Government's Role in Korea's Economic Development from a Perspective of the Institutions Hypothesis

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Abstract: This paper divides economic institutions into three categories—coordination institutions, property rights institutions, and contracting institutions—and from this perspective, analyzes the role of government in Korea’s economic development from the 1960s to the 1980s. This analysis suggests that the Korean development experience is not in line with the conclusions of Acemoglu, Johnson, and Robinson (2001), since property rights institutions did not play a significant role in Korea’s economic development. Instead, the Korean government acted as coordination institutions, which effectively overcame the coordination failure of the market and succeeded in generating effective demand to spur sustainable growth. These results invite further comparative and empirical studies on how Korea came to have a dictator whose goal was consistent with the economic growth of the nation.

Keywords: economic development, export-oriented industrialization, coordination institutions, property rights institutions, coordination failure of the market, government, Korea

INTRODUCTION

Robert E. Lucas, Jr., a Nobel laureate economist, called the economic growth of Korea a miracle in his 1993 *Econometrica* paper, which begins by comparing Korea with the Philippines. In 1960, these two countries had about the same standard of living, measured by their per capita GDPs, and similarity in many other aspects such as population size, population distribution, school enrolments, industry structure, and export commodities. However, from 1960 to 1988, GDP per capita in the Philippines grew about 1.8 percent per year, while in Korea per capita income grew 6.2 percent.
per year. Hence, by 1988 Korean incomes were about three times incomes in the Philippines.

The continuing transformation of the Korean economy and society since the early 1960s has been hailed by many developing countries, which are eager to learn from the Korean development experience. Many books and papers have analyzed factors that contributed to Korea’s economic growth; however, a generalization from the Korean experience is not straightforward. An approach based on the Solow growth model delineates potential sources of economic growth in terms of technological progress and accumulation of physical capital and human capital per worker. However, as pointed out by Acemoglu (2009, p. 109), these factors are only proximate causes of economic growth and success. In other words, earlier analyses based on the Solow growth model fail to explain why the Philippines did not improve its technologies, invest in physical capital, and accumulate human capital as much as Korea did after 1960.

Hence, we need to understand the fundamental causes of Korean economic growth in order to obtain generalizable lessons from the Korean experience. There are four hypotheses for fundamental causes of economic growth: the luck hypothesis, the geography hypothesis, the culture hypothesis, and the institutions hypothesis. Although the four are complementary, Acemoglu, Johnson, and Robinson (2002) show that the impact of European colonialism on economic institutions was the dominant cause of the reversal of economic fortunes among the former European colonies for the past 500 years.

Acemoglu, Johnson, and Robinson (2001) argue that the variations in current economic outcomes are mainly explained by the differences in property rights institutions, measured by average protection against expropriation risk, but do not appear to be affected by geographic variables (including latitude, whether a country is landlocked, and the current disease environment) nor by cultural variables (including the identity of the colonial power, the contemporary fraction of Europeans in the population, and the proportions of populations of various religions). To sum up, the evidence provided in Acemoglu, Johnson, and Robinson (2001, 2002) supports the hypothesis that institutions are the fundamental cause of economic growth, at least among former European colonies.

This paper analyzes Korean economic development from the perspective of the institutions hypothesis. The economic historian Douglass North defines institutions as the rules of the game in a society or, more formally, as the humanly devised constraints that shape human interactions (North, 1990, p. 3). His key implications of institutions

1. For example, refer to Song (2003) and the papers cited in it.
are the importance of incentives. In a narrower sense, Acemoglu (2009, p. 111) defines economic institutions as encompassing social arrangements, laws, regulations, and policies that affect economic incentives and thus the incentives to invest in technology, physical capital, and human capital. Hence, economic institutions comprise the structure of property rights, the presence and (well or ill) functioning of markets, and the contractual opportunities available to individuals and firms (North, 2009, p. 120). Following Acemoglu’s definition, economic institutions can be categorized as property rights institutions, contracting institutions, or coordination institutions. From this institutions perspective, it is possible to analyze the role of government in Korean economic development from the 1960s to the 1980s.

The institutions approach described in this paper is different from that of Acemoglu, Johnson, and Robinson (2001, 2002) in that it explicitly considers coordination institutions, based on the belief that coordination failure in the market is widespread in underdeveloped economies and that the government can provide efficient coordination institutions in underdeveloped economies (see for instance Rodrik, 1995). Specifically, this paper defines government institutions as the policies, regulations, and organizations of the government that are devised mainly to have a proactive role in resource allocations among individuals and firms. In other words, both market institutions and government institutions are considered to be the main coordination institutions in any economy.

This paper defines an underdeveloped economy is one in which institutional failure exists in the sense that the three economic institutions described above are not well developed, but an expansion of aggregate demand can spur sustainable economic growth for a substantial period of time. It defines a well-functioning market economy as one that is characterized by effective property rights and contracting institutions, and in which the market is the coordination institution and the role of government is to step in only when there is market failure.

The next section of the paper discusses the characteristics of the underdeveloped economy. Following that, it reviews the role and the strategies of the Korean government in promoting economic development, demonstrates that property rights institutions were not the key factor in Korean economic development, and presents conclusions about the lessons that can be learned from Korea’s development experience.

2. The next section will provide exact definitions of these three institutions.
3. Thus, unlike Chenery and Syrquin (1977), this paper does not define development stages based strictly on per capita GDP.
CHARACTERISTICS OF UNDERDEVELOPED ECONOMIES

A function of markets is to reveal individual traders’ valuations and aggregate this dispersed information into a signal, in the form of prices, of the value and scarcity of the traded object. Hence, in the well-functioning market economy, markets are the main coordination institutions that achieve efficient resource allocations. McMillan (2003) lists five conditions for well-functioning markets: (1) information flows smoothly; (2) property rights are protected; (3) people can be trusted to live up to their promises; (4) side effects on third parties are curtailed; and (5) competition is fostered. In the literature of economics, achieving conditions 4 and 5 is considered to be the role of government in cases of market failure, while conditions 2 and 3 signify well-functioning property rights and contracting institutions.

As discussed in Acemoglu and Johnson (2005), contracting institutions regulate horizontal relationships in society between regular citizens, while property rights institutions are concerned with vertical relationships, that is, the protection of citizens against the power of elites, politicians, and privileged groups. Hence, McMillan’s argument can be translated as follows: equipped with well-functioning property rights and contracting institutions without serious asymmetric information problems, the market functions well, as the role of coordination institutions and the government is mainly to correct market failure.

By contrast, the underdeveloped economy is typically faced with an extreme asymmetric information problem as well as underdeveloped property rights institutions and poor contracting institutions. As pointed out in Akerlof (1970), in the presence of extreme asymmetric information, the market itself cannot exist. Asymmetric information is evident especially in the banking and financial sector of underdeveloped countries, where (foreign) lenders typically have no credible and verifiable information on (domestic) borrowers. Hence, the underdeveloped market economy, if it is left alone, is unlikely to achieve efficient resource allocations, and thus the desirable role of government in the underdeveloped economy should be different: the government should be more proactive through its coordination institutions.

Another characteristic of the underdeveloped economy is as follows: an expansion

4. A specific market (or marketplace) can exist even in a non-market economy. McMillan (2003) provides a variety of examples of markets, including the Makola marketplace in socialist Ghana and the Osaka market for forward trading of rice in the Shogun era of Japan.

5. Rajan and Zingales (1998) show that lack of financial development has particularly negative effects on sectors that have greater external borrowing needs.
of the aggregate demand can spur sustainable economic growth for a substantial period of time. The same is not true in a developed economy. Nobel laureate economist Paul Krugman (2009) explains as follows, using the United States as an example. An exogenous increase in exports (for example, caused by the North American Free Trade Agreement) will give rise to more jobs in export-related sectors and more inflows of money from export sales, which will be met by an interest rate hike by the Federal Reserve in an effort to keep inflation under control. Then, sectors that are vulnerable to interest rate hikes will cut their sales and jobs, and the expansion of aggregate demand will eventually shrink:

In other words, the constraint on the number of jobs in the United States is not the U.S. economy’s ability to generate demand, from exports or any other source, but the level of unemployment that the Fed thinks the economy needs in order to keep inflation under control. (Krugman, 2009, p. 8)

In contrast, an underdeveloped economy has an unemployed or underemployed workforce that can be utilized to help meet an expansion of aggregate demand, leading to the accumulation of human capital and physical capital per worker, which reinforces sustainable economic growth.6

THE KOREAN DEVELOPMENT EXPERIENCE

This section reviews the characteristics of the Korean economic development and the roles that the Korean government played from the early 1960s to the late 1980s. The rapid economic growth in these three decades was accompanied by substantial structural transformation of the Korean economy. As will be detailed, by the late 1980s, the contracting institutions were well developed, and the asymmetric information problem in the banking and financial sector was substantially lessened. As a consequence, extensive promotion of liberalization of finance, imports, and foreign exchange followed. Hence, in the late 1980s, the Korean economy was no longer a typical underdeveloped economy.7

This section focuses on the economic policies and their consequences in the era of

6. Aggregate demand externalities are another source of sustainable economic growth spurred by big push (see for example Murphy, Shleifer, & Vishny, 1989 and Trindade, 2005).
7. According to the criterion of GNI per capita, Korea had reached the Newly Industrialized Country stage by the late 1980s (see Song, 2003, pp. 248-253). Domestic savings began to exceed domestic investment in 1986.

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President Park Chung Hee, who ruled Korea from 1962 to 1979. The role of the Korean government remained basically the same with different policy emphases under President Chun Doo Hwan from 1980 to 1987.

The economic growth of Korea from the early 1960s to the late 1980s focused on export-oriented industrialization. During this remarkable period, Korea could be characterized as “Korea, Inc.,” with the government as its headquarters and individual firms as its business divisions. At the beginning of this period, Korea faced challenging socioeconomic conditions.

In the early 1960s, Korea was a poor country: in 1960, about 25 million Korean people lived with a per capita GNP of US$80. The structure of the Korean economy was relatively simple, as shown in table 1. In 1960, only 28.5 percent of the Korean people lived in cities with populations of over 50,000, and 37 percent of the Korean GDP was generated in agriculture. Its relatively large population and few natural resources impelled Korea to import food and raw materials. From the end of the Korean

<table>
<thead>
<tr>
<th>Table 1. Major Indicators of the Korean Economy, 1960-2000</th>
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<td>Population (thousands)*</td>
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<td>Per capita GNP (US$, 1996)*</td>
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<tr>
<td>Urbanization (%)*</td>
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<td>Share of agriculture in GNP (%)*</td>
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<td>Exports to GNP (%)*</td>
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<td>Gross domestic investment to GNP (%)*</td>
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<td>Foreign savings to gross domestic investment (%)*</td>
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<td>Total workers (thousands)*</td>
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<td>Share of farm workers (%)*</td>
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<td>Unemployment rate (%)*</td>
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<td>Labor force participation rate (%)*</td>
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<td>Real wage (1995 = 100)*</td>
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<td>School enrolment, secondary (%)***</td>
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<td>School enrolment, tertiary (%)***</td>
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† Figure is in 1962 values. †† Figure is in 1965 values. ††† Figure is in 1971 values.
‡ Urbanization is the share of the population living in cities with over 50,000 inhabitants.

8. According to the World Bank, the Korean GDP per capita grew at 6.6 percent between 1965 and 1999, the second highest rate in the world after Botswana.
War to the early 1960s, the Korean economy depended heavily on foreign assistance, and in 1962, domestic savings accounted for only 16.7 percent of gross domestic investment. As a consequence, access to foreign exchange, bank credit, and government subsidies was the key determinant of business success.

The rapid economic growth for the three decades (1960s-1980s) was accompanied by substantial structural transformation of the Korean economy. As shown in table 1, by 1990, 74.1 percent of the Korean people lived in cities with populations of over 50,000, and only 8.7 percent of the Korean GDP was generated in agriculture. In 1965, the agricultural sector accounted for 56.4 percent of total workers, which was reduced to 8.7 percent in 1990. Despite large underemployed populations in the agricultural sector, the unemployment rate was high (11.7 percent) in 1960, which decreased to around 2.5 percent by 1990. As also shown in table 1, as economy grew, school enrolment grew more quickly. These very positive correlations between economic growth and secondary and tertiary school enrolments suggest the existence of a positive feedback loop: as the economy grows, more human capital investments are made, which reinforce economic growth.

Export-oriented industrialization has been Korea’s basic growth strategy since President Park, who took power through a military coup in 1961, initiated the Five-Year Plans (FYPs) beginning in 1962, seven of which were carried out by 1997.9 The details of the FYPs have evolved as the economic structure and environment have changed over the years. However, the FYPs, especially until the mid-1980s, have been the blueprints of business strategy for “Korea, Inc.,” in which the president (especially President Park) was the chief executive officer and the Economic Planning Board (EPB) was the strategic planning division. To achieve the goal of suchul ipguk (“nation building through exports”), the EPB chose target industries and business areas, assigning and financing projects to private firms and public enterprises, which carried out the assigned projects like business divisions of “Korea, Inc.”

To implement FYPs, the Korean government favored the expansion of existing private firms rather than encouraging the entry of new firms. In particular, the government policy of promoting heavy and chemical industries in the 1970s resulted in the growth of a small number of very large firms and business groups (called chaebol in Korean). As a consequence, the market concentration ratio in Korea has been much higher than in Japan or Taiwan. In 1977, the top 30 business groups accounted for 34.1 percent of all manufacturing sales and 20.5 percent of manufacturing employment.10

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The top 30 business groups’ share in manufacturing sales continued to grow, reaching 44.1 percent in 2000, while these business groups’ share in manufacturing employment continued to decrease, reaching 10.4 percent in 2000.

Furthermore, the Korean government did not hesitate to install state-owned companies (called public enterprises) in whatever areas were considered necessary, including iron and steel, petroleum and chemicals, and tourism. There were only 52 state-owned companies in 1963, but that number rose to 119 in 1970 and 137 in 1993. The state-owned companies accounted for 7 percent of GDP in 1963, 9.2 percent in 1970, and 9.5 percent in 1993.

The Korean government, more specifically the president and the EPB, monitored the performance of firms and rewarded or punished them accordingly. Under President Park’s government, larger Korean firms were assigned annual export targets by the Ministry of Trade and Industry, which maintained an “export situation room” to supervise these firms’ exports. The monthly export-promotion conference, which served as a forum for revising and extending various administrative supports, was always attended by President Park as well as all important public officials and private experts concerned with trade. If a firm succeeded in fulfilling its export goals, it obtained numerous benefits, including preferential credit and loans, tax exemptions, and subsidies.11

In addition, the Korean government has used all possible discretionary measures to promote exports and economic growth.12 User fees for electricity, water, transportation, communications, and other services for export manufacturers were kept under government price control. The government also developed export industrial estates in the 1960s and 1970s, through which it provided export firms with an opportunity to

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10. Only 53 manufacturing establishments had more than 200 employees in 1955, and the major manufacturing industries produced consumer goods such as food and textiles in the early 1960s.

11. From 1961 to 1972, firms were exempted from indirect taxes on income earned from exports, and there was a 50 percent exemption from corporate and personal income tax on export earnings as well. Through an export-linked system of import privileges, the government allowed exporting firms to freely import up to the amount of export earnings.

12. Although it has been widely acknowledged that the economic development policies of Korea were successful and effectively managed by the government from the 1960s to the 1980s, the “growth first” and “export first” policies had dark sides as well. Until 1983, the Korean economy suffered from high and highly fluctuating inflation, which together with rapid urbanization gave rise to a rapid increase in real estate prices and thus worsening equity of wealth. Democracy was put on hold and labor unions were suppressed, which led to violent clashes between union supporters and government.
purchase industrial sites at greatly discounted prices. The government helped control wages, restricted labor union activities, and maintained an exchange rate favorable to exports.

The rapid economic growth triggered by the aggressive export promotion required extensive investments, which were financed mainly by foreign borrowing. The private savings ratio of Korea was relatively low (compared with those of Japan and Taiwan), at least until the 1970s; asymmetric information and poor institutionalization have been among the reasons. The Korean government must have been the only credible borrower in the eyes of foreign lenders and played a key role in foreign borrowing, and naturally banking institutions were under government control. As discussed by Cole and Park (1983), government control of the banking institutions has been a principal means for guiding and regulating private firms.

ECONOMIC INSTITUTIONS AND KOREAN ECONOMIC GROWTH

In the early 1960s, Korea was a typical underdeveloped economy facing the failure of key institutions. For the property rights institutions, we typically use the measure of “constraint on executive” from the Polity IV data set. This measure captures the degree of constraint on politicians and politically powerful elites, ranging from 1 to 7 with a higher score indicating greater constraints. Korea received a score of 2 from the end of the Korean War to 1959 and a score of 1 in 1960 and 1961.

There are several measures for the contracting institutions. However, this author is not aware of any measure available to Korea in the 1950s and early 1960s. Financial contracting was more informal and arranged among friends and family in the 1960s. We may infer that contracting is informal and contracting parties tend to be friends and family when the contracting institutions are poorly developed, since contract enforcement through the legal system is likely to be more costly under poor contracting institutions.

13. Several reasons for this low savings ratio have been suggested in previous studies. See chapter 9 of Song (2003) for a detailed discussion. Koreans had little confidence in formal financial institutions in the 1960s and 1970s. According to Cole and Park (1983), the size of informal financial markets was about half that of deposit-taking banks in terms of the volume of credit outstanding in the 1970s.

14. Acemoglu and Johnson (2005) employ two measures from the World Bank (2004)—“procedural complexity,” an index of complexity in collecting a commercial debt, valued at 50% of annual GDP per capita, and “number of procedures,” the number of procedures involved in collecting the commercial debt.

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In the 1960s and 1970s, the kay, a form of rotating credit club, was one of the most important informal financial arrangements to Koreans; 45 to 90 percent of urban households participated (Cole & Park, 1983). Moreover, until early 1990s, rural Koreans in particular relied on informal financial institutions rather than on banks or other formal financial institutions (Song, 2003). The popular small and informal financial arrangements, together with a very low household savings ratio in the 1960s, indicate poor contracting institutions in Korea. Unsurprisingly, the main objectives of Korea’s first FYP (1962-1966) were to establish economic and legal frameworks to determine the scope of property rights, regulations governing business activities, and the nature of contracts.

However, the buildup of the contracting institutions was accompanied by rapid economic growth. Informal financial arrangements were almost totally replaced by formal institutional transactions by 1990. Domestic savings began to exceed domestic investment in 1986, and extensive promotion of liberalization of finance, imports, and foreign exchange followed.

In contrast, property rights institutions remained poor during the rapid economic development. As illustrated in figure 1, the “constraint on executive” measure remained very low during the period of rapid economic growth (1961-1988). Indeed, the Philippines received much higher scores on this measure during the 1960s. These findings are not in line with the conclusions of Acemoglu, Johnson, and Robinson (2001, 2002), suggesting that property rights institutions did not play a critical role for the economic development of Korea.

As discussed above, the Korean government’s “growth first” and “export first” policy has been successful and effectively managed. However, there have been disputes on the contributions of exports to Korea’s economic development. According to Song (1982), between 1963 and 1973, the largest absolute change in Korea’s sectoral production was caused by exports, while the most important source of Korean growth was the growth of labor input (see table 5.5 in Song, 2003). Accordingly, Trindade (2005) proposes a model in which export-oriented industrialization policy works as the big push. On the other hand, Rodrik (1995) argues that a much more plausible explanation for the Korean economic takeoff is the sharp increase in investment.

15. In 1962-1968, the household savings ratio was between -1.22 and 5.0 percent.
16. Furthermore, Acemoglu and Johnson (2005) find that property rights institutions are more important for current economic outcomes than are contracting institutions, although contracting institutions appear to have some effect on stock market development. The literature of economic growth has typically found that, on average, democracies do not grow much faster than non-democracies.
demand in the early 1960s.

However, these arguments are more about proximate causes of Korea’s economic development. Hence, more attention needs to be paid to the role of government through its coordination institutions. Indeed, the fundamental causes of Korean economic development can be found in the role of the Korean government in overcoming institutions failure to generate positive feedback effects between export-oriented economic growth, led by huge investments, and human capital accumulation through better utilized (formerly idle) labor.

Given the poor property rights and contracting institutions and severe asymmetric information problem in the banking and financial sector, it is not the market but the Korean government that has provided the main coordination institutions. The Korean government chose export industries as a trigger for sustainable economic growth and proactively engaged in foreign borrowing to finance targeted industries and firms. Hence, its role can be characterized as the headquarters of “Korea, Inc.,” which has heavily relied on a command-and-control system and discretionary measures. Survival and growth of firms were determined by discretionary government actions, which favored existing large firms over small or new firms and installed many public enterprises.
This is not to say that the proactive role of government is the only way to break out of the underdevelopment trap and to initiate vigorous economic development. As illustrated in the industrialization of West European countries and the United States, technological shocks may also lead to the development of economic institutions that eventually bring about the takeoff. Naturally, distinctive economic institutions for development are likely to lead to different political institutions and power elites.

CONCLUSION

This review of the Korean development experience from the perspective of the institutions hypothesis reveals that Korea had effective government institutions, which overcame institutions failure and succeeded in generating effective demand to spur sustainable growth.

How did Korea come to have these government institutions? As noted in Acemoglu (2009, p. 334), the growth-enhancing cluster of institutions could not exist without the political institutions supporting the economic policies that promoted development. It was President Park who took power through a military coup and set up the government institutions, characterized as “Korea, Inc.,” which provided appropriate incentives to private firms and public enterprises for economic growth through a command-and-control system. In general, institutions are equilibrium choice made either by the society as a whole or by some power groups within it. In the period of rapid economic development, the government institutions were chosen by the president and elite bureaucrats in Korea.

How did Korea come to have a dictator whose goal was consistent with the economic growth of the nation? We do not have sufficient information to answer this fundamental question right now. As documented in Acemoglu, Johnson, and Robinson (2001), the initial conditions of the colonies, in terms of indigenous population density and urbanization as well as the historical disease environment, were sources of variation in economic institutions which eventually caused the reversal of fortunes among former European colonies. More research is needed on conditions in Korea in the early 1960s, along with comparative analyses to see if these conditions can explain the reasons that Korea had a dictator who dedicated himself to the economic growth of the country.

It should also be noted that the implementation of government-managed coordination institutions could be faced with a trade-off between short-run efficiency and long-run inefficiency in the transition to market coordination institutions (or a market economy). The Korean government chose export industries as a trigger for sustainable economic
growth and proactively engaged in foreign borrowing to finance targeted industries and firms. However, the Korean economy entered a new phase in late 1980s: it became a complex and developed economy in which economic growth could not be achieved by an effective demand policy.

In spite of this, government-driven export-oriented economic policies are still considered the core of the government’s role, and the power elites, bureaucrats, and chaebols who have emerged from rapid economic growth seem to have major interests in keeping these coordination institutions. It is typically argued that growth-enhancing institutions could not exist in a developed economy if the political institutions did not support policies that encourage free entry as well as investments in new technology and human capital (see Acemoglu, Aghion, & Zilibotti, 2006). The Korean experience suggests that optimal development strategies should be evaluated in a longer time horizon, taking account of the likelihood of transition to a well-functioning market economy.

In addition, although the government institutions of Korea were very effective in achieving rapid economic growth, especially in 1960s and 1970s, Korea in the early 1960s experienced social and economic conditions—and an international environment—very different from those of many developing countries today. Hence, specifics of the Korean development strategy may not be directly applicable to many developing countries in the 21st century.

For example, the very proactive role that the Korean government played in the country’s rapid economic growth might have been successful because Korea in the early 1960s was relatively small in size and simple in structure. It should be carefully evaluated whether an aggressive and persistent export-oriented growth policy is optimal in larger and more complex economies for spurring aggregate demand to generate sustainable economic growth. The important lessons from the Korean experience are not the specifics of government policies but the understanding of institutions failure facing underdeveloped economies in general.

REFERENCES


