

ERIA Discussion Paper Series

Growth Policy and Inequality in Developing Asia: Lesson from Korea

Hyun-Hoon LEE^{#*}

*Department of International Trade and Business,
Kangwon National University*

Minsoo LEE[§]

Economics and Research Department, Asian Development Bank (ADB)

Donghyun PARK[†]

Economics and Research Department, Asian Development Bank (ADB)

July 2012

Abstract: While developing Asia has traditionally prioritized growth over equality, recent years have witnessed a growing popular demand for more inclusive growth in the region. In this connection, Korea, which has managed to combine rapid economic growth and moderate inequality levels, offers potentially valuable lessons for developing Asia. The central objective of our paper is to analyze the relationship between growth policy and inequality in Korea in order to identify relevant policy implications for developing Asia. According to our analysis, the one policy that stands out as a driver of both rapid economic growth and more equal income distribution is large and systematic investments in public education. The broader positive lesson from the Korean experience is that growth and inequality do not necessarily go hand in hand, and government policy can make a difference.

Keywords: Growth, growth policy, inequality, Asia, Korea.

JEL Classification: D30, O40, O43

[#] Corresponding author, Department of International Trade and Business, Kangwon National University, Chuncheon, 200-701, South Korea. Phone: +82-33-250-6186; Fax: +82-33-256-4088; Email: hhlee@kangwon.ac.kr.

^{*} We are grateful to Donna Yoo, Hyung-suk Byun and Suejin Lee for their excellent research assistance. We thank participants of the Forum on Equalizing Opportunities for Inclusive Growth, held at the Asian Development Bank, Manila, on 7-8 December 2011, for their comments.

[§] Economics and Research Department, Asian Development Bank, 6 ADB Avenue, Mandaluyong City, Metro Manila, PHILIPPINES 1550, mlee@adb.org

[†] Economics and Research Department, Asian Development Bank, 6 ADB Avenue, Mandaluyong City, Metro Manila, PHILIPPINES 1550, dpark@adb.org

1. Introduction

Growth policy refers to the various government policies which influence the economic growth of a country. Some of those policies are explicitly geared toward promoting growth while other policies impinge upon growth even though they serve other objectives. Growth strategy refers to a country's constellation of policies which directly and indirectly affect economic growth. While the central objective of growth strategy is to foster growth, it inevitably has ramifications for inequality. For example, in many developing countries the government pursued policies which favored the urban sector at the expense of the rural sector. In the case of developing Asia, up to now the top priority of policymakers has been to achieve the highest possible growth. Growth strategy focused almost entirely on its central objective – i.e. maximizing economic growth – with little explicit consideration of how the growth strategy would affect inequality. In light of the region's very low initial income level and grinding poverty, expanding the size of the pie was understandably a much more urgent and immediate priority than dividing up the pie equitably.

More recently, however, there is a growing recognition among developing Asia's policymakers that sustainable growth requires including the largest possible segment of the population in the economic growth process. Sustainable growth also requires spreading the fruits of growth to as much of the population as possible. Thus was born the concept of inclusive growth, which has direct and far-reaching implications for growth strategy. Up to now, developing Asia's growth strategies implicitly assumed that the fruits of growth would eventually trickle down to the poor. The region's exceptionally rapid growth meant that large parts of the population experienced visible improvements in their material well-being. However, there is now a growing popular unhappiness at what is perceived to be a persistently wide income gap between the rich and the rest. To some extent, the new public mood is a natural consequence of the region's turning from a poor region to a middle income region. Policymakers are aware of the increasingly vocal popular demand for more equality.

Notwithstanding developing Asia's sustained rapid growth, the region remains far behind the advanced economies in per capita income. Furthermore, the region still

remains home to over 60 percent of the world's poor. International historical experience shows that poverty reduction on a meaningful scale and speed requires sustained rapid growth. Therefore, while spreading the fruits of growth entails at least some redistribution of income, the region needs to maintain high growth rates in order to continue to lift living standards and fight poverty. The fundamental challenge for Asian policymakers is to sustain growth while tackling inequality. In this context, the experiences of Korea, which has managed to combine rapid growth with moderate inequality, hold potentially valuable lessons for the rest of Asia. Indeed Korea has been one of the least unequal developing countries in Asia. The central objective of this paper is to analyze the relationship between growth policies and inequality during Korea's growth process. The analysis will allow us to identify the dimensions of the Korean growth experience which may be relevant for Asia in its quest for growth with equity.

The rest of this paper is organized as follows. Section 2 reviews major trends in Korea's economic development over time. Section 3 looks at the evolution of Korea's economic and social development policies through various governments. Section 4 evaluates the effects of growth policies which have a potentially large effect on inequality, namely education and labor market policies. Section 5 concludes the paper.

2. Major Trends in Korea's Economic Development

During the transformational period of 1960s–1980s, when very rapid growth transformed Korea from a stagnant low income country into a dynamic industrial powerhouse, Korea enjoyed sustained high economic growth with relatively equal income distribution. In this section, we briefly review the trends of key indicators of Korea's economic development, in particular income and inequality, over time.

Over the past fifty years since 1960, Korea transformed itself from one of the poorest countries in the world to a major industrial nation. Such a remarkable performance was indeed an economic miracle since the economy grew at an almost unprecedented pace (Harvie & Lee, 2003). Table 1 summarizes the trends of some key

indicators of Korea's economic development. As the table shows, Korea enjoyed very fast economic growth rates until the onset of the Asian financial crisis in 1997-1998. Korea's GDP per capita surpassed US\$ 10,000 by 1995. However, due to GDP contraction and the weakening of the Korean won during the financial crisis, Korea's GDP per capita declined to below US\$ 8,000 in 1998.

In the immediate aftermath of the crisis, on the basis of the IMF program, the Korean government implemented extensive structural reforms to correct structural problems. The reforms were carried out in the corporate, financial, and labor sectors in order to promote transparency, efficiency, and flexibility. In 1999, the Korean economy staged a V-shaped recovery and the growth rate reached 9.5 percent. In the 2000s, the real GDP growth rate slowed down compared to the high growth rates in the 1990s. Although it reached 7.2 percent in 2002, the real GDP growth rate was at best slightly above 5 percent throughout the 2000s. In 2007, Korea's GDP per capita surpassed US\$20,000. However, the global financial crisis and the subsequent weakening of Korean won reduced Korea's GDP per capita to below US\$ 20,000 in 2008 although it surpassed US\$ 20,000 again in 2010.

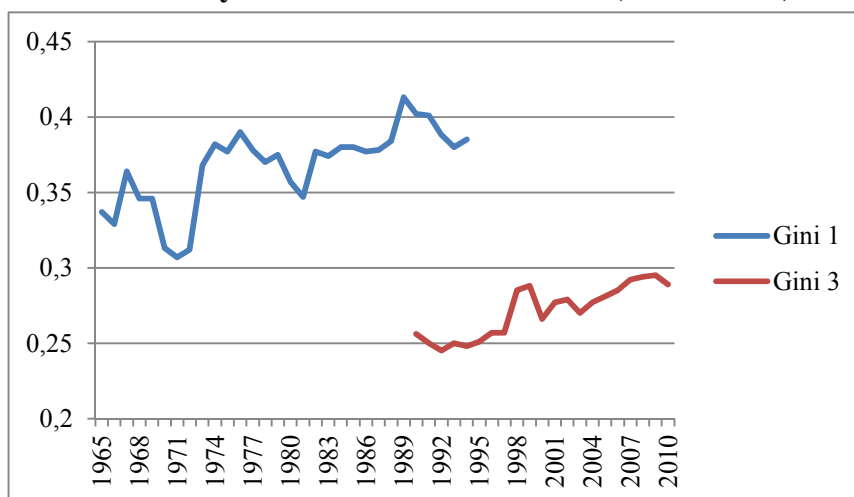
Inflation rates have remained at reasonably low except for the period of mid 1970s to early 1980s when global oil shocks caused a sharp surge in oil prices. Unemployment rate generally remained very low, usually below 3 percent, until the Asian crisis. Unemployment rate temporarily shot up to 7 percent in 1998 but since 2000 it fell again, to below 4 percent. Unemployment rate did increase somewhat in the 2000s, to around 3 percent, slightly above the 2 percent of the 1990s.

Korea's remarkable economic performance was referred to as Korea's miracle or Han River Miracle not only because Korea grew very fast but also because during the period of fast economic growth, income distribution stayed relatively equal. Indeed Korea's true miracle is that exceptionally rapid growth occurred without a visible deterioration of inequality. World Bank (1993; 2004) and OECD (2011) praise Korea as an exceptional success story in achieving "growth with equity", and thus contradicting the Kuznets' inverted U hypothesis. Korea's official Gini coefficient (Gini 2 in Table 1.) shows there was no significant change in income distribution during

the period between 1965 and 1993.¹ In fact, income distribution improved between the mid-1960s and the early 1970s but worsened in the mid 1970s, before it steadily improved in the 1980s. Gini coefficient calculated by Ahn (1997) (Gini 1 in Table 1 and Figure 1) show that Korea's income deteriorated in the mid 1970s and again in the late 1980s, albeit by relatively modest margins.² Thus, the stylized facts confirm that Korea's income distribution has improved or at least has not consistently deteriorated up until the early 1990s (Kang, 2001).

However, Korea's income inequality in terms of Gini Coefficient has worsened since 1998 when the post-Asian crisis structural reforms were implemented. Korea is thus becoming more unequal than it used to be and discontent is rising about inequality, producing growing disenchantment with the main political parties (The Economist, 2011). Regional disparities and polarization have also been a major concern for Korea. In particular, during the rapid period of industrialization, the Seoul area has attracted the lion's share of the nation's human resources and investment. Indeed promoting the growth of areas outside Seoul remains a policy priority even today in light of the imbalance between Seoul and the rest of the country. Furthermore, rural areas lag urban areas and some provinces are richer than others.

Figure 1. Relative Poverty Ratio and Gini Coefficient (1990 – 2008)



Notes: Gini 1 is taken from Ahn (1992)'s time series data until 1981 and Ahn (1995)'s since 1982; and Gini 3 is taken from Korean Statistical Information Service.

¹ There are no reliable data to infer overall income distribution of Korea until 1964.

² Ahn (1997) argues that income distribution in Korea deteriorated in the late 1980s, largely due to the high rise of real estate price, which also caused prevalent sense of relative deprivation. Indeed, as Leipziger, *et al.* (1992) note, income distribution data may yield a biased view of the equity situation as it fail to capture accurately the gains from land and real estate holdings.

Table 1. Overall Economic Performance

Indicator	GDP per capita	GDP growth	Inflation*	Gini 1**	Gini 2***	Gini 3****
Unit	Current US\$	Annual, %	Annual, %			
1960	155					
1961	92	4,9				
1962	104	2,5				
1963	142	9,5				
1964	121	7,6				
1965	106	5,2		0,337	0,344	
1966	130	12,7	11,3	0,329		
1967	157	6,1	10,9	0,364		
1968	195	11,7	10,8	0,346		
1969	239	14,1	12,4	0,346		
1970	279	8,3	16,0	0,313	0,332	
1971	302	8,2	13,5	0,307		
1972	323	4,5	11,7	0,312		
1973	403	12,0	3,2	0,368		
1974	556	7,2	24,3	0,382		
1975	608	5,9	25,3	0,377		
1976	824	10,6	15,3	0,39	0,391	
1977	1.042	10,0	10,1	0,378		
1978	1.383	9,3	14,5	0,37		
1979	1.747	6,8	18,3	0,375		
1980	1.674	-1,5	28,7	0,357		
1981	1.846	6,2	21,4	0,347		
1982	1.938	7,3	7,2	0,377	0,357	
1983	2.118	10,8	3,4	0,374		
1984	2.307	8,1	2,3	0,38		
1985	2.368	6,8	2,5	0,38		
1986	2.703	10,6	2,8	0,377	0,337	
1987	3.368	11,1	3,0	0,378		
1988	4.466	10,6	7,1	0,384		
1989	5.438	6,7	5,7	0,413		
1990	6.153	9,2	8,6	0,402	0,332	0,256
1991	7.123	9,4	9,3	0,401		0,250
1992	7.555	5,9	6,2	0,388		0,245
1993	8.220	6,1	4,8	0,38	0,31	0,250
1994	9.525	8,5	6,3	0,385		0,248
1995	11.468	9,2	4,5			0,251
1996	12.249	7,0	4,9			0,257
1997	11.235	4,7	4,4			0,257
1998	7.463	-6,9	7,5			0,285
1999	9.554	9,5	0,8			0,288

Indicator	GDP per capita	GDP growth	Inflation*	Gini 1**	Gini 2***	Gini 3****
Unit	Current US\$	Annual, %	Annual, %			
2000	11.347	8,5	2,3			0,266
2001	10.655	4,0	4,1			0,277
2002	12.094	7,2	2,8			0,279
2003	13.451	2,8	3,5			0,270
2004	15.029	4,6	3,6			0,277
2005	17.551	4,0	2,8			0,281
2006	19.707	5,2	2,2			0,285
2007	21.653	5,1	2,5			0,292
2008	19.162	2,3	4,7			0,294
2009	17.110	0,3	2,8			0,295
2010	20.757	6,2	3,0			0,289

Notes: * Consumer price index

** Ahn (1992)'s time series data until 1981 and Ahn (1995)'s since 1982.

*** The figures of the years 1965, 1970, 1976, 1982, and 1990 are from Choo and Kim (1978), Choo and Yoon (1984), and Choo (1993); those of the years 1980, 1985, 1988 and 1993 are from the Social Statistical Survey.

**** Korean Statistical Information Service.

Sources: GDP per capita and GDP growth rates are taken from World Bank's World Development Indicators; Inflation rates are taken from Bank of Korea's Economic Statistics System; and Gini coefficients are taken from various sources as explained in "Notes".

3. General Overview of Korea's Economic and Social Development Policies

Korea has undergone seven political regimes since 1961. Each regime placed different relative emphasis on economic growth versus social welfare, in response to various political and economic forces. In terms of the degree of political freedom, the seven political regimes can be categorized into three different periods. Each of the three different periods also differs from the others in terms of welfare policies, as summarized by Table 2.

Table 2. The Development of Welfare Policies

Periods	Regime	Economic policies	Welfare policies
Authoritarian dictatorship	Park Jung-hee (1961-1979) Chun Doo-hwan (1980-1987)	Exported oriented Industrialization (Government dominant growth strategy)	Growth First, Distribution Later (Developmental Welfare State or Minimalist Welfare State)
Democratization	Roh Tae-woo (1988-1992) Kim Young-sam (1993-1997)		Transition period
Democratic government	Kim Dae-jung (1998-2002) Noh Mu-hyun (2003-2007) Lee Myung-bak (2008-present)	Globalization and post-industrialization (balance between growth and distribution)	Productive Welfare Participatory Welfare Active Welfare

Source: Constructed by the authors.

3.1. Authoritarian Dictatorship and ‘Growth First, Distribution Later’: 1961-1987

After 35 years of harsh Japanese colonial rule – 1910-1945- and the devastating Korean War of 1950-1953, Korea could finally take its first steps toward modernization and development. The Republic of Korea was founded in 1948 and Korea was one of the poorest countries in the world, suffering from serious poverty. Hence, economic development was the overarching priority concern for the country’s authoritarian regimes in the 1960s, 1970s and 1980s. The Park Chung-Hee regime of the 1960s advocated “liberation from poverty” and pursued export oriented industrialization, and distribution and welfare issues were neglected even though many social welfare related laws were legislated (Choi & Kwon, 1997).

The Korean authoritarian dictatorship regimes, Park Jung-hee (1961-1979) and Chun Doo-hwan (1980-1988), put emphasis on economic growth and industrialization on the basis of state-led growth strategies. The Korean economy grew exceptionally fast during this period of ‘Growth First, Distribution Later’. Major features of the growth strategy included strong regulatory system and limited income redistribution (Chan, 2006). The welfare system during this time period is often called the Developmental Welfare State or the Minimalist Welfare State. However, despite limited welfare system, income inequality was tolerable. Indeed, income equity in

terms of Gini Coefficient remained at a reasonable rate during the period of rapid economic development until mid 1990s, as shown in Table 1.

As a matter of fact, Korea has been one of the least unequal developing countries during this time period. This is quite remarkable because welfare policy was not explicitly used to reduce inequality during this period. World Bank (2004) and Choi & Kwon (1997) describe that because of land reform carried out in the late 1940s and total destruction of industrial assets during the Korean War (1950-1953), Korea was equalized at the very beginning of its growth process in terms of income and wealth. In addition, an outward-oriented growth strategy based on labor-intensive manufacturing boosted employment and wages and helped to spread the benefits of growth widely throughout the population (Leipziger *et al.*, 1992). During this period the rapid expansion and improvement of primary and secondary education also contributed to a more equal income distribution, even though the primary goals of the educational policy was not to reduce income inequality but to promote income growth (Jung, 1992; Choi & Kwon, 1997; and Kang, 2001). Indeed, as Lee (1997) shows, Korea accumulated a stock of well-educated work-force at an exceptionally rapid pace. Korea's high level of education contributed not only to its rapid economic growth but also to a more equitable income distribution. With at least basic education available to the entire population, most Koreans were able to take part in the industrialization process and enjoy the fruits of rapid growth.

Kang (2001) suggests that a fast economic growth accompanied by a low unemployment rate and an increased supply of highly educated labor tended to improve Korea's income distribution. OECD (2011) commends Korea as a special case of economic growth accompanied by social progress, resulting in a virtuous circle of rising living standards for an increasingly healthy and well-educated labor force, which led to further productivity increases.

Choi and Kwon (1997) suggest that high mobility between social classes owed partly to Korea's ethnic and cultural homogeneity. Such high mobility, in turn, nurtured a more equitable distribution of income. On the other hand, prior to the labor market reform implemented in 1998 as part of the IMF's bailout program, the Korean government had strongly protected workers by not allowing lay-offs and putting severe restrictions on firing workers, but it is not clear whether these policies helped to

increase or reduce the income inequality (Kang, 2001).

A widening regional gap might be inevitable in the earlier period of economic growth, but such regional disparities can eventually hinder economic growth not only because of the inefficient allocation of resources and investment but also because of regional unrest. Therefore, policy measures to narrow regional disparities are also urgently needed. Korea's Saemaul Undong – i.e. New Village Movement – which was a community-based integrated rural development program during the 1970s, also contributed to narrowing the developmental gap between urban cities and rural communities (Park, 2009). As discussed above, the Korean government's growth strategy centered on export-oriented industrialization. The growth strategy was spectacularly in raising economic growth and lifting general living standards but resulted in a widening gap between cities and rural areas. In order to mitigate the gap, the Korean government initiated Saemaul Undong, hoping to raise rural living standard toward those of the cities. The major objectives of Saemaul Undong were (1) income generation, (b) living environment and basic rural infrastructure improvement, and (3) capacity-building and attitudinal change (Park, 2009). Even though this government-initiated movement generated a lot of skepticism, it did bring about some success in rural development and helped the rural community generate not only farm-based income but also nonfarm income, thereby contributing to a relatively equitable distribution of income between urban and rural areas.

3.2. Democratization and Social Development: 1988 - 1997

When Korea became a middle-income country, workers and the poor began to demand for democracy and a greater share of the vastly expanded pie. For example, 3,749 strikes involving 1.26 million participants occurred in the second half of 1987 alone (Shin, 2008). Democracy took root with the successful struggle for democracy in 1987. During the period of transition from authoritarianism to democracy, worker's strikes erupted across nation. The major goal of labor strikes was wage increase and freedom to organize unions. Roh Tae-woo government (1988-1992) at last yielded to the rising social pressures, and enacted a minimum wage law and implemented a national pension program for private sector workers. The Kim Young-sam government (1993-1997) introduced an unemployment social insurance scheme, and extended the

national pension program to farmers and fishermen. Even though many welfare policies and schemes were introduced, the degree of social welfare in Korea was still markedly lower than in the advanced countries. Nevertheless, 1988-1997 marks a transition period from authoritarianism and autocracy to pluralism and democracy. As might be expected, the government began to pay closer attention to income distribution and poverty issues during this transition period.

3.3. Democratic Government and the Balance between Growth and Distribution (1998 – Present)

In this sub-section, we review the efforts of three administrations during Korea's democratic era to foster more inclusive growth.

3.3.1. Kim Dae-jung Administration (1998-2002) and 'Productive Welfare Initiative'

After a long period of rapid economic growth, Korea suddenly ran into a financial crisis in late 1997. The financial crisis in 1997 was a turning point for Korea in terms of the expansion of social welfare system. Many companies carried out massive corporate restructuring to retain their competitiveness, and this led to an unprecedentedly high rate of unemployment. The government needed to urgently address the surge in unemployment and poverty rate. While the Kim Dae-jung Administration implemented neo-liberal economic reform package prescribed by the IMF bail-out program, the government also paid a lot of attention to inclusive and equitable measures to handle its side-effects. The Kim Dae-jung Administration brought out a new model of welfare system called "Productive Welfare" and dealt with the increased demand for social welfare during and after the crisis. According to World Bank (2004), "Productive Welfare" was an ideology that sought to secure minimum living standards for all low-income households, by providing human resource development programs to support self-reliance of the poor and by expanding the coverage of social insurance to all people.

Presidential Committee on Social Inclusion adopted 6 specific strategies of Productive Welfare: (1) National Basic Livelihood Security Act and four major social insurance programs, (2) job security through job creation and human capital development, (3) self-reliance programs, (4) community-based public-private cooperation, (5) realization of industrial democracy, and (6) expansion of welfare

budget. Broadly, the policies can be divided in to two main categories – i.e. social security programs and labor market policies.

Social Security Programs

Four major social insurance programs were expanded to cover the marginal sector of the population. The Employment Insurance System was initially limited to companies with more than 30 employees. In 1998, the coverage was expanded to all companies even with small number of employees, temporary workers, and part-time workers. In 1999, the National Pension Scheme was expanded to include the urban self-employed, farmers, and fishermen. In 2000, several independent and inefficient health insurance schemes were consolidated into a single National Health Insurance System and the Industrial Injury Insurance System was extended to all workplaces including small business employees.

Meanwhile, National Basic Livelihood Security Act (NBLSA) was enacted in 2000. The NBLSA aimed to guarantee minimum living standards to all low income families with incomes below the official poverty line. It was a replacement of the Livelihood Protection Act which excluded the population capable of working. Therefore, low-income workers also became eligible for monthly benefits and the number of beneficiaries for livelihood assistance tripled from 0.54 million to 1.52 million

Labor Market Policies

One of the most significant changes that were made in the labor market policies was the decision-making process. A tripartite committee comprising the representatives of government, business, and labor was established in ordered to form a social consensus on the reform policies. Kwon (2002) notes that the committee was a big step forward in that employers and employees were able to share their opinions on an equal footing. Furthermore, the national trade unions which were excluded from the decision-making process for a long time were finally brought to the negotiating table to represent diverse views of labor. The committee was able to sign a social pact on 98 measures, including social policy programs for unemployment and labor rights. The tripartite committee agreed on introducing a package of social policy, the ‘Master Plan for Tackling Unemployment’, to deal with unemployment and protect those made redundant (Kwon,

2002).

3.3.2. *Roh Mu-hyun Administration (2003-2007) and 'Participatory Welfare Initiative'*

The Roh Mu-hyun Administration shared with the Kim Dae-jung Administration many of the political principles but proposed a different welfare scheme called "Participatory Welfare Initiative." While Productive Welfare focused more on reducing absolute poverty and unemployment in the wake of the 1997-1998 crisis, Participatory Welfare Initiative placed more weight on relative poverty and social polarization. The issue of social polarization has caught much attention, partly as a result of the liberalizations and reforms in the wake of the crisis of 1997-98. Polarization was reflected in widening income gap between regular and irregular workers, between workers in large companies and small and medium-sized enterprises (SMEs), and between income classes (Chan, 2006).

The Participatory Welfare Initiative aimed to (1) develop a full-fledged national health care system, (2) promote national welfare with focus on guaranteeing minimum livelihood, childcare, and support for senior citizens and the handicapped and (3) create a prosperous and stable society. It also aimed to (4) foster a society of balanced development between economic growth and distribution, different regions, different classes, labor and management; and (5) promote sustainable development and gender equality.

At a broader level, the Participatory Welfare Initiative was a continuation of the Productive Welfare Initiative, with the addition of new measures to promote equality, inclusion and greater protection, especially for groups such as women, elderly, children, and irregular workers who were previously neglected (Chan, 2006). But there was a more urgent need to start addressing the problems arising from rapid population aging. In response, the Roh Mu-hyun Administration proposed measures to stabilize child birth rate, family-work balance policies, and work for the elderly. The Roh Administration also promoted gender equality by establishing fair and transparent institutions such as Gender Discrimination Improvement Commission and National Human Rights Commission. The Roh Administration promoted elderly employment by expanding the list of occupations in the Aged Employment Promotion Act preferentially assigned to the elderly, from 70 categories to 160 categories in 2003. Foreign worker permit system

was adopted in 2005 to protect the rights of foreign workers and to facilitate SMEs' recruitment of workers.

3.3.3. *Lee Myung-bak Administration (2008 - present) and 'Active Welfare Initiative'*

Compared to Kim Dae-jung and Roh Mu-hyun Administrations, the Lee Myung-bak Administration is conservative and claims to support business-friendly policies and tax reduction. Therefore, the welfare system of the Lee Administration is based on market-based policies. Lee Administration coined many notions such as 'Shared Growth', 'Fair Society' and 'Symbiosis Society' to define its welfare policies, but they can be summarized into 'Active Welfare'.

Lee Administration advocated "Active Welfare", which aimed for 'welfare through work'. Active Welfare is a market-friendly welfare system that tries to transfer welfare beneficiaries or pre-beneficiaries to the labor market. Kim (2011) describes Active Welfare as a welfare system that raises social productivity as opposed to a passive consumption-centered welfare system. For example, the Sunshine Loan Program and Smile Microcredit Program seek to increase the self-reliance of the poor by providing loans. *Bogumjari* Housing program encourages the purchase of housing through long-term savings, rather than rental public housing. Therefore, the objectives of 'Active Welfare' are similar to those of 'Inclusive Growth' in that both seek growth with equity.

As of 2009, with 3,066,484 firms, the small and medium-sized enterprises (SMEs) accounts for 99.9 percent of total firms in Korea. The SMEs also account for the lion's share of Korea's total employment: 87.7 percent. However, in terms of value added, the share of the SMEs stood at only 50.5 percent. There is thus a huge productivity gap between Korea's export-oriented large size firms, known as *chaebols*, and SMEs. In 2010, Commission on Shared Growth for large corporations and small and medium enterprises was established to promote the balanced competitiveness of the Korean economy through conflict resolution, discussion, and mutual agreement between large and small companies. The Commission is in charge of profit sharing system, appropriate selection of businesses and products for small and mid-sized companies, announcement of shared growth indexes, evaluation of public institutions, and expansion of the shared growth culture via forums and rewards. In addition, Fair Subcontract Transaction Act was amended in 2011 to grant Korea Federation of Small

and Medium Business the right to request adjustments in delivery prices, and imposes punitive damages for violating the Fair Subcontract Transaction Act, such as theft of SME technologies by large companies.

4. Evaluation of Education and Labor Market Policies

Spreading the fruits of growth to the broadest swathe of the population requires at least some redistribution from the richer groups to the poorer groups. In fact, many developing Asian countries have already begun to strengthen their social protection systems, and expand and improve social safety nets for the poor and the vulnerable. However, in light of the region's still-low income levels, the region still needs to maintain high growth rates in order to continue to reduce poverty on a meaningful scale and speed. In contrast to the advanced economies, which can strategically afford a significantly lower growth rate in exchange for significantly greater equality, developing Asia has not yet achieved income levels which permit such a trade-off. Therefore, the more fundamental challenge for the region is to sustain growth while, at the same time, tackling inequality. Put differently, the region must continue to vigorously expand the size of the divide even while it seeks to divide up the pie more equitably. Therefore, devising and implementing a growth strategy which delivers both growth and equity holds the key to ensuring politically and socially sustainable growth in the post-crisis period. Political and social stability implies that a slightly lower growth rate in exchange for more equity and inclusions is not only desirable but necessary for growth. The two cornerstones of such a growth strategy are equal access to education and equal access to employment, which jointly constitute the core of equality of opportunity. A society in which most of the population has access to education and employment opportunities stands the best chance of achieving both growth and equity.

Therefore, this section evaluates Korea's growth policies which have a potentially large effect on inequality, namely education and labor market policies.

4.1. Education Policies

(1) Equal Opportunity in Education

Article 31 of the Constitution of Korea stipulates that every citizen shall have a right to receive education according to his or her ability and aptitude, and mandates all citizens to have their children receive compulsory primary and secondary education. In accordance with the Constitution, Article 4 of the Framework Act on Education stipulates that there shall be an equal opportunity of education for all, and no citizen shall be discriminated against in education for reasons of sex, religion, faith, social standing, economic status or physical conditions.

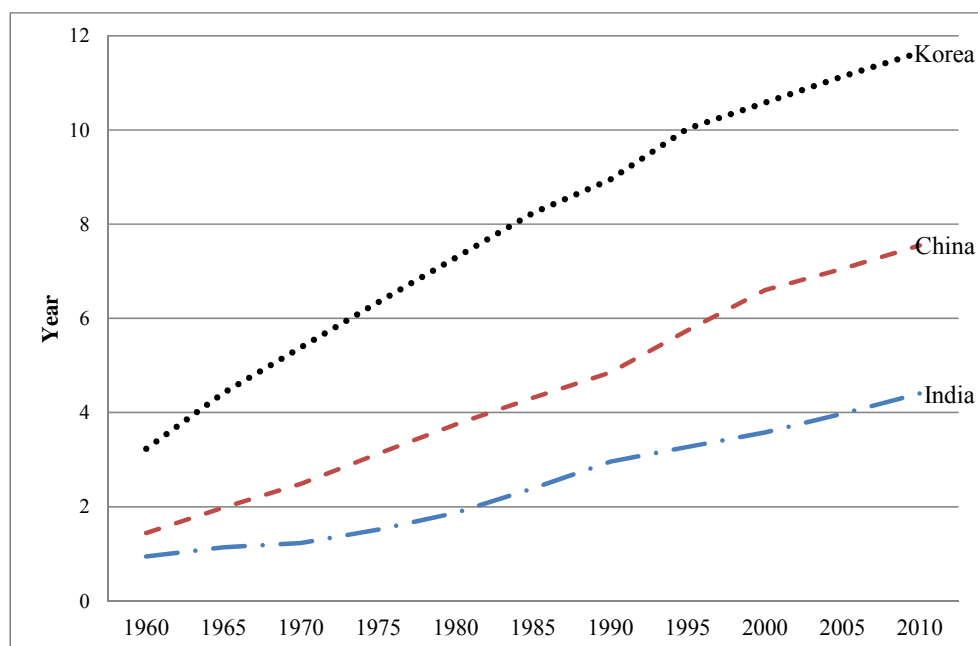
Various policies have been established and implemented to support universal education. The concept of 'inclusive education' has been widely understood as policies ensuring educational access at regular schools for students with disabilities (Kim, 2007). In particular, for low-income families, the Korean government has been implementing a "Master Plan to Assist Regions that Require Priority Investment in Educational Welfare". Priority regions with many low income families are to receive concentrated support for education. Under this plan, the government supports the students in the most needy areas with orientation and psychotherapy programs, meal provision, health education, after-school voucher program, and edu-care for infants and children under age 6, in an integrated manner.

For college students, a new income-contingent student loan program, "Study-Now-Pay-Later program" was introduced in January 2010. The loans are available to students from households in the three lowest income deciles. The loans can cover annual tuition fees plus two million Korean won in living expenses per year. The interest rate has been set lower than market rates. Students make no payments during the study period and are required to pay back interest and principal in installments spread over a maximum of 25 years after their annual earning reaches 16 million won.

Figure 2 shows that the average year of schooling is far greater in Korea than in China and India. In addition, as Figure 3 shows, the average year of schooling for females in Korea is higher than for males in both China and India, even though it is slightly below that for male in Korea. Indeed, Korea's rapid economic growth was accompanied by extensive investment in human resources. Public and private expenditure on education regularly exceeded 10 percent of GDP, the highest among all

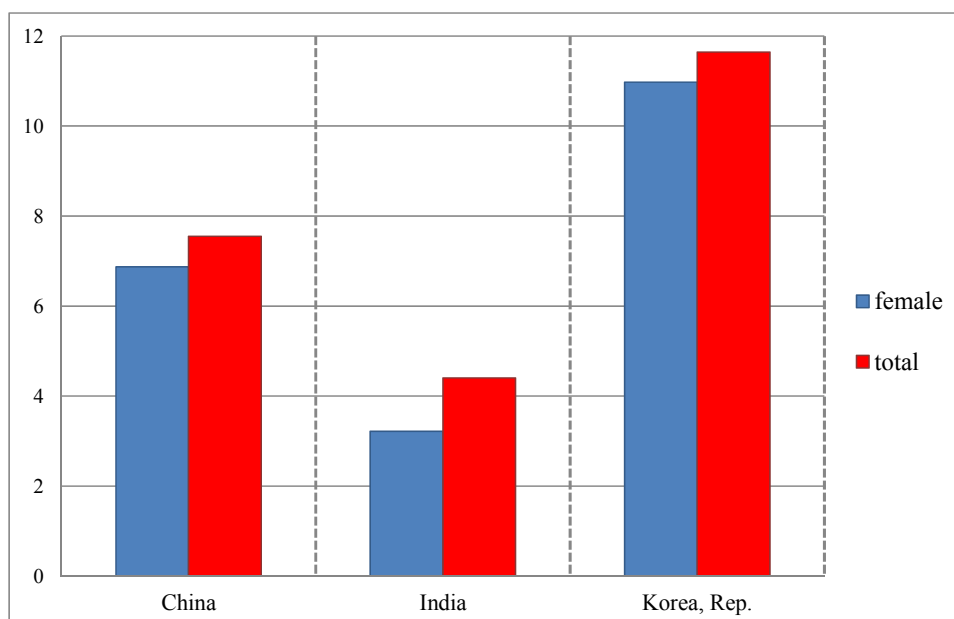
developing countries and this investment in education contributed to greater income equality (OECD, 2011). Therefore, heavy investments in education was a major factor behind Korea's achievement of growth with equity.

Figure 2. Average Year of Total Schooling (1960-2010)



Source: Barro, R. and J. W. Lee, Educational Attainment Dataset (<http://www.barrolee.com>).

Figure 3. Average Year of Total Schooling for Females and Males (2010)



Source: Barro, R. and J. W. Lee, Educational Attainment Dataset (<http://www.barrolee.com>).

(2) Vocational Education and Training (VET) and Life-long Education

VET takes place at some high schools and tertiary institutions. It also encompasses a range of measures aiming to provide vocational training to the adult population, including training for employees, the unemployed and those who are outside the labor market. However, vocational high schools have been perceived as inferior to regular high schools which aim to educate students for college entrance. In fact, many students from vocational high schools seek to enter college instead of finding jobs after graduation.

The Lee Myung-bak Administration made a concerted effort to promote vocational education. Benchmarking job training schools in Germany, 21 Vocational Meister high schools opened in 2010. Meister high schools specialize in vocational education in fields such as shipbuilding, mechanical engineering, semiconductors and medical equipment. Students pay no tuition fees and are given the chance to get jobs right after graduation. The government plans to increase the number of such schools to 50.

Vocational training is mostly administered under the Ministry of Labor throughout vocational training centers.³ The Korean government has made available flexible options for citizens to become lifelong learners. Currently, there are nine cyber universities to make education more accessible. Furthermore, traditional universities offer open class, part-time registration, major-advanced, and special courses in order to provide more flexibility for working adults.

In 1997, the Credit Bank System was institutionalized to enable learners to gain credits through accredited courses and the opportunity to earn a degree. However, in Korea lifelong learning is viewed as a matter of individual choice. In comparison, other advanced countries use lifelong learning as a key strategy of national socio-economic development (Andrew, *et al.*, 2007). Overall, notwithstanding the government's efforts to foster lifelong education, education policy remains heavily centered on the youth, and the rate of adult participation in education is among the lowest in the OECD.

³ The Ministry of Agriculture and Forestry manages the agriculture technology at the Agriculture center, while fishery and maritime skills education is directed by the Maritime and Fisheries Affairs offices.

4.2. Labor Market Policies

(1) Labor Market Dualism

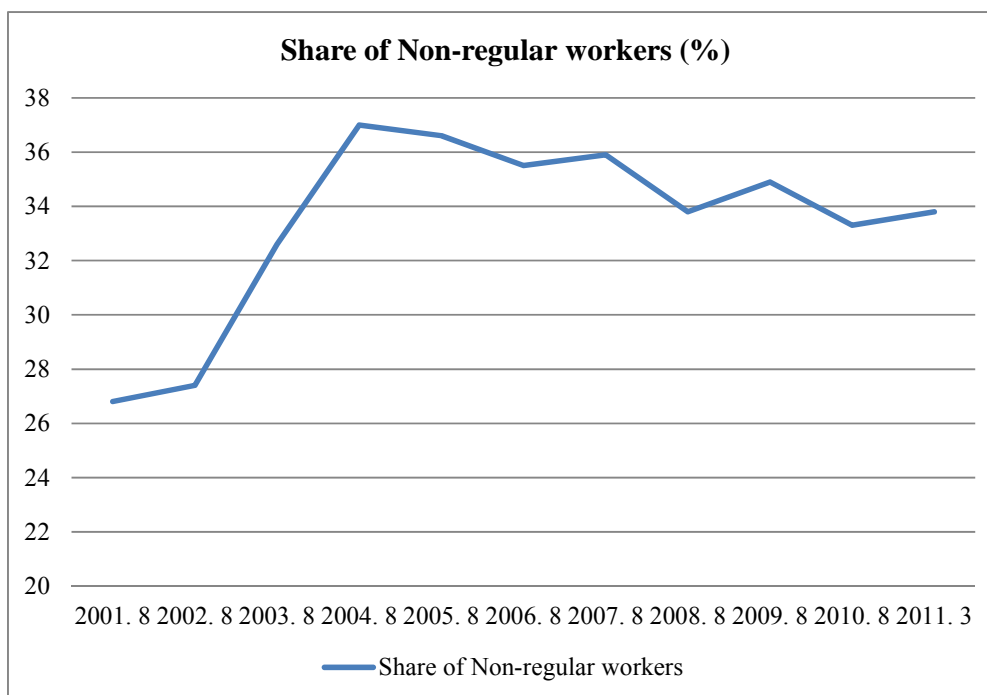
A major problem in the Korean labor market is the high degree of dualism. According to the official data released by the Ministry of Labor, the share of non-regular workers⁴ in total employment exceeds one-third (Figure 4). The largest category of non-regular employment is temporary workers, despite long-standing restrictions against fixed-term labor contracts.

The share of temporary workers was the second highest in the OECD in 2007 (Jones & Tsutsumi, 2009). The high proportion of temporary workers increases worker turnover and hence dilutes the incentives of firms to provide training. It also raises equity issues since non-regular workers face job insecurity, wage discrimination and weaker social protection.

The Korean government has announced a number of measures for non-regular workers. For instance, it has enacted a law to protect non-regular workers from “undue discrimination” and to avoid their “excessive use”. The government has also expanded active labor market policies for non-regular workers to improve their employability by providing vocational training. In addition, since July 2007, workers on fixed-term contracts are to be converted regular employees after two years of work. The Korean government has also taken steps to extend the social safety net to non-regular workers.

⁴ The Economic and Social Development Commission defines non-regular workers as: Contingent workers who have fixed-term contracts or who expect their work arrangement to have a limited duration for involuntary reasons, Part-time workers who work “fewer hours” than full-time workers, and Atypical workers including temporary agency workers (dispatched workers), individual contract workers (who work independently of the firm), home-based workers, on-call workers and other new forms of employment.

Figure 4. Share of Non-regular Workers (% , 2001.8 – 2011.3)



Source: Korea National Statistical Office.

However, OECD (2007) cautions that prohibiting discrimination against non-regular workers may subject firms to costly and time-consuming litigation that would discourage the employment of non-regular workers and lead to higher unemployment. One policy option for weakening the incentives of firms to hire non-regular workers is to relax employment protection for regular workers and broaden social insurance coverage of non-regular workers. This would mitigate labor market dualism and its negative effect on growth and equity.

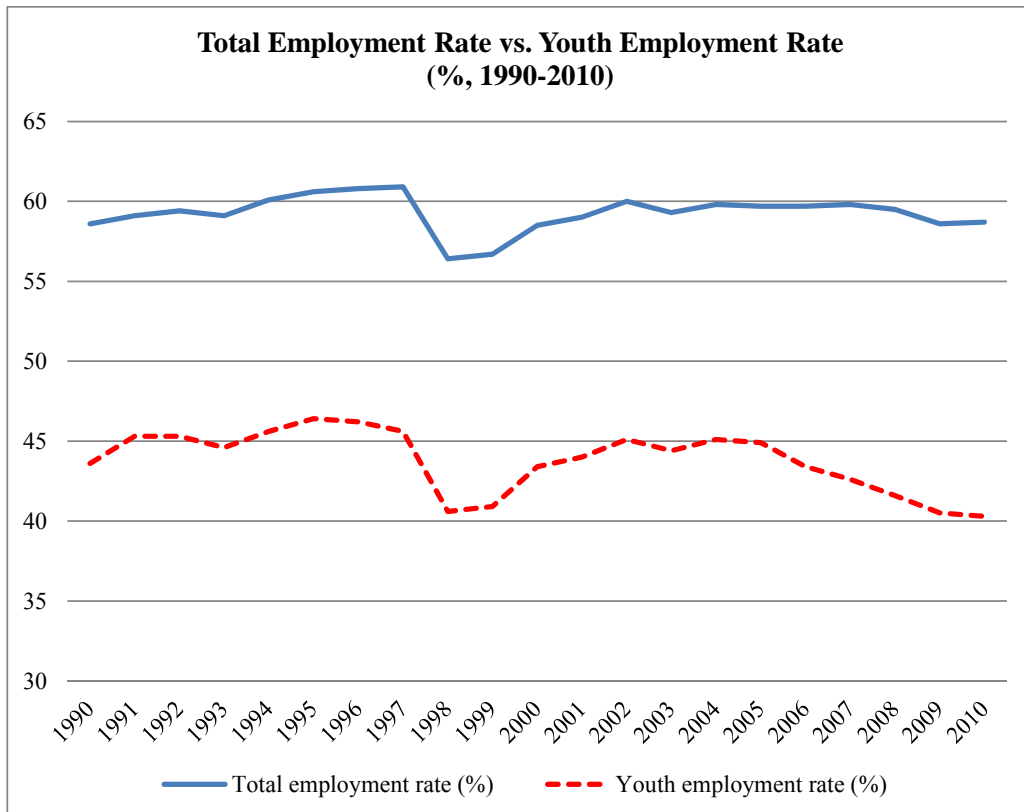
(2) Youth Employment

As Figure 5 and Figure 6 show, the low employment rate and high unemployment rate of the youth are another important issue related with inclusive growth in Korea. Indeed the employment rate for young men is the lowest in the OECD. This is explained to some extent by high enrolment in tertiary education and 2-year military service obligation for men. However, higher unemployment rate for youth is more difficult to explain. One possible explanation is that there is mismatch between the kind of jobs that the job seekers are looking for and the kind of workers that the firms are

looking for. For example, the youth with tertiary degree look for high-wage jobs, while there are only relatively few such jobs.

Public spending on active labor market policies for the youth has increased for direct job creation, training, employment subsidies, and job experience programs. However, a fragmented policy approach has made it difficult for youth to find the proper program, pushes up administrative costs, and complicates monitoring and evaluation (OECD, 2007). In 2008, the government introduced a more comprehensive and coordinated package of measures, known as the Youth Employment Service (YES), which sought to improve labor market opportunities for the youth. In 2011, it became the youth component of the Employment Service Package Program (ESPP), a broader employment support program targeting people with low incomes, youth who are less educated, and long term jobseekers.

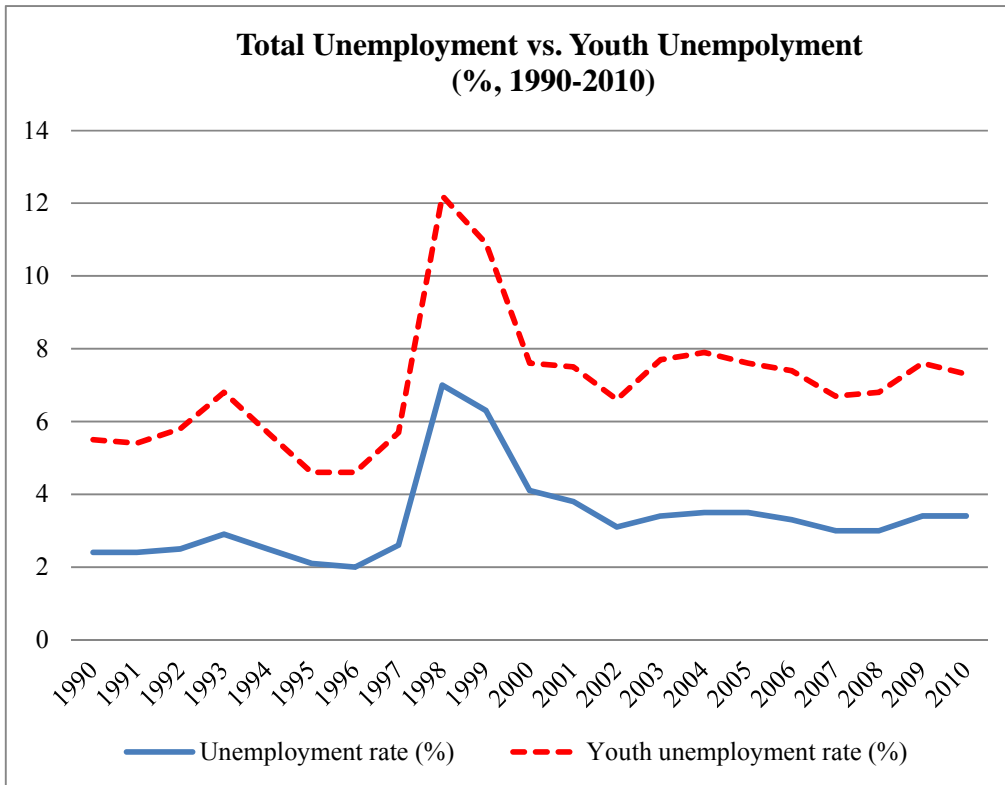
Figure 5. Total Employment Rate vs. Youth Employment rate (%)



Note: Youth is defined as the age group of 15-29.

Source: Korea National Statistical Office.

Figure 6. Total Unemployment Rate vs. Youth Unemployment Rate (%)



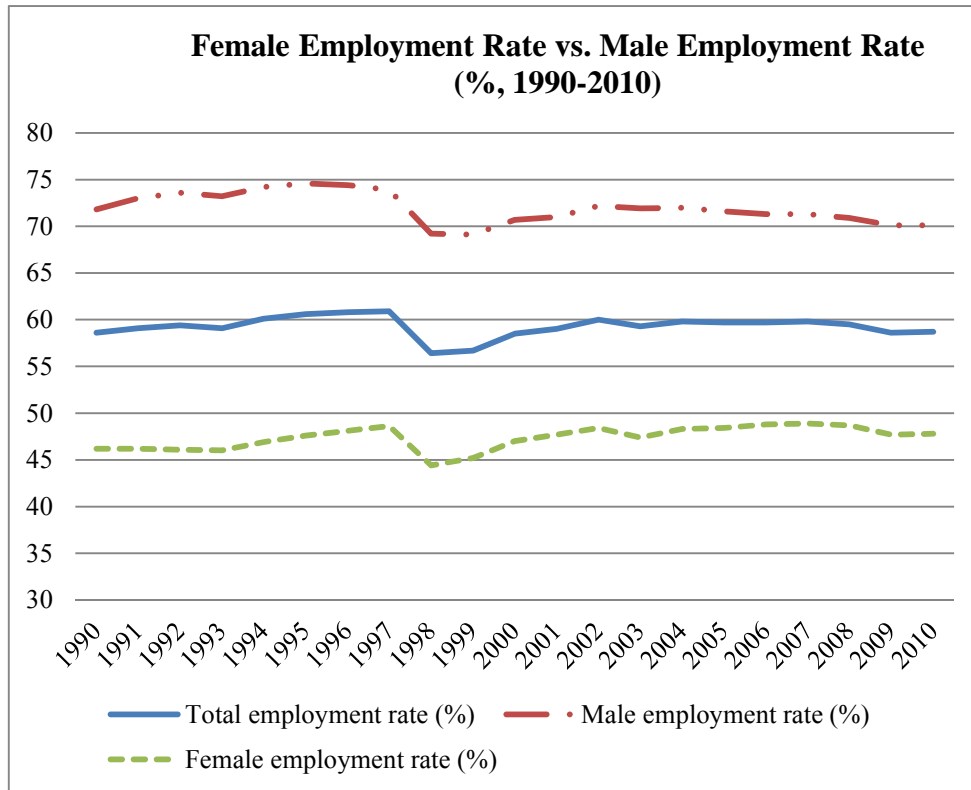
Note: Youth is defined as the age group of 15-29.

Source: Korea National Statistical Office.

(3) Female Employment

As Figure 7 shows, female employment in the Korean labor market is markedly lower than male employment. Indeed the employment rate and participation rate of women in the labor force is one of the lowest among OECD member countries. This is in large part because a significant share of women withdraws from the labor force at the time of marriage or childbirth. Boosting female employment would mitigate the negative impact of rapid population ageing on labor supply, and the Korean government has attempted various measures. These include alleviating the burden of bearing and caring for children, creating more family-friendly workplaces, lengthening parental leave, and increasing the availability of childcare. However, there is no sign yet of women's employment and participation rates rising, and hence there is a strong need for the Korean government to step up its efforts to boost female labor force participation.

Figure 7. Female Employment Rate vs. Male Employment Rate (%)



Source: Korea National Statistical Office.

5. Concluding Observations and Policy Implications

As developing Asia turns from a low income region to a largely middle income region, there is growing popular demand for political and social participation. Related to this, there is also an increasingly vocal demand for a more inclusive growth which includes as much of the population as possible in the growth process and spreads the fruits of growth to the entire population. In the past, growth strategies which are geared almost exclusively toward growth with little regard for equity helped to deliver rapid growth and poverty reduction. However, in light of the rising demand for more equality and inclusion, growth strategies will have to be adjusted if the region is to continue to enjoy the economic success it enjoyed prior to the global financial crisis. There is a growing recognition among the region's policymakers of the need to respond to the popular pressure for more inclusive growth. While there is some scope for

redistributive policies, in light of the region's still-low income levels and development gaps, a more fundamental solution lies in modifying the pattern of the growth process in a more inclusive direction.

In this context, the Korean growth experience holds potentially valuable lessons for developing Asia. Korea represents a special case of a country that has managed to combine rapid economic growth and moderate inequality levels. One policy that stands out as a major driver of both rapid economic growth and more equal income distribution is large and systematic investments in public education, especially at the primary and secondary levels. Although the primary goal of educational policy was to expand the stock of human capital and thereby promote economic growth, it had the important side-effect of containing income inequality. With basic education almost universally available, most Koreans were able to take part in and benefit from the industrialization process. In addition to a strong public education system, another noteworthy policy initiative which reduced inequality was Saemaul Undong (new village movement), a community-based integrated rural development program implemented during the 1970s. The program contributed to narrowing the developmental gap between urban and rural areas.

What is most relevant for developing Asia is Korea's experiences during its period of rapid growth prior to the Asian crisis since Korea's per capita income was approaching OECD level by 1997. The broader lesson which emerges from pre-crisis Korea is the importance of rapid growth in reducing inequality. Even without the benefit of explicit redistribution by the government, sustained fast growth lifted up everybody and thus kept inequality at tolerable levels. More specific policy lessons include a growth strategy which created lots of jobs for the young and large workforce, heavy public investment in the education system, and active government efforts to promote rural development. While these are sensible policies, they should be tailored to country-specific circumstances. The positive message from the Korean experience is that growth and inequality do not necessarily go hand in hand, and government policy can make a difference. Under a sound institutional and policy environment, it is possible for developing Asian countries to follow in Korea's footsteps in achieving growth with equity.

References

- Ahn, K. (1992), 'Review of Korea's Social Development', *The Korean Economy, 1945-95: Performance and Vision for the 21st Century*, The International Conference, Korea Development Institute.
- Ahn, K. (1995), 'Economic Development and Income Distribution in Korea', *Journal of Economic Development*, 1(1), Korea Development Economics Association, pp.53-76 (in Korean).
- Ahn, K. (1997), 'Trends in and Determinants of Income Distribution in Korea', *Journal of Economic Development*, 22(2), pp.27-56.
- Andrew, C., C. Howe, J. Kane and R. Mattison (2007), 'Dynamic Korea: Education Policies and Reform', *mimeo*.
- Chan, R. K. H. (2006), 'Participatory Welfare in South Korea: Meaning and Issues', Center for Asian Pacific Studies, *Working Paper Series* No.174.
- Choi, K. and S. Kwon (1997), 'Social Welfare and Distribution Policies', in Tcha, D., K. Kim and D. H. Perkins (eds.), *The Korean Economy 1945-1995: Performance and Vision for the 21st Century*, Seoul: Korea Development Institute.
- Choo, H. (1993), 'Income Distribution and Distributive Equity in Korea', in Krause, L. B. and F.-K. Park (eds.), *Social Issues in Korea: Korean and American Perspectives*, Seoul: Korea Development Institute.
- Choo, H. and D. Kim (1978), *Probable Size Distribution of Income in Korea: Over Time and by Sector*, Seoul: Korea Development Institute. (in Korean).
- Choo, H. and J. Yoon (1984), *Size Distribution of Income in Korea, 11982: Its Estimation and Sources of Change*, Seoul: Korea Development Institute. (in Korean).
- Economist, The (2011), 'South Korea's economy: What do you do when you reach the top?' November 12.
- Harvie, C. and H.-H. Lee (2003), *Korea's Economic Miracle – Fading or Reviving?*, London: Palgrave Macmillan.
- Jones, R. S. and M. Tsutsumi (2009), 'Sustaining Growth in Korea by Reforming the Labour Market and Improving the Education System', *OECD Economics Department Working Papers*, No. 672.
- Jung, J. H. (1992), 'Personal Income Distribution in Korea, 1963-1986: A Human Capital Approach', *Journal of Asian Economics*, 3(1), pp. 57-71.
- Kang, Seoghoon (2001), 'Globalization and Income Inequality in Korea: An Overview', in a *Technical Meeting on FDI, Human Capital and Education in Developing Countries*, OECD.
- Kim, K.-o. (2007), 'Inclusive Education in Korea', *Country paper for the Regional Preparatory Workshop on Inclusive Education*, UNESCO.

- Kim, Y.-s. (2011), *Size and Reality of Non-regular Workers*, Korea Institute for Labour and Society (in Korean).
- Kwon, H.-J. (2002), 'The Economic Crisis and the Politics of Welfare Reform in Korea', paper prepared for the UNRSID project on *Social Policy in a Development Context*, United Nations Research Institute for Social Development (UNRSID).
- Lee, J.-W. (1997), 'Economic Growth and Human Development in Korea', *Human Development Occasional papers*, HDOCPA-1997-02, United Nations Development Programme (UNDP).
- Leipziger, D. M., D. Dollar, A. F. Shorrocks, and S. Y. Song (1992), 'The Distribution of Income and Wealth in Korea', EDI Development Studies, Economic Development Institute of the World Bank.
- OECD (2007), *Economic Survey of Korea*, Organization for Economic Co-operation and Development.
- OECD (2011), *A Framework for Growth and Social Cohesion in Korea*, Organization for Economic Co-operation and Development.
- Park, Y. (2009), 'Analysis of Saemaul Undong: A Korean Rural Development Programme in the 1970s', *Asia-Pacific Development Journal* 16(2), pp.113-140.
- Shin, K.-y. (2008), 'The Development of Welfare Regime in South Korea', paper presented at *International Symposium on Globalization and the Future of East Asian Welfare Capitalism*, Taiwan.
- World Bank (1993), *The East Asian Miracle*, Oxford: Oxford University Press.
- World Bank (2004), 'Republic of Korea: Four Decades of Equitable Growth' *Working Paper*, No. 30781.
- Yoo, K. J. (2009), 'Trend of Korea's Poverty and its Determinants', *KDI Policy Forum*, No. 215. Korea Development Institute (in Korean).

ERIA Discussion Paper Series

No.	Author(s)	Title	Year
2012-13	Joshua AIZENMAN, Minsoo LEE, and Donghyun PARK	The Relationship between Structural Change and Inequality: A Conceptual Overview with Special Reference to Developing Asia	July 2012
2012-12	Hyun-Hoon LEE, Minsoo LEE, and Donghyun PARK	Growth Policy and Inequality in Developing Asia: Lessons from Korea	July 2012
2012-11	Cassey LEE	Knowledge Flows, Organization and Innovation: Firm-Level Evidence from Malaysia	June 2012
2012-10	Jacques MAIRESSE, Pierre MOHNEN, Yayun ZHAO, and Feng ZHEN	Globalization, Innovation and Productivity in Manufacturing Firms: A Study of Four Sectors of China	June 2012
2012-09	Ari KUNCORO	Globalization and Innovation in Indonesia: Evidence from Micro-Data on Medium and Large Manufacturing Establishments	June 2012
2012-08	Alfons PALANGKARAYA	The Link between Innovation and Export: Evidence from Australia's Small and Medium Enterprises	June 2012
2012-07	Chin Hee HAHN and Chang-Gyun PARK	Direction of Causality in Innovation-Exporting Linkage: Evidence on Korean Manufacturing	June 2012
2012-06	Keiko ITO	Source of Learning-by-Exporting Effects: Does Exporting Promote Innovation?	June 2012
2012-05	Rafaelita M. ALDABA	Trade Reforms, Competition, and Innovation in the Philippines	June 2012
2012-04	Toshiyuki MATSUURA and Kazunobu HAYAKAWA	The Role of Trade Costs in FDI Strategy of Heterogeneous Firms: Evidence from Japanese Firm-level Data	June 2012
2012-03	Kazunobu HAYAKAWA, Fukunari KIMURA, and Hyun-Hoon LEE	How Does Country Risk Matter for Foreign Direct Investment?	Feb 2012
2012-02	Ikumo ISONO, Satoru KUMAGAI, Fukunari KIMURA	Agglomeration and Dispersion in China and ASEAN: A Geographical Simulation Analysis	Jan 2012
2012-01	Mitsuyo ANDO and Fukunari KIMURA	How Did the Japanese Exports Respond to Two Crises in the International Production Network? : The Global Financial Crisis and the East Japan Earthquake	Jan 2012

2011-10	Tomohiro MACHIKITA and Yasushi UEKI	Interactive Learning-driven Innovation in Upstream-Downstream Relations: Evidence from Mutual Exchanges of Engineers in Developing Economies	Dec 2011
2011-09	Joseph D. ALBA, Wai-Mun CHIA, and Donghyun PARK	Foreign Output Shocks and Monetary Policy Regimes in Small Open Economies: A DSGE Evaluation of East Asia	Dec 2011
2011-08	Tomohiro MACHIKITA and Yasushi UEKI	Impacts of Incoming Knowledge on Product Innovation: Econometric Case Studies of Technology Transfer of Auto-related Industries in Developing Economies	Nov 2011
2011-07	Yanrui WU	Gas Market Integration: Global Trends and Implications for the EAS Region	Nov 2011
2011-06	Philip Andrews-SPEED	Energy Market Integration in East Asia: A Regional Public Goods Approach	Nov 2011
2011-05	Yu SHENG, Xunpeng SHI	Energy Market Integration and Economic Convergence: Implications for East Asia	Oct 2011
2011-04	Sang-Hyop LEE, Andrew MASON, and Donghyun PARK	Why Does Population Aging Matter So Much for Asia? Population Aging, Economic Security and Economic Growth in Asia	Aug 2011
2011-03	Xunpeng SHI, Shinichi GOTO	Harmonizing Biodiesel Fuel Standards in East Asia: Current Status, Challenges and the Way Forward	May 2011
2011-02	Hikari ISHIDO	Liberalization of Trade in Services under ASEAN+n : A Mapping Exercise	May 2011
2011-01	Kuo-I CHANG, Kazunobu HAYAKAWA, Toshiyuki MATSUURA	Location Choice of Multinational Enterprises in China: Comparison between Japan and Taiwan	Mar 2011
2010-11	Charles HARVIE, Dionisius NARJOKO, Sothea OUM	Firm Characteristic Determinants of SME Participation in Production Networks	Oct 2010
2010-10	Mitsuyo ANDO	Machinery Trade in East Asia, and the Global Financial Crisis	Oct 2010
2010-09	Fukunari KIMURA, Ayako OBASHI	International Production Networks in Machinery Industries: Structure and Its Evolution	Sep 2010
2010-08	Tomohiro MACHIKITA, Shoichi MIYAHARA, Masatsugu TSUJI, and Yasushi UEKI	Detecting Effective Knowledge Sources in Product Innovation: Evidence from Local Firms and MNCs/JVs in Southeast Asia	Aug 2010

2010-07	Tomohiro MACHIKITA, Masatsugu TSUJI, and Yasushi UEKI	How ICTs Raise Manufacturing Performance: Firm-level Evidence in Southeast Asia	Aug 2010
2010-06	Xunpeng SHI	Carbon Footprint Labeling Activities in the East Asia Summit Region: Spillover Effects to Less Developed Countries	July 2010
2010-05	Kazunobu HAYAKAWA, Fukunari KIMURA, and Tomohiro MACHIKITA	Firm-level Analysis of Globalization: A Survey of the Eight Literatures	Mar 2010
2010-04	Tomohiro MACHIKITA and Yasushi UEKI	The Impacts of Face-to-face and Frequent Interactions on Innovation: Upstream-Downstream Relations	Feb 2010
2010-03	Tomohiro MACHIKITA and Yasushi UEKI	Innovation in Linked and Non-linked Firms: Effects of Variety of Linkages in East Asia	Feb 2010
2010-02	Tomohiro MACHIKITA and Yasushi UEKI	Search-theoretic Approach to Securing New Suppliers: Impacts of Geographic Proximity for Importer and Non-importer	Feb 2010
2010-01	Tomohiro MACHIKITA and Yasushi UEKI	Spatial Architecture of the Production Networks in Southeast Asia: Empirical Evidence from Firm-level Data	Feb 2010
2009-23	Dionisius NARJOKO	Foreign Presence Spillovers and Firms' Export Response: Evidence from the Indonesian Manufacturing	Nov 2009
2009-22	Kazunobu HAYAKAWA, Daisuke HIRATSUKA, Kohei SHIINO, and Seiya SUKEGAWA	Who Uses Free Trade Agreements?	Nov 2009
2009-21	Ayako OBASHI	Resiliency of Production Networks in Asia: Evidence from the Asian Crisis	Oct 2009
2009-20	Mitsuyo ANDO and Fukunari KIMURA	Fragmentation in East Asia: Further Evidence	Oct 2009
2009-19	Xunpeng SHI	The Prospects for Coal: Global Experience and Implications for Energy Policy	Sept 2009
2009-18	Sothea OUM	Income Distribution and Poverty in a CGE Framework: A Proposed Methodology	Jun 2009
2009-17	Erlinda M. MEDALLA and Jenny BALBOA	ASEAN Rules of Origin: Lessons and Recommendations for the Best Practice	Jun 2009

2009-16	Masami ISHIDA	Special Economic Zones and Economic Corridors	Jun 2009
2009-15	Toshihiro KUDO	Border Area Development in the GMS: Turning the Periphery into the Center of Growth	May 2009
2009-14	Claire HOLLWEG and Marn-Heong WONG	Measuring Regulatory Restrictions in Logistics Services	Apr 2009
2009-13	Loreli C. De DIOS	Business View on Trade Facilitation	Apr 2009
2009-12	Patricia SOURDIN and Richard POMFRET	Monitoring Trade Costs in Southeast Asia	Apr 2009
2009-11	Philippa DEE and Huong DINH	Barriers to Trade in Health and Financial Services in ASEAN	Apr 2009
2009-10	Sayuri SHIRAI	The Impact of the US Subprime Mortgage Crisis on the World and East Asia: Through Analyses of Cross-border Capital Movements	Apr 2009
2009-09	Mitsuyo ANDO and Akie IRIYAMA	International Production Networks and Export/Import Responsiveness to Exchange Rates: The Case of Japanese Manufacturing Firms	Mar 2009
2009-08	Archanun KOHPAIBOON	Vertical and Horizontal FDI Technology Spillovers: Evidence from Thai Manufacturing	Mar 2009
2009-07	Kazunobu HAYAKAWA, Fukunari KIMURA, and Toshiyuki MATSUURA	Gains from Fragmentation at the Firm Level: Evidence from Japanese Multinationals in East Asia	Mar 2009
2009-06	Dionisius A. NARJOKO	Plant Entry in a More Liberalised Industrialisation Process: An Experience of Indonesian Manufacturing during the 1990s	Mar 2009
2009-05	Kazunobu HAYAKAWA, Fukunari KIMURA, and Tomohiro MACHIKITA	Firm-level Analysis of Globalization: A Survey	Mar 2009
2009-04	Chin Hee HAHN and Chang-Gyun PARK	Learning-by-exporting in Korean Manufacturing: A Plant-level Analysis	Mar 2009
2009-03	Ayako OBASHI	Stability of Production Networks in East Asia: Duration and Survival of Trade	Mar 2009
2009-02	Fukunari KIMURA	The Spatial Structure of Production/Distribution Networks and Its Implication for Technology Transfers and Spillovers	Mar 2009

2009-01	Fukunari KIMURA and Ayako OBASHI	International Production Networks: Comparison between China and ASEAN	Jan 2009
2008-03	Kazunobu HAYAKAWA and Fukunari KIMURA	The Effect of Exchange Rate Volatility on International Trade in East Asia	Dec 2008
2008-02	Satoru KUMAGAI, Toshitaka GOKAN, Ikumo ISONO, and Souknilanh KEOLA	Predicting Long-Term Effects of Infrastructure Development Projects in Continental South East Asia: IDE Geographical Simulation Model	Dec 2008
2008-01	Kazunobu HAYAKAWA, Fukunari KIMURA, and Tomohiro MACHIKITA	Firm-level Analysis of Globalization: A Survey	Dec 2008