Korea's Economic Development: Lessons and Suggestions for Developing Countries

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Abstract: This paper attempts to draw policy implications on the development strategy based on the Korean experiences in '60s and '70s. It is well-known that Korea switched her development strategy to the export oriented (and unbalanced) one from the import substitution, or "Autarkic" development strategy. It was also market-friendly. Under this strategy, all available resources were concentrated to the leading export industries in '60s and heavy and chemical industries in '70s. Some detailed strategies in the areas of monetary, fiscal, industrial, foreign exchange, and other sectors are identified and critically evaluated whether they could be adopted as the feasible development strategies for any developing countries. It is pointed out that these strategies for success could cause problems later, so that the switch of the policy stance at the right time is important.

I would like to thank three anonymous referees for their valuable comments. All the remaining errors are mine.

Key words: Development Strategy, Market-Friendly Approach, Unbalanced Growth, Leadership of the Government, Large Corporation Group

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I. Introduction

Korea is known for her fast economic development and there are many researches on factors that made such fast growth possible. It is widely believed that Korean development is government-led, outward oriented, and unbalanced one. If this is the case, then the question that naturally follows is the following; what can we learn from Korean experience? Have all the growth strategies been right? In other words, can any developing economy imitate Korea without any qualification?

Although Korea has been a true success, no country can achieve fast growth by just following Korean steps because of two reasons; First, economic, social, and political environment of each developing country may differ. Second, there are strategies adopted by Korea that could not contribute, and strategies which were important factors of growth that became causes of problems later. Therefore, it requires much caution and discretion when a country tries to adopt Koran strategies of the development.

As was mentioned, the Korean government has played a central role in the country's economic development. Korean government mobilized and integrated a number of interacting economic, political, and social factors. As for the economic policies to promote the fast growth, all of its area, that is, monetary, industrial, foreign exchange, and fiscal policies should be included.

This does not mean that Korea adopted a non-market, planned approach. Although Korea did carry out six economic (socio-economic) development plans, Korean development was a market friendly and market oriented one. This is very important (and very rare as well, except for the cases of so-called four dragons—Singapore, Hong Kong, Taiwan, and Korea). For any developing country, adopting this policy is essential.

In this paper, it is attempted to derive policy suggestions to any developing country, with emphasis on promoting economic growth. Since we focus mainly on development era, the time span covered is from early 60's when the development began, to early 80's when Korean economy had major structural shift, although the other policies adopted after those periods will also be discussed, if necessary. In this regard, it is not attempted hereto analyze what is the real factor behind the fast growth in Korea the debate of which was initiated by Krugman (1994).

This paper is organized as follows: In the next chapter, economic situations in Korea after Korean war and economic development are explained and critically reviewed. In Chapter III, major development strategies will be reviewed. In chapter IV, policy suggestions will be derived based on the analyses of those two chapters, followed by the conclusion in the last chapter.

II. Recovery from the War and Fast Economic Development

1. Economic situation in Korea after the war

In 1953, which was the year that the armistice was signed, GNP in Korea was around $2,000 million and per capita GNP was $134. It was indeed a war-torn, poor country. Under that situation, Korean government put much effort to the reconstruction first, which was an inevitable and necessary choice, and main tool for that was aids from abroad. Although the (basic) reconstruction was achieved by the late '50s, economic situation in Korea had not been improved much.

As a result, economic environment of Korea in early 60's do not seem to be different from that of any other underdeveloped countries these days. First of all, per capita GNP of Korea in 1960 was around $80 (in current price). Economic growth rate in 1960 was very low at 1.1%. Industrial structure of Korea at that time was that of typical underdeveloped economy, that is, the share of the agricultural sector captured about 40% of GNP while that of the manufacturing sector was 13-4%, and 75% of that was captured by the light industry (see <Table 1>).

Table 1. Gross Domestic Product by Industrial Origin (factor cost, 1970 prices)

	Share of GDP			Annual average growth rate (%)		
	1953-1955	1960-1962	1973-1975	1953-55 to 1960-62	1960-62 to 1973-75	1953-55 to 1973-75
Primary Total	.513	.452	.258	2.5	3.9	3.6.
Manufacturing Total	.081	.127	.346	10.8	17.9	15.3
Services Total	.405	.405	.396	3.9	9.0	7.1
Gross domestic product	1.000	1.000	1.000	3.9	9.1	7.3

Sources: BOK, National Income in Korea. 1975, pp. 144-145; and BOK, Final Estimate of Gross National Product for 1975, Sept. 1976, p.15.
Note: Totals do not add due to rounding.

Social Overhead Capital (SOC) or Infrastructure in South Korea was also insufficient. For example, the stock of the road in South Korea was about 27,000km, and the electricity production was 1512 GWh in 1960. Besides, such natural resources as the iron ore, coal, etc. were very scanty. These worked as major obstacles for the development in South Korea.

Now, let us turn to the macroeconomic situation. This period should be characterized as a period of the galloping inflation which was inevitable, to some degree, because the excessive monetary and fiscal expansion was necessary to carry out the war. In 1953-54, inflation rate was around 25-28% and rose to 82% in 1955. Although it was down slightly to 31% in 1956, Korean government could not allow the continuation of the inflation any longer. Therefore, it decided to implement a financial stabilization program by restricting the expansion of the money supply.

By this stabilization policy, Korean government reduced the annual growth rate of money supply to around 20% in 1957, from 62% 1955) and 26% (1956). The impact was immediate. Wholesale price index even showed a negative rate (−6%) in 1958 and 2.3% in 1959. This trend, however, was reversed in the wake of the student revolution in 1960 and Korea faced the inflationary pressure again in 60's when it switched its development strategy to export-oriented one.

So far, the economic situation in 50's after the Korean war was briefly reviewed. In the next section, change in the economy after the fast growth began from 1961.

2. Economic change after the development

After 1961, development strategy was totally changed from the import substitution to the export oriented, outward looking one. In the early stage of the development, government was the major player by designing 5 year economic development plans to lead (guide or even dictate) private sectors.

Together with such policy change, Korean government utilized one advantage that could not be found easily in other developing countries, the existence of the hard-working, good quality labor force with high level of education. These people are familiar with the working mechanism of the market economy and were able to make a rational decision based upon that knowledge. They are particularly useful for the mass production of homogenized products which is one of the main features of the beginning stage of the rapid growth in 60's.

As was explained, the result of such policy change was remarkable. The nation's GNP grew on the average at an annual rate of 9.5% in real terms. Consequently, the real GNP expanded more than four-fold. Per capita GNP in current prices increased dramatically from $79 in 1960 to $1,597 in 1980 (see <Table 2>). The rapid economic growth was accompanied by change in industrial structures. During the period 1962-1979, the mining and manufacturing sector led the overall expansion with a 13.3 percent annual growth rate. The share of this sector in the total GNP increased from 16.3% in 1962 to 30.3% in 1979, while that of the agriculture, forestry and fishery sector declined from 36.6% to 19.1%.

Such rapid growth, however, could not be achieved without the price. Since the core of the development strategy was concentrating all available resources to the "leading sectors", there were sectors "sacrificed". Income redistribution policies and social welfare policies including social insurance, public assistance could not be implemented to the appropriate level, so that the gap among classes were widened. For example, the GINI coefficient increased from 0.344 in 1965 to 0.389 in 1980(although it did decrease to 0.332 in 1970). Moreover, it is generally agreed that the distribution including wealth was more uneven than the income inequality that these GINI coefficients show.

This phenomenon, however, should be interpreted with caution. Although the redistribution was sacrificed, it was so "relatively". Compared to the other countries in the similar stage of the development, GINI coefficient was relatively "low". For example, it is lower than that of the U.S., and comparable to some European OECD countries, now. In other words, Income distribution was "not bad" under the international standard as long as the GINI coefficient is considered.

This will have particular importance comparing with the situation in China, these days. Although China shows lot of similarity with Korea in the fast developing era, one big difference is that China suffers from the mal-distribution. Whether China can persist her growth with this problem or not, Korea's development cannot but be regarded as a quality one.

Table 2. Key economic and demographic indicators

Period	1960	1965	1960s	1970	1975	1970s	1980	1985	1980s	1990	1995	1997
Key macroeconomics variables (% growth)												
Nominal GNP	12.6	12.5	25.8	24.4	33.4	30.1	20.4	11.0	17.0	20.9	16.6	8.1
Real GNP	1.1	5.8	7.8	8.9	4.5	8.3	-5.3	6.0	7.7	8.7	8.1	2.1
GNP deflator	11.7	6.2	17.0	14.2	26.5	20.2	24.6	4.5	8.8	10.8	7.2	3.2
Real GDP	1.2	5.7	7.7	8.8	6.5	8.6	-2.1	6.5	7.5	9.0	8.9	5.0
Per capita income(US$)												
	79	105	120	253	594	725	1,597	2,242	2,691	5,886	10,823	10,307
Consumption(Real)												
	3.5	6.3	6.0	10.6	5.6	6.9	1.1	6.5	6.6	9.2	8.2	3.2
Investment(Real)												
	7.0	27.1	22.9	6.8	7.7	15.0	-10.7	4.3	8.2	25.9	11.9	-2.2
Imports growth(customs Clearance)												
	13.1	14.6	17.5	8.8	6.2	24.1	9.6	1.6	11.4	13.6	32.0	-3.8
Exports growth(customs Clearance)												
	65.7	47.0	41.7	34.2	13.9	30.4	16.3	3.6	13.1	4.2	30.3	5.0
Current account(million of US$)												
surplus/deficit*												
	13	9	-145	-623	-1,887	-1,160	-5,312	-795	18,552	-2,003	-8,508	-8,167
C/A balance to GDP ratio												
	0.7	0.3	-4.2	-7.8	-8.9	-4.4	-8.5	-0.9	1.7	-0.8	-1.7	-1.7
Producer price Index												
	4.2	9.3	12.6	9.1	26.5	15.5	39.0	0.9	6.3	4.2	4.7	3.9
Consumer price Index												
	Na	6.8	11.2 (65-)	1.69	24.7	15.1	28.7	2.3	8.1	8.5	4.5	4.5
Interest rate												
	Na	Na	Na	Na	20.1	22.2 (7.5-)	30.1	14.2	16.9	16.5	13.8	13.4
Unemployment Rate												
	7.9	7.3	6.6	4.4	4.1	4.1	5.2	4.0	3.8	2.4	2.0	2.6

Savings and Investments ratios (%)												
Gross savings Ratio												
	9.0	13.2	14.5	17.8	19.5	25.6	24.4	31.1	31.1	37.5	35.5	33.4
Domestic gross investment Ratio												
	10.0	14.1	17.2	24.9	28.9	28.0	32.2	30.5	30.7	37.6	37.3	34.4
Key Monetary indicators (% growth)												
Monetary Base												
	3.7	48.0	29.6	38.8	39.0	32.0	-6.5	1.7	14.0	7.7	16.3	-12.5
M2												
	-3.0	52.7	38.8	27.4	28.2	30.0	26.9	15.6	19.5	17.2	15.6	14.1
M2 velocity												
	16.05	-26.49	-8.87	16.03	6.00	-0.04	-3.22	-0.41	-1.13	-0.48	1.05	-9.16
Exchange rate (Won/US$)												
	650	272.6	276.6	316.7	484.0	439.0	607.9	870.5	764.0	708.0	771.0	951.1
Key demographic indicators												
Population (1,000)												
	25,012	28,704	28.319	32,240	35,280	34,947	38,123	40,805	40,461	42,869	45,092	45,991
Economically active Population (1,000)												
	7,686	8,754	8,690	10,062	12,192	12,103	14,431	15,592	15,817	18,539	20,853	21,662
Urban population ratio (%)												
	28.0	Na	—	41.2	48.4	—	57.3	65.4	—	74.4	78.5	—
Advance rate of students to tertiary education (%)												
	Na	32.3	23.7 (6.2-)	26.9	25.8	25.6	27.2	36.4	35.3	33.2	51.4	60.1
Period	1960	1965	1960s	1970	1975	1970s	1980	1985	1980s	1990	1995	1997
Sectoral contribution to employment (%)												
Agriculture, forestry & fishing Employment												
	Na	58.5	56.8 (63-)	50.4	45.7	44.8	34.0	24.39	26.4	17.9	12.4	11.3
Mining and manufacturing												
	Na	10.4	11.5 (63-)	14.3	19.1	19.1	22.5	24.4	25.0	27.6	23.6	21.4
Services and other sectors												
	Na	31.2	31.7 (63-)	35.3	35.2	36.2	43.5	50.6	48.6	54.1	64.0	67.3

Anyhow, it is not attempted here to analyze such “dark” side of the growth. Instead, basic growth strategies in this period are introduced and evaluated in the next section.

Ⅲ. Development Strategy

1. Monetary Policy and System

A core of the development strategy of Korea is concentrating all available resources to the “leading sectors”. Monetary policy and system has served for that purpose well, and such policy tools as control on the interest rate, regulation over and the protection of banks were used intensively. To some degree, it was inevitable to use (abuse) such regulatory tools considering the fact that the capital was extremely scarce in the early stage of the development

It is necessary to have the Bank of Korea (the central bank of Korea) under the tight control of the government, in order to exercise the discretionary power of the government, particularly ministry of finance. For this, Bank of Korea Act was amended in 1961 so that the role and power of the Monetary Policy Committee be reduced, and almost all of commercial banks were virtually nationalized as the government became the largest shareholder.

To support export, Bank of Korea enacted relevant financial regulations and began to offer exporters preferential financial treatment. In 1962, export finance regulations were established to fund the purchase of raw materials, production, shipment. Besides, the system to supply a short-term finance was established, such as the Foreign Currency Denoted Supply Financial System, the System to Guarantee Payment of Imported Raw Materials for Manufacturing Export Goods in 1963 and the Local L/C system in 1966.

In order to facilitate investment in the export industry, the system to supply mid-to-long term financing was provided, such as the fund for fostering the export industry in 1964, the fund for converting to export facilities in 1965, and the foreign currency loans for importing export industry facilities.

Besides, special banks whose functions are to supply funds for the special sectors where commercial banks would or could not provide because of low profitability were founded. Among them were the Industrial Bank of Korea specializing in financing for small and medium sized enterprises, National Agricultural Cooperative Federation[1], the Export-Import Bank, and so on.

As mentioned, the core of the monetary policy supporting growth was the regulation and control of the interest rate. Particularly to promote the investment, the interest rate had to be kept very low. As for the preferential interest rate, while the general interest rate was 24% in 1965, the interest rate for export financing maintained 6.5%, the level of competing countries, widening the interest rate gap up to 17.5%. As a result, the real interest rates for those sectors supported became negative from time to time.

Table 3. **Monetary Indicators in Korea**

unit: %

	Growth Rate of Money Supply				Deposit Interest Rate		Interest Rate on loans (Nominal)	Rate of Return on Bonds	
	Money Supply	M2	M2/GNP	M3/GNP	Nominal	Real		Nominal	Real
1960	5.2	-3.0	10.5	-	10.0	2.0	17.5	33.6	25.4
1961	40.4	60.7	14	-	15.0	6.8	17.5	30.0	25.6
1962	18.6	24.9	14.5	-	15.0	8.4	15.7	21.6	21.8
1963	1.5	7.4	11	-	15.0	-5.6	15.7	24.0	15.0
1964	17.4	14.8	8.9	-	15.0	-14.6	16.0	22.8	3.4
1965	33.1	52.7	12.1	-	26.4	12.9	26.0	22.8	-6.8

1. These two will be explained further in the section of the industrial policy.

1966	30.1	61.7	15.1	-	26.4	14.6	26.0	28.8	9.3
1967	46.1	61.7	19.8	-	26.4	15.9	26.0	30.0	17.0
1968	44.6	72.0	26.4	-	25.2	14.5	25.2	32.4	19.5
1969	41.7	61.4	32.7	-	22.8	11.0	24.0	31.2	21.7
1970	22.0	27.4	32.2	-	22.8	6.5	24.0	31.9	19.4
1971	16.4	20.8	31.7	37.4	20.4	7.2	22.0	26.0	15.6
1972	45.1	33.8	34.6	40.2	12.0	0.3	15.5	22.9	12.8
1973	40.6	36.4	36.8	44.5	12.0	8.7	15.5	21.8	11.2
1974	29.5	24.0	32.4	40.1	15.0	-9.7	15.5	21.0	18.5
1975	25.0	28.2	31.1	38.5	15.0	-9.9	15.5	20.1	-3.7
1976	30.7	33.5	30.3	38.1	16.2	0.8	18.0	20.4	-4.8
1977	40.7	39.7	33.0	42.2	14.4	4.2	16.0	20.1	5.0
1978	24.9	35.0	33.0	42.4	18.6	4.2	19.0	21.1	9.9
1979	20.7	24.6	32.0	43.3	18.6	0.4	19.0	26.7	6.7
1980	16.3	26.9	34.0	48.7	19.5	-9.3	20.0	30.1	8.5
1981	4.6	25.0	34.3	51.4	16.2	-5.3	17.0	24.4	1.3
1982	45.6	27.0	37.9	59.6	8.0	0.9	10.0	17.3	2.9
1983	17.0	15.2	36.9	62.9	8.0	4.6	10.0	14.2	10.2
1984	0.5	7.7	34.8	64.4	10.0	7.7	10.0~ 11.5	14.2	10.8
1985	10.8	15.6	36.0	69.9	10.0	7.6	10.0~ 11.5	14.2	11.9
1990	11.0	17.2	38.5	111.0	10.0	1.4	10.0~ 11.5	16.5	9.5
1995	19.6	15.6	36.3	150.2	7.5~10.0	3~3.5	9.0~ 12.5	11.7	6.7
2000	5.9	25.4	72.1	174.7	7.3	5.0	8.4	8.1	9.1

Source: Korea Development Institute, "Korean Economy in 50 years After Liberation", 1996.

As a natural consequence of this artificially low interest rate, there always existed excess demand for the capital. Therefore, the allocation of the fund could not but be under the discretion of the government. The most important and famous for such discretion is called the "Policy Loan" which entitled the beneficiaries with unlimited access to the fund and the extra low interest rate. At the same time, (presumably in return for such benefit), Korean government could decide where to invest, the size of the investment, and the method of raising funds.

The most widely used one was a so-called "trade loan" which had been nearly the only type of the policy loan till the early 70's. As can be seen in <Table 4>, interest rate for such loan is between a quarter and half of normal interest rate.

Although this policy of the (artificially) low interest rate with the regulations had been effective at the early stage of the development, it caused many problems in Korean economy later. First of all, the fact that the government which is clearly more inefficient than the private sector could make a decision on the private investment itself show that inefficiency was inevitably caused. Second, the fraud related with the allocation of the fund was inevitable.

Table 4. **Trend of Trade Loan Volume by Commercial Banks**

unit: %

	1961~65	1966~72	1973~81	1982~86	1987~91
Trade Loan/Total Loan	4.5	7.6	13.3	10.2	3.1
Interest Rate on Trade Loans(A)	9.3	6.1	9.7	10.0	10~11
Market Interest Rate(B)	18.2	23.2	17.3	10~11.5	10~13
(B-A)	8.9	17.1	7.6	0~1.5	0~2.0

Source: Bank of Korea, *op. cit.*

Due to these, there has been much effort of the reform such as deregulation of the banking sector, greater autonomy of commercial banks, opening of the financial sector to foreign investors (for example, Policy Loan was totally abolished in the 80's). These reforms, however, had been delayed due to various (political, economic, and others) reasons. As a result, Korea could not escape from the financial crisis in 1997, and most of the reforms were made after that with the help and requirement from outside.

2. Fiscal Policy and System

As is well known Korean development is the government led one. For such case, it is usually expected that the share of the government sector in GDP (or GNP) is either very big or keeps increasing. In Korea, it is not. That share had been around 20% and not greater than 25% (see <Table 5>). Comparing these figures with those of U.S. and Japan, let alone high spending countries like Germany and Nordic countries, one could easily realize that share is indeed small in Korea. The same is true of the revenue side. It can be seen by the tax revenue which has captured more than 95% of total government revenue. Indeed, tax burden ratio of Korea, shown in <Table 6>, had been very low compared to other OECD countries.

The reason behind this seemingly unexpected result, particularly so considering the fact that Korea has to spend much on the defense, is rather simple. Korean government curbed the expenditure on certain parts such as the social welfare, and the Social Overhead Capital which, in turn caused another inefficiency later. Besides, Korean government used too many tax incentives which is not different from the subsidy, but cause the reduction in the size of the government expenditure. Although Korean government relied heavily on this measure not because it wanted to show the size of the government smaller than actual but because to promote the growth, it can not be denied that it helped to reduce the size of the government, let alone the inefficiency caused by the abuse of it.

Table 5. General Government Expenditure as Percentage of GNP

Year	Percent	Year	Percent
1953	9.3	1973	16.3
1955	12.4	1974	18.4
1960	19.8	1975	17.6
1961	21.9	1976	16.8
1962	21.7	1977	17.5
1963	16.2	1978	17.3
1964	13.3	1979	18.0
1965	14.5	1980	19.7
1966	16.5	1981	19.8
1967	17.0	1982	20.3
1968	19.0	1983	19.8
1969	20.1	1984	19.1
1970	18.3	1985	20.7
1971	18.3	1990	21.9
1972	18.1	1995	25.4

Table 6. Total Tax Revenue As a Percentage of GNP

Unit: %

Year		Year	
1955	6.2	1974	13.4
1960	10.3	1975	15.3
1961	9.7	1976	16.6
1962	10.6	1977	16.6
1963	8.6	1978	17.1
1964	7.1	1979	17.4
1965	8.6	1980	17.9
1966	10.7	1981	18.0
1967	12.0	1982	18.2
1968	13.9	1983	18.5
1969	14.6	1984	17.7
1970	14.3	1985	17.3
1971	14.4	1990	19.7
1972	12.5	1995	20.7
1973	12.1	1998	22.9

After all, it is likely to conclude that the fiscal policy in Korea did not contribute much to the rapid growth in the country, if only the size and share of the government is considered. However, there is much reservation on this argument. It should also be noted that the lower excess burden caused by lower tax burden ratio and the contribution of tax incentives to the growth did exist. Thus, it must be concluded that the role of the fiscal policy may have been modest but not small.

Although there has been much talk about this, rigorous analyses are rare. The most prominent among them must be those of Trella and Whalley (1991, 1992). According to Trella and Whalley, tax reforms in Korea have "probably facilitated rather than fueled high growth." This conclusion is based on their findings that the GDP growth rate in each of the phases in which the major tax regime changes have occurred has consistently been high.

They concluded that Korean taxation has played a relatively modest role, accounting for 3.0 to 4.2% of Korean growth between 1962 and 1982, with only 3.6% between 1962 and 1972. This is equivalent to a 0.26 percentage point contribution to the growth rate over the period 1962-1982 (which is about half of the counterpart in the two sector model).

Thus, the contribution of taxation to the growth rate is indeed "small"! This interpretation, however, is open to criticism. Krueger (1992) raises the question on this in her comment to the paper. She started with noting the fact that half a percentage point on the growth rate for many other countries would be a major achievement. Moreover, it does not count the secondary effects of taxation, e.g. reducing the budget deficit and the rate of inflation. Therefore, she argues that the isolated direct effect of taxation, excluding all of these derivative effects, cannot be but small. In other words, taxation "may" have had substantial effect on Korea's growth contrary to Trella and Whalley's conclusion.

It would be very difficult, however, to analyze the true contribution of taxation capturing all of these effects. It should be admitted that taxation has certain limits as a tool for growth, considering the fact that its primary function is the provision of funds for the public good. Taking this into account, it is more appropriate to see whether taxation has contributed more to growth than other policy tools. We now turn to this subject by looking at tax incentives. There have been so many tax incentives in Korea that we cannot even list all of them here. The most important among them are special depreciation, investment tax credit and tax free reserves. A tax holiday was extensively used until its abolition in 1981. See the appendix for a more detailed explanation of tax incentives in Korea.

What are the impacts of such tax incentives? Have they really contributed much to the growth of the economy as intended? The answer is neither affirmative nor negative. Almost all the research on the cost of capital and effective corporation tax rates in Korea pointed out that they have been somewhat effective, but not very much (see Kwack and Yoo (1994), and Yoo (1995)). Yoo (1995) showed that investment tax credits and accelerated depreciation were powerful. Other measures, particularly the policy loan (credit support), have been argued to be far more effective than tax incentives (see Cho and Kim, 1994).

It should also be pointed out that the role of the Korean government can not be ignored simply because its size was small. Korean government was not a small government even if we admit that the role of fiscal policy is small because it affected Korean economy so much through other policies such as regulation, monetary, industrial policies.

3. Industrial Policy

For any country, one of the most important problems in development is how to transform traditional agriculture economy (society) to the one where manufacturing industry leads the whole economy. In other words, development or modernization means the industrialization. Because of this, industrial policy is at the core of the development policy and Korea was not an exception. On the other hand, industrial policy is not so important in the advanced economy.

In this respect, Korean government adopted very aggressive export drive policy with the strong protection and regulation on industries from the beginning of the development. All of the monetary, fiscal policy tools were used to support the export industry and such key industries as cement, fertilizer, oil refining. Thanks to such policy, manufacturing sector grew at more than 19% annually during 1963~73.

At first, this switch to the export oriented policy was done simply because the foreign currency was needed as a major source of the capital. In '60s, the inflow of the foreign aid began to be reduced[2], which was essential reviving the war-torn economy in '50s. It naturally reduced the foreign reserves. Besides, there was the increase of the demand for foreign currency from the import substitution industry because it depended heavily on imports for raw materials. It should not be ignored at the same time that the export circumstances of developing countries became better in '60s. Korea could not miss that opportunity.

Measures to promote export industries could be summarized as follows: 1) Exporting firms were allowed to retain foreign exchange earnings for the purchase of imports 2) Exporting firms were exempted from import controls and tariffs 3) The state-controlled banks provided financial support for exporters at preferential rates 4) Tax incentives were granted to exporters 5) Fiscal policy focused on generating surpluses that could be channeled to key industrial firms 6) A sliding-peg system of exchange rate adjustment was adopted to prevent a real appreciation of the

2. About the detailed discussion on the foreign aids, see Krueger (1992).

Korean won 7) The government set export targets, which influenced firm behavior 8) Successful exporters received awards from the president.

There were other measures than above mentioned economic policies to promote export. One of those measures was the establishment of the industrial complex of exporters. In 1964, the Act for Development of the Export Industry Complex was enacted. As a result, the complex in Guro, Seoul, was established[3]. Besides, Korean government tried to build up the legal infrastructure to support the export industry. For example, in1967, the government enacted the Trade Transaction Act combining the Trade Act, the Export Promotion Act and the Provisional Measure Act on Payment of Export Promotion Subsidy.[4]

As a result of export promotion and industrial policy, the Korean economy completely changed its structure, as expected. In 1961, agriculture was the leading sector in the economy and its products captured 28.6% of the total export. The export of primary sectors including agriculture, fishery and mining occupied almost 3 quarters of the total export leaving manufacturing only

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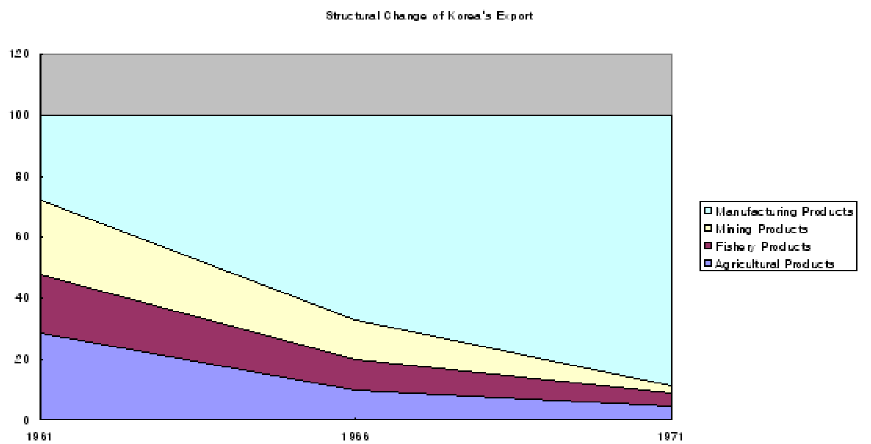
3. Until 1967, 31 companies occupied the complex, including 18 firms run by Koreans abroad, 11 domestic firms and 31 foreign enterprises.
4. There were other measures in this respect. Kim, Dohoon (2006) pointed out the following: Korean government promoted systematic trade by converting import-export business from the registration system to the license system. It also classified import-export items into the categories of approval, permission and prohibition and made trading companies report on quantity and value of their exports twice every year. Also, the Minister of Trade, Industry and Energy required the notification of standard prices and the highest and lowest prices of imports and exports. The government maintained the export creditability by establishing regulations that prevented exporters from conducting illegal transactions by exporting products totally different from those on the contract or by marking false origins.

27.7%. However, when two economic development plans (1962-66 and 1967-71) were carried out with the export promotion strategy, export grew 43.9% and 33.8% respectively at the annual average while the manufacturing export increased 70.0% and 43.3% (see <Figure 1>).

Figure 1. **Structural Change of Korea's Export**



In the '70s Korean industrial policy was dramatically changed once more and the structure of the Korean economy was also changed. Highlight of the industrial policy change is the promotion of the heavy and chemical industries started from 1973. Under this new industrial policy, heavy and chemical industries enjoyed the similar benefit that export industries received during '60s and '70s. As a result, this policy formed the industrial structure of Korea, particularly "chaebol" structure, which exists even today. As can be seen from the <Table 7>, share of the 30 largest firms in total sales volume became greater than 36% in 1980 and kept increasing.

This policy shares the praise and criticism at the same time. The essence of the praise is that the rapid growth in the past was impossible without this policy while that of the criticism is that all of the inefficiency which ultimately caused the economic crisis in 1997 was the result of this policy. Both have the points. Thus one lesson we can get from these arguments is that the country aiming for the optimal and rapid growth should be able to switch the policy stance at the right time, whatever successes have been brought by the old policy.

Table 7. Concentration Index of Largest Firms in Mining and Manufacturing Industries(Based on Sales Volume)

	1980	1987	1991	1993	1994	1995	1996	1997
30 Largest	36.0	37.3	38.8	38.1	39.6	40.7	39.3	40.0
50 Largest	16.9	22.0	23.4	23.0	24.6	25.9	24.7	25.6

Source: Korea Development Institute, "Korean Economy in 50 years After Liberation" 1996
Fair Trade Commission, "White Paper on Fair Trade" various years

As a matter of the fact, Korean government tried that kind of change and reform from the early 80's. Opening of the economy, deregulation, and the reduction of the government intervention were key words. In other words, the market should be the main force of economic activity while the government work as the rule setter as is true in the advanced capitalist economy. Therefore, the main focus of the industrial policy gradually switched to fair trade policy. Reform was slow, however, and the crisis hit the country before its fruit is available.

Table 8. Trend in Industrial Structure of Manufacturing Industry in Korea

	1966	1974	1981	1983	1985	1987	1990
Monopoly and Oligopoly	69.5	72.1	73.9	74.8	69.9	64.8	63.7
Competitive Market	30.5	27.9	26.1	25.2	30.1	35.2	36.3

source: Korea Development Institute, op.cit 1996

Although the development strategy of Korea was an unbalanced one and large corporations got much of the government support as mentioned, it did not mean that the every other sector which is not a leading one was "totally sacrificed". Particularly, small and medium sized enterprises (SMEs) were regarded to be very important and got much support such as preferred loan and tax incentives. This policy stance has been maintained until today, through the era of the heavy and chemical industry drive in '70s and '80s, where much support was directed toward the big corporations.

The most important measures to support and promote SMEs could be the establishment of the above-mentioned Industrial Bank of Korea in 1961 whose main function was to provide the policy loans to SMEs exclusively.[5] Various laws to protect SMEs against the 'unfair dominance' of the large corporations were enacted. In 1966, the Basic Act for Small and Medium-sized Enterprises to better organize all the policies promoting SMEs were enacted. As mentioned, policy loans and tax subsidy for SMEs were also used. For example, there was a regulation that all commercial banks were obliged to lend more than a certain minimum portion of incremental loans to SMEs.

With all of theses, it is pointed out that the industrial policy for SMEs became more important and effective after 1980 when the economic policy stance was substantially changed. As a result, number of SMEs increased remarkably since then.

Another sector which was supported was the agriculture sector. One such measure is the establishment of National Agricultural Cooperative Federation whose main functions are to help farmers and sustaining the prices of the agriculture products. The most important measure to support the agriculture sector was the "double grain price system", meaning that the gov-

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5. For the detailed analysis, see Kim, Dohoon (2006).

ernment pays higher price to the farmers while the grain price to the consumers were controlled at the lower level. The price gap was filled by the earmarked revenue. Although this policy was abolished during the late '90s because of the efficiency problem on the fiscal management, the very existence of such policy shows that Korean government did not ignore the agriculture sector, although its importance could not but decrease in the process of the industrialization.

4. Foreign Exchange and Trade Policy

As can be seen in <Table 9>, Korean Won was overvalued till 1960 to support "import substitution" policy. This, at the same time, naturally causes the weakening of the competitiveness of the export industries. Realizing this, the military government depreciate Won from 65Won per dollar to 130Won per dollar in 1961. This could not revive the competitiveness, however, largely because the rapid inflation was going on during the following three years. Therefore, Korean government depreciated Won again to 250Won per dollar in 1965, adopted the unitary floating exchange rate system and abolished the previous multiple exchange rate system, which was applied differently according to items and uses.

Although the floating exchange system was officially adopted, Korean system had been close to the fixed exchange system in reality because the monetary authorities could and did intervene the exchange market heavily. Complete liberalization of this market was made after the economic crisis. At the same time foreign reserves were very tightly controlled.

Table 9. Nominal, Effective, and Purchasing-Power-Parity Exchange Rates for Imports and Exports, 1955-1960

	1955	1956	1957	1958	1959	1960
A. Official Exchange Rate (won per dollar)	36.8	50.0	50.0	50.0	50.0	62.5
B. Average Export Dollar Premiums (won per dollar)	n.a.	n.a.	n.a.	64.0	84.9	83.9
C. Export Subsidies per Dollar Export (won per dollar)	n.a.	n.a.	n.a.	1.2	1.3	1.2
D. Export Effective Exchange Rate (EER) (A+B+C)	72.2	102.8	108.9	115.2	136.0	147.6
E. Price-Level-Deflated (PLD) EER For Exports (D dividedby 1965 price index)	n.a.	n.a.	n.a.	288.7	333.3	326.5
F. Purchasing-Power-Parity (PPP) EER for Exports (E times average price level of trading partners)	223.8	268.3	252.6	280.6	325.6	319.6
G. Tariff Equivalents (won per dollar)	n.a.	n.a.	n.a.	14.4	32.8	37.7
H. EER for Imports (A+C)	42.1	57.3	58.4	64.4	82.8	100.2
I. PLD EER for Imports	n.a.	n.a.	n.a.	160.4	202.9	221.6
J. PPR EER for Imports	130.5	149.6	135.5	155.9	198.2	216.9

Source: Frank, Kim, and Westphal, pp. 70-73, for 1958 to 1960.

Table 10. Trend of Foreign Exchange Rates

Annual Average

	Official Rate		Nominal Effective Rate	Price Index	Real Effective Rate
	U.S.A.	Japan	1995=100.0		
1962	130	36.1	12.2	4.5	75.5
1963	130	36.1	12.2	5.5	63.5
1964	213	59.4	20	7.2	77.3
1965	266.4	74.0	25	8.0	89.2
1966	271.3	75.4	25.4	8.7	85.5
1967	270.5	75.1	25.3	9.2	80.7
1968	276.6	76.8	25.7	10.0	77.0
1969	288.1	80.0	26.8	10.6	77.9
1970	310.5	86.3	29.1	11.6	80
1971	347.1	99.4	33.0	12.6	86
1972	392.8	129.6	39.8	14.3	98.7
1973	398.3	146.6	42.6	15.3	105.8
1974	404.4	138.4	42.2	21.8	90.6
1975	484	163.1	50.3	27.6	91.9
1976	484	163.2	49.5	30.9	85.0
1977	484	221.5	55.4	33.7	91.8
1978	484	230.0	57.4	37.6	88.2
1979	484	220.9	57.6	44.7	81.6
1980	607.4	267.9	72.0	62.1	84.2
1981	681	308.8	78.8	74.8	81.3
1982	731	293.5	79.6	78.3	80.6
1983	775.7	326.6	84.7	78.4	85.9
1984	805.9	339.9	86.0	78.9	88.1
1985	870	364.8	92.2	79.7	93.6
1990	707.7	489.1	97.5	85.7	95.8
1995	771.0	749.2		100	
2000	1130.6	1101.5		120.2	

Source: Korea Development Institute, *op. cit,* Bank of Korea , *op. cit.*

The reason why the government controlled the exchange rate and the foreign reserves is again very clear. By doing that, it could support the export industry freely curbing imports, and consequently promoted rapid growth even under rapid inflation during 60's and 70's. This policy like other previously mentioned policies has pros and cons. It contributed greatly to promote export, growth, and improve the trade balance. But at the same time, it hampered the sound development of the foreign exchange market which is necessary to advance to well-developed market economy.

Like any other developing country, Korea needed capital more than anything else in order to propel the fast growth. Combined with high quality labor of Korea, this could lead to a massive increase in production. Since the domestic capital lacked at the early stage of the development, Korea could not but rely on the foreign capital. There are basically two ways to induce it: One is the foreign direct investment (FDI), the other is the borrowing. Korean government resorted mostly to the latter with the guarantee for payment while the former was selectively used. This contrasted with many other developing countries relying much on FDI.

5. Other (Socio-economic) Policies

As was mentioned above, Korean growth strategy was an unbalanced one. As a result, the welfare expenditure was 'sacrificed'. For example, the proportion of the social expenditure, which is equivalent to the welfare expenditure, of the total government expenditure less than 10% throughout '60s, and it captured only around 12-13% during '70s, which is far lower than those of advanced countries (it has increased to the level greater than 20%, which is still very low). Besides, no social insurance was provided in 60's and '70s. These naturally should have led to the mal-distribution of income.

The reality, however, is different. As mentioned, Korea is known to be a country achieving the fast growth with the relatively fair distribution. This is due to the fact that the agriculture sector and SMEs were fairly well subsidized. Assistance on these areas lessened the income gap caused by the unbalanced development strategy and the lack of the social insurance and public assistance programs.

In this regard, “New Town Movement”should be mentioned. This is a socio-economic mobilization to encourage self-help, diligence, and corporation to overcome the poverty. Although, it is not entirely for the rural area, most programs of the movement are directed toward it. This certainly helped to increase the income in the rural area which in turn helped to reduce the income gap between the urban and rural areas.

In implementing polices of developing countries, the intention of the highest decision maker is significant. The fact that the President personally encouraged export policies gave companies and the people the impression that export was the only way to go forward, and this approach had a great effect. From 1964 when $100 million of exports were accomplished to 1979, then president Park personally presided over export promotion meetings every month, which showed the strong government intention. Export-led industrialization could be consistently promoted and discussion on substantive matters made it possible to focus government policies on exports. There were side effects, though, such as hasty implementation of alternative policies, sacrifice by the other industries and government intervention in the economy. However, the fact that the president led the export-oriented policies played a considerable role in maintaining the policies and made the people feel the importance of exports.

In addition to these policies, there were various administrative measures to promote the export. For example, Korean government adopted the export targeting system and ran the monthly meeting to promote exports where the corporations and the government both participate under presiding of the president himself. As this monthly meeting was presided by the president himself, it was an opportunity not only of the revelation of the leader's will to promote exports, but also of the good communication between the president and entrepreneurs. Day of exports was established and firms with the good record of export received the prize and reward at that day.

Besides, Korea Trade Association and Korea Trade Promotion Corporation (KOTRA) were founded to assist businesses to explore foreign markets. Initially, it considered establishing a government agency which explored foreign markets, while taking exclusive charge of small amount of exports. Although all these measures look small, their importance should not be ignored.

IV. Policy Implications and Suggestions

Is the Korean model the best possible practice which can be applied to any other economy? Should they accept and possibly suffer from its defects, even if it was the best choice once? Instead, is there a way to bypass such defects and take good points only? In light of these considerations, it is analyzed that how and what the other underdeveloped countries can learn from the Korean experience in the development process by not paying (or minimizing) the price of the success (or failure).

Policy implications of this research can be summarized as follows

(1) It is necessary to have the central government with the strong economic leadership. It does not mean that the political dictatorship is inevitable as was the case in Korea. Rather it means that the leadership with the vision on the market economy and the government which supports that efficiently is the minimum requirement for the development. In this regard, the leader should have good knowledge, vision, and the passion for the sound market economy.

(2) Establishment of the well drafted economic plan in which the purpose of the development plan and the intention of the government is clearly stated is needed. It is inevitable to have the guidance and control by the leader group with the well designed plan under the situation that the market is not functioning properly. It is needed to establish the market itself in the long run. To design the plan properly, it is essential to have qualified economists and technocrats with the good knowledge about the market economy.

(3) Outward oriented development strategy is the most proper one. For this strategy to work, massive influx of the foreign capital, the promotion of the export with the support of the monetary and fiscal policy are needed, and the occasional government intervention on the foreign exchange market may be inevitable in spite of its negative effects in the long run. It should be noted that the demand for the foreign currency is likely to be very high in underdeveloped countries.

(4) As for another aspect of the development strategy, whether the adoption of the unbalanced growth strategy (although non-leading sectors were not totally ignored, as shown) is desirable or not must be a good subject of the debate. In this research, it is concluded that it is inevitable to adopt that policy until the certain point of time for a country like Korea, and it is true of any developing country. Obviously, the same question of finding optimal timing for the policy change will be raised, and the answer to that is same as above.

(5) A very special issue in the Korean development model is that of "chaebol". Is it necessary and if it is indeed a necessary evil, how should it be controlled? It should be noted that "chaebols" are largely a byproduct of the industrial policy of Korea as was explained. Thus it is not right to say only that kind of entity will enable the fast growth although forming of them as a natural result cannot be blocked. For some developing countries (particularly transition economies), creation of the environment that privately owned firm can operate freely is a far more important issue than this.

(6) In Korea, "reverse engineering"(or "creative" copying) of the advanced technology and products of the advanced countries, particularly Japan, was an effective strategy of the fast growth. And it enabled the catch-up of such countries. Any developing country can adopt the same strategy. If we take an example as a country like Laos and Cambodia, reasonable target countries at this stage are China and ASEAN countries, and target industries are such labor-intensive light manufacturing industries as textile, shoes etc. and possibly software.

(7) It is necessary to have the sound fiscal policy and system with the right principle. The issue of the "improper" fiscal system is found without exception from the former communist countries because the state owns the asset contrary to the case of capitalist nations. Without this soundness of the fiscal system, however, public services essential for the functioning of the market cannot be provided. Korean fiscal system is regarded to do this role properly although it might not contribute much to the growth directly.

(8) Well functioned monetary and financial system should be established. Although it is hard to do that in countries where private ownership is basically prohibited (e.g. North Korea), it should be done right at the beginning of the development. Private banks, development of the bond market, well-functioning tax system are necessary.

(9) Finally, it is necessary to secure such socio-economic infrastructure as anti-corruption and good communication. Existence of the good communication channel between government and the private sector is more important than it looks. As for this, the abovementioned monthly meeting to promote export is a good example. It is needless to say that avoiding corruption is important not only for the economic development but also for the society overall. Korea may not be the perfect example in this area. It should be pointed out, however, that Korea was relatively successful among the developing countries.

(10) Even if the unbalanced development strategy is adopted, certain level of help to the retarded or sacrificed sector is essential, so that it would not be too costly to resolve the problems caused by such gap later. Fairly narrow income gap and the successful aid to the agricultural sector in Korea would be a good lesson to developing countries.

Detailed policy suggestions derived from these basic implications are as follows.

First for the short run, following policies should be adopted; (1) (partial) allowance of the private ownership, (2) establishment of the infrastructure of the monetary and financial system--foundation of commercial banks and so on, (3) allowance and increase of establishing private firms, (4) establishment of the fiscal system, (5) rearing of personnel understanding market economy, (6) establishment of the well designed economic plan, (7) (partial) expansion of the economic opening and induction of the foreign capital, (8) expansion of SOC, (9) rationalization of the foreign exchange system, (10) demonstration of the leader's will on the development with various administrative measures.

Long run policy suggestions are as follows; (1) continuous expansion of the private ownership including the land, (2) substantial expansion of the privatization (3) granting perfect freedom in founding private firms, 3) adoption of the advanced financial system, (4) normalization of the foreign exchange system, (5) complete opening of the economy.

It should be reminded once again that the market oriented approach should be the basis of all these. Without understanding that principle, a nation cannot achieve the fast growth, however good policies are adopted.

V. Concluding Remarks

Korea was forced to be in the truly miserable situation after Korean war in 1950-53. The war completely destroyed industrial infrastructure and put Korean economy into the situation even worse than that as a colony of Japan. Thus, the most important and serious economic problem that this country had to solve was not just a matter of normal development but that of survival.

In '50s, main development strategy to overcome such misery was import substituting one with the heavy protection of domestic industries. However, import substitution, or "Autarkic" development strategy was proven to be ineffective. Understanding this fact, Korean government switched her development strategy to the export oriented (and unbalanced) one, and succeeded. Under this strategy, all available resources were concentrated to the leading export industries and heavy and chemical industries later. At the same time, there were some problems in this strategy, particularly on such "underdeveloped" sectors.

Is this development strategy of Korea can be adopted by any other developing countries? Since every country has its own unique environment, it is neither desirable nor possible to copy every part of it. However, its basic direction was proper and it should be well considered by any developing country. Especially, for those countries without abundant resources and adequate infrastructures, it is necessary to adopt outward looking development strategies.

In doing so, however, attention must be paid not only to factors which made the success possible, but also to the factors which caused the failure. It is very important to bear in mind that factors of success often work as factors of the failure as well, as can be seen in Korean case. Choosing right time of policy change will be necessary in the stage when development reaches certain level, to avoid possible economic crisis. It would be the difficult task, but not impossible. Although suggestion of detailed acting plan is beyond the scope of this paper, it should be pointed out that past trials and attempts of Korean government for the change in 80's and 90's were meaningful.

References

Cho, Yoon Je and Joon-Kyung Kim. 1995. "Credit Policies and the Industrialization of Korea", World Bank Discussion Paper 286.

Irene Trela and John Whalley. 1992 "The Role of Tax Policy in Korea's Economic Growth" in *The Political Economy of Tax Reform*, edited by Takatoshi Ito and Anne O. Krueger, The University of Chicago Press.

Jones, Leroy P. and Il Sakong. 1980 *Government, Business, and Entrepreneurship in Economic Development: The Korean Case*, Cambridge: Harvard University, 1980.

Jones, Leroy P. 1987. "Jaebul and the Concentration of Economic Power in Korean Development: Issues, Evidence and Alternatives," in *Macroeconomic Policy and Industrial Development Issues*, edited by Il Sakong, Korea Development Institute, 1987.

Jwa, Sung-Hee. 2001. *A New paradigm for Korea's Economic Development; From Government Control to Market Economy.* Palgrave.

Kim, Dohoon. 2005 "In Search of Uzbekistan's Industralization and Export Promotion Strategies," in *Industrial Development and Export Promotion Policy for Uzbekistan.* Edited by Younggi Lee, Ministry of Finance and Economy and Korea Development Institute.

Kim, Kwang-Suk and Michael Roemer. 1979. *Growth And Structural Transformation in Korea: 1945~1975*. Cambridge: Harvard University Press.

Krueger, Anne. 1992. *The Development Role of the Foreign Sector and Aid in Korea: 1945~1975*. Cambridge: Harvard University Press

Krugman, Paul R. 1994. "The Myth of Asia's Miracle," Foreign Affairs, 73(6), pp62~78

Kwack, Taewon and Ilho Yoo. 2000. "Tax Incentives and Economic Development", Ch 11 of *Fiscal Reform and Structural Change in Developing Countries* vol. 2, ed. by Guillemo Perry, John Whalley and Gary McMahon.

Yoo, Ilho. 1995. *Reform of the Korean Tax Incentive System After Uruguay Round. 1995 KDI Policy Report*.

Bank of Korea, *Economic Statistics Yearbook*, Various Years.

Fair Trade Commission, *White Paper on Fair Trade*, Various Years.

Ministry of Finance and Economy, *National Budget*. Various Years.

Korea Development Institute. 1996. *Korean Economy in 50 years After Liberation*.