

ECONOMIC GROWTH AND INCOME DISTRIBUTION:
A CASE STUDY OF KOREAN EXPERIENCE

by

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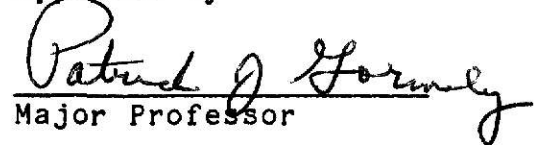
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I. Purpose of Study

In recent years the topic of income distribution has been widely discussed in development economics. In the past aggregate growth was believed to solve every problem and most LDCs concentrated on achieving growth. But even when rapid growth has occurred many problems have arisen. Moreover, the problem is complicated by the question of trade-offs between growth, employment and equity.

Many studies have analyzed the contribution of economic growth to welfare and there have been conflicting views on the relationship between economic growth and income distribution in rapidly growing economies.

Though the general belief that economic development decreases the relative income of the poor is somewhat controversial, there is no question that the distribution of income--and especially the extent of poverty--has become a major issue both within the less developed countries themselves and within the international community. Many academicians, aid agencies and policy makers in less-developed countries have become aware of the severity of poverty and inequality and are now trying to deal with them.¹⁾

The conspicuous failure of growth to eliminate poverty has led to a proliferation of studies on the cause of income

inequality in the course of economic development. Many factors have been found to be significantly related to income distribution.²⁾

The Korean economy has been characterized by the World Bank as "one of the success stories of international development". In addition to making dramatic progress in material and structural terms, Korea is also one of the few countries in the noncommunist world which has effectively sustained rapid growth without experiencing a significant deterioration in the pattern of income distribution.³⁾

However, in spite of its apparent success in achieving rapid growth with equality, the good relationship between economic growth and income distribution in Korea has recently been brought into question as a result of the experience of the 1970's.

Korea's Fifth Five-Year Economic and Social Development Plan(1982-1986) presented this emerging problem as following:⁴⁾

In the midst of the quantitative expansion of the economy, however, the basic needs of the people and the public facilities for daily life were left largely neglected, and income distribution distorted. Social and economic equity thus loomed large as an important issue of the Korean Economy, so beginning with the Fourth Plan, special attention has been paid to promoting social development.

Historically, there has been a definite relationship between economic growth and trends in the distribution of income within countries.⁵⁾ Simon Kuznets presented the view

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that the level of economic development is a major determinant of the extent of income inequality. This has come to be known as the inverted-U shaped hypothesis--income inequalities widened in the early periods of growth of today's developed countries, and narrowed after higher levels of per capita income were achieved.⁶⁾

The pattern of greater relative income inequality in less-developed countries than in the developed countries was confirmed for eighteen countries in a subsequent paper by Kuznets. Since Kuznets's presentation, much research effort has gone into attempts to confirm or refute these findings.

There are two conflicting views of the effect of income distribution on economic growth. Until quite recently it was widely believed that a high degree of inequality in the distribution of income had a favorable effect on economic growth, through its impact on the saving rate. Thus some economists believe that there is a conflict between growth and income redistribution and hence a trade-off between them, because a policy of emphasizing income redistribution could reduce saving and thereby hinder economic growth.⁷⁾

None of the existing studies finds a statistically significant relationship between the level of inequality and the rate of short-run economic growth.

In summary, as much research suggests, the relationship between economic growth and income distribution might vary

from country to country, and growth itself does not determine a country's income distribution.⁸⁾ Even though there are many cases of failure in income distribution in spite of economic growth, we can find some cases in which aiming at growth may sometimes achieve favorable redistributive results owing to growth and increasing employment.

We might tentatively conclude that an economic growth target (rapid or slow) can be achieved with a more equal distribution of income in developing countries with concomitant sound policy measures.

This paper aims at finding out the fundamental reasons why this favorable result might not occur, thereby shedding some light on development strategies and distribution.

First, this paper will review the Korean economic performance in terms of major indicators such as GNP, structural change in industrial origin, employment, export, and standard of living.

Secondly, the paper will examine distributive aspects of growth in Korea using the result of earlier studies and an official survey.

Thirdly, the paper will analyze the sources which contributed to the relatively equal distribution of income in the 1960's and early 1970's, focusing on the relevant historical background and policy measures.

Fourthly, an effort will be made to enumerate major

problems and to find out reasons for the deteriorating income distribution in the 1970's with regard to the role of development strategy.

And finally, an attempt is made to explore policy issues for more sound development which can harmonize economic growth and a more equal distribution of income.

Endnotes for Chapter I

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Fields, G. S., Ibid., Chs. 3, 4, 6.
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II. Economic Growth in Korea

Korea's progress has been the result of a variety of mutually supportive factors: both socio-cultural and economic. Culturally, there are no language or racial barriers to hinder economic efficiency or efforts to marshal national unity. Koreans have traditionally placed a very high value on education and learning, which has enabled the economy to develop human resources rapidly. These socio-cultural prerequisites interacted with economic factors that directly contribute to growth in income, output and employment.

External and internal economic factors both were important, factors such as rapid growth in world trade and favorable circumstance for developing countries, substantial availability of foreign savings and introduction of economic planning and effective programs of relevant policy measures. In particular, in contrast to the more cautious approach adopted during that period by many developing countries, Korea committed itself to a bold outward-looking development strategy which called for the intensive development of exports from its still-primitive industrial sector.

1. Growth and Structural Change

1.1 Economic Growth

The rapid growth of the Korean economy was due mainly to the policy of export-oriented industrialization. The Korean people's determination to develop has helped increase exports and maintain a high investment ratio, both of which have been responsible for the high growth rate, averaging 8.4 percent annually between 1962 and 1980. The gross national product(GNP) increased from \$2.1 billion in 1961 to \$56.5 billion in 1980. In real terms GNP increased by a factor of 4.6, while the population grew at 2.1 percent annually to 38.1 million in 1980. Therefore, per capita GNP has risen from \$82 to \$1481 in current prices during the same period, as shown in Table 1.

Table 1. The Performance of Korean Economy

	Unit	1961	1975	1980
GNP	In 1975 bil. won	3,005	9,793	13,843
	In current bil. US dollars	2.1	20.2	56.5
Population	Million	25.8	35.3	38.1
Per capita GNP	In current US dollars	82	574	1,481
Export	In mil. US dollars	41	5081	17,504

Source : Economic Planning Board (E.P.B), Major Statistics of Korean Economy, Seoul: E.P.B, 1982.

The vigorous export promotion policy showed remarkable results, with export volume increasing, in current prices from only \$41 million in 1961 to \$17,505 million in 1980.

1.2 Structural Change

Concomitant with this growth has been a marked transformation in the structure of the economy. Measured at current prices, the share of the primary sector dropped from 40.2 percent of GNP in 1961 to 16.3 percent in 1980, while that of social overhead capital and other services increased from 44.6 to 53.5 percent and that of mining and manufacturing from 15.2 to 30.2 percent. This represents a striking change in only nineteen years.

Table 2. Sectoral Origin of GNP¹⁾

	(In Percentage)		
	1961	1975	1980
Agr., For. & Fisheries	40.2	24.9	16.3
Min. & Mfg.	15.2	28.0	30.2
SOC & Other services	44.6	47.1	53.5
Total	100	100	100

Note: 1) At current price

Source: E.P.B, op. cit., 1982.

1.3 Employment

One of the most significant contributions of industrialization has been the reduction in underemployment and unemployment. There was a marked increase in Korea's economically active population, particularly since 1970. While the population as a whole grew between 1963 and 1980 at an average annual rate of 2.2 percent, the labor force grew at a rate of 3.1 percent and total employment expanded by 3.5 percent annually, from 7.7 million in 1963 to 13.7 million in 1980. The unemployment rate, is defined as the ratio of the unemployed to the economically active population 14 years old and over, declined from 8 percent to 5.2 percent, though the 1980 rate is higher than the 3 percent level attained in 1976.

During the period from 1963 to 1980, the number of people employed in the agricultural, forestry and fisheries sector decreased from 63 to 34 percent of the total, while the share of the mining/manufacturing and the services sectors increased from 8.7 to 28.2 percent to 22.6 and 43.4 percent.

Table 3. Employment Structure

	Unit	1963	1971	1980
Population	million	27.3	32.9	38.1
Labor Force (Economically active population)	"	8.3	10.5	14.5
Employment	"	7.7	10.1	13.7
Employment Structure	%			
Agr., For. & Fish.	"	63.1	48.4	34.0
Min. & Mfg.	"	8.7	10.8	22.6
SOC & Other	"	28.2	37.4	43.4
Unemployment Rate ¹⁾	"	8.2	4.5	5.2

Note: 1) in 1978 3.2 %

Source: E.P.B, op. cit., 1982.

2. The Standard of Living

Expanded employment opportunities and increased income have reduced the incidence of absolute poverty considerably. The proportion of the population with incomes below the minimum subsistence level, which is tentatively defined as 23,000 won (\$400) per person in 1981 price, decreased from 40.9 percent in 1965 to only 9.8 percent in 1980. As a result, the quality of life has been greatly upgraded for the whole nation over the past two decades.

Signs of a higher standard of living--opportunities

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for education, the supply of piped water, better nutrition and general health of the people, and wide spread supply of public goods and social overhead capital facilities--are visible.

Table 4. Major Social Indicators

	Unit	1962	1980
Middle School Enrollment Ratio	%	54.1 ^{52.3} *	96.8
College Enrollment Ratio	"	21.2	27.2
Housing Investment/GNP	"	1.6	3.1
Dwelling Space per Person	pyung ¹⁾	1.9	2.9
Piped Water Supply Ratio	%	18.2	59.0
Life Expectancy	years	52.4	65.9
Infant Mortality Ratio	per 1000 persons	59.9	31.0 ^{31.0}
Telephone Subscribers	"	5	89
Automobil Owners	"	1.1	14.0

Notes: 1) Pyung = 3.3 square meters.

* 1966., ** 1979., *** 1970.

Source: Government of the Republic of Korea, The Fifth Five-Year Economic and Social Development Plan: 1982-1986, 1981.

Social Indicators

(P82)

III. Income Distribution in Korea

The emphasis on egalitarian growth has caught the attention of many economists. Yet, as is often the case in our profession, there does not seem to be any well-unified theory of income distribution which would clear the way for continuous research for many years to come.¹⁾ However, even without the benefit of a unified theoretical basis, in recent years a growing body of empirical studies on Korea's distribution has been published. What these authors have found in common is evidence which indicates the relative equality in Korean income distribution as compared not only to many developing countries but also to some developed countries, with little sign of its deterioration during the period of growth in the 1960's.²⁾

Although the evidence upon which they base their conclusions is more or less similar, these studies seem to pay little attention to the data problems of Korea's income distribution. In past Korean income distribution studies, the basic data were derived from city and farm household income and expenditure surveys, individual income tax records, wage and salary surveys and/or special survey. In constructing size distributions, these data were generally used separately, but occasionally using various assumption to estimate household income which could not be taken directly from existing data. Because of the deficiencies, both

implicit and explicit, in the basic data used and in the procedures adopted in the previous studies on Korean income distribution, new estimations were needed to study the distributive aspects of rapid growth over time and by sector since the 1960's.³⁾

Among several estimations, this paper introduces the estimation by Kim and Choo for the following reasons.

First, all the earlier studies have some problems in data and the results: the neglect of seasonality, the inadequate sample size, the omission of non-cash incomes, the exclusion of households receiving weekly or daily pay, and limitations on the upper and lower levels of income which are likely to be excluded from the survey.

Secondly, there is no estimation available for the period of the mid-seventies. Hence there is no information on the changes in the size distribution over the whole period of rapid growth and by sector.

Thirdly, thus far there is no special survey reliable enough to determine income distribution and widely quoted as an indicator of income distribution. (In 1980 the first official survey was carried out but this of course can not provide meaningful figures over time.)

Finally, as argued by Choo, though their (Choo and Kim) estimation procedures are not free from omission and errors, the estimated size distribution of income is the

result of an earnest effort to derive probable distributions over time and by sector, with due consideration for the deficiencies and constraints of the data.⁴⁾

1. Overall Distribution

Table 5 shows a slight tendency toward more equality during 1965-1970 and then a rapid move toward less equality of income distribution during 1970-1976. This trend is evident in all three distributive measures: Gini Coefficient, Theil Index and the Decile Distribution Ratio--here defined as the ratio of the income of bottom 40 percent over that of upper 20 percent. The Gini coefficient fell from 0.3439 in 1965 to 0.3322 in 1970 and then rose to 0.3808 in 1976. The Theil measure was 0.2263, 0.2049 and 0.2505, respectively, in 1965, 1970 and 1976. Finally, the decile distribution ratio changed from 19.34/41.81 in 1965 to 19.63/41.62 in 1970 and then to 16.85/45.34 in 1976.

Data for 1980 are the result of the Social Statistics Survey, conducted by National Bureau of Statistics, based on the household income by source. This is the first official indicator on income distribution and is based on the most reliable data. Although horizontal comparison of these 1980 results with previous ones is less meaningful, obvious change over time in Gini coefficient and decile ratio can be perceived.⁵⁾

Table 5. Size Distribution of Income and Measures of
Inequality: 1965-1980

	(In Percentage)			
Decile	1965	1970	1976	1980
First	1.32	2.78	1.84	1.57
Second	4.43	4.56	3.86	3.52
Third	6.47	5.81	4.93	4.86
Fourth	7.12	6.48	6.22	6.11
Fifth	7.21	7.63	7.07	7.33
Sixth	8.32	8.71	8.34	8.63
Seventh	11.32	10.24	9.91	10.21
Eighth	12.00	12.17	12.49	12.38
Ninth	16.03	16.21	17.84	15.93
Tenth	25.78	25.41	27.50	29.46
Gini Coefficient	0.3439	0.3322	0.3808	0.3891
Theil Index	0.2263	0.2049	0.2505	-
Decile Distribution Ratio	19.34/ 41.81	19.63/ 41.62	16.85/ 45.34	16.16/ 45.39

Source: Data for 1965, 1970 and 1976 from Choo, Hakchung and Daemo Kim, Probable Size Distribution of Income in Korea: Over Time and By Sectors, Seoul : Korea Development Institute, 1978.

Data for 1980 from EPB, Social Statistics Survey, 1981.

2. Sectoral Distribution

Table 6 shows income distribution for agricultural and non-agricultural households. Agricultural household income is distributed more evenly than that of non-agricultural households, mainly because of the legal limitation on size of farm holding.

The Gini coefficient for agricultural households in 1965 was 0.2852, as compared to 0.3439 for all households and 0.4167 for non-agricultural households in that year. In the same year, the decile distribution ratio was 22.57/38.03 as shown in Table 6.

During the period from 1965 to 1970, the distribution of income did not change very much. However, after 1970 a trend toward widening income gaps within the agricultural sector has become noticeable. The Gini coefficient, the Theil index and the decile distribution ratio from 1970 to 1976 changed, respectively, from 0.2945 to 0.3273, from 0.1318 to 0.1708 and from 21.24/38.64 to 19.45/40.62. Not only did the rural income distribution become less equal, but also the relative importance of the agricultural sector declined due to rapid industrialization.

On the other hand, the trend of distribution of income among non-agricultural households is different from the overall and agricultural income distribution. The distributive indicators for 1976 show more equality than

those for 1965, although much less equality than in 1970.

Table 6. Size Distribution of Income and Measures of Inequality for Agricultural and Non-Agricultural Households
(In Percentage)

Decile	<u>Ag-Households</u>			<u>Non-Ag Households</u>		
	1965	1970	1976	1965	1970	1976
First	2.60	3.17	2.46	0.22	2.56	1.64
Second	6.39	5.19	4.32	3.02	4.67	3.56
Third	6.67	6.00	6.05	4.98	5.33	4.61
Fourth	6.91	6.88	6.62	5.83	6.31	5.55
Fifth	7.16	8.10	7.81	7.36	7.45	6.56
Sixth	9.63	9.01	9.13	8.29	8.41	7.83
Seventh	10.83	10.59	10.48	10.43	10.02	9.52
Eighth	11.73	12.42	12.51	12.92	12.21	12.03
Ninth	15.61	17.87	16.79	18.56	16.29	18.56
Tenth	22.42	20.77	23.83	28.39	26.75	30.14
Gini Coefficient	0.2852	0.2945	0.3273	0.4167	0.3455	0.4118
Theil Index	0.1428	0.1318	0.1708	0.3398	0.2190	0.3027
Decile Distribution Ratio	22.57/ 38.03	21.24/ 38.64	19.45/ 40.62	14.05/ 46.95	18.87/ 43.04	15.36/ 48.70

Source: Choo, Hakchung and Daemo Kim, op. cit., 1978.

For the purpose of decomposition analysis, an effort was made to classify non-agricultural households into employee and employer households. The results of this are shown in Table 7. Most significant is the change in incomes among employer households, particularly when the share of the top 30 percent is compared to the bottom 40 percent. The income distribution of these households also improved slightly from 1965 to 1970, due to the relative increase in the share of the bottom 40 percent. However, a pronounced polarization of the income shares of the top 30 and bottom 40 percent of these households appears during the period 1970 to 1976.

The changes in the income shares of employee households during these years conform with the changes in the overall size distribution. The remarkable gains by the lowest 20 percent were made during the period 1965 - 1970. However, in later years the income of the top decile employee households increased relatively more than that of the other deciles.