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**SOCIOCULTURAL FACTORS  
IN THE INDUSTRIALIZATION  
OF KOREA**

**Bon Ho Koo**

INTERNATIONAL  
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ECONOMIC GROWTH

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# **Sociocultural Factors in the Industrialization of Korea**

**Bon Ho Koo**



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## PREFACE

We are pleased to publish *Sociocultural Factors in the Industrialization of Korea*, by Bon Ho Koo, as the thirty-second in our series of Occasional Papers, which features reflections on broad policy issues by noted scholars and policy makers.

In 1960, Korea was one of the poorest countries in the world; just thirty years later its economy was one of the largest in the developing world. As one of Asia's "Four Tigers," Korea has been subject to extensive study by those hoping to emulate its dramatic economic growth.

In this paper, Dr. Koo addresses an important but little-discussed issue: cultural factors in Korea's industrialization. Economic policies were certainly instrumental in stimulating Korea's extraordinary development, but Dr. Koo looks into the causes underlying the actions of government officials, managers, and workers. He examines the role of the values held by most Koreans, particularly their attitude toward education, in economic performance. He then goes on to consider the prognosis for the Korean economy in the light of current social conditions.

Dr. Koo, president of the Korea Development Institute, is well qualified to address this topic. He has an intimate knowledge of the Korean economy, gained both from his academic research and from his experience advising the government on issues such as economic restructuring and education reform.

Scholars and policy makers have been drawing lessons from the development experience of Korea for several years, but the picture is not complete without a consideration of sociocultural factors. By filling this gap, Dr. Koo has made a valuable contribution to our understanding of the development process.

Nicolás Ardito-Barletta  
General Director  
International Center for Economic Growth

Panama City, Panama  
September 1992

## ABOUT THE AUTHOR

Bon Ho Koo is president of the Korea Development Institute in Seoul, Korea. From 1981 to 1987 he was a professor of economics at Hanyang University in Seoul. He has also served as president of the Korea Energy Research Institute, vice president and research director of the Korea Development Institute, and assistant professor of economics at Georgia State University. Dr. Koo has been involved in economic policy making in Korea as chairman of the Financial Reform Commission, secretary general of the Presidential Commission on Economic Restructuring, and a member of the Monetary Board of the Bank of Korea. He is also a member of the Presidential Commission for Educational Reform. Dr. Koo received his Ph.D. in economics from the University of Minnesota.

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BON HO KOO

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## **Sociocultural Factors in the Industrialization of Korea**

The Republic of Korea is one of the four Asian newly industrializing economies (NIEs), which are distinguished from most other developing countries by their remarkable growth during the past three decades (the other three NIEs are Singapore, Hong Kong, and Taiwan). Among the NIEs, Korea stands out because of its large population and gross national product (GNP), which contribute to its technological advantages and more sophisticated industrial structure.

In becoming one of the most dynamic NIEs, Korea has had to cope with unique handicaps. The Korean War (1950-1953) destroyed most of the country's industrial base and left Korea more impoverished than its East Asian neighbors at the time. In addition, Korea has had to maintain greater military expenditures than most other developing countries, in both absolute and relative terms. Furthermore, the polity has continued to be more unstable than other Asian NIEs. Korea's economic success in the face of such difficulties makes the country an especially interesting case study of the importance of social factors for development.

My aim in this paper is to identify elements of Korea's social environment that seem to have contributed to the economic success the country has had since the early 1960s. The immediate causes of

Korea's emergence as a dynamic NIE have been its economic policies and the characteristics of its workers, firms, and government; I will look at these factors first. I will then attempt to distinguish from these causes the underlying features of Korean society that have contributed to the country's remarkable economic performance so far.

I offer two caveats with regard to the interpretation of this paper. First, the paper focuses on Korea's economic performance until 1990, not on its current performance. Various aspects of a country or its economy are bound to change over time. Therefore, many of the observations of Korea's economic performance and social environment may not apply to the Korean economy today. Second, since the ultimate aim of the paper is to explain Korea's economic success so far, the analysis focuses on positive features of policies and economic performance. Problems that have accompanied rapid and sustained industrialization will be de-emphasized.

Some of the analyses made here in regard to Korea may apply to other Asian NIEs as well, but I will make no attempt in this paper to distinguish those that do and those that do not.

I will begin by reviewing Korea's economic performance since the country's economic takeoff in the early 1960s, with emphasis on how Korea's economic dynamism was created and sustained. I will show, in particular, how workers, business, and the government have interacted with each other in the process. Next I will examine the sources of the past competitive advantage of Korean firms. I will also briefly discuss how these firms have substantially upgraded their technological level. I will continue by assessing the role the government has played in the course of Korea's rapid industrialization and discuss the source of the government's success in contributing to economic growth. Finally, I will examine the social factors that seem to have formed a foundation for the more "traditional" sources of Korea's economic growth and industrial dynamism, concluding with a few observations on the future of the Korean economy.

## **Economic Performance and Policies, 1960–1990**

This section will briefly review the development of the Korean economy since the early 1960s, focusing on those elements that have contributed to the rapid and sustained growth rate and emphasizing the role of the government.

**Export-led takeoff in the 1960s.** The rapid growth of the Korean economy began in the early 1960s. In the 1950s, after the Korean War, Korea's economy grew at an average annual rate of 4 percent. Beginning in 1963, the growth rate more than doubled, averaging 9.8 percent for the rest of the decade. This rapid growth coincided with a major transformation in Korea's industrial structure, as the country's stagnant, agrarian economy became a dynamic, industrializing one (Table 1). At the beginning of the decade, agricultural output accounted for well over a third of gross domestic product (GDP). By the end of the 1960s, the share of agriculture had declined to a little over a quarter, although the sector's output grew at an average annual rate of 7.7 percent in real terms. During the same period, the share of workers engaged in the sector declined from around 70 percent of the total to 50 percent.

The decline of agriculture's share in the economy was a natural consequence of the rapid growth of other sectors. The share of manufacturing in GDP rose from about 14 percent in 1960 to 21 percent in 1970, as its value added grew at an average annual rate of 16.7 percent in real terms. The workers in the sector accounted for a mere 1.5 percent of all employed in 1960, and this share rose to 13.1 in 1970. The rest of the economy—that is, construction, infrastructure, and services—also expanded in the 1960s, but much more slowly.

Thus, the impetus behind the rapid growth and structural transformation was the expansion of the manufacturing sector, which was propelled by the export demand for the sector's output. Exports increased at an average annual rate of 35 percent in real terms from 1963 to 1969. Clearly, this increase was made possible, as Table 2 shows, by the rise in nontraditional exports. They included nearly all the labor-intensive manufactured goods in which developing countries traditionally possess a comparative advantage, such as clothing, footwear, luggage, textiles,

TABLE 1 Industrial Structure of Korea in Selected Years, 1960–1990 (percentage)

	Agriculture, forestry, and fishing	Mining	Manufacturing	Other <sup>a</sup>
<b>Structure of GDP</b>				
1960	36.9	2.1	13.6	47.4
1965	38.7	1.8	17.7	41.8
1970	25.8	1.3	21.0	51.9
1975	24.9	1.4	26.6	47.1
1980	15.1	1.4	30.6	52.9
1985	13.9	1.5	29.2	55.3
1990	9.1	0.5	29.2	61.2
<b>Structure of employment</b>				
1960	68.3	0.3	1.5	29.9
1965	58.6	0.9	9.4	31.1
1970	50.4	1.1	13.1	35.4
1975	45.7	0.5	18.6	35.2
1980	34.0	0.9	21.6	43.5
1985	24.9	1.0	23.4	50.7
1990	18.3	0.4	26.9	54.4

a. "Other" includes transport and communication infrastructure, education, and other services, including construction.

SOURCES: Economic Planning Board, *Major Statistics of the Korean Economy* (various issues); Bank of Korea, *Economic Statistics Yearbook 1962*.

leather goods, and simple fabricated metals. During the 1960s, the share of these goods in total exports shot up from 12 to 67 percent, and that of manufactures from 13 to 70 percent.

Behind Korea's successful export-led takeoff of the 1960s were conscious efforts by the government to promote exports. These efforts allowed full use of labor—the factor with which the country was most richly endowed. Korea's economic takeoff may thus be explained in terms of the standard comparative advantage theory. But this explanation misses the most important aspect of the takeoff by failing to depict the national saga behind it.

There were three important players in this saga: the workers, the entrepreneurs, and the government. All were united in the national drive for export-led economic growth. The clear leader in the 1960s

TABLE 2 Composition of Korean Exports, 1960–1980

Year	Value of total exports (millions of current US\$)	Share of total exports (%)				
		Food and live animals (SITC 0)	Raw materials, inedible, except fuels (SITC 2)	Non-traditional exports (SITC 6 and 8)	Machinery and transport equipment (SITC 7)	Incremental share of non-traditional exports <sup>a</sup> (%)
1960	33	29.6	48.2	12.3	0.3	n.a.
1961	41	21.9	51.3	11.7	2.2	9.5
1962	55	40.0	35.2	14.8	2.6	23.9
1963	87	20.8	30.2	39.8	4.7	82.5
1964	119	22.1	26.4	46.6	1.9	65.1
1965	175	16.1	21.2	57.6	3.1	81.0
1966	250	16.5	18.6	57.3	3.8	56.4
1967	320	11.8	18.1	62.0	4.4	79.0
1968	455	9.8	13.5	68.2	5.4	82.8
1969	623	8.1	11.7	66.9	8.5	63.2
1970	835	7.8	12.0	68.7	7.4	73.9
1971	1,068	6.5	8.9	72.5	8.2	86.2
1972	1,624	6.6	7.3	71.2	10.6	68.9
1973	3,225	7.6	6.1	70.5	12.3	69.7
1974	4,460	6.7	4.4	67.8	15.1	60.7
1975	5,081	11.9	3.0	66.3	13.8	55.5
1976	7,715	6.6	2.5	69.5	16.6	75.8
1977	10,046	9.4	3.0	65.3	17.3	51.4
1978	12,710	7.3	2.6	65.5	20.4	66.1
1979	15,055	7.2	2.4	65.1	20.6	62.7
1980	17,505	6.6	1.9	65.9	19.7	71.0

n.a. = not available.

SITC = Standard International Trade Classification.

a. This refers to a given year's share of nontraditional exports in that year's rise in total exports. Nontraditional exports refer to SITC 6, manufactured goods classified chiefly by material, and SITC 8, miscellaneous manufactured articles.

SOURCE: Bank of Korea, *Economic Statistics Yearbook* (various issues).

was the newly installed government headed by General Park Chung-Hee, who seized power in a coup in 1961 and launched the drive, determined to fulfill his political commitment to “free the nation from poverty.” Korea’s relentless export drive thus began under President Park’s personal command.

The promise that exports held for economic growth and prosperity brought workers, male and female, from all over the country, especially from rural areas, to the factories. The whole population was determined to “live better,” and this determination made it a hard-working labor force. The same determination made the workers extremely cooperative and even submissive to their employers and to the government.

The export drive was spearheaded, however, by the businessmen, who exceeded both the workers and the officials in their dedication to work. With acumen, ingenuity, and adaptability, they found new product niches and opened up new markets, often at great risk, and thus sustained remarkably rapid increases in exports.

**Turbulence in the 1970s.** The 1970s were a decade of great turbulence for Korea, both politically and economically. Nonetheless, the Korean economy managed to grow annually at more than 9 percent on the average. During that decade, Korea also laid the foundation of the sophisticated industrial structure it has today.

The oil price shocks of 1973 and 1979 inflicted major difficulties upon the economy. These shocks were accompanied by severe worldwide recessions, which compounded the Korean economy’s difficulties by causing sharp declines in exports. Korea overcame the aftermath of the first oil shock by doubling its efforts to strengthen the competitiveness of its exports, opening up new export markets in the Middle East, and beginning to export construction services. The country was highly successful in these efforts.

Prompted by the oil price shock, the Korean government also accelerated its heavy industry drive and began to implement the so-called heavy and chemical industry (HCI) policy on an enormous scale. As part of this policy, a wide array of incentives was offered to firms in many HCIs, including iron and steel, electric and non-electric machinery, chemicals, shipbuilding, and automobiles. Building on the existing investments, Korea was especially successful with steel and shipbuilding, as the well-known cases of the Pohang Steel Company (POSCO) and the Hyundai Shipyard demonstrate. But investments in other HCIs did not begin to pay off until the mid-1980s.

The lavish overinvestment in HCIs weakened the international competitiveness of exports toward the end of the 1970s, and together with the second oil price shock, the assassination of President Park late in 1979, and other subsequent shocks, caused a major crisis in the Korean economy from 1979 to 1981. Until 1978, however, the Korean economy's export-led growth engine worked as vigorously as in the 1960s. This growth is particularly remarkable considering that the government began to reduce the scope and depth of export incentives in the early 1970s.

The continued export dynamism of the 1970s was again the joint accomplishment of the Korean government, business, and labor. Business, especially the newly emerging conglomerates, played an even more important role in Korea's economic success than it had in the preceding decade.

**Crisis and recovery in the 1980s.** Economic performance was much more dynamic during the 1980s than in either of the two preceding decades. The decade opened with the worsening of the economic crisis, stemming from excessive HCI promotion, that had begun in the late 1970s. In addition to the second oil price shock, there was a worldwide recession and the consequent international interest rate shock in the early 1980s. A major sociopolitical crisis also occurred in 1980 following the assassination of President Park, as well as a major harvest failure due to an unprecedented cold spell in the summer of 1980. All these crises showed up dramatically in the growth rate of -3.7 percent in 1980.

Once again Korea responded to crisis swiftly and began to recover in 1983. Under the new government of President Chun Doo-Hwan, Korea adopted a comprehensive package of far-reaching policy reforms. These reforms were founded on an entirely new philosophy of the role of the government in the economy. The new philosophy aimed, at least in principle, to liberate the markets from government intervention and regarded stabilization of the economy and the strengthening of market competition as the primary role of the government.

Thus, during the early 1980s, the government adopted forceful stabilization measures, replaced fixed exchange rates with managed flexibility, realigned investment in regard to HCIs, introduced a system

of antitrust measures, privatized commercial banks and other public enterprises, began to phase out the system of industry assistance, and initiated a major multiyear program of trade liberalization.

The economy soon responded to these reforms with renewed dynamism. After the international currency realignment of the Plaza Accord in 1985, it again began to grow at record-breaking high rates, and the current account began to show large surpluses. This turnaround in the balance-of-payments situation, together with the subsequent rise in international pressure for the opening of the economy, helped accelerate policy reforms designed to liberalize and internationalize the economy. The dynamic growth has continued, despite the spontaneous change of the political order into a full democracy in 1987 and the subsequent liberalization of the labor market.

With these and other reform measures of the 1980s, the government has been rapidly relinquishing market intervention. The markets are now vibrant with free prices and intense competition, both domestic and international. The Korean economy has matured a great deal since the early 1960s.

In this way, Korea has achieved something of an economic miracle. In 1960 Korea was still one of the poorest agricultural countries in the world, with a small and stagnant economy. Now, Korea is a leading NIE, with an economy among the largest in the developing world. The speed of Korea's economic growth has been astonishing. From 1962 to 1990, real GNP grew at an average 9.0 percent annually. By 1990, Korea's per capita GNP had risen to US\$5,569.

Rapid industrialization continues. In 1990, manufacturing accounted for 29.2 percent of GDP, while sectors other than manufacturing, mining, and agriculture accounted for 61 percent. Agriculture accounted for considerably less than 19.0 percent of total employment in that year. Manufactures accounted for more than 95 percent of Korea's exports. Of the value added in manufacturing, heavy industry, consisting of capital- and technology-intensive manufacturing such as steel, automobiles, ships, and electronic products, accounted for 62 percent in 1990.

Korea no longer suffers from the chronic trade deficits it had until 1985. As a result, Korea's net foreign indebtedness, which once exceeded US\$36 billion, was down to US\$6 billion at the end of 1990.

## **The Role of Firms in Korea's Industrialization**

Among the most important elements in the rapid Korean industrialization during the postwar period were the large private sector firms, for it was these firms that developed new technologies and products to compete in the international market. In this section I will examine a few salient characteristics of Korean firms during the 1960s and the 1970s and discern the sources of their success competing in the international market. I will also take a close look at the nature of the technological development effort that firms have made in the past.

**Characteristics of Korean firms.** First, Korean firms were growth oriented rather than profit oriented in the 1960s and 1970s. The reason Korean firms, unlike other developing country firms, adopted an export-oriented strategy was to increase the volume of production, as well as to respond to government incentives. Large-scale production allowed the firms to cut production costs and master technology.

Second, Korean firms on the whole managed the development and marketing of their products and processing technologies themselves rather than relying on foreign multinational firms. Direct foreign investment in Korea was limited in the 1960s and 1970s. Accordingly, most of the key imported factors of production came in an unpackaged form.

Third, Korean firms were generally less averse to risks than firms in other developing countries. Investments in such large-scale industries as steel, shipbuilding, automobiles, and some subsectors of electronics demonstrate this. This willingness to take risks was due partly to the large size of the major Korean firms and partly to a risk-sharing program with the government. Large firms seemed to have a greater financial capacity to bear risks.

Finally, a small number of conglomerates played a dominant role in the Korean business sector. One of the sources of their strength was their ability to pool scarce resources, particularly highly skilled engineers and scientists and talented middle managers. By pressuring these firms to compete in the international market, the government tried to prevent them from becoming inefficient, as frequently happened in the cases of protected and concentrated markets in developing countries.

**Sources of the competitive advantage of Korean firms.** The success of Korean firms in international markets can be traced to the five following factors.

*An environment of competition.* Why did managers and workers of Korean firms work so hard and aggressively in increasing the size of firms and in moving up market? Simply put, it was due to the pressure of competition, especially in their export market. Because of the advantages of large size and government encouragement, exports and entry into foreign markets, such as the construction industry in the Middle East and Southeast Asia, always played an important role in firm strategy. Domestic competition among large firms was also fierce in a number of sectors. Thus, the environment of competitive pressure was a factor in making Korean firms efficient and competitive.

*The low cost of workers and managers.* Because Korean firms in the 1960s and 1970s were competing mainly on the basis of price competitiveness and the labor-intensive nature of their export goods, the availability of low-cost workers and managers was an important source of competitive advantage. For instance, the labor cost to produce one ton of cold-rolled coil at a Korean steel mill was less than one-half that of Japan and one-fifth that of the United States as late as 1985 (Barnett and Crandall 1986). Although the productivity of Korean workers was low relative to that of workers in industrial countries, it was relatively high compared with that of workers in developing countries.

*Training.* Most Korean companies emphasize training programs, partly because top managers perceive training as necessary and partly because government policy encourages worker training and education. In-house training programs for new workers emphasize not only job skills, but also firm loyalty. Since most firms grew quickly as the overall economy grew, managers rapidly moved up in rank. They received increasing incentives and responded with increasing loyalty. This system, with its strong achievement mentality, produced a large number of dedicated and hard-working workers and managers.

*Centralized organization.* Until the early 1970s, Korean firms were organized with a fairly centralized, but not rigid structure. It was an efficient organization system for companies that had to learn new technologies and acquire know-how from abroad by imitating rather than by innovating. Since the late 1980s however, as technology innovation and a quick, flexible response to a changing market environment have become more critical, many firms have begun to try a more decentralized system of decision making and problem solving.

*Government support for research and development.* Government tax policy appears to have been instrumental in encouraging firms to invest in research and development. Various public R&D centers supported by government and joint R&D activities between the public and private sectors also gradually became important. As shown in the Table 3, R&D expenditure increased gradually, reflecting the efforts by the government and the private firms.

**Technological development in Korea.** Korea achieved technological advances by gradually but continually adapting processes and products to changing market circumstances. Firms generally acquired ever more sophisticated technological capabilities in piecemeal fashion. These new technologies, which contributed to the development of new industries and broadened and deepened capabilities in established industries, allowed for greater proficiency and increased differentiation in existing capabilities and for new technological activities.

Korean technological development depended mostly on informal transfers, including imitation and apprenticeship, rather than on proprietary transfers of technology, such as direct foreign investment and licensing. Informal transfers of technology, turnkey projects, and machinery imports also played a large role.

Technology acquisition was accomplished through a policy of deliberate import substitution. The pattern of technology imports continually shifted as local capabilities were developed and as new industries sprang up with the emerging competitive advantage. The pattern of exports also shifted rapidly in response to the acquisition of technological capabilities.

TABLE 3 Research and Development in Korea in Selected Years, 1963-1989

Year	R&D expenditures (100 million won)	R&D expenditures as a % of GNP	Researchers per 10,000 people
1963	12	0.25	0.7
1965	21	0.26	1.0
1970	105	0.38	1.8
1975	427	0.42	2.9
1980	2,117	0.58	4.8
1985	11,552	1.48	10.1
1986	15,233	1.68	11.4
1987	18,780	1.77	12.7
1988	23,474	1.86	13.5
1989	27,051	1.92	15.6

SOURCE Korea Industrial Research Institute, *Major Indicators of Industrial Technology* (Seoul, 1989), p. 20.

Export activity in turn enlarged technological capability by facilitating technology transfers and by stimulating efforts to develop new technology. Foreign buyers contributed to product innovation by demanding certain characteristics from exported products. The transfer of know-how from export buyers contributed to minor innovations in the manufacturing process, which led to gradual improvements that had great cumulative effects. Thus the drive to penetrate overseas markets stimulated efforts leading to the gradual upgrading of product standards.

Until the late 1970s industrialization was based largely on proficiency in process technology rather than design adaptation. In the development of process technology, the assimilation and adaptation of technology by domestic producers and the diffusion of technology among domestic firms played a greater role than the formal transfer of technology through direct foreign investment and licensing agreements. For instance, in industries with product-specific process technology, such as the chemical industry, Korean engineers participated with foreign engineers in the initial project and gained experience with production and plant expansion. Korean engineers then assumed a rapidly expanding role in project design and execution when the second and subsequent plants were constructed. Their involvement in project

implementation expanded because of their concerted efforts to assimilate the know-how involved in project design and execution.

Korea's rapid industrialization without heavy reliance on proprietary transfers of technology can be explained in part by the nature of technology and product differentiation in export industries. Many of the industries used relatively mature technology, so that the mastery of well-established methods, embodied in equipment readily available from foreign suppliers, was sufficient to permit efficient production. The products of these industries were either highly standardized or differentiated in technologically minor respects and did not greatly depend on brand recognition. In such industries, licensing or direct foreign investment offered few advantages as far as technology acquisition and overseas marketing were concerned.

In the 1980s, however, technological development began to involve greater reliance on licensing and direct foreign investment as well as on R&D, as competitive advantages emerged in technologically sophisticated industries. Private R&D expenditures expanded rapidly with an increasing number of private research centers. Korean industries do not yet have much capability in product design and basic project engineering, because firms have been mostly imitative in their R&D strategy. Only recently have some Korean firms begun to move from an imitative to a leading position.

### **The Role of the Government in Korean Industrialization**

The previous two sections can be summarized as follows: first, since the early 1960s the Korean economy, led by exports, has grown at remarkably high rates. Second, rapid growth of the economy has been associated with rapid industrialization. Third, Korea's economic success through most of its developmental years has been founded on close collaboration among workers, entrepreneurs, and the government. Those discussions made clear that, at least until recently, the government played an active role in the promotion of Korea's rapid industrialization.

The government that presided over the economy throughout most of Korea's modern development until 1987 was an authoritarian one.

Until 1979, the country was ruled by General Park Chung-Hee, who was formally elected president in 1963. President Park was assassinated in 1979 and was succeeded by another strong ruler, President Chun Doo-Hwan. Authoritarianism was finally abolished in Korea in the summer of 1987, when Roh Tae-Woo, who was Chun's candidate for the presidency at the time and subsequently won the presidential election, declared that Korea was a democracy. During the first two regimes, especially the Park regime, there was a considerable degree of government intervention in the markets.

These aspects of the Park regime raise the ultimate question concerning Korea's so-called success story: have the government interventions in the markets contributed to Korea's rapid and sustained industrialization, or have they hindered it? What has been the nature of the relationship between the interventionist government and the dynamic private sector? A related question is, did authoritarianism contribute to Korea's remarkable economic performance or did it affect the economy negatively?

On the one hand, according to the teachings of neoclassical economics, interventions in the market could not have contributed to Korea's rapid and successful industrialization, because they tend to suppress the dynamism of the private sector. Interventions normally nurture and promote inefficiencies. On the other hand, it seems undeniable that on the whole the government played a critical and positive role in the promotion of Korea's rapid and sustained industrialization. These two seemingly contradictory positions must be reconciled.

The Park government inherited a complex mixture of government interventions in the markets; its response was primarily to rearrange and adjust this mixture to ensure improved economic performance. As a result, there have been continuous market-oriented policy reforms and, carried forward by the subsequent governments, these reforms have sustained the dynamism of the Korean economy and contributed to a long-term trend toward liberalization of the economy. The result was a growing conformity with neoclassical policy prescriptions. This process was occasionally interrupted by policy mistakes, but these were soon followed by corrective reforms.

Major policy reforms included the strengthening of export promotion (1960s); exchange rate reform (early 1960s); price stabilization

efforts, tax reforms, increases in the interest rate, and a substantial degree of import liberalization (mid-1960s); reductions in export assistance (early 1970s); promotion of heavy and chemical industries (mid-1970s); a second and major round of import liberalization (late 1970s to the present); the floating of the exchange rates and regulation of conglomerates (1980s); comprehensive price stabilization measures, further cuts in export assistance, reductions in industry assistance and investment realignment in heavy and chemical industries, and privatization of commercial banks (early 1980s); another round of major tax reforms, the labor market liberalization, and fiscal restructuring (late 1980s).

What has sustained such vigorous policy reform? And what has made these policy reforms and, more generally, the government management of the economy effective? There are four important factors.

First and foremost, the Korean government, especially during the Park regime, remained strongly and unequivocally committed to the goal of economic growth through a strategy of export promotion. The clear-cut commitment to economic growth was important in signaling the direction in which national energy and resources were to be mobilized. At the operational level, it unambiguously indicated the direction in which policies were to be formulated by government officials and anticipated by businessmen. More fundamentally, at a time when the economy was stagnant and poverty widespread, the commitment to economic growth was critical in enlisting popular support for government and its economic and other policies.

From the outset the Park government realized that the Korean economy could not sustain high growth on the basis of its domestic market. For this reason, it adopted the strategy of export-led economic growth and relentlessly pursued export promotion. The clarity of this strategy for economic growth, together with its subsequent success, also helped make economic policy making easier and more efficient. The policies were judged simply in terms of their contributions to exports, and falling exports prompted early identification and revision of inappropriate policies.

Other important factors in the overall soundness of Korea's economic policies were the flexibility and adaptability of policy making. Policy making was flexible in the sense that poor decisions were

quickly corrected. The government did not hesitate to admit mistakes and take corrective actions, often reversing its earlier positions, to the point that the government's repetitive trial-and-error process became widely criticized. Policy making was adaptable in the sense that the decision maker was receptive to all options.

The government's flexible and adaptable response to problems helped Korea overcome such crises as the two oil price shocks and the international interest rate shock with remarkable success.

Over the long term, this flexibility and adaptability also subjected policies to continual reforms and kept these reforms market oriented on the whole.

A number of factors made decision making flexible and adaptable. The ultimate goal of economic growth and the export-promotion strategy designed to achieve it were clearly spelled out. More fundamentally, the Korean government approached this goal in a pragmatic manner. It would do almost anything to achieve economic growth and in so doing was not bound by any religious value or ideology.

Decision making was highly centralized, with key decisions made by President Park himself. Park consulted only a small number of people, and the legislature was involved only nominally. This process allowed decision making to be speedy and free from populism, but it also encouraged hasty decisions and led to insufficient discussions among officials.

A third factor that contributed to the overall soundness of Korea's economic policies was a high level of cooperation between the government and the business sector. Empowered with incentives, regulations, and, most important, control over bank credit, the government dominated the business sector. Nonetheless, it regarded business as an important partner. The government consulted the business sector closely on all important policy issues. At various formal levels up to the president, the government exchanged views and information with business at meetings such as the monthly Export Promotion Council meetings and at discussions of the five-year-plans and other major policy documents. Business and government also communicated informally through frequent high-level personal contacts.

The business sector made full use of these channels to guide and influence policy makers. The four major economic organizations—the

Federation of Korean Industries (FKI), the Korean Chamber of Commerce and Industry (KCCI), the Korean Foreign Traders Association (KFTA), and the Korea Federation of Small and Medium Industry—as well as numerous industry associations, were especially instrumental in providing information and advising the government.

These practices served two purposes. First, they helped keep the government well-informed on the state of the economy and industry as well as on policy options. Second, they facilitated coordination between the government and business and helped ensure business sector cooperation on policy initiatives. This system therefore prevented conflict between the strong government and the highly dynamic business sector and in fact encouraged close cooperation between the two.

To be sure, close consultations with business also tended to promote pro-business decisions, encouraging rent-seeking behavior and protectionism. Two major countervailing forces, however, contained the damage. One was the principle of export-led economic growth, which limited room for inefficiency. The other was the input of economic advisers who had rigorous training in modern economics. Officials of international lending institutions such as the World Bank and International Monetary Fund continued to provide advice based on the principles of the market. So did the rapidly growing group of Korean economists with advanced training in modern economics based at universities and research institutes.

Finally, the Korean government, especially its economic ministries, was staffed by intelligent and dedicated officials. Korean officials worked long hours and performed their duties with extraordinary dedication. Those at the middle and upper levels of management were recruited from among the best university graduates in the country and were generally bright and patriotic. It was those officials, in particular, who contributed to effective and efficient implementation of economic policies.

The high quality of the Korean economic officials may be explained in terms of two fundamental factors. One is the tradition of meritocracy that President Park introduced into the Korean government, ensuring that able and dedicated officials, young and old, were given recognition. The strong motivation of the Korean government officials seems to have been by and large a result of this meritocracy. The other factor is Korea's

educational investment. Thanks to the pervasive emphasis on higher education, there existed a large supply of well-educated university graduates in Korea, from which able officials could be recruited. I will discuss these factors further in the next section.

### **Korea's Social Environment**

The preceding discussions hint at a number of sociocultural factors that are relevant to the Korean growth and industrialization experience. In this section, I will group the most important ones into three broad categories: social values and motivation, education and formation of the human resource base, and acquired pragmatism and secularism.

**Social values and motivation.** In this paper, I assume that at any given moment a society has a certain set of social values. These “invisible” factors may be conducive or detrimental to economic growth and development. One value may act alone, or several values may interact with each other, compounding their intensity. Different values also prevail for different lengths of time. Through education and the creation of a favorable social climate, social values can be fostered and fortified, or they can change as a society achieves higher standards of living.

At the beginning of its rapid economic growth, Korea was cohesive because of its racial homogeneity, its relatively small geographic size, and its distinct set of social values. Some of the social values that have contributed to rapid and sustained economic growth in Korea are an eagerness to learn, a drive to improve one's socioeconomic status, a willingness to sacrifice for children and invest in their education, and a tendency to return home from abroad. All of these elements interacted with each other to form, in a relatively short period, a literate and trainable population, a hard-working and disciplined labor force, and adaptable bureaucrats, technocrats, businessmen, and technicians.

Of course, these remarkable achievements are not attributable solely to social values, but also to the initial socioeconomic conditions and the social climate created in Korea in the past. For example, social uncertainty and a sense of vulnerability stemming from the memory of

absolute poverty and the threat from the north have certainly reinforced the people's eagerness to learn, their will to better their economic status, and their willingness to sacrifice for the sake of their children's education. The political leaders' commitment to economic development beginning in the early 1960s, which served as the driving force behind successive medium-term development plans, was partly, if not mainly, responsible for inculcating an orientation toward the future and a so-called can-do spirit in Korea. Built-in social incentives such as significant wage and salary differentials based on the level of education and the likelihood of rapid promotion for the highly educated, further strengthened the social value placed on learning and accelerated educational development.

**Education and the formation of a human resource base.** No matter how conducive a social value system is to economic growth, to be effective it must be translated into action; the likelihood of this may be a function of its intensity and pervasiveness. Some distinctive characteristics of the Korean social value system in the years before Korea's rapid industrialization were externalized as an explosive widening of education, which, in turn, has facilitated the formation of a pool of human resources with a relatively high level of education, motivation, trainability, and ability to work together.

The growth and development of education in Korea since 1945 have been spectacular by any standard, as shown in Tables 4 and 5. Despite the disruptions of the division of the country and the subsequent war, primary school enrollment doubled between 1945, the year of liberation from Japanese occupation, and 1955, two years after the end of the Korean War, and schools reached their saturation point in the late 1960s. The education explosion was evident not only in primary education but also later in secondary and higher education. Even without the benefit of compulsory education, enrollment in middle schools doubled in the decade beginning in 1952, and more than doubled in another decade. The rate of students advancing to the next grade reached almost 100 percent by the early 1980s. The enrollment in high schools grew much more rapidly than that in middle schools, but the advancement rate to high school rose to more than 90 percent by the mid-1980s. The growth of enrollment in higher education

TABLE 4 School Enrollment in Korea in Selected Years, 1945–1990

Type of school	1945	1952	1960	1970	1980	1990
<b>Elementary schools</b>						
Thousands of students	1,366.0	2,369.9	3,622.7	5,749.3	5,658.0	4,868.5
Index (1952 = 100)	58	100	153	243	235	205
<b>Middle schools</b>						
Thousands of students	50.3 <sup>a</sup>	291.6	528.6	1,318.8	2,472.0	2,275.8
Index (1952 = 100)	14 <sup>a</sup>	100	181	452	848	780
<b>Academic high schools</b>						
Thousands of students		59.4	164.5	315.6	932.6	1,473.2
Index (1952 = 100)		100	277	531	1,570	2,480
<b>Vocational high schools</b>						
Thousands of students	33.2	74.5	99.1	275.0	764.2	810.7
Index (1952 = 100)	45	100	133	369	1,026	1,089
<b>Higher education institutions</b>						
Thousands of students	7.8	34.1	101.0	193.6	597.9	1,466.9
Index (1952 = 100)	23	100	296	568	1,754	4,303

a. Figures are for both middle schools and academic high schools, which were not separated until after 1945.

SOURCES: Ministry of Education, *Statistical Yearbook of Education* (various issues); National Bureau of Statistics, *Social Indicators in Korea* (Seoul, 1990).

institutions was rapid in the 1950s and 1960s and then slowed relatively in the 1970s before increasing sharply in the 1980s, reaching one of the highest college enrollment ratios in the world.

Because of the explosive growth of formal education, aided mainly by the contribution of informal education, the literacy rate in Korea increased dramatically from 30 percent in 1953 to over 80 percent in 1963. In an analysis of a composite index of levels of human resource development using 1961 data, Fredrich Harbison and Charles A. Myers (1964) concluded that Korea's human resources ranked in the upper range of the semi-advanced countries while its per capita income level was within the range of the underdeveloped countries. Thus, Korea had fulfilled one of the most important prerequisites for economic growth even before its rapid and sustained industrialization took place.

**TABLE 5** International Comparison of Educational Enrollment, 1965 and 1986 (percentage of each age group)

Country	Primary education		Secondary education		Higher education	
	1965	1986	1965	1986	1965	1986
Korea	101	94	35	94	6	33
Singapore	105	115	45	71	10	n.a.
Hong Kong	103	105	29	69	5	13
Mexico	92	114	17	55	4	16
Brazil	108	105	16	36	2	n.a.
Japan	100	102	82	96	13	29
United States	n.a.	102	n.a.	100	40	59
West Germany	n.a.	97	n.a.	72	9	30

n.a. = not available.

SOURCE: World Bank, *World Development Report 1989* (New York: Oxford University Press, 1989).

How did Korea achieve such remarkable records in educational development in a relatively short period of time? The government certainly had an important role to play, despite the educational budget constraint. Private initiatives, however, such as private educational institutions, parents, and students themselves played an even more decisive role. In the early 1990s, more than 40 percent of middle-school students were enrolled in private schools. The corresponding ratios for high schools and universities were about 60 percent and more than 70 percent, respectively. Parents made all possible sacrifices to finance their children's educational expenses, including both in-school and out-of-school expenditures, while students without sufficient means took up side jobs to help offset the costs of education. Those who could not afford education in the formal sector attempted to continue their education in the informal sector, through night schools or other informal learning institutions, and even educated themselves to prepare for the nationally administered qualification examinations.

In view of the length of time required for the highly educated to finish their degrees and for training skilled manpower, outside observers may wonder how Korea was able to obtain such a highly educated

work force so quickly. Many of the highly educated in Korea as late as the 1970s were educated abroad, and as opportunities for them multiplied beginning in the late 1960s, they returned home, reversing the brain drain. This tendency to return home was so strong that many of those who received degrees came back even before they had obtained jobs. Skilled manpower was secured mostly through on-the-job training apprenticeships, short-term training abroad, and other informal channels of learning.

**Acquired pragmatism and secularism.** The people of Korea, on whom the intense drive toward economic growth and industrialization depended, were brought up, educated, and trained in a social climate with a strong achievement orientation, before they were placed in the government, business, and other sectors. With the introduction of an extensive meritocracy, a growing tendency toward secularism and pragmatism has developed throughout the Korean economy.

Korea's successes have given rise to a "virtuous circle" of growing confidence, greater adaptability and flexibility, and intensified effort. This virtuous circle is manifested not only in management of economic crises by the government, technological development of firms, and export drives of manufacturers, but also, for example, in agricultural innovations by farmers and rapid, high-quality work of construction workers. All of these compounded have guided the course of Korea's rapid economic growth and industrialization with a few economic slowdowns over a period of three decades.

The virtuous circle has been driven by the adaptable and flexible attitude of people in making purposeful efforts toward industrialization. No matter how skillful planners or policy makers may be, it is virtually impossible for them to be flawless in the details. The implementers at different hierarchical levels, particularly those at the lowest levels, must make adjustments within the range of the given objectives and broad guidelines of the plan or policy. This aspect of the social environment has been critical in view of the rapidity of Korean economic transformation and the volatility of its external economic environment and conditions.

Concern is now growing in Korea, however, that the country's economic success has encouraged secularism and pragmatism without

also inculcating balancing values and attitudes such as social justice and humanism. The relevance of this concern is underscored by the fact that one of the most controversial issues in Korea today is how to define and implement a more equitable pattern of distribution of the fruits of economic growth. It appears that it is time for Korea to carefully assess its social environment.

### **Prognosis for the Korean Economy**

This essay has attempted to explain Korea's economic success over the past three decades in terms of elements of the country's social environment. I have classified these elements as social values and attitudes, education and the formation of a human resource base, and acquired pragmatism and secularism. I have also shown that certain institutional features, such as the nature of the government, were important in mobilizing these elements.

During recent years, especially since the process of rapid democratization began in 1987, Korea has experienced an eruption of various social tensions and suffered from political, social, and economic instabilities. The new democracy touched off an explosion of acrimonious labor-management disputes, with labor rather violently wielding its newly gained rights in order to force maximum concessions out of management on wages and other aspects of the industrial relationship. Also, the new democracy has allowed outbursts of popular criticism alleging that the government had been intervening in the market to achieve economic growth at the expense of social equity.

To a large degree, the eruption of these disputes and grievances may be regarded as a consequence of the very success of Korea's economic endeavors of the past three decades. The new democracy itself may be considered a result of this success, for it came largely as a response to the people's demand for a level of political development that was commensurate with the achieved level of economic development. In addition, labor has become expensive as a result of sustained increases in the workers' living standards. The clamor for social equity, too, would not have arisen if the economy had not grown enough to be able to afford it.

It therefore seems that the success of past economic endeavors has undone its own foundation, by weakening the willingness to work, often seen as the most crucial of Korea's social values in earlier years, and by depriving the government of a strong leadership role through democratization. Accordingly, many observers and the Koreans themselves have been wondering whether the so-called Korean miracle has come to an end.

In my view, the determination to live better or to improve one's socioeconomic status has been a more fundamental factor than willingness to work in explaining Korea's economic success so far. In the past, under the government leadership, Korea effected an appropriate interplay between this determination, the human resource base, and pragmatism. These three crucial elements of the social environment remain undiminished today; if anything, they continue to be enhanced.

What has changed, however, is the institutional framework—that is, the nature of the government and its relationship with the market. As a believer in the efficacy of democracy as well as of the market, I am convinced that the new democracy, as well as the retreat of the government from the market that was achieved during the 1980s, will enhance the synergistic interplay among the three most crucial elements of Korea's social environment.

In the future, although the Koreans will work less, they will improve their productivity more rapidly and continue to demonstrate their economic dynamism. Social equity will be strengthened along the way and will also help improve productivity. In conformity with this prognosis, as a result of strenuous efforts by the government and the business sector, Korea's political and economic institutional structure has adjusted rapidly to the new environment over the past few years. As a result, political and social stability has already begun to prevail, and, after a brief interruption in 1989, the economy seems to be recovering its extraordinary dynamism.

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