt officials (U.S. Congress 1957: 734; A. M. Rosenthall, "U.S. Acts to Tighten Efficiency of South Korean Aid Program," *New York Times*, March 26, 1961. Although there are no accurate data available, undoubtedly some small fortunes were made out of the aid programs, as demonstrated by the high standards of living maintained by some officials supposedly receiving below-subsistence-level salaries. In all fairness, however, the corrupt practices involved with the aid programs cannot be said to have differed much from ordinary business practices in the United States. It is possible and probable that the mass media exaggerated the extent of the corruption. To date there has been no evidence proving that many officials amassed enormous personal fortunes. A rumor widely circulated as truth involving the former president Syngman Rhee, for instance, can be cited as a case in point. It was generally believed in the 1950s that President Rhee and his wife accumulated a huge fortune through bribes received from businessmen and that they deposited many millions of dollars in a Swiss bank. But all the evidence seems to indicate that they had no tangible assets other than a house at the time that they were exiled to Hawaii when his regime was overthrown. As a matter of fact, the Austrian-born Mrs. Rhee was left penniless and had to return to live with her adopted son in Korea a few years later, according to press stories.

APPENDIX 9.2: CONFLICT OVER THE FOREIGN AID PROGRAMS

It has often been argued that the foreign aid program would have been more effective had it been administered more harmoniously between the donor and recipient countries. Apparently, there was much conflict between the United States and South Korean authorities, which often resulted in less than desirable aid. At one time, the controller general of the United States charged that there was an "absence of frank and full cooperation" by the South Korean government (*New York Times*, June 26, 1957). The extent of the conflict was perhaps well reflected in a statement attributed to an American responsible for some of the aid programs in the country: "I have given away Uncle Sam's money in many parts of the world, but nowhere have I found it more needed yet more difficult to give away than in Korea" (quoted in W. D. Reeve 1963: 114). These conflicts were numerous and often acidulous, especially during the Rhee administration.

There were many reasons for the conflicts. Many Koreans alleged in the early years that aid funds were spent and materials bought without the full knowledge of the recipient (*New York Times*, December 15, 1953, 2). Also, South Korean officials believed that they were better able to handle aid funds and could use them more effectively in their own country than Americans could (*New York Times*, October 27, 1954, 8) Some Korean officials protested that the initiation and supervision of projects should have been the responsibility of the Korean government (W. D. Reeve 1963: 123). Also, the South Korean government insisted at one point that certain purchases of goods from Japan were "unnecessary and useless" and was reluctant to procure from Japan, in opposition to U.S. pressure to do so (*New York Times*, July 4, 1957, September 21, 1954, and December 15, 1953).

Undoubtedly, a certain amount of conflict should have been expected when two parties dealt from opposite sides of a table. A few conflicts were obviously politically motivated, while others were petty, sometimes originating in personal

idiosyncrasies. Still others reflected the frustration of not being able to see immediate results, in contrast to the uplifting hope engendered by a large inflow of economic aid. Many other conflicts emanated from fundamental differences in the appraisal of Korea's needs and the orientation and management of funds. However, it seems that many of these conflicts were unnecessarily frequent and accusatory, particularly before 1961, when the bulk of the aid was granted. Most conflicts were resolved through compromise, although some of those compromises appear to have resulted in worse outcomes than independent decisions would have produced. On the other hand, other compromises resulted in improvements in the aid program.

NOTES

PREFACE

1. Of the 98,190 square kilometers that make up South Korea, only about one-quarter of the land is arable. With a population density of 454 persons per square kilometer (in 1993), South Korea is even more densely populated than Japan (330) and the Netherlands (409).

CHAPTER 1

1. The emphasis on the role of capital in the development of an economy in no way implies that other ingredients for development are unimportant. See W. A. Lewis 1955: 201–2.

2. Norimitsu Onishi, "In a Wired South Korea, Robots Will Feel Right at Home," *New York Times International*, April 2, 2006.

3. Howard W. French, "What Soccer Hath Joined: The Rockiest Match," *New York Times*, May 12, 2002.

4. It should be noted at the outset that this study cites more sources written in English than in any other language, including Korean, for two reasons. First, since this study is written in English, it is presumed that readers will be mainly English-speaking students of Korean study and economics who may be interested in pursuing further study. Second, the English sources are in many incidences more objective, detached, and critical, since the authors are typically scholars who view Korean affairs with a discerning, dispassionate, and interpretative eye.

CHAPTER 2

1. Y-I Chung 2006.
2. Ohkawa and Rosovsky 1973: 89.
3. S. Y. Hong 1962: 41, 64; C. Y. Lee 1962: 146–47.
4. Cole and Lyman 1971: 123.
5. N. Nakagawa 1964: 11.

6. Bank of Korea, *Economic Statistics Yearbook* 1957: Statistics Section 16; S. Y. Hong 1962: 41, 64.

7. Republic of Korea, Ministry of Transportation 1954.

8. Nihon Keizai Chosa Kyogikai 1964: 129; N. Nakagawa 1964: 11.

9. U.S. Economic Cooperation Administration Report 1950.

10. Nihon Keizai Chosa Kyogikai 1964: 129.

11. Jong Won Lee 2001: 98.

12. S. Y. Hong 1962: 41, 64.

13. Nihon Keizai Chosa Kyogikai 1964: 138.

14. S. Y. Hong 1962: 64.

15. For example, R. E. Asher 1961: 94.

16. W. D. Reeve 1963: 121.

17. *Dong-A Ilbo*, January 1, 1970.

18. L. E. Westphal (1982: 37) observed that it was a popular misconception to ascribe South Korea's economic success to the heavy flow of aid from and trade preferences of the United States and Japan.

19. Barro and Lee (1993) argue that political revolution reduces economic growth. According to them, the higher the probability of revolution, the less stable property rights are and therefore the lower is the incentive to invest. They find that an increase in the frequency of revolution by 0.2 percent per year reduces the annual growth rate by 0.3 percent.

20. The average annual growth rate of GDP between 1983 and 1987 was 10.1 percent, which compares favorably with 9 percent for Taiwan, 4.7 percent for Singapore, 3.6 percent for Japan, and 3.5 percent for the United States. During the 1985–88 period, South Korea's GDP grew at an average annual rate of 12.8 percent, compared with 10.2 percent for Taiwan, 7.2 percent for Singapore, 4.3 percent for Japan, and 2.5 percent for West Germany.

21. Ohkawa and Rosovsky 1973: 89.

22. For instance, A. H. Amsden 1989.

23. The average annual growth rate of GDP between 1986 and 1988 was 12.4 percent. The government's sixth five-year plan, for the 1987–91 period, anticipated the rise of the nation's real GDP from $83.1 billion in 1985 to $160.6 billion in 1991, nearly doubling the output in six years and increasing at an annual average rate of 7.2 percent. Real per capita GDP was expected to rise from $2,032 to $3,970, an annual increase of over 6 percent, during the same period. A central bank spokesman even speculated that should South Korea expand its output by around 10 percent annually, the nation would enter the top 10 in three or four years. The jobless rate was expected to be 3.7 percent, while prices rose by 2 to 3 percent per annum during 1987–91.

Also, based on Korea's economic achievements in the past decades, the Korea Development Institute was projecting that per capita real GDP in 2000 would be above $5,000, with annual average growth in GDP of 7.8 percent during 1985–90 and 7.2 percent during 1991–2000. According to a government draft of the seventh five-year socioeconomic development plan (1992–96), the Korean economy was projected to grow by 7 percent annually during the next five-year plan, to bring the nation's per capita income to $10,190 by 1996. The draft, prepared by the Economic Planning Board before 1992, projected GDP to be $450 billion. Furthermore, the projection was made that South Korea's economy in the year 2000 was anticipated to reach the level of the British economy, then with per capita income of $15,000 and GDP of $680 billion. These projections meant that Korea would have been the 15th largest economic power in the world and one of the top 10 trading countries at the turn of the twenty-first century had the 1997–98 financial crisis not occurred.

24. The actual average annual growth-rate target for the first five-year plan (1962–66) was 7.9 percent, whereas the plan had called for 7.1 percent. Other plans showed even greater

accomplishments: an actual growth rate of 9.7 percent, compared with the planned rate of 7 percent for the second plan (1967–71); an actual rate of 10.2 percent, compared with the planned growth rate of 8.6 percent for the third plan (1972–76); an actual rate of 8.7 percent, compared with the planned rate of 7.5 percent for the fifth plan (1982–86); and an actual growth rate of 10 percent, compared with the planned rate of 8.2 percent for the sixth plan (1987–91). Only the fourth plan period (1977–81) showed the actual achievement lagging behind the target rates, that is, actual growth of 5.8 percent rather than 9.2 percent. The failure to fulfill the fourth five-year plan, the one exception in a startling history of right choices, may be attributed to the priority given to HCIs, as dictated by President Park. That plan was also unlucky in that it ran into the second oil shock and bad weather in 1980. The sixth five-year socioeconomic development plan anticipated an average annual growth rate of 8 percent during 1987–91.

25. Unemployment rates in 1960 and 1966 were reported to have been 24.2 and 13 percent, respectively. On the basis of these rates, the figures for 1953 and 1965 are crudely interpolated. A reporter, Foster Hailey, wrote in "Economic Strides Shown by Seoul" (*New York Times*, June 25, 1955) that most observers agreed that 25 to 30 percent of the labor force was either unemployed or underemployed. Norman Sklarewitz reported that as late as 1963, about one-fourth of Korea's labor force was unemployed ("Crisis in Korea," *Wall Street Journal*, December 16, 1963).

26. World Bank, *World Development Report* 1983: 149, 151, 191; Bank of Korea, *Economic Statistics Yearbook* 1981: 282–83; ibid. 1983.

27. The Bank of Korea's calculations reported in *Korea Newsreview*, August 22, 1992, 15.

28. Taiwan's and Singapore's per capita GDPs in 1991 were $8,648 and $13,433, compared with Korea's $6,150.

29. According to W. W. Lockwood, "The pattern of organization and entrepreneurship, which produced such rapid economic growth in Japan, can hardly be duplicated elsewhere in Asia" (1954: 591).

30. Also, Kihwan Kim 2002: 18.

31. S. Y. Kwack 2000: 258–60.

32. Manufacturing employment rose 12.1 percent per year from 1963 to 1976 when the nation's total employment increased at 3.9 percent per annum. Bank of Korea, *Economic Statistics Yearbook*, various years.

33. P. W. Krugman 1994: 73.

34. The average annual rate of increase in TFP in manufacturing on a value-added basis was about 3. According to a study (S.Y. Kwack 2000: 258–60), in the period between 1989 and 1993, the growth rate of productivity in the manufacturing sector fell to 0.6 percent, while across the period from 1971 to 1993 the average rate of increase in productivity per man-hour, adjusted for the variations in the labor's mean education years, was 6 percent in manufacturing. For manufacturing as a whole, the average rate of increase in the unit labor cost, about 13 percent, was higher than the average inflation rate, which was about 11 percent. The decline in productivity growth in early 1990 led to a rise in unit labor cost, thereby bringing about a decline in exports and in the profit margin of exports. The decline in the profit margin led to increased corporate indebtedness and nonperforming loans, which weakened corporate balance sheets even more and made financial institutions more fragile. Therefore, the productivity slowdown was one of the key causes of the financial crisis in Korea and was on the supply side of the causes rather than the financial side, where most studies described it. Declining productivity growth reflected the inefficient use of economic resources and lags in knowledge.

35. The number of workers increased from 725,000 in 1964 to 3.8 million in 1985, expanding 5.24 times in 21 years, and 3.9 million in 1998, expanding 5.4 times in 34 years

(Republic of Korea, Economic Planning Board, Mining and Manufacturing Census, 1966, 1976, and 1985, and various issues of the Bank of Korea, *Economic Statistics Yearbook*).

36. Republic of Korea, Economic Planning Board, Mining and Manufacturing Census, 1966, 1976, and 1985.

37. S. Y. Kwack 2000: 258–60.

38. The share of production in the service-sector industries decreased from about 42 percent of GDP in 1953 to about 35 percent in 1964 but rebounded to 50 percent in 1971, 53.5 percent in 1980, and 64 percent in 1993, followed by a decrease to 60 percent in 1998.

39. Bank of Korea, *Economic Statistics Yearbook* 1956: 11; ibid. 1966: 200–201.

40. J. H. Yoo 1984: 1689–1719.

41. J-C. Lim 1976: 501.

42. *Trade Korea*, May 15, 1989: 27.

43. Samsung Electronics Company's market value surged to $103 billion on January 4, 2006, more than doubling that of rival Sony Corporation, which was valued at about $41 billion. It is now among Asia's largest companies by market capitalization. Samsung is South Korea and the world's largest manufacturer of memory chips, and is also a leading maker of mobile phone handsets and other consumer electronics, including digital music players.

44. Republic of Korea, Economic Planning Board, Mining and Manufacturing Census, 1966, 1976, and 1985.

45. B-N. Song 1997: 113.

46. Republic of Korea, Economic Planning Board, Mining and Manufacturing Census, 1966, 1976, and 1985.

47. An examination of 50 first-generation *jaebeol* shows the path of their emergence. Most of them reached *jaebeol* status in the 25-year period between 1956 and 1980, while a dramatic increase occurred between 1966 and 1970. The formative years of the *jaebeol* and their early careers were in the colonial period, and, on average, they became *jaebeol* within the very short period of about 17 years from the time they first started their businesses. Typically, they became *jaebeol* when the founders were in their 40s or 50s. They came from every social class, but most came from *yangban* (gentry) and business families. Typically, during the late colonial period, the *jaebeol* had small-scale business experiences in their early undertakings, such as rice retailing, milling, and haberdashery. Also, on the whole, the *jaebeol* received far more formal education than did the majority of the nation's population, but less than political leaders and government workers. The Gyeongsang-do region, followed by Pyeongan-do, were particularly well represented among the *jaebeol*, while only small numbers came from Joel-la Do and Chungcheong-do regions (Y-I. Chung 1986).

48. *Christian Science Monitor*, September 1, 1988.

49. I. SaKong 1993: 62, table 4.3.

50. I. SaKong 1993: tables A-25 and A-26.

51. N. Nakagawa 1964: 48–49.

52. I. SaKong 1993: tables A-23 and A-24.

53. The number of small and midsized companies in Taiwan reached about 800,000, or 1 for every 25 people, and those in the manufacturing sector numbered about 100,000. Small businesses accounted for 90 percent of total industrial production, 55 percent of gross national product, 70 percent of exports, and 70 percent of employment. This is in sharp contrast to the situation in South Korea, in which the 10 largest industrial conglomerates have accounted for about 50 percent of total GDP and have contributed greatly to the nation's economic development in the past 45 years.

54. W. A. Lewis 1956: 23–55.

55. In the immediate post–Korean War period, the economic objective was buried under numerous competing goals, and economic development certainly was not a clearly established

primary goal. Perhaps the most important goal of the country at the time was the establishment and maintenance of a strong military force to guard against North Korea's potential military aggression. Within this primary goal, there were two economic objectives delineated under Syngman Rhee's regime: the reconstruction of infrastructure and industrial capacity, which had been destroyed by the Korean War, and the improvement of private consumption levels within the limits of domestic production and available foreign assistance.

56. The bureaucracy in South Korea after World War II was "substantially the old Japanese machinery," including the Home Affairs Ministry, which had jurisdiction over the Japanese-built national police. It exercised "a high degree of control over virtually all phases of the life of the people," "mainly through 'ruthlessly brutal in suppressing disorder.'" B. Cumings 2004: 224.

57. Jones and SaKong 1980: 468.

58. Cole and Lyman 1971: 80.

59. World Bank, *World Development Report* 1983.

60. M. L. Clifford 1994: 3

61. See Appendix 2.1.

62. In an interview article ("Professor in Love with Korean Literature and Culture," *Korea Policy Review*, 1, no. 6 [December 2005]: 81), An characterized Koreans as "impatient." He is an English professor at Sogang University who went to Korea as a Christian missionary, under the name of Brother Anthony of Taize, 25 years ago. He is now a naturalized Korean citizen and adopted and goes by a Korean name, "An Son-jae."

63. Sam Ip Kim, head of the influential Korean Businessmen's Association, was quoted in an article by Norman Sklarewitz, "Korea Comeback: Nation's Economy Rises from Ruin with Help of Vietnam War Orders," *Wall Street Journal*, March 17, 1966.

64. Damon Darlin, "Korea's Car Companies Expand Like Crazy Despite Lagging Sales," *Wall Street Journal*, March 2, 1990.

65. Young-il Lee, a representative to the Korean National Assembly, cited in the *Korea Herald*, September 3, 1981.

66. Urban C. Lehner, "Nation in Flux, On Eve of Olympics, South Korea Is a Land of Clashing Cultures," *Wall Street Journal*, September 6, 1988.

67. Association of Asian Studies, *Education about Asia* (Fall 1999): 24.

68. As a co-host of the 2002 World Cup soccer competition with its former colonial ruler, South Korea was bound to measure itself most urgently against the success of Japan. Not to be outdone, South Korea spent $2 billion building 10 stadiums to match Japan's construction projects, even if many of the arenas remained unfilled for World Cup matches. According to the *New York Times*, passing Japan boosts South Koreans' national pride. One Korean even dreamed of beating Japan at the final soccer match. "Imagine winning, in Japan! I think it would be bigger than the unification of Korea, in terms of the joy of the people. It would wipe away our past." To some Koreans, "beating Japan in Japan would be the ultimate payback," making it clear that "we are better than you guys." It seems the oppressors could easily forget what they had done, but victims would never forget. A similar scenario was played out in 1954, when qualifying matches were played in Tokyo. President Syngman Rhee told the South Korean players, "If you lose, don't even think of crossing the East Sea (Sea of Japan)." South Korea won the first match 5–1 and tied the second, 2–2. One of the five surviving players from that team later told the newspaper, "We went to war." Jere Longman, "Subtext in South Korea: Payback for Colonialism," *New York Times*, sec. D, June 24, 2002, 1–2. He wrote again that South Korea "was desperate not to do worse than Japan" (Jere Longman, "How a Sport Galvanized South Korea, if Just for a Month," *New York Times*, sec. 8, June 30, 2002, 5).

69. Jong Pil Kim was quoted in Daniel Sneider, "Molding an Economy to Take on the World," *Christian Science Monitor*, September 1, 1988.

70. Darlin, "Korea's Car Companies Expand Like Crazy Despite Lagging Sales."

71. I. SaKong 1993: 60.

72. G. Brown 1973: 267. In an interview with *Education about Asia* (4, no. 2 [Fall 1999]: 25, Richard E. Kim said, "I always had to be conscious of what I was and the key was 'do not disgrace the family.' "

73. Speaking at a recent symposium on the topic of Confucian Capitalism, Heng-Blackburn attributed the success of the Sino-capitalists to the virtues of hard work, thrift, and filial piety. The irony is that, for most of the century, Confucian values were either scorned as reactionary or discarded outright as an obstacle to development. The Confucian emphasis on harmony and altruism hampered the introduction of capitalist practices, which threatened traditional values. Moneymaking was either looked down on or considered a distraction from the only legitimate pursuit, that of self-improvement. "Work hard, listen to your elders, subordinate your desires to those of the group and success will be yours." John Kohut's article in the *South China Morning Post* was carried by the *Japan Times* under the headline, "The Myth of Asian Values," June 21, 1995.

74. Kim and Park 1985.

75. Korea Development Institute 1986a: 11.

76. Kim and Park 1985.

77. J. H. Yoo 1984: 1710.

78. Social Indicators in Korea published by the Republic of Korea Economic Planning Board (1986), as reported in *Korea Herald*, January 31, 1986.

79. The educational fever of Korean youth—or, more specifically, of their parents—was reflected in a number of surveys and articles on education in Korea; for example, *Dong-A Ilbo*, August 15, 1973.

80. According to a report ("Costly Export, Reverse 'Brain Drain' Helps Asia but Robs U.S. of Scarce Talent, Korea in Particular Benefits as Scientists, Engineers Return to Take Top Jobs," *Wall Street Journal*, April 18, 1989), the return of Koreans from the United States was "the largest technology transfer program in the history of the world."

81. *Korea Herald*, April 25, 1976; Sklarewitz, "Korea Comeback."

82. More recently, Ireland's economic success has attracted much attention. Today, it is the richest country in the European Union after Luxembourg. Ireland has pursued an industrial and tax policy that is consistently supportive of business. It has pursued a program of fiscal austerity, slashing corporate taxes to 12.5 percent and keeping corporate taxes low, simple, and transparent; aggressively courted investment from foreign companies all over the globe; opened the economy to competition; and made school, including college, basically free. In addition, wage and price increases were moderate.

83. Policies that reduce the rewards of business investment slow the rate of economic expansion. There are abundant examples of the effects of such policies: high taxes, inefficient educational systems, poor protection of general property rights, and political instability. While some have argued that South Korea made economic advances despite the interventionist role of the government, others claimed that the active and positive role of a strong, stable, and able government in the country has actually contributed to economic development. According to Barro and Lee (1993), the higher the level of government intervention, the lower the rate of economic growth. A 10 percentage point increase in the ratio of government consumption to GDP, for example, lowers the growth rate by 1.6 percentage points per year.

84. Cole and Lyman (1971) noted that the key to economic growth in the Park administration was a strong government capable of maintaining political stability.

CHAPTER 3

1. Emerson Chapin, "Growth Rate Up for South Korea," *New York Times*, April 24, 1966.

2. R. Nurkse 1953: 1.

3. P. Krugman 1994: 73.

4. For a 10 percentage point increase in the ratio of investment to GDP, the growth rate was 0.8 percent higher per year (Barro and Lee 1993).

5. According to J. K. Kwon's (1986: 85) estimation of the total average factor productivity increase of 3 percent per annum, technical change contributed 44.6 percent to the growth of total factor productivity, the economies of scale 38.1 percent, and changes in capital utilization rate 17 percent.

6. Kim and Park 1985.

7. Korea Development Institute 1986a: 9.

8. See Appendix 2.1.

9. Cole and Lyman 1971: 156, 158, and 161.

10. Nihon Keizai Chosa Kyogikai 1964: 129.

11. Bank of Korea, *Economic Statistics Yearbook* 1973: 272–73; ibid. 1983: 292–93; ibid. 1985: 258–59.

12. Nihon Keizai Chosa Kyogikai 1964: 129.

13. Meaningful public investment was undertaken by the central government, whereas the contribution of the local public enterprises was relatively limited. At the regional level, there were 222 in 1988, employing 365,300 workers.

14. Jones and SaKong (1980) speculated that the consequence of effective planning and governance in the Park administration was "a strong government capable of maintaining political stability thereby reducing uncertainty in business expectations." Korea's impressive performance owed much to government support, although some have argued that its economic development took place despite, rather than because of, the government's policies.

15. The share of the budget occupied by direct government consumption and transfer payments increased, averaging more than 70 percent during the 1980s. In 1987, expenditures for social services—including health, housing, and welfare—made up 16.4 percent of the budget, an increase from 13.9 percent in 1980, and slightly higher than 1987 government outlays for education.

16. Jisoon Lee 1990: 289.

17. It is estimated that the share of the governments in the world as a whole has been as little as 5 percent at the lowest levels of national income per capita and as much as a quarter of GDP in modern industrialized economies: 10 percent or so of real resources for current purposes, apart from what they use for military purposes; and another 10 percent or so for transfers (pensions, insurance payments, interest payments, etc.).

18. Jones and SaKong 1980; D-H. Song 1986; S-i. Kang 1988; L. Jones 1975: 44–48.

19. I. SaKong estimates that new investment in social overhead capital between 1953 and 1988 made up more than one-fifth of the total investment in fixed capital in the country (1993: 30, table 3.4).

20. W. A. Lewis 1955: 210.

21. W. A. Lewis 1955: 210.

22. I. SaKong 1993: 32, table 3.5.

23. I. SaKong 1980: 108–12.

24. U.S. Congress 1957: 734; A. M. Rosenthall, "U.S. Acts to Tighten Efficiency of South Korean Aid Program," *New York Times*, March 26, 1961.

25. I. SaKong 1993: 31, table 3.5.

26. I. SaKong 1993: 80, table 4.4.

27. L. Jones 1975: 44–48.

28. Hanguk Eunhaeng 1995: 181.

29. See Appendix 3.1.

30. This figure is based on a number of different sources, including C. H. Bae 1966: 97–109. The Samsung *jaebeol* was reported to have been worth between 28 billion *won* ($100 million) and 45 billion *won* ($150 million) by 1966 (ibid.: 35, 124–26).

31. Investments in facilities in light industry increased from 8.9 percent to over one-fifth of all investment in manufacturing in the late 1970s.

32. Y-I. Chung 1986.

33. Reported in the *Dong-A Ilbo* and the *Kyonghyang Shinmun*, August 11, 1978.

34. *Fortune*, August 20, 1984, 200–215.

35. Another example is the Ssangyong Group of Song-gon Kim, which included Ssangyong Cement, Ssangyong Industries, Hannam Trade, Koryo Fire Insurance, and other firms. Other *jaebeol* followed a similarly rapid path of growth (K. Yi 1973).

36. K. Yi 1973: 215–41; B-C. Lee 1986: 73.

37. B-C. Lee 1986: 90.

38. S. J. Kim 1998: 38. There is a widespread popular perception that when American companies invest abroad they necessarily reduce economic activity and employment in the United States; the common intuition is that a firm's resources are fixed, so a dollar invested abroad would necessarily mean one less dollar available to invest at home. But a study offers an alternative perspective. The paper concludes that greater foreign investment by U.S. multinational firms was actually linked to greater investment at home as well. It suggests that foreign and domestic investments are complements, not substitutes. The study finds that "an additional dollar of foreign investment capital expenditure is associated with 3.5 dollars of domestic capital expenditures by the same group of multinational firms, strongly suggesting a complementary relationship between foreign and domestic investment" (Desai, Foley, and Hines 2005).

39. Lee and Lee 1992.

40. These statistics, published by the Republic of Korea, Ministry of Finance, were reported in *Korea Newsreview*, August 1, 1987 and January 14, 1989, and the *Korea Herald*, July 28 and 30, 1987.

41. Y-s. Lee 2003: 156.

42. I. SaKong 1993: 194.

43. W. A. Lewis 1955: 210.

44. B. K. Kang 1989; W. Hong 1991: 5. Personal savings were also used to purchase tangible assets such as land, but this did not contribute to real investment in the country, because it was offset by the dissaving of the sellers. Korea's nonagricultural private landownership is known to be concentrated in the hands of a small number of people. Among landowners, the upper 5 and 10 percent owned 65.2 and 76.9 percent of nonagricultural land, respectively. According to the GINI (a measure of income distribution) coefficients estimated, landownership in the country is much more concentrated than income: 0.85 for land, compared with 0.36 for income.

45. Sectoral investment under Japanese colonial rule was very different from that of Western colonialism. In most Western colonies, the colonists merely introduced or maintained existing extractive institutions when it was in their interest to extract resources from the native populations of the colonies, as in much of Africa, Central America, the Caribbean, and South Asia. Furthermore, these extractive institutions showed no sign of evolving into modern institutions, either under Western control or after these colonies gained independence. In almost all cases, there was and is the persistence of extractive institutions to the fact that,

even after independence, the elites in these societies had a lot to lose from institutional reform. Their political power and claim to economic rents rested in the existing extractive institutions, as best illustrated by the Caribbean plantation owners whose wealth directly depended on slavery. In almost all cases, extractive institutions persisted because, even after independence, the elites in these societies had a lot to lose from institutional reform Any reform of the system, however beneficial for the country as a whole, would be a direct threat to the owners. The Japanese chose modern institutions when it was in their interests to do so, since they lived under the umbrella of the institutions, as was the case in much of the New World. Toward the end of its rule of Korea, Japan realized that industrialization was beneficial to its own interests, and the Japanese colonists aggressively carried it out.

46. It has been reported that educational expenses for 23 private universities and colleges surrounding the metropolitan capital region in Japan, for example, absorbed one-third of the earnings of parents whose children attended those schools. According to a survey of parents of about 6,000 entering students, conducted in May and June 2004, the educational expenses of about 47 percent of new students residing outside of their homes cost 32.5 percent of the annual income of the parents of those students. Twenty-two percent of the parents had to borrow money to finance their children's education. This survey was conducted after 1986, and the burden on the parents peaked in 1994. The survey, which was conducted by the teachers union of the region, was reported in the *Yomiuri Shimbun*, March 3, 2005.

47. This heritage is even found among second, third, fourth, and fifth generations of Asian-Americans living in the United States, very similar to Jewish legacy. This is amply ememplified in a cover story by reporter Timothy Egan in an article, "The Asian Campus," in "Education Life" (Section 4A) of the *New York Times*, January 7, 2007, 24–27, 35. He observed that "at 41 percent Asian, Berkeley could be the new face of merit-based admissions.

48. Jodi Wilgoren, "U.S. Teachers Earn Less than Counterparts," *New York Times*, reported in *Ann Arbor News*, June 13, 2001.

49. J. Page 1994: 2–5.

50. Reported in the *Munwha Ilbo*, October 3, 2002.

51. *Joong-Ahng Ilbo*, July 16, 1975.

52. The U.S. Department of Labor, in *Country Labor Profile, Republic of Korea* (1979), reported that between 1952 and 1977, the literacy rate rose from 30 to 90 percent, and that in 1977 about 98 percent of eligible children attended primary school. In the same year, nearly all eligible children (99 percent) attended elementary schools.

53. Barro and Lee (1993) found that among six major factors that dramatically affected economic growth rates, the first was the "catch-up" factor. That is, a country grows faster if it begins with low real per capita GDP relative to its initial level of human capital, in terms of educational attainment and health. According to Barro and Lee, the gap between income and human capital helps to explain the rapid growth of the East Asian countries.

54. Social Indicators in Korea, published by the Republic of Korea Economic Planning Board in 1986, as reported in the *Korea Herald*, January 31, 1986.

55. P. Krugman 1994: 73.

56. Y. Lim 1999.

57. Rhee, Ross-Larson, and Pursell 1984: 39–50.

58. Westphal, Kim, and Dahlman 1985.

59. Rhee, Ross-Larson, and Pursell 1984: 39–50.

60. Property-rights protection, high investments per worker, a small percentage of government and agriculture in GDP, and a large percentage of manufacturing in GDP are other variables that seem to accelerate new technology adoption. See Caselli and Coleman 2001.

61. Y. Horiguchi 1999: 7.

62. Y-I. Chung 2006: chapter 2.

CHAPTER 4

1. According to S-c. Lew (1997), Confucian capitalism presumes effective state intervention in the market, which is inherited from two traditional Confucian orders. First, the political decisions of the dominant group are superior to the calculations of businesses. This allows the state to grant favors to firms that conform to its policies and to apply sanctions against those who oppose it. Preferential financing and tax audits are the double edges of the state's ever-present sword. The second Confucian tenet relates to the organization of businesses and civil society. As civil society and competitive capitalism grow, the personal ties of family, hometown, and school are reinforced. Businessmen use their personal networks to receive and maintain state favors. In East Asia, therefore, government intervention and personal networks provide the trust that is needed to stabilize economic activities. It makes good business sense to adhere and adapt to state intervention, and private businesses should be concerned with how to gain state favors. The mobilization of personal networks or of blood, region, and school in order to find pockets of influence among state bureaucrats is the most frequently used method of gaining such favors and also is the most effective way to reduce the costs of doing business in Korea. A similar approach can be seen in modern China (AP report by Elaine Kurtenbach, "Redevelopment, Chinese Style," reported in *Bangkok Post*, March 3, 2005).

2. Republic of Korea Economic Planning Board 1961: 28.

3. Mike Tharp, "Korea's Authoritarian Tradition," *Wall Street Journal*, November 23, 1979.

4. Sung-kon Kim, president of Korea Chamber of Commerce and Industry, in an interview published in *Dong-A Ilbo*, September 14, 1973, expressed this sentiment well. He said that businesses should not be confined to making profits alone, but also needed to be concerned with the interests of the country.

5. *Newsreview*, December 17, 1988.

6. Andrew Pollack, "After Stalled Koreans See Need for Economic Reform Too," *New York Times International*, December 15, 1992, A8.

7. K-h. Jung 2002: 38.

8. Kim and Roemer observed of the American role: "During the entire post-war period (1953–60), all major economic policy decisions, even those not directly involving aid funds, were made jointly by the Korean government and U.S. aid mission to Korea (Office of Economic Coordinator)" (1979: 43). The Korean government's reliance on U.S. counterpart funds for the national budget permitted a prominent American voice in state planning. By controlling the source of financing, the government and the aid donors had a powerful set of tools for channeling investment activity. Cole and Lyman 1971: 193.

9. Henry Scott Stokes, "Japan's Economic Influence Is Everywhere in South Korea," *New York Times*, October 16, 1979.

10. P. Kuznets 1977: 91.

11. Chong Hee Park, the president who initiated the country's drive for economic development, had seen military-led development firsthand. As a youth, Park had served with the Japanese Imperial Army in Manchuria as an officer. Once they were in command, Park and his circle rapidly implemented their "military Manchurian model" of development. The Park regime took over the banks, set up an Economic Planning Board, and established a huge police/intelligence structure (M. Clifford 1994).

12. One is struck by the fact that the approach, policies, path, and means used by the South Korean government very much resembled those used under Japanese colonial rule: interest repression, tax breaks, and government financing of so-called strategic industries (see Y-I. Chung 2006).

13. Ambassador Walter Dowling.

14. World Bank, *World Development Report* 1983.

15. The United States directed funding to the Republic through some direct grants, but mainly through the Counterpart Fund, defined in Article V of the agreement and later explained by the prominent financial advisor Arthur Bloomfield (Krueger 1979: 75).

16. C. H. Lee 1992.

17. O. Williamson 1975.

18. The major economic policies in the country in the era of President Chung Hee Park (1960s and 1970s), for instance, were implemented as if they were within the "quasi-internal organization."

19. World Bank, *World Development Report* 1983.

20. See Appendix 2.1.

21. Under the import-substitution policy between 1955 and 1965, the government: (1) maintained high domestic prices through import bans and quotas; (2) imposed a discriminatory tariff system, with high tariffs on consumer goods and low tariffs on raw materials and capital goods, in order to protect domestic-goods industries; (3) pegged a high exchange rate for domestic currency, thereby producing low costs for domestic production; and (4) encouraged imports of foreign capital through favorable loans. Also, see Frank, Kim, and Westphal 1975: 36–39.

22. World Bank 1987: 32.

23. In the case of rubber-tire production, when the new industry was on its feet under the favorable conditions provided by the government, its domestic production reached 80 percent or more of total supply (domestic output and imports) by the early 1960s, and it became a major exporter by the 1980s.

24. Y-I. Chung 2006: chapter 2.

25. The minister of commerce and industry, however, said that "below-cost exports" would be discouraged as much as possible, reported in *Korea Herald*, February 4, 1982.

26. Tariffs were cut almost in half, from 23.7 percent in 1983 to 12.7 percent in 1989, and fell to 7.9 percent in 1993.

27. By controlling sources of financing and manipulating import restrictions or domestic price ceilings to affect the profitability of different productive activities, the government had a powerful set of tools for channeling investment activity. Low tariffs on imports of chemicals, machinery, and equipment, low tariffs or tariff exemptions on capital and intermediate goods to producers, and high tariffs and/or prohibitions on practically all imports that competed with domestic products were imposed.

28. *Kyeong Hyang Shinmun*, June 13, 1974.

29. The average *won* subsidy per dollar of exports was 7.4 in 1961, 10.3 in 1962, 4.1 in 1963, and 3.5 in 1964.

30. The sixth five-year economic development plan stressed the need for "free markets," while the seventh plan was more indicative than directive. To say that the plan was indicative fails, however, to convey the exact meaning of the term in Korea today. The average Korean has long accorded government the role of arbiter in determining what is right. Thus, the private sector was expected to follow government directions, and those who chose to defy it were likely to be severely criticized, if not punished. This remains true despite the fact that politicians and the government are considered increasingly untrustworthy by the average citizen. The fact that the plan was indicative leaves most matters to be decided by the private sector. Thus, not everything was riding on a single decision by the government about what was best.

31. Jong-hyun Chey, the newly elected Federation of Korean Industries chairman, declared in 1993, "The federation has grown enough to be independent from the government's protection and interference." *Korea Newsreview*, March 13, 1993, 16.

32. G. T. Brown 1973: 167; W. Hong 1979: 107.

33. Haggard, Kim, and Moon 1991: 868.

34. Norman Sklarewitz, "Crisis in Korea," *Wall Street Journal*, December 16, 1963.

35. Reported in "South Korea's Days of Danger," *Fortune*, October 12, 1987, 103.

36. Susan Chira, "Motorola's Labor War," *New York Times*, 1989.

37. "Korea Tries to Curb Wages and Unionism to Spur Exports, but Workers Are Leery," *Wall Street Journal*, July 22, 1981.

38. Reported in *Kyeong Hyang Shinmun*, October 17, 1973.

39. Damon Darlin, "Korean Labor Movement's Woes Raise Doubts about Its Survival," *Wall Street Journal*, September 9, 1987.

40. The rate was 54.41 *won* per kilowatt per hour (pkwh) for industrial use, while 70.76 *won* were charged for household use and 132.65 *won* pkwh for use in the commercial and public sectors. Officials in Washington joined in criticizing the Korean government controls, charging that internal prices of basic items such as power and coal and certain utility rates were legislatively fixed at levels that resulted in the unprofitable operation of some government-owned enterprises and the loss of potential revenue.

41. Barro and Lee 1993.

42. Choi and Kwack 1990.

43. Bahl, Kim, and Park 1986.

44. Choi and Kwack 1990: 269.

45. Names of companies, plants, addresses, industries, and their managers in South Korea were listed in Bank of Korea, *Economic Statistics Yearbook* 1949: III: 79–147.

46. D. McNamara 1990: 51.

47. The government continued to own and operate a few major public enterprises. These included the Small and Medium Industry Bank, Citizens National Bank, Korea Exchange Bank, Korea Electric Power Corporation, Korea Telecommunication Authority, Gukjeong Textbook Company, and Pohang Iron and Steel Company. Some of these public enterprises, however, were to be "privatized" by 1989, while other enterprises were expected to be sold gradually to private interests. Other state-run companies are not expected to be divested in the immediate future. According to another report, by the end of March 1953, less than 7 percent (2,055 cases) of Japanese properties (29,906 cases) were sold for a total of 26.3 million *won*. The average sales value remained low until 1955, although the number of auctions increased.

48. Bank of Korea, *Economic Statistics Yearbook* 1949: III: 79–147.

49. Jong Won Lee 2001: 102.

50. Y-I. Chung 2006: chapters 2 and 4.

51. Jones and SaKong 1980; D. Song 1986; S. I. Kang 1988.

52. Republic of Korea, National Assets Management Bureau 1971.

53. In 1988, five enterprises—the Pohang Iron & Steel Company, Korea Heavy Industries and Construction Company, Korea Integrated Chemicals, Korea Integrated Technology Financing, and Korea Textbook (Gukjeong) Publishing Company—were slated to be fully privatized, while six others—Korea Telecommunications Authority, the Korea Tobacco and Ginseng Corporation, Korea Electric Power Corporation, Korea Gas Corporation, Korea Oil Pipe Company, and Korea Regional Heating Company—were to be privatized in phases. Of the seven companies slated for mergers or abolition, three have already been abolished, including the Korea Ginseng Export Corporation. Plans to divest the shares of the state-run Korea Electric Power Company, Korea Textbook (Gukjeong) Company, Korea Telecommunications Authority, Korea Heavy Industries and Construction Company, and also Korea Technology Development Corporation, were also on the horizon. In 1994, the Korea Fertilizer and Chemicals Company, Namhae Chemical Corporation, Korea Telecommunications

Authority, Korea Gas Corporation, and Daewoo Heavy Industries Limited were slated for privatization. In 1995, out of the 35 corporations scheduled to be privatized, the government completed privatization procedures for 17, including the Korea Tungsten Corporation.

54. Other government properties were sold through the stock exchange on the open market starting in 1968: the Korea Machinery Corporation for 83 million *won* ($230,000) in 1974; the Korea Ocean Transportation Corporation (Hanguk Haewun Gongsa) for 141 million *won* ($400,000); the Korea Shipbuilding Corporation for 116 million *won* ($320,000); and the Korea Transportation Corporation for 354 million *won* ($975,000). In 1971, the Korea Salt Extracting Corporation was sold, through the Korea Development Bank, to Wha-Seong-Sa (Dong Geun Chung) for 1,717 million *won* ($4.73 million). Payment was to be made in equal installments over nine years. In the same year, Korea Petroleum Corporation was sold for 1,117 million *won* ($3 million) to Bando Sangsa (Ja Seung Koo), and the Daehan Electric Corporation was sold to Won Ryang Sul. Payment was to be made in equal installments over nine years. In the same year, the Korea Tile Center Corporation was sold for 2 billion won ($5.5 million) to the Daelim Industrial Corporation, to be paid in equal installments in eight years with a grace period of four years. In 1974, the Korea Woolen Company, which was nearly bankrupt, was sold to a *jaebol*. According to the National Assets Management Bureau, the government's divestiture program resulted in its ownership of banks, including all major commercial banks, declining to 33 in 1973 and 34 in 1976. The companies not divested consisted of enterprises solely owned, 15 majority owned, and 10 less than majority owned. The government auctioned off the Korea Shipbuilding and Engineering Corporation, the nation's oldest and third-largest shipyard (*Wall Street Journal*, February 10, 1989).

55. Susan Moffat, "South Korea: Politics, Economics Clash," *Wall Street Journall*, August 1, 1988.

56. M-w. Lee 1999: 73–74.

57. J. C. Lim 1976: 494

58. The market price of the mill was said to have been 10 times higher than the purchase price. The purchase price was to be paid off on an installment basis over a 15-year period. This, in turn, was financed by low-interest bank loans.

59. This practice was found in other countries as well. According to a literature survey conducted by William L. Megginson and Jeffry M. Netter (2001: 281), investors who purchased initial SIP (share issue privatization) shares at the offering price and sold those shares at the first postissue trading price earned significant (market-adjusted) returns. Additionally, there was convincing evidence that initial returns on privatization IPOs (initial public offerings) were significantly higher than the initial returns earned on private-sector IPOs. Investors who purchased privatization IPO shares at their first postoffer trading price and retained those shares for one-, three-, or five-year holding periods also earned significant net returns.

60. Chungju Fertilizer Corporation 1968: 142–47.

61. See Table 4.1.

62. The purchase of a certain flour mill was to be paid on an installment basis extending over 15 years. The sale of a spinning mill in 1954 had the same terms. In the case of a sale of the Korean Air Line Company in 1969 for 1.45 billion *won* (which was equivalent to about $4 million at the realistic exchange rate), the required repayment was to be made in equal installments in Korean currency over a 10-year period. Also, the government privatized state-run banks, such as the Citizens National Bank and Korea Foreign Exchange Bank, by offering shares for public subscription under the national stock system and expanding employees' share of ownership in them (*Newsreview*, May 28, 1988, 10).

63. Chungju Fertilizer Corporation 1968: 142–47.

64. For example, if a plant produced 10,000 pencils at a cost of $1,000, then the depreciation charge per pencil would be 10 cents. If the same plant could produce the pencils for only $500, then the depreciation charge per pencil would be only 5 cents. Therefore, low plant cost would result in low production cost.

65. Republic of Korea, National Assets Management Bureau 1971.

66. Bank of Korea, *Economic Statistics Yearbook* 1949: III: 79–147; K-d. Kim 1976: 14.

67. In Japan, the U.S. occupation government dissolved the *zaibatsu* and offered their stock to the general public. In addition, management by *zaibatsu* leaders, their family members, and top executives was forbidden. Furthermore, monopolistic firms were broken up to prevent economic concentration.

68. B. Cumings (2004: 223–24) cited the U.S. Central Intelligence Agency report, *Korea*, Report no. SR-2, Summer 1947.

69. L. E. Westphal 1982: 37.

70. K-d. Kim 1976: 14; H-y Cho 2001: 140–41; L. B. Krause 2000: 20.

71. S-c. Lew 1997: 90.

72. The law allowed payments in land bonds (the bond issued by the government for the purchase of land under the land reform program) for the purchase of former Japanese property.

73. The extensive investment of the Samsung *jaebeol* in vested enterprises, which were purchased at nominal prices through 1960, complemented the three closely held ventures. Domestic production of woolen textiles had grown dramatically from pre–Korean War levels to 2.9 million yards by 1953, led by vested firms such as Kanegafuchi (later Chonju Spinning and Weaving) and Chosen (later the Joseon Spinning and Industrial Company). If state-controlled credit resources were important for Samsung's ventures in light industry, vested properties were critical for diversifying Samsung's portfolio. The growth of the Samsung *jaebeol's* textile venture exemplified the interplay between state and private enterprise, supporting the entrepreneurship of Lee, the *jaebeol*'s head.

74. The former Japanese plant belonging to Chosen Textiles in Anyang near Seoul was bought at a nominal price and reorganized as the Kumseong Spinning and Weaving Company in October of 1948. The plant was estimated to be worth some $3 million at the time of liberation in 1945. The firm purchased machinery the next year from two former vested textile properties, Achon and Taepyeong, adding some 30,000 spinning machines to its plant. Already the second-largest textile operation in the republic in 1955, with a capital of 200 million *won*, Kumseong was operating nearly 60,000 spinning machines and 1,500 weaving machines by the end of 1959.

75. H-y. Cho 2001: 140–41.

76. L. B. Krause 2000: 20.

77. A Bank of Korea official unofficially reported that pressures from the textile industry were partly responsible for the government's holding the foreign exchange rate at 50 *won* to a dollar, when the realistic rate was 80 to 1.

78. W. D. Reeve 1963: 136–37, 145; C. H. Bae 1966: 28, 63, 228–29, 408–9; Cole and Lyman 1971: 187. The Korean desk chief at the AID office indicated that the official rate prevailed for almost the entire period. The Korean government was not willing to raise the exchange rate, because low-cost capital goods and basic raw materials were particularly important for the new intermediate and capital-goods industries they hoped to establish, and the government also wanted low-cost food imports to hold down living costs in the cities so as to relieve the pressure for wage increases.

79. E. Tyler Wood was cited in Haggard, Kim, and Moon 1991: 853.

80. The weighted average import rate ranged from 10 percent above the official rate in 1958 to 40 percent in 1959–60.

81. After 1961, foreign aid loans in local currency carried maintenance-of-value clauses, preserving the dollar value of the original loan. But their share of aggregate loans in Korea was not significant (C. Bell 1971).

82. The benefit of easy access to credit during times of tight credit rationing, for instance, was particularly troublesome to estimate quantitatively. In the case of export industries, the combination of foreign exchange and interest subsidies, in addition to tax exemptions and reduced public utility rates, which were available to and utilized by export producers, would all have to be compared with the actual or imputed costs incurred by nonexporters. The balance between selective intervention and market incentives is subtle and hard to both define and describe; it is not accurately measurable. Any resulting calculation would most likely be crude and imprecise. It may be impossible to empirically evaluate the impact of the industrial policies on overall resource allocation and economic growth in South Korea, and the full answer on the efficacy of the government industrial policy favoring targeted industries and businesses may never be fully known, because there were many other policy changes during the period.

83. The money collected by the bank in the importing country became part of the counterpart fund. The U.S. foreign aid acts required the recipient government to deposit, in a special so-called counterpart account, a commensurate amount of its own money, which represented the counterpart of the dollar aid received.

84. The depreciation of the *won* proved helpful in the following years in creating more equilibrium in the balance of trade and expanding the growth of Korea's exports.

85. Through the banking system, the government also devised special subsidy schemes designed to favor the export sectors. The strong stimulus to exports, especially of manufactured goods, enabled the industry to utilize redundant capacity and directly or indirectly generate the foreign exchange resources for additional intermediate imports and new investments.

86. Leipziger and Thomas 1994: 8.

87. Although significant import protections existed well into the 1980s, offsetting policies managed to ensure that protection did not produce an anti-export bias. By favoring exports under the low foreign exchange rate policy (for instance, in the form of duty exemptions, free access to foreign exchange, and free trade zones), the government minimized the possible adverse effects on exports. The export-import link system allowed exporters to sell foreign exchange earnings with import entitlements freely to importers at the market rate.

88. Profits generated from the sale of exports then were used to further expand investment, which provided new jobs and eventually paid off loans. Other institutional supports for exports are examined in later chapters.

89. Barro and Lee 1993.

90. There are many reports of this nature, but the statement made by Charles F. Edmundson before the U.S. Senate Special Committee on Foreign Aid seems representative. He was a member of the U.S. Foreign Service staff for seven years, overseeing foreign economic programs in Europe, Afghanistan, India, and Korea. He was public information chief for the U.S. aid program in Korea for 14 months. U.S. Congress 1957: 734–36.

91. U.S. Congress 1957: 735.

92. Sang-A-Sa 1966: 63, 228–29, 376, and 408–9.

93. Hangminsa 1985; K. Yi 1985: 301–2; P. Pak 1982; Meade 1951: 203–12.

94. Sklarewitz, "Crisis in Korea."

CHAPTER 5

1. The only recent exception may be the United States, where corporations have largely freed themselves of their dependence on banks.

2. As early as 1959, it was reported that many enterprises were established with as little as 15 percent owners' equity (C. Y. Lee 1962: 159).

3. Reported in *Hanguk Ilbo*, October 8, 1971.

4. Direct financing in the securities market increased from only 14 percent of the total in the early 1970s to 22 percent in 1983 (J. W. Lee 1992: 65). Local companies typically secured 9 percent of the total through direct financing such as the issuance of shares and corporate debentures, and relying 12 percent on foreign loans.

5. They ranged as high as 40 to 60 percent in the 1950s-1970s and 20 percent as late as 1992. Andrew Pollack, "After Stalled Koreans See Need for Economic Reform, Too," *New York Times International*, December 15, 1992.

6. Reported in *Dong-A Ilbo* and *Kyeong Hyang Shinmun*, August 11, 1978.

7. *Korea Newsreview*, May 30, 1987.

8. Calculation shown in L. P. Jones 1975: 82.

9. The calculation is based on the Bank of Korea, *Economic Statistics Yearbook* 1995: 236–43. According to a survey by the Economic Federation of Korea in 1975, two-thirds of all investment in business was financed through borrowing, as reported in *Dong-A Ilbo*, March 2, 1976.

10. L. P. Jones 1975: 85.

11. Bank of Korea *Economic Statistics Yearbook*, 1976: 70–71; ibid. 1999: 84; Hanguk Eunhaeng 1995: 246–47.

12. A considerable amount of gross investment was generated by depreciation and depletion allowances.

13. J. W. Lee 1992: 65.

14. Different studies report somewhat different ratios. Some report that the banks supplied the bulk of the loans (e.g., 51.5 percent of total business loans) while others report that bank loans made up approximately 35 percent of all real private corporate sources of funds during 1963–74. Bank loan financing comprised 40 percent of corporate investment, which accounted for about three-fourths of total private investment. More than a third of the funds of private corporations and 47.5 percent of the funds of small enterprises were raised through bank loans. The share of the banks was about 90 percent of domestic credit in the early 1960s.

15. One newspaper reporter wrote that the share of investment in private businesses through borrowing increased over time, from 71.6 percent in the 1960s to 75.8 percent in 1972, 78.5 percent in 1978, and 82.3 percent in 1989. In other words, the indebtedness (loan to equity) ratio of businesses increased from 252.1 percent in the 1960s to 313.4 percent in 1972, 366.8 percent in 1978, and 464 percent in 1989 (Damon Darlin, "Tougher Times—Korea's Goldstar Face a Harsh New World under Democracy," *Wall Street Journal*, November 8, 1989). In recent years, especially after the 1997 financial crisis, the increasing indebtedness ratio declined somewhat.

16. The liquidity ratio (i.e., liquid asset/liquid liability of local businesses, which represents a firm's payment ability on a short-term basis) of businesses in South Korea was only 98.4 percent on average in 1984, in contrast to the minimum unitary liquidity ratio required and the prudent ratio of two-to-one. The low liquidity ratio resulted in a huge demand for loans to establish and run businesses, as well as to meet expansion costs and operating expenses. More reasonable rates in other countries are 157 percent in the United States, 181.1 percent in Japan, and 103.9 percent in the People's Republic of China. On average, government enterprises had a liquidity ratio of 104 percent in 1970, while the average ratio for manufacturers in 1969 was 120.5 percent. For the Government Housing Corporation, it was 32.5 percent, for the Fishery Development Corporation 46.8 percent, for the Tourism Corporation

60.7 percent, for the Korea Electric Company 78.3 percent, for the Coal Corporation 72.9 percent, for the Bank of Korea 98.7 percent, and for fertilizer producers 300 percent in 1971.

17. K. S. Kim 1971: 180.

18. Bank of Korea loans reached 971.8 billion *won* and were used to prop up 3 commercial banks, as reported in *Korea Herald*, January 28, 1987.

19. A temporary law limiting private shareholders' voting rights was enacted in 1961.

20. Korea Economic Institute of America 1992: 43.

21. I. SaKong 1993: 55.

22. Y. Horiguchi 1999: 81.

23. Y-j. Cho 2003 118.

24. The government announced that under new policy it would allow commercial banks to determine most of the deposit and lending rates in the second phase of deregulation. It planned to deregulate financial markets during the seventh five-year plan in 1993–97. In the first stage (1993), all the lending rates of banks and nonbank institutions were to be deregulated, except for loans subject to rediscounting by the Bank of Korea, long-term deposit rates with maturities of two years or longer, and issuing rates of corporate bonds maturing in two years or less. In the second stage (1994–95), the government planned to loosen regulation on the issuance ceiling and maturity of short-term money market instruments and deregulate even rates of loans that could be rediscounted by the central bank, such as discount rates in commercial paper. In the third stage (1996–97), it planned to deregulate all rates except those for demand deposits, introduce such short-term instruments as a money market fund, and consider scrapping all regulations on those financial products (*Korea Newsreview*, March 13 and June 5, 1993).

25. The average ratio of loans extended by NBFIs, UOFMs, and others to companies between 1960 and 1998 was about 30 percent of the total capital of companies (Table 5.2).

26. Bank of Korea, *Economic Statistics Yearbook* 1960: 210 and 212.

27. Hanguk Eunhaeng 1995: 246–47; Bank of Korea, *Economic Statistics Yearbook*, various years.

28. Bank of Korea, *Economic Statistics Yearbook*, various years.

29. There were numerous reports of bureaucrats' resistance to reducing government intervention. See, for example, James R. Schiffman and E. S. Browning, "South Korea Tries to Cut Economic Role of Government, but Bureaucracy Resists," *Wall Street Journal*, September 1, 1983; and Steve Glain, "Shackled 'Tiger': South Korean Leader Struggled to Free Up a Regulated Economy," *Wall Street Journal*, March 30, 1994.

30. Y. Kang 1971: 28.

31. S. Cho 1988.

32. The debt-to-equity ratios in manufacturing and construction in 1968 and between 1970 and 1977 were 2.68 and 3.65, respectively (Y. Kang 1971: 28). Another estimate shows that the manufacturing firms had debt more than three times their equity value. The indebtedness ratio of business in general was 313.4 percent in 1972 and 366.8 percent in 1978.

33. Under the import-substitution policy between 1955 and 1965, the government: (1) maintained high domestic prices through import bans and quotas; (2) imposed a discriminatory tariff system, such as high tariffs on consumer goods and low tariffs on raw materials and capital goods in order to protect domestic-goods industries; (3) pegged a high exchange rate for domestic currency, thereby keeping domestic production cost low; and (4) encouraged the importation of foreign capital through favorable foreign loans.

34. Bank of Korea, *Economic Statistics Yearbook* 1960: 40–41

35. I. SaKong 1993: 35, tables 3.7 and 3.8.

36. I. SaKong 1993: 35, table 3.7.

37. *Korea Newsreview*, May 20, 1989.

38. S. Cho 1988; J. U. Kim 1986.

39. *Korea Newsreview*, September 27, 1986.

40. Y. Kang 1971: 28.

41. U.S. Congress 1957: 734; A. M. Rosenthall, "U.S. Acts to Tighten Efficiency of South Korean Aid Program," *New York Times*, March 26, 1961.

42. *Korea Newsreview*, January 31, 1987.

43. As one manager of a foreign bank in Seoul observed, "Anytime the government chooses to close one [business firm] down or break it up, it can do so. . . . All it has to do is call the so-called Korean commercial banks, which it controls, and tell them not to refinance that company's debt. That's what happened to Kukje [*jaebeol*]." *Wall Street Journal*, April 5, 1988.

44. I. SaKong 1993: 57.

45. The effective marginal corporate tax rate of the participating firms in the HCIs was estimated at about one-third that of other firms. T. W. Kwack 1985.

46. I. SaKong 1993: 57.

47. Reported in *Korea Newsreview*, January 17, 1987.

48. Sang-mok Suh, Vice President of Korean Economic Institute, "Economic Reform and a 'New' Korea," *Wall Street Journal*, October 6, 1986.

49. See Appendix 5.1.

50. Joseph P. Manguno, "Seoul, in Bid to Dismantle 'Korea Inc.,' Tells Companies to Pay Off Some Debt," *Wall Street Journal*, May 26, 1987.

51. S. Cho 1994.

52. E. H. Kim 1990: 341–57.

53. *Kyonghyang Shinmun*, May 12, 1974.

54. Hanguk Eunghaeng 1975.

55. They included four public corporations (Pohang Iron & Steel, Namhae Chemical, Taehan Ship Building, and Petroleum Corporation) and 11 private businesses (Daenong, Korea Air, Sung Kyong Integrated Textile, Samsung Trading, Hyundai Ship Building, Hyundai Construction, Hyundai Automobile, Daewoo Industries, Hanil Integrated Textile, Tongkuk Steel, and Ssangyong Group).

56. They included Choongnam Textile, Kia Industry, Korea Won-yang, Oriental Nylon, Korea Machinery, Sung Kyong Corporation, Inchon Iron and Steel, Korea Polyester, Ocean Development Company, Oriental Integrated Special Steel, Korean Integrated Chemical, Oriental Cement, Tong Nyong Lumber, and Honam Refinery.

57. See Appendix 5.1.

58. Jones and SaKong (1980) observed that a relatively small number of individuals benefited disproportionately from Korea's economic prosperity.

59. *Wall Street Journal*, July 29, 1987.

60. News Release, Bank of Korea Banking Supervisory Authority.

61. *Dong-A Ilbo*, June 14, 1979.

62. Manguno, "Seoul, in Bid to Dismantle 'Korea Inc.,' Tells Companies to Pay Off Some Debt."

63. See Appendix 5.2.

64. According to Bank of Korea's figures (1975), the indebtedness (bank loans, domestic and foreign) of large corporations in 1975 was 130 percent of the value of collateral, which was twice the value for the medium-sized and small businesses (i.e., 66 percent). When curb loans and other indebtedness are added, the debt ratio of the former would have reached 2.1 times the collateral assets.

65. Director Chang Ku Han of Medium-Small Business Federation was quoted in the *Dong-A Ilbo*, October 8, 1978.

66. Reported in *Korea Newsreview*, November 18, 1989.

67. T. Cargill 1998; Cho and Cole 1986; D. C. Cole 1993.

68. U.S. Congress 1963b: 574; Igor Oganesoff, "After Eight Years of Aid, Koreans Still Lean Hard on U.S.," *Wall Street Journal*, August 12, 1958.

69. A. Salmon 2001: 45.

70. Haggard, Kim, and Moon 1991: 865; Cole and Park 1983: 163–65.

71. Trela and Whalley 1990.

72. Cole and Park 1983.

73. Since currency constituted on average about 16 percent of the resources of the financial intermediaries, it may be inferred that the currency issued financed about 1.76 percent of the nation's GDP ($0.11 \times 0.16 = 0.0176$) or 3.52 percent of nation's investment ($0.16 \times 0.22 = 0.0352$). See chapter 6.

74. Also, I. SaKong 1993: table A-33.

75. W. Lim 2001: 29.

76. W. A. Lewis 1955: 219–20, 405.

77. Even in the United States, David J. Jefferson reported ("Neighborhood Financing: Lending Clubs Offer Social Support and Quick Capital to Asian Immigrants," *Wall Street Journal*, February 24, 1989) that nearly 30 percent of the new businesses that opened in Koreatown (Los Angeles) in 1987 were started with *gae* money. Also see Robert Reinhold, "The Koreans' Big Entry into Business," *Wall Street Journal*, September 24, 1989.

78. B. N. Song 1997: 162.

79. Haggard, Kim, and Moon 1991: 865; Cole and Park 1983: 163–65.

80. *Hanguk Ilbo*, August 9, 1969.

81. J. W. Lee 1992: 65; I. SaKong 1993: 72.

82. P. J. Kim 1990: 192.

83. Reported in *Kyeong Hyang Shinmun*, October 30, 1970.

84. A total of 40,144 loans (out of 201,856 amounting to 331 billion *won*) were extended to businesses when the total of curb market loans was equal to 90 percent of the country's money stock. It was reported that the number of loans made to businesses in 1972 was one-fifth of the total. One study shows that 61 percent of all businesses in the country, including large firms, used curb market loans in 1967. In another estimate, more than 50 percent of businesses borrowed 84 billion *won* in 1969 (*Hanguk Ilbo*, August 10, 1969). Another report revealed that in 1970, approximately 48 percent of all businesses used short-term curb loans, and 42.8 percent of them had more than 1 million *won* of curb loans at high interest rates in 1971 (ibid., February 17 and June 2, 1971).

85. A total of 26.4 percent of private corporate sources of funds was attributed to "others," most of which probably can be traced to the UOFM. Of these loans, 18 percent came from miscellaneous sources, including the curb market. One estimate shows that as much as 15 percent of personal savings was channeled into the traditional *gae* in the 1960s, which led to the thriving curb market.

86. *Dong-A Ilbo*, September 10, 1973.

87. *Dong-A Ilbo*, March 15, 1979.

88. *Hanguk Ilbo*, February 4, 1972. Other reports likewise showed extensive lending by curb market lenders. The Oriental Cement Company, which went bankrupt in 1971, had a debt of 2.5 billion *won* (about $6.25 million) in short-term curb loans out of total loans of 7.7 billion *won*. It had 11 billion *won* in assets and owners' equity of a mere 30 percent (3.3 billion *won*). A total of 543 business loans exceeding 100 million *won* were made in 1972. In another

report, 80 private lenders in the curb market loaned 1 billion *won* (about $1.5 million) to Y. Park, the operator of a shipping company (*Kyeong Hyang Shinmun*, May 17, 1974).

89. Private individuals financed about 7.5 percent of the businesses and "others" (in all likelihood mainly of *gae* organizations) financed 40.8 percent (*Kyeong Hyang Shinmun*, August 11, 1978).

90. Cole and Park 1983: 289.

91. Bank of Korea, *Economic Statistics Yearbook* 1948: I-290.

92. W. D. Reeve 1963: 129.

93. P. J. Kim 1990: 190.

94. The sums are 10.3 billion *won* to Korea Electric Corporation, 4.06 billion *won* to Inchon Iron and Steel, 2.3 billion *won* to Ssangyong Yangwha, 3.3 billion *won* to Hyundai Shipbuilding, and 906 million *won* to Poonghan Metal.

95. *Dong-A Ilbo*, December 4, 1969.

96. One report indicated that the interest rate charged by domestic commercial banks averaged 24.4 percent during 1966–70.

97. Although official interest rates were raised to higher levels, they did not match the market rates, which ranged from 48 to more than 100 percent per year. Typically, fishermen borrowed money in the curb market at 10 percent per month in 1969 (*Hanguk Ilbo*, 1969). Interest rates in the curb market on average were 4.2 percent per month, or 50 percent per year, in 1970–71 (ibid., November 2, 1971), 3.87 percent per month or 46.44 percent per year in 1971 (ibid., September 3, 1971), and 3 percent per month or 36 percent per year in 1972 (ibid., March 23, 1972). Thus, interest rates on curb loans continued to be more than twice the level of bank loans (ibid., February 17, 1971).

98. *Dong-A Ilbo*, October 31, 1978, March 15, 1979, May 19, and November 3, 1979; *Kyeong Hyhang Shinmun*, October 31, 1978.

99. The fairly complicated interest rate structure was simplified between 1965 and 1971 and after the 1981 financial liberalization.

100. Cole and Lyman 1971: 190.

101. U.S. Congress 1963b: 574; Oganesoff, "After Eight Years of Aid, Koreans Still Lean Hard on U.S."

102. *Dong-A Ilbo*, November 18, 1978.

103. Republic of Korea, Department of Finance, 1972: 49; these rates were applied to loans ranging from $100,000 to $1,000,000.

104. Chungju Fertilizer Corporation 1968: 142–47.

105. New financial companies were urged to establish their headquarters and do their banking in provincial towns to help bolster local economies.

106. *Korea Herald*, September 6, 1987.

107. The Korea Economic Institute of America 1992: 43.

108. *Economist*, February 15, 2003, 100.

109. Kihwan Kim 1983: 23.

CHAPTER 6

1. In the installment payment scenario relative to the divestiture program for former Japanese property, the market rates of interest were assumed to have ranged from 25.6 to 39.6 percent, which are below the market rates of interest shown in Table 5.12 in this volume, namely 35.3 and 60 percent. This indicates that the assumed interest subsidies being 50 and 40 percent of market rates are at the low end and conservative.

2. See Table 7.6.

3. For example, if a plant produced 10,000 pencils at a cost of $1,000, then the depreciation charge per pencil would be 10 cents. If the same plant could produce the pencils for only $500, then the depreciation charge per pencil would be only 5 cents. Therefore, low plant cost would result in low production cost.

4. J. Page 1994: 2–5.

5. Enos and Park 1988.

6. Jones and SaKong (1980) observed that a relatively small number of individuals benefited disproportionately from Korea's economic prosperity. See also Y. Lim 1999.

7. "Moral hazard" is a term often used in analyzing the effects of insurance. It refers to the idea that the very provision of insurance raises the likelihood that the event being insured against will, in fact, take place. This is because insurance reduces the incentive for the insured party to take preventive actions, such as a homeowner taking less care in locking up his home once it is insured.

8. Sang-A Sa 1966; B. Y. Park 1982; and C. H. Bae 1966.

9. In 1987, the number of manufactured commodities shipped by the top 30 *jaebeol* was 1,499. *Jaebeol* had the largest market share in 475 items ranging from 9 to 32 percent of the total, and *jaebeol* firms were among the top three largest shippers, constituting two-thirds of the total, for 941 items (K-u. Lee 1991).

10. See Appendix 5.2; Sang-A Sa 1966; B. Y. Park 1982; and C. H. Bae 1966.

11. A. Salmon 2001: 46.

12. World Bank 1987.

13. M2 is equal mainly to M1 (currency and demand deposits) plus savings deposits, times deposits, open accounts, and other minor categories.

14. I. SaKong, who played many important roles in the government, wrote that this instrument was essential to financing the needed investment (1993: 44).

15. This was one of the main reasons that South Korea suffered from higher inflation than other countries, such as Japan, in the 1960s and 1970s. Undoubtedly, excess domestic liquidity during the economic boom also fueled inflationary expectations.

16. Barro and Lee 1993.

17. E. M. Graham 2003: 79–87.

18. I. SaKong 1993: 36.

19. Noland and Pack 2003: 43.

20. E. M. Graham 2003.

21. The equity-to-asset ratios of the *jaebeol* were even lower than those calculated if cross-equity investments are barred, which in fact took place in 1986. In that year, *jaebeol* were prevented from cross-equity investments in order to limit their total equity investment in their group firms. The measure was intended to prevent *jaebeol* from inflating their group firms' capital base and establishing new group firms without actually increasing their overall equity capital base. With this measure, the cross-equity investments of the top 30 *jaebeol* were substantially curtailed. The ratio of their cross-equity investments to net asset value was lowered to 32.1 percent in 1990 from 43.6 percent in 1987.

22. Kihwan Kim 1983: 23.

23. Baily and Zitzewitz 1998: 292.

24. *Wall Street Journal*, May 26, 1987.

25. A. O. Krueger 1979: 160–66.

26. For example, the government-supported loan at 6 percent interest rate was reloaned in part in the UOFMs at 24–30 percent per annum, thus raking in a healthy rent that has been estimated to be equal to 4.5 percent of the value of exports in 1968.

27. In 1991, the nation's 30 largest business groups were ordered to repay bank debts with funds derived from the sale of nonbusiness real estate or stocks (*Newsreview*, February 8, 1992, 16).

28. For example, the Donghae Sileop Company borrowed more than 22 million *won* from the Industrial Bank in 1966 to finance operations but instead used the money to buy land. This practice apparently was quite common. The nation's 10 largest business groups were directed by the government in 1990 to sell 4,754,636 square meters (3.3 square meters = 1 *pyeong*) of land within 6 months. Samsung topped the nonbusiness land disposal list with 1,746,848, followed by Sunkyong (960,030), Lucky-Goldstar (422,970), Ssangyong (343,606), Hyundai (301,121), Lotte (269,606), Dong-Ah Construction (266,576), Hanjin (202,606), Korea Explosive (196,545), and Daewoo (44,909) (*Korea Newsreview*, May 19, 1990).

29. Samyang Susan, Samyang Tourism, and Hanil Tourism, for example, borrowed 300 million *won* for business operations from the Cheil Bank in 1967 and turned it into personal property (including $386,000 used to purchase 13 boats for use in ocean fishing). The Hanil Lumber Company, too, borrowed 765 million *won* from the Industrial Bank, and reportedly most of it was pocketed for personal use. More than $13 million borrowed to import capital equipment was also diverted to personal use.

30. I-j. Kim 1995: 44–45.

31. A. Salmon 2001: 44.

32. See Appendix 6.1.

33. P. S. Dee 1986.

34. W. D. Reeve 1963: 97

35. Cole and Lyman 1971: 187.

36. U.S. General Accounting Office 1962: 98–143.

37. International Monetary Fund research (D. Kaufman 2005; Gray and Kaufman 1998; and V. Tanzi 1995) suggests that it is equivalent to a major tax on foreign investors.

38. Adjectives such as "enormous," "gigantic," "tremendous," "huge," fantastic," and "large" were used to describe the bribes. But in relation to the amount of the transactions involved, they were rather small, ranging from very insignificant rates to about 5 percent. (*Hanguk Ilbo*, May 30 and 31, 1969; *Dong-A Ilbo*, December 9, 1969 and January 14, 1970). One report suggests that the going rate for bribes for government purchases and construction contracts was 5 to 10 percent of the value of the contracts; for example, 5 percent for competitive bidding and 10 percent for contracts without competitive bidding.

39. Y-o. Shin 2000: 277.

40. L. B. Krause 2000: 20.

41. The Korean Economic Research Institute observed that corruption in Korea was eroding the nation's economic growth.

42. I. SaKong 1993: 57.

43. *Dong-A Ilbo*, July 25, 1988.

44. *Korea Newsreview*, *October* 24, 1992.

45. *Korea Newsreview*, September 19, 1992.

46. Huh and Kim 1994; Bank of Korea, *Economic Statistics Yearbook* 1997. For example, Daewoo, South Korea's third-largest *jaebeol* at the time, went under in 1998 with $80 billion in debt, the world's largest corporate collapse ever (Aidan Foster-Carter, "Lies, Damned Lies and Korea Company Accounts," *Online Asia Times*, February 23, 2001).

47. T. Cargill 1998: 118.

48. One of the bankrupted firms in 1971 was the Oriental Cement Company, which was divested by the government in 1956 with a debt of 7.7 billion *won* (i.e., 2.5 billion *won* of short-term curb loans, 3 billion *won* of short-term bank loans, and 2.2 billion *won* of long-term bank loans) against assets worth 11 billion *won*. The loan ratio was 70 percent of assets,

and the owner's equity was a mere 30 percent, or 3.3 billion *won*. Likewise, the Korea Shipbuilding Company, with a debt of 60 billion *won*; the Pan Ocean Shipping Company, with a debt of 39 billion *won*; the Poonghan Textile Company, with a debt of 7.6 billion *won*; and Korea Development Company, with a debt of 5.7 billion *won*, all defaulted. The Jungwoo *jaebeol*, which went bankrupt in late 1987 with more than 203 billion *won* in debts, defaulted on loans of 110 billion *won* to the short-term finance companies (*Korea Herald*, May 2, 1987). A similar situation developed in the construction industry, which had expanded with generous banks loans from 4 firms working abroad in 1973 to a peak of 67 in 1981. It had construction contracts worth $13.7 billion in 1981, but they declined to $6.5 billion in 1984 and $4.7 billion in 1985. Many firms collapsed under the burden of their nonperforming loans.

49. Cole and Lyman 1971: 185.

50. Such as Ilshin Corporation. In 1971, for instance, the government paid 23 defaulted commercial loans. Relief loans of 7 billion *won* to Ulsan *jaebeol* and 5 billion *won* to Samsung *jaebeol* were granted in 1978. In 1979, Byoksan Group, Daihan Electric Wire, Wonjin, Hankuk Sangsa, and others also received relief loans.

51. This type of crisis financing was also found in South Korea's shipping and construction companies. Bad loans made at the direction of the government, and the collapse of the companies, saddled commercial banks with 82 percent of about 2 trillion *won* in bad loans. When oceangoing shipping companies were burdened with 3.2 trillion *won* ($4 billion) in bad loans and on the brink of bankruptcy, the government came out with a set of bailout measures in 1984. Under these measures, the six debt-ridden firms were allowed to make installment payments over 10 years, after a five-year grace period, on the principal of their combined borrowings of 3.2 trillion *won*. The shaky loans held by 1,620 financial institutions represented 12.3 percent of all loans issued during fiscal year 2000 (up to September 30), and 51.9 trillion *won* was from the banking industry. "Nonaccrual loans," for which interest went unpaid for more than three months, accounted for 60.2 trillion *won* (*Korea Herald*, January 31, 1987).

52. This approach closely resembles what Gillian Tett (2003) found in Japan. According to her, it is a cultural (East Asian Confucian) means of solving the problem. She believes that, as in South Korea, Japan's banks lent indiscriminately throughout the postwar period, especially during the boom years of the 1980s, showing little regard for such standard banking considerations as the client's ability to repay the loan. This led to huge amounts of debt, since borrowers never had to explain how they would generate returns on the bank's investment. Tett thought this might reflect Japan's culture of socialized risk. In contrast to banks in well-functioning economies in the Western countries, which would have pulled the plug on their worst borrowers in order to deploy the capital more productively elsewhere, the idea of letting longtime borrowers fend for themselves was anathema in Japan. Japanese banks kept lending to poor businesses in the hope that the economy would improve and the delinquent borrowers would become profitable. In this sense, according to Tett, Japan's biggest problem was the deeply held cultural belief that risks and rewards should be shared and group cohesion trumps strict economic considerations. The uniquely Japanese approach to reform was also more gradual and respectful of consensus. In this sense, no economic system can function if it is not in tune with the country's cultural values, and radical economic change can only be accomplished through cultural change.

53. Wang-ky Kim, "Gov't Bailout Steps Come to Shaky Shipping Firms' Rescue," *Korea Herald*, February 24, 1987.

54. Dok Chong Kong, cited in the *Dong-A Ilbo*, June 14, 1979.

55. According to Joseph P. Manguno ("Seoul, in Bid to Dismantle 'Korea Inc.,' Tells Companies to Pay Off Some Debt," *Wall Street Journal*, May 26, 1987), bankers have

repeatedly told him that since many Korean companies are financially unsound, lending to them without the guarantee of a government safety net would be beyond the acceptable risk limits of most foreign banks.

56. See Appendix 6.2.

57. Suk-won Kim, chairman of SsangYong Business Group, "Internationalization," *Korea Focus* (1, no. 4 [1993]: 44), a publication of the Korea Foundation.

58. *Korea Newsreview*, May 27, 1989.

59. H-s. Jang 2003: 164.

60. I. SaKong 1993: 57; S-w. Joh 2003: chapter 9; A. Chopra et al. 2002.

61. Sang-mok Suh, vice president of the Korean Economic Institute, "Economic Reform and a 'New' Korea," *Wall Street Journal*, October 6, 1986.

62. Cole and Park 1983: chapter 6; Hong and Park 1986.

63. Timmer and van Ark 2000: 21.

64. A. Chopra et al. 2002.

65. H-s. Jang 2003: 164.

66. H-s. Jang 2003: 165.

67. *Dong-A Ilbo*, December 4, 1969.

68. P. J. Kim 1990: 196.

69. "The problem is the government of Korea," said one U.S. banker, because "it won't stay out of our business." Quoted in Joseph P. Manguno, "Korea Modifies Its Banking Regulations," *Wall Street Journal*, December 30, 1986.

70. The Financial Supervisory Service's report was cited by *Online Asia Times*, December 14, 2000.

71. In commenting on this problem, Thompson Financial BankWatch stated that the nonperforming loans of Korean banks had reached 110 percent of loan loss provisions, proving that the country's financial sector was far from healthy. Thompson Financial BankWatch also noted that in an attempt to boost profits, most banks had lowered their loan loss provisions to a level below what was actually required. Thompson Financial BankWatch 1997.

72. Those included Jungwoo Development, the Korea Development Corporation, Poonghan Textile, the Korea Shipbuilding & Engineering Corporation, and the Pan Ocean Shipping Co.

73. The Financial Supervisory Service (FSS) report, cited in *Online Asia Times*, December 14, 2000.

74. All financial institutions were treated like junior partners in a hierarchical organization.

75. C. Kang 2004.

76. Among individual Korean banks, Kookmin had the top score of D-plus, with Hana and Kor-Am receiving a grade of D and Joheung, Woori, and Korea Exchange finishing with an E+.

77. K. S. Rogoff 2002: 55–56.

78. Thompson Financial BankWatch 1997.

79. Korean banks are large relative to GDP: assets of each of the six largest banks account for about 10 percent of GDP, compared with less than 5 percent of the largest banks in most other OECD countries.

80. Claessens, Ghosh, and Scott 1999: 95.

81. The four existing supervisory agencies (Banking Supervisory Authority, Securities Supervisory Board, Insurance Supervisory Board, and Non-Bank Financial Supervisory Authority) were to be fully integrated into the FSB.

82. *Korea Now*, March 5, 2005, 7.

83. *Korea Now*, March 5, 2005, 27.

84. Y-j. Cho 2003: 118.

85. Jones and SaKong 1980.

86. This compares with an industrial country norm of below 200 percent and is twice the U.S. ratio and four times that of the Taiwanese (Claessens, Ghosh, and Scott 1999: 86).

87. A. Salmon 2001: 46.

88. A. Chopra et al. 2002.

89. According to Foster-Carter ("Lies, Damned Lies and Korea Company Account"), Daewoo's fugitive founder, Woo-Joong Kim, was twice convicted of bribing politicians. Recently, Daewoo executives were charged with 41 trillion *won* ($33 billion) of accounting fraud. Daewoo somehow got away with doubling its already vast debt load. Another high-profile company that went bankrupt, Dong Ah Construction, admitted to years of cooking the books (and claimed that everyone did it).

90. Foster-Carter, "Lies, Damned Lies and Korea Company Accounts."

91. Y. S. Park 2000: 36.

92. These practices closely resembled those of the Japanese in Korea during the colonial period.

93. P. M. Beck 2000: 25.

94. Cole and Lyman 1971: 299.

95. For example, the Korea, Daihan, and Citizens companies.

96. The central bank incurred a deficit of 131.8 billion *won* ($176 million) in 1982, 108.8 billion *won* ($136.8 million) in 1983, 194.8 billion *won* ($235 million) in 1984, 130.6 billion *won* ($146.7 million) in 1985, and 57.2 billion *won* ($66.4 million) in 1986, for a total of 623.2 billion *won* ($761.3 million) in five years (*Korea Herald*, December 15, 1987).

97. I. SaKong 1993: 75–79.

98. At the end of September 1998, the government budgeted a total of about 64 trillion *won* ($53.3 billion) or 14 percent of GDP for financial sector restructuring to restore the financial health of banks, which were mobilized largely by means of issuing public bonds, with the assistance of the IMF's biggest bailout ever.

99. *Korea Now*, December 2, 2000.

100. Foster-Carter, "Lies, Damned Lies and Korea Company Accounts."

101. T. Byrne 2001: 24–25.

102. The latter is assessed a more appropriate measure, given the large trust-account activities and the many capital markets instruments, which were guaranteed by banks but which were not captured in the first figure (Claessens, Ghosh, and Scott 1999: 102–3).

103. For example, Cole and Lyman 1971: 180.

104. K. S. Kim 1971: 180.

105. The shares of personal savings, as calculated by Jones (1975: 82), increased from about 30 percent of the nation's gross savings in the early 1960s to over 40 percent in the early 1970s.

106. Calculation based on the Bank of Korea, *Economic Statistics Yearbook* 1984, 1988; and Y. C. Park 1988.

107. *Korea Now*, October 2, 2004: 14.

108. The case against Hynix—originally brought by Infineon Technologies, a German chip maker—is based on the assumption that Seoul put pressure on banks to keep Hynix alive. A string of bailouts by government-backed banks, led by the Korea Exchange Bank, has reduced the company's debt from 7,800 billion *won* in December 2000 to 2,700 billion *won* following the latest rescue in December 2002. Both the company and the Korean government have vigorously denied the charges, claiming that lending decisions were made on a commercial basis and involved foreign banks, including Citibank in the United States. However, some foreign companies said Hynix would not have survived without government

assistance ("Hynix Faces 30–35 Percent EU Import Duties," *Financial Times*, March 21, 2003, 21).

109. *Korea Now,* November 30, 2002.

110. S. Cho has held a number of important leadership positions in the government and financial institutions, including deputy prime minister and head of the Bank of Korea (S. Cho 1994).

111. For South Korea, as well as some other Asian countries, the financial crisis of 1997–98 probably was the best thing that could have happened, since it provided a wake-up, alerting the country to its fragility and emphasizing the need for reform. See further information in Appendix 6.3.

112. "Restrictions Eased on *Chaebol* Investments," *Korea Now*, March 5, 2005.

113. H-s. Jang 2003: 164.

114. Kihwan Kim 1983: 23.

CHAPTER 7

1. R. Nurkse 1953: 140–41. W. A. Lewis (1955) also has noted that external resources, even if foreign savings come in the most desirable forms, are not enough.

2. The high level of domestic saving during this period raises the question of how it was possible for the country to achieve it immediately after the disastrous war. Apparently, it was through the importation of large amounts of foreign resources, as examined in chapters 8 and 9.

3. Republic of Korea, Economic Planning Board 1966: 51–52.

4. J. H. Yoo 1984: 1696.

5. Republic of Korea, Economic Planning Board 1966: 52.

6. Calculation based on the Bank of Korea, *Economic Statistics Yearboo* 1984, 1988; and Y. C. Park 1988.

7. L. Jones 1975: 82. Simon Kuznets (1981) found that in the United States, nonagricultural individuals (as distinct from farmers, unincorporated businesses, business corporations, and government) were responsible for 50 to 70 percent of savings, compared with a figure of 29 percent for households, in 1961.

8. Hanguk Eunhaeng 1995: 178.

9. J. G. Yoo 1990: 388.

10. S. Kuznets (1981) found that income distribution follows the U-curve during economic growth.

11. *Korea Newsreview*, September 26, 1992. According to a survey reported in *Korea Newsreview*, January 16, 1988, savings for the purchase of a house ranged from 27.9 to 24.5 percent of the total in 1986–87.

12. J. H. Yoo 1984: 1707.

13. Hanguk Eunhaeng 1995: 178.

14. *Korea Herald*, December 24, 1986.

15. *Korea Newsreview*, January 2, 1993.

16. Computed from the Bank of Korea, *Economic Statistics Yearbook*, various years; Republic of Korea, Economic Planning Board, Annual Report on the Family Expenditure Survey, 1980, 1985, and 1988; and Republic of Korea, Ministry of Agriculture and Fisheries, 1980, 1985, and 1988.

17. "Excessive Consumption," an editorial in the *Korea Herald*, July 20, 1986.

18. "Excessive Consumption," an editorial in the *Korea Herald*, July 20, 1986.

19. J. H. Yoo 1984: 1696.

20. According to one government publication, the percentage of owner-farmers rose from 14 percent in 1945 to 88 percent in 1957.

21. $150 \times 0.3 = 45$ percent and $150 \times 0.4 = 60$ percent.

22. According to Yon-su Kim's memoir (1981), he had to hand over six big farms that produced 150,000 *seok* of grain, for land bonds worth 100,000 *seok*. The value of these bonds decreased drastically in the ensuing years, and when they were sold in 1953, they brought returns of only 30 to 70 percent.

23. $45 \times 0.3 = 13.5$ percent; $60 \times 0.7 = 42$ percent; and $45 \times 0.1 = 4.5$ percent.

24. J. W. Lee 2001: 101. In Japan, a revised version of the reform bill passed the parliament in November 1946. The reform stipulated that former tenant farmers could pay for their new land with government bonds over a period of 30 years.

25. $45 \times 0.2 = 9$ percent and $60 \times 0.3 = 18$ percent.

26. J. W. Lee 2001: 102.

27. See Y-I. Chung 2006: chapter 2.

28. In this sense, the consequences of South Korean land reform were quite different from those in Japan. The Japanese government bought out the feudal rights of the nobility, including the right of the landownership, and took over the debts of the feudal lords. Finding themselves with plenty of money (or government bonds) and no duties, some of the lords turned to banking. When, in 1880, the government decided that it was ready to sell some of the factories it had established for pioneering purposes, it found a ready market. Consequently, the Japanese reform involved the swift transformation of landowners and nobility into capitalists. This swift transformation of an old-type aristocracy into a new-type capitalist class was profoundly important in increasing the supply of entrepreneurs in Japan during the crucial period of the late nineteenth century. At the same time, the commercial classes found a new freedom to invest productively and were powerfully reinforced by the entry into their ranks of some of the richest and most powerful families in Japan.

29. D. K. Lee 1987.

30. J. G. Yoo 1990: 388.

31. Only in 1969 was the high rice price policy adopted, and even that was not a policy that supported agriculture.

32. Bank of Korea, *Economic Statistics Yearbook* 1966: 270.

33. U.S. Congress 1957: 735.

34. J. Park 1994.

35. The peasants' marginal propensity to consume after the land reform seems to have increased and approached one. Computed from the Bank of Korea, *Economic Statistics Yearbook* 1971, 1978, 1981, and 1989; Republic of Korea, Economic Planning Board, Annual Report on the Family Expenditure Survey, 1980, 1985, and 1988; and Ministry of Agriculture and Fisheries, Report on the Results of Farm Household Economic Survey, various years.

36. When unions were not suppressed in the Sixth Republic, wages rose at a mind-boggling pace; for example, by 13.5 percent in 1987, 14 percent in 1988, and 12 percent in 1989 (*Wall Street Journal*, April 12, 1989).

37. Computed from data in Republic of Korea, Economic Planning Board, 1988 and 1989; Republic of Korea, Economic Planning Board, *Economic Survey*, January 1989; and Bank of Korea, *Financial Statement Data*, 1987; and Bank of Korea, *Monthly Bulletin*, February 1989.

38. Reported in the *Dong-A Ilbo*, July 15, 1970.

39. This tension grew out of the increasingly pervasive feeling that Korea's economic success and the increasing affluence of some were at the expense of workers and farmers. The seriousness of the situation is indicated by the upsurge in the number of these disputes. Work stoppages became more frequent, longer, and more violent. They numbered 276 in 1986, reached 3,749 in 1987, and fell again, to 1,873, in 1988. As a result, annual wage in-

creases accelerated dramatically, although they remained under 10 percent until mid-1987. Since the last quarter of 1987, they have risen by well over 20 percent per year. There are other reports with similar findings. Reported in the *Kyeong Hyang Shinmun*, July 5, 1973; *Dong-A Ilbo*, August 2, 1975, November 27, 1975, February 17 and November 10, 1977.

40. Republic of Korea, Economic Planning Board 1981: 61; B. M. Renaud 1973.

41. K. S. Rogoff 2003: 55.

42. During the period of 1966–76, more than 10,000 Korean nurses worked in Germany, and some 7,800 Koreans toiled in the coal mines there during 1963–78. These workers sent home an estimated $50 million per year, equivalent to 2 percent of Korea's GDP at the time.

43. For example, in 1975 and 1978. Republic of Korea, Labor Affairs Administration 1978: 33.

44. Reported in the *Korea Newsreview*, January 16, 1988, 21.

45. B. K. Kang 1989: 76; S. Kwon 1992: 14.

46. Bahl, Kim, and Park 1986: 176.

47. The National Statistical Office reported that the average annual income of families in the highest 20 percent jumped from 48.7 million *won* in 1996 to 61.6 million *won* in 2000, while the average annual income of a household in the lowest 20 percent declined from 10.3 million *won* to 9.1 million *won* during the same period.

48. Reported in *Korea Now*, March 22, 2003, 21.

49. Republic of Korea, Economic Planning Board 1981: 61; B. M. Renaud 1973.

50. D. I. Kim 2002.

51. Korea Economic Institute (Washington, D.C.), *Korea Insight*, 8, no. 6 (June 2006).

52. J. G. Yoo 1990: 388.

53. Republic of Korea, Economic Planning Board 1981: 61; B. M. Renaud 1973.

54. The East-West (Dongsuh) Securities Company's survey was reported in *Korea Newsreview*, September 26, 1992.

55. *Korea Newsreview* reported on September 18, 1993 that the "leading class favors real estate."

56. The East-West (Dongsuh) Securities Company's survey was reported in *Korea Newsreview*, September 26, 1992.

57. According to W. A. Lewis (1955: 230–35), to achieve rapid capital formation, "an enormous increase in the share of profits in the national income" is necessary. One of the "essential change[s] for this [share] is the emergence of a new class in society . . . whose share of the national income increase relatively to that of all others." The essential feature of the conversion from 5 to 12 percent of GDP saving, which is the minimum needed to meet the investment requirements for economic development, is "an enormous increase in the share of profits in the national income."

58. Net profits equals gross profits minus employee compensation, depreciation allowances, net business taxes (business taxes minus subsidies), and income transfers to foreigners.

59. Leipziger and Thomas 1994: 6.

60. Bank of Korea, *Economic Statistics Yearbook*, various years.

61. *Korea Herald*, August 16, 1987; *Korea Newsreview*, August 22, 1987.

62. According to I. SaKong, private entrepreneurs in Korea were "immature . . . during this [from early 1960s to 1972] period" (1993: 41).

63. More general discussions may be found in Cole and Lyman 1971: 89, 137–202; R. Norton 1971; and G. T. Brown 1973. The underlying bases for wealth accumulation by businesses are seen to be tax evasion, special privileges, purchases of former Japanese and government property at bargain prices, and low wages. An extensive discussion may also be found in Y-I. Chung 1986. W. D. Reeve (1963: 156) cites more numerous specific cases. Corruption typically occurred in an attempt to obtain "legal business deals," but no outright

transfers of aid funds took place. This allegation was widely reported in the U.S. and the Korean press.

64. S. Um 1975.

65. Reporter Robert Alden wrote that "dollars, instead of being turned into the Bank of Korea when they came into the country, are almost totally diverted into the black market where the traders can get almost twice as many *won* for the American money" ("U.N. and U.S. Efforts to Aid Reconstruction," *New York Times*, March 5, 1954).

66. U.S. Congress 1957: 734–36.

67. This claim was made by U.S. controller general Joseph Campbell (*New York Times*, July 4, 1957).

68. U.S. Congress 1957: 735.

69. *New York Times*, February 9, 1964.

70. A. M. Rosenthall, "U.S. Acts to Tighten Efficiency of South Korean Aid Program," *New York Times*, March 26, 1961.

71. G. T. Brown 1973: 267; Cole and Lyman 1971: 187.

72. Probably the best-known cases were those of a former chief secretary to president Chung Hee Park, the Korean Central Intelligence Agency director, the founder of the Korean CIA, and a former prime minister. Among those who were cited for involvement in some of these cases was a businessman who was supposed to have borrowed money illegally from a government-controlled bank.

73. Many accusations were made by opposition politicians in the National Assembly and the press, and numerous sensational stories appeared in newspapers, without much supporting evidence or follow-through.

74. Both foreign observers and South Koreans agree on this point (U.S. Congress 1960: 553). W. D. Reeve observed that in the eyes of the American taxpayer, Korea was a "bottomless pit." It was said that there was much inefficiency, mismanagement, and waste in Korean reconstruction efforts, much of which was explained by the historical sequence of events. According to this explanation, the newly established Republic was ill-prepared to take over the burdens of either government or business administration, previously a Japanese monopoly, and the reconstruction efforts had to be carried out under chaotic conditions created by the constant threat of a renewed invasion by North Korea (W. D. Reeve 1963: 113–15). Such beliefs were also widely held by Koreans. See *Hanguk Ilbo*, October 17, 1967.

75. Adjectives such as "enormous," "gigantic," "tremendous," "huge," fantastic," and "large" were used to describe the amounts of bribery. But in relation to the size of the transactions involved, they were rather small, ranging from very insignificant rates to about 5 percent (*Hanguk Ilbo*, May 30 and 31, 1969; *Dong-A Ilbo*, December 9, 1969 and January 14, 1970). One report suggests that the going rates of bribery for government purchase and construction contracts were 5 to 10 percent of the value of the contracts; for example, 5 percent for competitive bidding and 10 percent for contracts without competitive bidding (*Dong-A Ilbo*, December 9, 1969).

76. J. W. Lee 2001: 110–11.

77. *Dong-A Ilbo*, July 24, 1977 and July 10, 1978.

78. S. Cho 1994.

79. Reported in "South Korean Business Groups to Be Investigated," *International Herald Tribune*, March 5, 2003, B1.

80. A considerable amount of gross investment was generated by depreciation and depletion allowances.

81. Dividend payments between 1974 and 1998 varied from sector to sector, the highest being 30 percent for manufacturing, mining, electric, gas, transportation, and communica-

tions; 26 percent for domestic trade; 17 percent for construction; and 11 percent for the service and entertainment industries (Table 7.7).

82. *Korea Newsreview*, July 5, 1986; *Korea Herald*, December 20, 1986.

83. These figures appeared to have represented gross savings of all businesses, including not only corporations but noncorporate businesses, such as single proprietors, as well.

84. Calculations are from L. Jones 1975: 82, 85. In 1972, incorporated businesses alone contributed 16.6 percent of gross savings when investment in them was 21.5 percent of total investment, or 3.3 percent of total resources available when gross savings in the country was 19.8 percent of total resources available.

85. B. N. Song 1997: 156–57.

86. According to W. A. Lewis, the essential ingredient for change, that is, converting from a low 5 percent to that necessary 12 percent savings for capital formation, is "the emergence of a new class in society . . . whose share of the national income increases relatively to that of all others."

87. Hanguk Eunhaeng 1995: 181.

88. The budget deficits after 1963 and until 1971 were largely filled with foreign aid.

89. The share of the budget occupied by direct government consumption and transfer payments increased, averaging more than 70 percent of the budget during the 1980s. In 1987, expenditures for social services—including health, housing, and welfare—were 16.4 percent of the budget, up from 13.9 percent in 1980, and slightly higher than 1987 government outlays for education.

90. Government revenue was almost totally dependent on taxes, and improvements in the tax system were the primary means of achieving the government savings target. The ratio of tax burden to GDP was raised to 14.2 percent by 1971. By the early 1980s, nearly two-thirds of all tax revenues were collected in the form of indirect taxes.

91. No comprehensive data on the revenues of public enterprises are available before 1971, but those published between 1971 and 1994 seem to indicate that the net profits of government and public enterprises were equal to about 20 percent of government revenue (Hanguk Eunhaeng 1995: 246–49). Profits from those enterprises accounted for more than 5 percent of government budget revenues on average, which was more than the budget deficits (4.5 percent) between 1971 and 1994 and almost all (7.3 percent) of the budget deficits (8.6 percent) between 1971 and 1984.

Roughly 30 percent of the revenues produced by public enterprises in the late 1980s came from the manufacturing sector–government monopolies (e.g., tobacco, salt, and ginseng) and public enterprises (e.g., chemical plants and steel mills). The other 70 percent came from such government-owned service sectors as the electric power, communications, and financial industries. These profits were treated as ordinary government revenue and used mostly for current expenditure rather than investment. There is no record of government saving out of these profits. Even if it did, the savings would probably have been miniscule.

92. Hanguk Eunhaeng 1995: 246–47.

CHAPTER 8

1. It is difficult to estimate a suitable correction factor for the bias; therefore, we need to caution that the valuation of foreign savings calculated in this study should be viewed as requiring further refinement.

2. From 1987 to 1990, South Korea's accumulated trade deficit with Japan was $19.1 billion, while the trade balance in basic materials, parts, and machinery was $35.2 billion in favor of Japan during the same period. In 1991, South Korea's trade deficit with Japan was $8.8 billion, which accounted for 91 percent of Korea's overall trade deficit in that year.

3. After the two countries normalized diplomatic relations in 1965, Korea's accumulated trade deficit in 1965–91 was $33.3 billion.

4. C. Y. Bang 1984: 1796.

5. J. H. Yoo 1984: 1696.

6. Relative to GDP, foreign resources decreased from a little less than 25 percent in the 1950s to about 1 percent in the early 1990s, even though the absolute sum continued to increase over time.

7. Westphal and Kim 1982.

8. It is generally believed that in a country with little industry of its own, a rough rule of thumb for the ratio of imported capital goods to total investment is that if the rate of domestic investment increases by three units, one will be capital goods imports and two will be increased activity in the domestic investment industry (E. E. Hagen 1968: 351).

9. L. Summers finds that a reallocation of capital from countries where it is abundant to countries where it is scarce boosts investment in the recipient country and brings enormous social benefits because the returns on new investment are higher where capital is limited (2000: 1–16). R. E. Lucas Jr. believes that new investment is more productive in countries with a skilled workforce and well-developed physical infrastructure (1990: 92–96). Mody and Srinvasan conclude that new capital flows tend to go to countries that have received large flows in the past and that investors also seek favorable business environments (1998: 778–99).

10. Bosworth and Collins 1999: 143–69.

11. C. Y. Ahn 1999: 263.

12. Frank, Kim, and Westphal 1975.

13. The nation's total incoming FDI approved between 1962 and 1991 was 2,639 applications and a meager $8 billion. Of that group, 1,031 firms either canceled their investment plans or divested, leaving 1,608 firms with foreign equity participation (61 percent of those that applied) as of August 1988.

14. The tax reduction and exemption benefits were eliminated on June 1, 1988.

15. Tax breaks on royalty payments were abolished for all but essential high technology.

16. Lee and Ramstetter 1991; *Korea Newsreview*, August 8, 1987.

17. Jones and SaKong 1980: 189–90.

18. W. K. Kwon 1986.

19. Rhee, Ross-Larson, and Pursell 1984: 40.

20. As a way to strengthen their competitiveness through technological innovation, small and medium-sized businesses were required by the government to sign equity investment agreements and technology licensing pacts with small, technology-intensive foreign firms. South Korea, with its high level of general education and domestic R&D efforts, was able to take advantage of such technology transfers at low cost.

21. M. Felstein 2000; Razin and Sadka 2001.

22. C. H. Lee 1980.

23. *Korea Herald*, September 18, 1986.

24. B. Y. Koo 1985: 182.

25. Bosworth and Collins 1999: 143–69.

26. Hanguk Saneop Eunhaeng 1970: 63.

27. M. Felstein 2000; Razin and Sadka 2001.

28. This would have been hard to achieve, either through financial investments or trade in goods and services (M. Felstein 2000; Razin and Sadka 2001).

29. Bloomfield and Sjobolm 1999.

30. Jones and SaKong 1980: 189–90.

31. Kim and Hwang 1998: 38

32. Lee and Ramstetter 1991.

33. Dadush, Dasgupta, and Ratha 2000: 54–57; R. Lipsey 2001.
34. Frankel and Rose 1996: 355.
35. B. Eichengreen 2002.
36. Berensztein, De Gregorio, and Lee 1998: 115–35.
37. R. Lipsey 2001.
38. Bhagwati and Srinivasan 1983.
39. *Hanguk Ilbo*, August 2, 1972.
40. The same observation was noted in Mishra, Mody, and Murshid 2001: 5.
41. K. S. Rogoff 2002: 55. In contrast, other types of investment quickly beat a rapid retreat to net outflows. Short-term loans from abroad, for instance, are typically driven by speculative considerations based on interest rate differentials and exchange rate expectations, not long-term considerations. The movement of short-term loans from abroad is often the result of moral hazard distortions such as implicit exchange rate guarantees or the willingness of governments to bail out the banking system. It was the first to run for the exits in times of trouble and was responsible for the boom-and-bust cycles of the 1990s.
42. M. Felstein 2000; Razin and Sadka 2001.
43. K. S. Rogoff 2002: 55–56.
44. A survey conducted by the Korea International Labor Foundation.
45. L. B. Krause 2002: 38.
46. Reported in *Korea Now*, March 8, 2003, 23.
47. The index measures a list of 50 different economic variables, divided into 10 categories, including financial controls, trade policy, banking and finance, and monetary policy.
48. Reported in *Korea Now*, March 8, 2003, 23.
49. Gelos and Wei 2004
50. Gray and Kaufman 1998.
51. F-k. Park 1991.

CHAPTER 9

1. C. Wolf 1960: 47–48.
2. Bank of Korea, *Economic Statistics Yearbook* 1966: 270.
3. U.S. Congress 1949: 7–8; U.S. Economic Cooperation Administration 1949: 87; ibid. 1950: 94–95.
4. C. Wolf 1960: 50–51.
5. The ratio is based on the figures given in U.S. AID 1966: 7, 47; Bank of Korea, *Economic Statistics Yearbook* 1966: 270.
6. Bank of Korea, *Economic Statistics Yearbook* 1966: 270.
7. Bank of Korea, *Economic Statistics Yearbook* 1960: 216.
8. U.S. AID 1966: 47.
9. U.S. AID 1966: 47.
10. C. R. Frank 1970: 9.
11. C. R. Frank 1970: 8–9.
12. C. R. Frank 1970: 9–12.
13. This estimate is based on statistical data published in Korean sources. Aggregate figures on economic aid published in Korean sources are for the amounts of aid actually received by South Korea rather than the amounts appropriated by the granting countries or agencies.
14. The reported amount of foreign aid varies from source to source, ranging from $4.42 billion during 1945–80 to $5.3 billion during 1945–74.
15. See Appendix 9.1.

16. J. N. Bhagwati 1970: 117.

17. About $3,018 million in foreign savings came to Korea in the form of grants and other transfers.

18. This tabulation is based on data from Republic of Korea, Ministry of Reconstruction 1958: 109–10; S. Y. Hong 1962: 51–52; Bank of Korea, *Economic Statistics Yearbook* 1960: 210–13; ibid. 1966: 271–75.

19. J. A. Hannah et al. 1957: 1377.

20. Bank of Korea, *Economic Statistics Yearbook* 1966: 276–93. Both the Wholesale Price Index and the Seoul Consumer Price Index rose by approximately 400 percent between 1955 and 1965.

21. According to W. D. Reeve, "Without the continuation of external aid, the Korean government and the whole economy would have collapsed" (1963: 37). William J. Jorden observed in his report ("Koreans Hopeful Despite Distress," *New York Times*, April 15, 1954) that only foreign aid prevented South Korea from toppling. The same conclusion is reached in Igor Oganesoff, "After Eight Years of Aid, Koreans Still Lean Hard on U.S.," *Wall Street Journal*, August 12, 1958.

22. Bank of Korea, *Economic Statistics Yearbook* 1968: 38–39. Korean dependence on U.S. aid left the government all the more vulnerable to the whims of American officials in Seoul. Given the low levels of internally generated state revenues, the Korean government fell back on foreign aid to support the nation's investment needs. According to Nobuo Nakagawa's (1964: 62) estimate, foreign aid during 1953–61 constituted between 12 and 53 percent of the government budget, averaging 40 percent. In 1954, as much as 31.6 percent of government revenue was financed with aid, which increased to 57.6 percent in 1955 and 49.2 percent in 1957. Most of U.S. economic aid to South Korea amounted to an average of 42.8 percent of the budget between 1954 and 1960 (W. D. Reeve 1963: 76).

23. W. D. Reeve 1963: 118.

24. Over 40 percent of the budget went to support the Korean army, according to Oganesoff, "After Eight Years of Aid, Koreans Still Lean Hard on U.S."

25. Republic of Korea, Ministry of Reconstruction 1958: 109–10; S. Y. Hong 1962: 51–52; Bank of Korea, *Economic Statistics Yearbook* 1960: 210–13; ibid. 1966: 271–75.

26. Foreign economic aid on average accounted for 10 percent of GDP between 1953 and 1971, while the gross domestic investment averaged 12.4 percent. Thus, the former was only about 2.4 percent of the latter.

27. W. D. Reeve (1963: 118) estimates the ratio at as much as 91 percent of gross fixed capital formation in the late 1950s. Cole (1980) and Pu (1961) calculated the ratios at about 75 percent between 1953 and 1961.

28. W. D. Reeve 1963: 75.

29. Cole and Lyman 192–93.

30. Obviously, if the aid took the form of a loan repayable in the currency of the lender, before it had to release the equivalent in foreign exchange, it would not retain the capital goods. If the aid took the form of planes or road-building equipment not sold, or transferred to other end users within the host country, it retained the capital goods.

31. An aid agreement with the United States in December of 1949 gave legal status to an innovative counterpart fund that was established to receive foreign aid.

32. Bloomfield and Jensen 1951: 19.

33. Because most imports in the 1950s were financed with foreign aid, the aid agencies were involved in the initial allocation decisions regarding capital-goods imports and subsequent adjustments of import controls to provide protection for new or expanding industries.

34. U.S. Congress 1963a: 574; Oganesoff, "After Eight Years of Aid, Koreans Still Lean Hard on U.S."

35. The Kumsong *jaebeol* received an UNKRA assistance loan of $280,000 for 18,400 spinning machines in March of 1953, together with a Korean government loan of $330,000 in June. UNKRA assistance in January of 1957 supported the purchase of 600 weaving machines. Kumsong not only prospered with technology formerly vested in the government and direct foreign aid assistance through the UN for the purchase of equipment, it also procured extensive ICA assistance for raw materials and equipment. A loan of $102,260 was received in 1958 for equipment. Another, for $15,000, was received for transport expenses in 1959, together with $374,500 for raw cotton. In December, Kumsong was awarded a loan of $708,000 for cotton purchases. Another, for $404,000, was received in 1960. Loans for the five months dating from September 1959 totaled $1.5 million, or at least 750 million *won*. The credits represented close to four times the value of the firm's equity capital in 1955. With the government's help, Kumsong grew from a small face cream vendor into a $20 billion per year conglomerate (W. Hong 1991b: 263). The firm secured $450,000 credit for equipment purchases in 1955 from the ICA (Republic of Korea, Ministry of Reconstruction 1958: 51).

36. Sam Ho *jaebeol* bought Taejon Textile in 1953, which was ruined from the Korean War, and obtained ICA funding and rebuilt the plant. Similarly, Sam Yang *jaebeol* received ICA dollar aid in the form of loans in 1956, 1957, and 1958 and built gelatin (*kwahak kanten*), speedy refrigeration, and ice-making plants. With AID loans, Ju Yong Chung constructed the Tan Yang Cement Plant. Yang Koo Lee, who owned Sam Chuk Cement, obtained a $670,000 ICA loan in 1959, and expanded its plant with 400 million *won* loans from a domestic source. To complete the expansion project, he also obtained $2.14 million DLF loan in 1959, and $400,000 and 230 million *won* ICA loans in 1961. Likewise, Chun Woo *jaebeol* took out a million dollar loan from the AID fund and imported lumber to make wood veneers. Gold Star (Kumseong) was successful in obtaining an aid loan from UNKRA. In a similar manner, the AID approved $50 million in loans ($25 million each) to third and fourth fertilizer plants in Korea involving GULF and Swift Corporations, each of which contributed $10 million.

37. As Y. Lim (1981) observed in his study, "a huge sum of foreign aid was sold to business as almost like a gift."

38. N. Nakagawa 1964: 48–49.

39. Foreign aid during this period assisted many small and medium-sized businesses, mostly in the private sector. It was carried out under many different programs, but the Industrial Production Project was the most extensive one. Between 1957 and 1963, the program financed 211 small and medium-sized industrial plants. The average loan made to them was $100,000 for a 10-year period at an annual interest rate of 8 to 12 percent, repayable in local currency. Most of these loans proved to be successful investments, and only 18 out of the 211 firms failed (U.S. Congress 1963a: 555–60). Also, under the U.N. program, some 700 small businesses were assisted (W. D. Reeve 1963: 116).

40. W. D. Reeve 1963: 116.

41. Bank of Korea, *Economic Statistics Yearbook* 1960: 210, 212.

42. C. Y. Bang 1984: 1796.

43. L. Summers 2000: 1–16; R. E. Lucas Jr. 1990: 92–96; Mody and Srinvasan 1998: 778–99.

44. Bosworth and Collins 1999: 143–69.

45. The marginal propensity to save was estimated at about 0.1 in Republic of Korea, Economic Planning Board 1966: 51.

46. Bank of Korea, *Economic Statistics Yearbook* 1956: Statistical Section II; ibid. 1966: 200–201.

47. Rajan and Subramanian 2006.

48. See Appendix 9.2.

49. P. T. Bauer, "The Case against Foreign Aid," *Wall Street Journal*, October 3, 1972.

50. W. D. Reeve 1963: 115.

51. Reported in W. D. Reeve 1963: 115; *New York Times*, September 21, 1954, 40; ibid., July 4, 1957, 10.

52. U.S. Congressman Charles B. Brownson, the investigation chairman of the U.S. aid program, reported that Korea also wanted to build a new capitol building, a superhighway, and large radio transmitters. Clayton Knowles, "Rhee Said to Snarl Korea Rebuilding," *New York Times*, November 8, 1954.

53. Griffen and Enos 1970: 323.

54. Nihon Keizai Chosa Kyogikai 1964: 159.

55. U.S. Congress 1960: 553.

56. Oganesoff, "After Eight Years of Aid, Koreans Still Lean Hard on U.S."

57. U.S. Congress 1964: 532.

58. Oganesoff, "After Eight Years of Aid, Koreans Still Lean Hard on U.S."

59. U.S. Congress 1964: 320–22, 526–29, 532, 539–41, and 563–65.

60. Foster Hailey, "Economic Strides Shown by Seoul," *New York Times*, June 25, 1955.

61. U.S. Congress 1961: 553.

62. *Dong-A Ilbo*, January 1, 1970.

63. An econometric study has shown that Korea was an above-average aid recipient in terms of translating foreign assistance into growth.

64. *New York Times*, September 16, 1956; U.S. Congress 1965: 587–88.

65. Associated Press correspondent Conrad Fink's report was cited in the congressional hearing (U.S. Congress 1964a: 529–31).

66. W. D. Reeve 1963: 122.

67. H. F. Haviland et al. 1960: 65–66.

68. J. A. Hannah et al. 1957: 1378–1379.

69. W. D. Reeve 1963: 122.

70. A. M. Rosenthall, "U.S. Acts to Tighten Efficiency of South Korean Aid Program," *New York Times*, March 26, 1961.

71. Nihon Keizai Chosa Kyogikai 1964: 10.

72. Rosenthall, "U.S. Acts to Tighten Efficiency of South Korean Aid Program." The Korean government was also criticized for spending $7 million on an oceangoing fleet, a project that was later abandoned; upwards of $1 million on international broadcasting equipment; $1.5 million for presses and other equipment for an English-language newspaper; over $1 million for the Institute of Advanced Engineering Technology; and funds for Korean National Airlines trans-Pacific service. Robert Alden, "U.N. and U.S. Efforts to Aid Reconstruction," *New York Times*, March 5, 1954.

73. Much Japanese aid was considered by Koreans to be reparation rather than aid.

74. Korea-Japanese normalization loans increased sharply. Following long negotiations with Japan, a treaty restoring normal relations between the two countries was ratified in December 1965, and it provided for $800 million in Japanese loans, grants, and commercial credits to Korea.

75. These ranged from 35.5 percent ($3.4 billion) in 1971 to a peak of 38 percent ($4.1 billion) in 1972 and 36.8 percent ($5 billion) in 1973.

76. After three Latin American countries: Brazil ($104.4 billion), Mexico ($96.3 billion), and Argentina ($48.6 billion) (*Wall Street Journal*, May 22, 1985).

77. Specified in its sixth economic plan.

78. The World Bank guidelines indicate that a country with a ratio below 30 percent is considered free from foreign debt problems.

79. Among them, the U.S. DLF between 1959 and 1974 was $5.38 billion, of which $5,046 million was made between 1948 and 1973. Out of the U.S. DLF between 1959 and 1974, loans made up $4.88 billion (90.2 percent), while FDI was $520 million (9.8 percent). Of the $13,387 million in loans introduced between 1980 and 1984, 27 percent, or $3,615 million, were obtained from the United States.

80. From 1959 to 1970, the share of Japan's loan was 20 percent. Japanese loans and credits averaged about $200 million per year during the third five-year economic plan (1972–76), doubling the previous annual level of $100 million. Japan provided $440 million between 1970 and 1974, which accounted for 35.7 percent of total capital import from Japan. In the later years, of the $13,387 million in loans extended between 1980 and 1984, Japan supplied 11.7 percent or $1,566 million. These together accounted for more than 60 percent of all debt outstanding on supplier credits at the end of 1975.

81. By the end of 1975, loans from these organizations accounted for 20 percent of Korea's external public debt.

82. Senator Allen Ellender noted that South Koreans "owe us more than they can ever pay. . . . Generally speaking, don't you agree that Korea, with the present resources, has no chance to repay this loan or any of those we have made in the past?" (U.S. Congress 1962: 791).

83. These U.S. loans were administered under different agencies and programs. The principal loan programs were administered by the AID, Public Law 480, Commodity Credit Corporation, and the Export-Import Bank. One U.S. loan in the immediate post–Korean War years was from the FOA or the ICA, the predecessors of the AID, the most important single source of external financing for indigenous firms. Loan authorizations from the AID were about $500 million during the period from 1945 to 1975 and accounted for about 10 percent of public loan assistance. The U.S. DLF between 1959 and 1974, totaling $5.38 billion, comprised $4.88 billion (90.2 percent) in loans and $520 million (9.8 percent) in direct investment.

84. A number of Japanese loan agencies were involved in public loans. The commitments to South Korea of Japan's Overseas Economic Cooperation Fund (OECF), which administered concessionary aid to developing countries, were substantial, especially during 1972–74. The Export-Import Bank of Japan, a major source of equipment financing, began funding projects in the country in 1971.

85. U.S. Congress 1967: 913.

86. Cole and Lyman 1971: 195.

87. *Korea Newsreview*, August 20, 1988.

88. In 1968, for instance, the government entered into about $150 million worth of commercial agreements for credit imports of food because of two consecutive years of drought, as well as for the crash program of tripling its electricity-generating capacity between 1968 and 1971.

89. *New York Times*, October 3, 1971.

90. In 1973, the budget relied heavily on proceeds from domestic sales of grain imported under long-term foreign credits.

91. Hanguk Saneop Eunhaeng 1970: 63.

92. There were some caveats in the actual classification. Commercial loans made to the public sector were sometimes classified as public, and a few official loans, such as loans of the International Finance Corporation, were considered commercial, particularly if they did not have an official guarantee. Sometimes public loans included all official and commercial loans that had official guarantees, in contrast to private loans, which were those extended to the private sector without an official guarantee. Public loans (those extended to the government from international agencies or foreign governments) were subject to government approval and guarantees.

93. See chapter 5.

94. C. R. Frank 1970: 12.

95. For the period between 1982 and 1986, however, Korean banks extended nearly double ($8.64 billion) the sum loaned out by foreign banks ($4.86 billion). *Korea Herald*, March 15, 1987.

96. Joseph P. Manguno, "Seoul, in Bid to Dismantle 'Korea Inc.,' Tells Companies to Pay Off Some Debt," *Wall Street Journal*, May 26, 1987.

97. Namely, Hanil, Korea First, Commercial Bank of Korea, Joehung Bank, and Bank of Seoul.

98. There were 23 foreign banks in South Korea in 1989: 8 from the United States, 7 from Japan, 6 from France, and 2 from Great Britain. The number of foreign bank branches in the country expanded to 47 in 1986 and 77 in 1988. Altogether, there were 18 U.S. bank branches and 10 Japanese bank branches.

99. According to a report of the Japanese Economic Mission to Korea in 1969, Japan's commercial loans were mostly used for the establishment of manufacturing facilities.

100. Hanguk Saneup Eunhaeng 1970: 86.

101. *Korea Herald*, May 20, 1987.

102. Hanguk Saneup Eunhaeng 1970: 63.

103. These included Hyundai ($223 million), Hanjin ($203 million), Sunkyong ($148 million), Korea Explosives ($138 million), Ssangyong, ($121 million), Shinjin ($107), Lucky ($97 million), Samsung ($72 million), Yasung ($69 million), Kolon ($59 million), Tongkook Steel ($39 million), and Dainong ($33 million) (*Hankook Ilbo*, March 22, 1975).

104. C. Y. Bang calculates that this was equal to about three-quarters of all investment financed with foreign savings in both the public and private sectors (1984: 1796).

105. Similarly, an IMF study published in 2005 found that every percentage point increase in debt service as a share of GDP reduced public investment by about 0.2 percentage point on average, implying that reduction in debt service by about 6 percentage points of GDP would raise public investment by 0.75 to 1.0 percentage points of GDP. This, in turn, would result in a modest increase of about 0.2 percentage points in growth. If a greater share of this debt relief—say, about half—could be channeled into public investment, growth would increase by 0.5 percentage points per year (Clements, Bhattacharya, and Nguyen 2005).

106. It was estimated in chapter 3 that public investment for the past 50 years since the armistice constituted a little more than one-fifth of the government budget, if all government revenues, including foreign aid and government borrowing, were included. If savings were less than the government's planned investment, it raised money for itself and its enterprises by going into the private capital market, selling either bonds or corporate shares in state corporations. If government saving exceeds its investments, the surplus amounts became available for private sector investment, either at home or abroad. According to one study, personal savings represent 230 percent of their own individual investment needs, thereby enabling them to finance the remaining sum (130 percent) for the business and public sectors (L. P. Jones 1975: 82).

107. According to an article by Mishra, Mody, and Murshid (2001: 4), private capital flows, especially portfolio flows, have been associated with the development of domestic capital markets.

108. The Special Audit Committee on Inducement of Foreign Capital of the National Assembly, which examined foreign loans in the fall of 1968, found that they were often not used efficiently or productively. Their conclusions were published in the "Special Audit Report on Inducement of Foreign Capital."

109. POSCO borrowed $269 million from syndicates in 1987 to expand its steel mills. At the end of May 1988, among local enterprises that owed more than $100 million in foreign

loans were Hyundai Motor Company, Kukdong Oil Company, Samsung Semiconductor & Telecommunications Company, Korea Heavy Industries & Construction Company, Korea Heavy Industries & Construction Company, and Kia Motors Corporation. Their total foreign loans stood at $4.39 billion, or 12.8 percent of the nation's total foreign debt of $34.2 billion in 1987. As of 2000, Daewoo had a total foreign debt of $6.7 billion. "Committee Authorizes Inducements of $301 Million in Foreign Funds," *Korea Herald*, May 20, 1987; *Korea Newreview*, August 20, 1988.

110. L. Summers 2000: 1–16; R. E. Lucas Jr. 1990: 92–96; Mody and Srinvasan 1998: 778–99.

111. The impact of loans on investment falls between FDI and portfolio investment, where FDI brings in about a one-for-one increase in domestic investment and virtually no discernible relationship exists between portfolio inflows and investment. According to Bosworth and Collins, an increase of a dollar in capital inflows (e.g., loans) is generally associated with an increase in domestic investment of about 50 cents (Bosworth and Collins 1999: 143–69).

112. Korea then drew about $350 million from the IMF, the oil facility drawings totaling $434 million during 1974–76, followed with a few other minor loans. Interest rates on the oil facility drawings were 6.875 percent in 1974 and 7 percent in 1975 and 1976. Maturity was seven years, including a three-year grace period.

113. Hanguk Eunhaeng 1995: 200.

114. Specified in its sixth economic development plan.

115. H. Patrick 2002: 3–4.

116. Bosworth and Collins 1999: 143–69.

117. Like in South Korea, the remittances made in Moldova by its migrant workers abroad after the collapse of the Soviet Union in 1991 were used to finance housing and education, with smaller amounts being invested in business activities in addition to chiefly meeting their basic consumption needs, as is common in other countries that receive remittances (IMF, *IMF Survey* 35, no. 3 [February 6, 2006]: 40–41).

118. There were approximately 132,000 Korean workers in the Middle East alone, equivalent to 4.5 percent of all workers in the manufacturing sector, or 15.7 percent of all construction workers in 1981, when 67 overseas construction companies peaked at $13.7 billion in contracts, 85 percent of which were in the Middle East (I. SaKong 1993: 65–66, 76–77).

119. This type of situation prevails in many parts of the world. According to a report from the IMF, with funds received from remittance, poor households may finance the purchase of basic consumption goods, housing, and children's education and health care. In richer households, they may provide capital for small businesses and entrepreneurial activities. Remittance flows tend to be more stable than capital flows, and they also tend to be countercyclical—increasing during economic downturns or after a natural disaster in the migrants' home countries, when private capital flows tend to decrease. The World Bank estimates that in Haiti they represented about 17 percent of GDP in 2001, while in some areas of Somalia, they accounted for up to 40 percent of GDP in the late 1990s (D. Ratha 2005: 42–45).

120. Foreign loans were guaranteed first by the Korea Reconstruction Bank (later the Korea Development Bank) and the Bank of Korea. In later years, the other special and commercial banks were also authorized to issue guarantees, and the Korea Exchange Bank took over responsibility from the Bank of Korea for guaranteeing the foreign exchange convertibility of loan payments. For the system of commercial bank guarantees on the repayment of foreign loans in 1966, see Frank, Kim, and Westphal 1975. Private long-term loans (over three years' maturity) were covered by the Foreign Capital Inducement Law, which allowed guarantees by the government, the Korea Exchange Bank, or the commercial banks.

121. *Korea Herald*, February 26, 1987.
122. C. Y. Lee 1962: 159.

CHAPTER 10

1. See Y-I. Chung 2006: chapter 4.
2. See Y-I. Chung 2006: chapter 4.

CHAPTER 11

1. Y-I. Chung 2006: chapter 2.
2. "Korea 54th in GNI Per Capita," *Korea Now*, May 17, 2003, 21.
3. The Chamber of Commerce and Industry (CCI), which aims to measure the factors that contribute to the future growth of an economy, is composed of three subindexes: the level of technology in an economy, the quality of public institutions, and the macroeconomic conditions. These three factors explain why some countries become prosperous more quickly than others.
4. Noland and Pack 2003: 44.
5. "Korea 38th in Economic Freedom," *Korea Now*, June 29, 2002, 25.
6. Dong-Song Cho of Seoul National University reported that South Korea's competitiveness may rise to 22nd, and eventually to 19th, if it succeeds in attracting more FDI. On the other hand, Whi-chang Moon warned that South Korea's competitiveness status may fall to 41st if it fails to implement various reform measures. All reported in "A Rise in the Ranks," *Korea Review*, January 12, 2002.
7. Republic of Korea, *Korea Policy Review*, 1, no. 6 (December 2005): 51.
8. The increase in FDI in China may be encouraging additional FDI in other Asian countries rather than crowding it out. A study reports that the growing amount of FDI in China encourages greater investment in other neighboring countries, to the extent that they are part of the same interconnected global production network. This complementary relationship is particularly evident in Asia, where China's economic explosion seemed to be driving investors to support a regional supply claim for feeding China's burgeoning and varied enterprises. The increase in FDI in China thus may be encouraging additional FDI in other, particularly Asian, countries rather than crowding it out (Eichengreen and Tong. 2005).
9. Y-s. Lee 2000: 22
10. "Financial Assessment of Korea's FDI in 2001," a study by Young-soo Lee, director of the Overseas Investment Statistics and Analysis Team at the Export-Import Bank of Korea, reports that although South Korea's FDI affiliates made improvements in certain financial indicators, such as the debt ratio, they have continued to experience sluggish business performance overall.
11. Since labor militancy has been blamed for the deterioration of foreign investment and business sentiment in South Korea, there appears to be some recent movement toward providing more flexibility in the hiring and laying off of workers. Soon after the Roh administration took over the government in 2003, it started to lay the groundwork for a "more balanced labor-management relationship." The new government plan provides more flexibility in hiring workers, laying employees off during labor strikes, hiring replacement workers during labor strikes, and providing cooling-off periods. In view of recently declining FDI, the government is expected to make further concessions to create a more friendly business environment for foreign investment. Korea Economic Institute of America, *Korea Insight*, 5, no. 9 (September 2003).

12. About $1.5 trillion (4 percent of the former West Germany's GDP) is transferred to the east every year, a massive drain on the entire nation's finances Prominent German politicians are admitting that the subsidy-heavy reconstruction of the former East Germany has failed to create a self-sustaining economy and is a huge drag on the nation's economic growth (Marcus Walker, "German Politicians Admit Reunification Was a Costly Flop," *Wall Street Journal Europe*, April 29, 2004). See also James Brooke, "North Korea Accepts Aid from South Korea," *New York Times*, May 1, 2004. The estimated cost of unification of Korea is rather small in comparison to the cost of reunification of Germany.

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