The Growth-Retarding Effects of Redistribution: Empirical Evidence and Policy Implications *

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1. Introduction

Welfare spending in Korea corresponded to 8.7 percent of GDP in 2001, well below the OECD average of 22.5 percent. But recent years witnessed a fast growth of welfare spending, and its pace is expected to increase further in coming decades due to the rapid aging of the Korean population. The growth of welfare spending will impose a heavy burden on public finance, and have adverse impacts on national saving and investment, reducing potential growth rates.

Such expectation led to a heated debate on determining the appropriate level of welfare spending and its speed of growth. On one hand, some people, including those in the current government, argue that the "bi-polarization" of the Korea economy – between rich and poor, between large corporations and small and medium-sized enterprises (SMEs), between new industries and traditional sectors – calls for a drastic measure to promote equity. Low fertility[1)] is pointed out as an additional reason for increasing public spending. The current average level of welfare spending in OECD countries is serving as the goal and standard to be met by Korea. They cite such works

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as Lindert (2004) and Person and Tabellini (1994) to support their claim that greater equity will contribute to economic growth.

On the other hand, some people express concerns about the potential growth-retarding effects of the fast-growing welfare spending. In their view, Korea is not yet ready to embrace the welfare state as its new model of economic and social development when its per capita income (at around USD 17,000) is still far below the level in most advanced countries. Greater welfare spending will have an adverse effect not only on growth but also on equity as a slower growth reduces the economic and social dynamism.

Much of this debate hinges on the question of the effect of redistribution policies on growth. Those on the "equity" side believe that the effect is at least neutral if not positive, while those on the "growth" side believe otherwise. This paper intends to contribute to the current debate as follows: (1) reviewing theoretical and empirical studies to date; (2) examining the effect of redistribution policies on growth based on industry-level data; (3) evaluating the welfare spending of OECD countries; and (4) suggesting ways to improve the effectiveness and efficiency of welfare spending in Korea.

Of course, there is a limit to the contribution that economists can make to the current debate which is often philosophical in nature. More often than not you find those on either side of the debate placing different values on growth and equity from the other. The authors believe, however, that current welfare spending can be improved in terms of its impact on growth and equity in both OECD countries and Korea.

[1)] The total fertility rate recorded 1.08 in 2005.

Section 2 provides a literature review on current issues and section 3 presents our empirical studies. Section 4 reviews the welfare spending in OECD countries and section 5 presents changes needed in the Korean welfare programs. Section 6 concludes.

2. Inequality, Redistribution, and Growth: Literature Survey

2.1. The influence of equity on growth

2.1.1. Negative influences

The traditional growth literature predicted that an equitable distribution would have a negative impact on economic growth (Kaldor, 1956, 1957). In a closed economy, a higher savings rate implies a lower cost of capital, larger amount of investment, and higher economic growth. In general, the rich has a higher propensity to save than the poor, and therefore greater inequality leads to higher growth.

On the other hand, income inequality can also promote an efficient allocation of resources. A large wage gap will increase workers' incentive to invest in those skills needed for high-paying jobs. For example, higher education will be sought when the expected increase in income is high.

2.1.2. Positive influences

An important argument for a positive influence of equity on growth is based on capital market imperfections (Saint-Paul and Verdier, 1992; Galor and Zeira, 1993; Perotti, 1993). The poor generally lack collateral against which they can borrow from the market to finance their investment in human capital. Redistribution from the rich to

the poor can promote human-capital investment and labor market participation of the latter, and contribute to the productivity improvement across the economy.

Another route for a positive influence can be found in the political context (Rodrik, 1997). Assuming that economic reforms – external liberalization of product and capital markets, privatization, deregulation, etc. – are beneficial to the overall growth but produce winners and losers, the opposition from potential losers to such reforms can deteriorate growth perspectives. As long as the poor are more likely to lose from economic reforms, an equitable income distribution can reduce social tensions and facilitate the implementation of growth-enhancing reforms.

A large income disparity can increase not only the resistance to reforms but also the demand for redistribution, which hinders growth. The median voter would vote for a redistribution policy when he expects greater private benefits than costs from such a policy. As the income disparity rises, the gap between the mean income and the median income widens, the difference between private benefits and costs increases for the median voter, and the median voter would vote for a redistribution policy (Persson and Tabellini, 1994; Alesina and Rodrik, 1994).

An equitable distribution can also promote growth by enhancing social integration. A society with large income disparity is likely to experience political instability and large swings in policy stance. Confiscatory policies may receiver wide supports, including uncompensated land reform and excessive regulation. Inequality can also lead to tolerance of socially disruptive behavior such as crime, strikes, and riots, and in the extreme case, support for insurgency. All of these are detrimental to growth (Perotti, 1992, 1994, 1996)

2.1.3. Empirical evidence

Many empirical studies since the 1990s, with the help of cross-country regressions common in endogenous growth literature, generally found the positive influences of equity on growth (Perotti, 1996). But like other studies of endogenous growth theory, they are open to several criticisms (Atkinson, 1995; Temple, 1999; Arjona, Ladaique, and Pearson, 2001). In particular, the limited number of samples in cross-country regressions makes it difficult to avoid the misspecification or omitted-variables problem. Endogeneity is another problem such studies try to prevent often unsuccessfully. For example, causality may run not from equity to growth but from growth to equity as higher growth renders larger welfare spending affordable.

Based on this observation, Forbes (2000) employed a panel regression technique to show that larger inequality is associated with higher growth. On the other hand, Arjona, Ladaique, and Pearson (2001) found no significant influence of income distribution on growth once its impact on human and capital investment is controlled for. Such diverse empirical results indicate the difficulty of identifying the true relationship between equity and growth.

2.2. The influence of redistribution on growth

2.2.1. Positive influences

If equity has a positive influence on growth, redistribution policies to enhance equity should by themselves have a positive influence on growth. They can correct for the capital market imperfection, reduce the resistance to economic reforms, strengthen social cohesion, and thereby contribute to higher economic growth.

2.2.2. Negative influences

While the benefits of redistribution policies should not be discounted, their costs should not be overlooked either. From a theoretical point of view, high marginal tax rates to finance redistribution policies have distortionary effects on saving, investment, labor demand, and labor supply. The deadweight loss arising from the distortion of economic incentives increases exponentially with marginal tax rates. In addition, public spending can crowd out private investment and hamper the long-term growth.

Of particular importance are public pension programs run on a pay-as-you-go basis. The structural imbalance between contributions and benefits embedded in most pension programs lowers private saving, which in turn reduces investment or worsens current account balance, either of which has a negative impact on national income.

Extensive public assistance programs can also foster welfare dependency among the poor. Similarly, unemployment insurance, workers' compensation, and early retirement pensions can reduce the incentive to work, and lead the beneficiaries into an unemployment trap and a poverty trap

Not all redistribution policies take the form of social insurance or public assistance. Many programs, while pursuing various objectives, are oriented toward redistribution. Supports for farmers, small and medium-sized enterprises, and other economically disadvantaged groups are prime examples of such programs. Their problem often lies in the discrepancy between the proclaimed and real objectives, which is likely to lead to an inappropriate program design and implementation, and accordingly reduce their effectiveness and efficiency.

2.2.3. Empirical evidence

Many studies have examined the impact of taxes on saving, investment, labor demand, and labor supply. Leibfritz, Thornton, and Bibbee (1997) summarize them in the following way. First, post-tax rates of interest have little impact on saving. But the tax burden reduces permanent income and savings, and the tax and benefit system transfers income from working-age groups to low-income groups or retirees and thereby reduces total saving. Second, some studies indicate that capital costs have a large impact on physical investment, and especially on foreign direct investment. Third, the wage elasticity of labor supply is low for prime-age male workers, but it is high for female workers. In addition, it is lower than the wage elasticity of labor demand, which implies that in a rigid labor market, personal income tax can have a large impact on labor demand.

There are not many empirical studies on welfare dependency, and more generally on the impact of social security system on the incentive to work. But various reforms that are being undertaken in advanced countries, for example, to strengthen the eligibility conditions for unemployment benefits indicate that the problem is real and present (d'Ercole and Salvini, 2003).

Feldstein (1974) was the first to point out the potential negative impact of public pensions on private saving. Kohl and O'Brien (1998) summarize the subsequent studies and report that on average, public pensions reduce the capital stock by 30 percent of the funding gap. Similar results are reported by Moon and Lim (2003) for the Korean case.

Arjona, Ladaique, and Pearson (2001) examined the impact of welfare spending on growth. According to them, the total welfare spending is associated with slower growth but among the total spending, active spending to promote labor market participation is associated with higher growth. Included in active spending are job training, job-search help, rehabilitation service, and wage subsidies, and in a broader definition, "make-work-pay" programs and family supports.

Many studies also looked at the aggregate, macro-level impact of taxes on growth. Miller and Russek (1997) and Kneller, Bleaney, and Gemmell (1999) find that in advanced economies, an increasing tax revenue, in particular of distortionary types (personal and corporate income taxes and social security contributions), leads to slower growth.

2.3. The influence of growth on equity

2.3.1. Positive influences

In economic theories, the return on factor inputs (interests, capital gains, wages, rents, etc.) depends on their relative scarcity. In early phases of economic development when capital is scarce, returns on capital will be high and income will be concentrated on a small number of capitalists. But the subsequent accumulation of capital will reduce the return on capital and increase wages, and lead to an improved income distribution. Accumulated saving by workers and the broadening of capital ownership will also help reduce inequality. Of course, such improvement will materialize only if there are no impediments to an efficient working of factor markets such as corruption (as in many developing and transition economies), travel restrictions (as in China), political instability (as in many sub-Saharan countries), etc.

2.3.2. Negative influences

Kuznets (1963) predicted that economies at the initial stage of development would experience deterioration in income distribution before the fruits of development are spread out across the population in later stages. His inverted-U hypothesis was discredited by the following studies for developing countries (Anand and Kanbur, 1993). But the worsening income distribution in many OECD between the mid-1980s and mid-1990s rekindled the worry that growth may be harmful for equity. Specifically, special attention was given to the roles played by globalization and skill-biased technological progress in widening the income disparity between skilled and unskilled labor (see the discussion in subsection 4.1).

2.3.3. Empirical evidence

Topel (1997) and Johnson (1997) show that skill-biased technological progress tends to deteriorate earnings distribution among workers. On the other hand, Lindert and Williamson (2003) review the history of income inequalities since the 1820s and conclude that globalization led to less world inequality. According to them, the nations that gained the most from globalization are those poor ones that changed their policies to exploit it, whereas the ones that gained the least did not. In a similar vein, Dollar and Kraay (2001) examined data on 80 countries covering four decades, and found that income of the poor rises one-for-one with overall growth. This relationship holds for rich as well as poor countries and for present as well as past.

3. Growth and Redistribution: Industry-level Evidence

3.1. Hypotheses and the Estimation Model

3.1.1. The question

As surveyed in section 2, while the negative correlation between inequality and economic growth is generally accepted, little consensus has been built about the relationship between redistribution and growth. Severe inequality is clearly burdensome for growth, and redistribution policies such as progressive taxation and social security expenditure contribute to growth. But at the same time, they impose burdens on growth by distorting incentives and reducing national saving. It is therefore difficult to find a simple answer for the theoretical relationship between redistribution and growth, and the question remains largely an empirical one.

The existing empirical studies often set out various theoretical channels whereby social spending influences growth, and carry out regression analysis using aggregate variables such as growth rates, investment ratio, public spending, tax revenues, and human capital indicator. One difficulty in this type of analyses comes from the misspecification problem; there exists a multitude of factors that affect economic growth, and it is a daunting task to extract the pure relationship between redistribution policies and growth based on a limited set of data. Yet another difficulty lies in identifying the direction of causality. For example, growth and welfare spending could show a positive correlation not because more redistribution led to higher growth but because rapid economic growth made available enough resources for welfare programs.

Given these difficulties, it is not surprising to find different empirical studies leading to varying conclusions about the effect of redistribution on growth. This paper intends to contribute to the current debate by providing additional evidence on their relationship employing industry-level data. In particular, we look at the relative shares of industries in a country's total value-added and relate their changes to the level of social spending. By this, we expect that we can get around the omitted variable problem that has been the most serious problem in the previous empirical studies. Also, noting that tax burden is the flip side of social spending, we try to discern whether these changes come from social spending itself or from tax burden to finance the spending.

3.1.2. Spending side

Starting with spending side, redistribution policies can have disparate effects across industries because their spending is often targeted at low-income groups. A basic level of security provided by these programs frees people to take more risks and to pursue higher economic goals (Garcia-Penalosa and Wen, 2004). Similarly, programs subsidizing low-income families with such services as child-care, job-training, and healthcare help them continue their economic activities and cope with adverse shocks. In this way, social spending can disproportionately favor industries employing workers in insecure economic conditions. In a sense, governments are subsidizing these industries with their tax and transfer system.

In the following discussion, this idea is formalized in the hypothesis that the share of an industry with a lower per-capita labor cost rises faster (or declines less slowly) in a country with a high level of social spending. That is, industries more dependent on social programs that subsidize low-wage earners gain their shares

relatively faster (or lose less slowly) in countries that spend larger amount of money on these programs.

Borrowing from Rajan and Zingales (1998), we estimate the following model:

$$(1) \quad GR_{ij} = \text{constant} + \alpha_i + \beta_j + \gamma\, IS_{ij} + \delta\, LC_i \times SX_j + \varepsilon_{ij},$$

where GR_{ij} = Growth rate of the value-added of industry i between 1992 and 2001,

α_i = Industry-fixed effect,

β_j = Country-fixed effect,

IS_{ij} = Share of the value added of industry i in the total value added of country j in 1992,

LC_i = Per-capita labor cost of industry i averaged over 1992-2001[2], and

SX_j = Social expenditure as a proportion of GDP in country j averaged over 1992-2001.

After correcting for country and industry-specific characteristics using country dummies and industry dummies, we expect that the coefficient estimate for the interaction between labor cost and expenditure to tell us how the shares of industries with different per-capita wages change across countries with various levels of social spending.

Consider industry H (high labor cost) and industry L (low labor cost) for which $LC_H > LC_L$, and consider country B (big social spending) and country S (small social

[2] LC_i is obtained by averaging per-capita labor cost in real term of $industry_i$ in $country_j$ over sample countries over 1992-2001, and before averaging out, labor cost of each industry from each country is converted to US$ using market exchange rates of every corresponding year.

spending) for which $SX_B > SX_S$. Abstracting from the industry share IS_{ij}, which turns out to have an insignificant coefficient estimate, and the error term ε_{ij}, a simple algebra shows that

(2) $(GR_{HB} - GR_{LB}) - (GR_{HS} - GR_{LS}) = \delta (LC_H - LC_L)(SX_B - SX_S)$.

Suppose $\delta < 0$. Then equation (2) implies

(3) $(GR_{HB} - GR_{LB}) - (GR_{HS} - GR_{LS}) < 0$, or $GR_{HB} - GR_{LB} < GR_{HS} - GR_{LS}$.

There are three possibilities regarding the signs of $(GR_{HB} - GR_{LB})$ and $(GR_{HS} - GR_{LS})$:

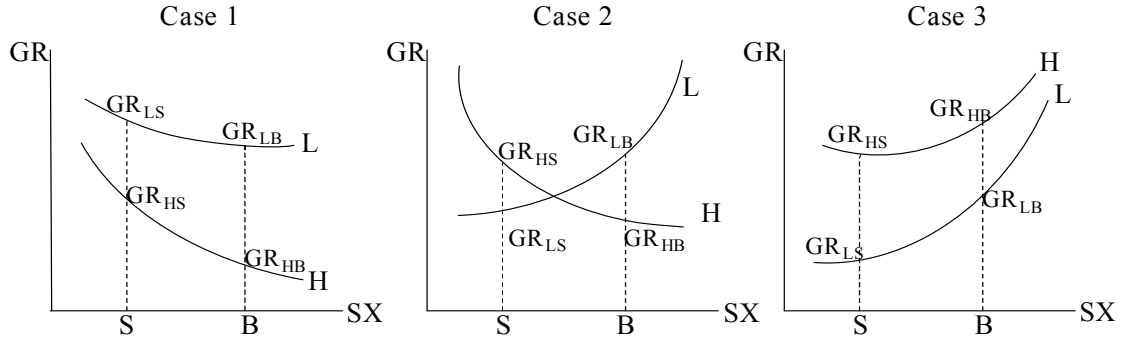
Case 1: $GR_{HB} - GR_{LB} < GR_{HS} - GR_{LS} < 0$.

Case 2: $GR_{HB} - GR_{LB} < 0 < GR_{HS} - GR_{LS}$.

Case 3: $0 < GR_{HB} - GR_{LB} < GR_{HS} - GR_{LS}$.

These are illustrated in Figure 1. In case 1, industry L grows faster than industry H in country S ($GR_{HS} - GR_{LS} < 0$), and the share of industry L rises. But industry L grows much faster than industry H in country B ($GR_{HB} - GR_{LB} < GR_{HS} - GR_{LS}$, or $GR_{LS} - GR_{HS} < GR_{LB} - GR_{HB}$), and the share of industry L rises faster in country B than in country S.

[Figure 1] Three Possibilities



In case 2, L grows slower than H in S ($0 < GR_{HS} - GR_{LS}$), and the share of L declines. On the other hand, L grows faster than H in B ($GR_{HB} - GR_{LB} < 0$), and the share of L rises. Thus the share of L rises in B while declining in S.

In case 3, L grows slower than H in B ($0 < GR_{HB} - GR_{LB}$), and the share of L declines. But L grows much slower than H in S ($GR_{HB} - GR_{LB} < GR_{HS} - GR_{LS}$), and the share of L declines less slowly in B than in S.

In all cases, B is more favorable to L than S. Our hypothesis that the share of an industry with a lower per-capita labor cost rises faster (or declines less slowly) in a country with a high level of social spending can therefore be tested by setting H_0: $\delta = 0$ against H_1: $\delta \neq 0$.

On the other hand, it should be noted that our estimation results of equation (1) would say nothing about the impact of social spending on the total value-added or income distribution. They address only the changes in the relative shares of different industries. However, so far as the faster growth of high-wage industries by itself more desirable than the faster growth of low-wage industries and is more likely to be associated with a faster aggregate growth, a result like $\delta < 0$ would indicate that higher social spending is not desirable for industrial restructuring and aggregate growth.

3.1.3. Revenue side

On the revenue side, redistribution policies can impose a disproportionately large burden on high-wage and fast-growing industries because of progressive taxation on personal and corporate income. In a sense, they are penalized by governments for employing high-wage workers.[3)] This idea is formalized in the hypothesis that the share of an industry with a lower per-capita labor cost rises faster (or declines less slowly) in a country with a high level of tax burden.

To test this hypothesis, we estimate the following equation:

$$(4) \quad GR_{ij} = \text{constant} + \alpha_i + \beta_j + \gamma\, IS_{ij} + \theta\, LC_i \times TB_j + \varepsilon_{ij},$$

where TB_j = Tax revenue as a proportion of GDP in country j averaged over 1992-2001.

Our hypothesis is then tested by setting H_0: $\theta = 0$ against H_1: $\theta \neq 0$. If our estimation result gives $\theta < 0$, then we would conclude that taxation has a disproportionately adverse impact on industries employing high-wage workers.

But again, it should be noted that our estimation results of $\theta < 0$ would say nothing about the impact of tax burden on the total value-added or income distribution. Strictly speaking, we cannot infer from the result whether (1) taxation helps low-wage industries with no or little impact on high-wage industries or (2) it hinders high-wage industries with no or little impact on low-wage industries. The estimation result will be compatible with both possibilities. However, as no taxation can be expected to help any industry by itself, the second possibility would look closer to the reality than the first one.

[3)] Of course, when the labor market is flexible, workers will bear most of the tax burden, and the impact on the growth of industries will be limited. We presume that this is not the case in

3.1.4. Alternative explanations: spending or revenue?

In interpreting the estimation results, attention should be paid to the positive correlation often observed between the level of social spending and tax burden across countries. In most countries, social spending takes a lion's share of total spending, and countries with a large social spending tend to show a large tax burden. Hence a result like $\theta < 0$ can be obtained from estimating equation (4) when in fact $\theta = 0$ and $\delta < 0$.

For this reason, it is useful to check whether the observed cross-country differences stem from spending side or revenue side by estimating the following model:

$$(5) \quad GR_{ij} = \text{constant} + \alpha_i + \beta_j + \gamma\, IS_{ij} + \delta\, LC_i \times SX_j + \theta\, LC_i \times TB_j + \varepsilon_{ij}.$$

If the explanation based on taxation gives a better description of the reality than that based on social spending, then we would have $\delta = 0$ and $\theta < 0$, and vice versa.

3.2. Data

Our data come from four sources. First, the industry-related variables are drawn from the STAN database, which provides comprehensive and detailed information on industrial performance. STAN database classifies industries by the International SIC code. Although we wanted a detailed analysis as possible, when data for an industry at a lower level were not available, we used an aggregated, higher-level data. For example, instead of separate data for Food Products and Beverage (15) and Tobacco Products (16), we used Food Products, Beverage and Tobacco Products (15-16), because the annual data for value-added of each industry were not available for some countries.

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most OECD countries.

In addition, we excluded agriculture, hunting, forestry and fishing in order to reduce the effect of country-specific factors such as natural resources. Table 1 shows the industries classified for our purpose.

[Table 1] Industry classification

Number	Description	ISIC
1	Food Products, Beverages And Tobacco	15-16
2	Textiles, Textile Products, Leather And Footwear	17-19
3	Wood And Products Of Wood And Cork	20
4	Pulp, Paper, Paper Products, Printing And Publishing	21-22
5	Chemical, Rubber, Plastics And Fuel Products	23-25
6	Other Non-Metallic Mineral Products	26
7	Basic Metals And Fabricated Metal Products	27-28
8	Machinery And Equipment	29-33
9	Transport Equipment	34-35
10	Manufacturing Nec; Recycling	36-37
11	Electricity, Gas And Water Supply	40-41
12	Construction	45
13	Wholesale And Retail Trade; Restaurants And Hotels	50-55
14	Transport And Storage And Communication	60-64
15	Financial Intermediation	65-67
16	Real Estate, Renting And Business Activities	70-74
17	Community Social And Personal Services	75-99

Data on welfare spending were obtained from OECD Social Expenditure Database and data on educational expenditure from OECD Education Statistics. Lastly, data on tax revenue were from Revenue Statistics published by OECD. Due to data limitations, 18 out of 29 OECD countries were included in the regression analysis.[4] Summary statistics are presented in Table 2.

4) Countries included in regression are Austria, Belgium, Denmark, Finland, France, Germany, Hungary, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, Norway, Portugal, Spain, United Kingdom, and United States.

[Table 2] Summary Statistics

Variables	Mean	Median	Standard deviation	Min.	Max.	N
GR (Growth rates)	2.67	2.31	3.37	-8.05	22.74	306
LC (Per-capita labor costs)	39.65	40.17	10.09	23.54	59.96	17
IS (Industry shares)	5.57	3.00	6.16	0.08	26.13	306
SX (Social spending)						
Old age, survivors, incapacity-related benefits	11.38	12.44	3.93	1.95	16.08	18
Health	5.67	5.76	1.42	2.10	7.94	18
Family	1.89	2.12	1.28	0.07	3.76	18
Active labor market programs	0.74	0.56	0.52	0.06	1.68	18
Unemployment	1.43	0.98	1.09	0.11	4.00	17
Housing	0.42	0.28	0.45	0.00	1.65	14
Other social policy areas	0.44	0.40	0.29	0.03	1.18	18
Subtotal (= Welfare expenditure)	21.72	23.23	7.32	4.62	30.90	18
Government education (A)	5.25	5.04	1.17	3.52	8.01	18
Private education	0.93	0.80	0.74	0.01	3.05	18
Total social expenditure (= Subtotal + A)	26.97	27.97	8.09	8.62	38.91	18
TB (Tax burdens)						
Personal income	9.99	9.17	5.07	3.47	25.97	17
Corporate income	3.18	2.80	1.45	1.13	7.17	17
Social security contributions	10.45	11.55	4.78	1.70	17.90	18
Payroll and workforce	0.71	0.27	0.91	0.10	2.63	7
Property	1.86	1.75	1.06	0.30	3.73	18
Goods and services	11.24	11.55	3.17	4.47	16.15	18
Total tax revenue	37.00	40.87	8.64	17.60	48.80	18

Notes: LC is in USD 1,000. Other variables are in percent.

Table 3 indicates SX and TB having a strong positive correlation with each other. This implies that net effects of social expenditure on industry growth could not be easily distinguished from the effect for tax burden.

[Table 3] Spearman Correlation Coefficient

	Welfare expenditure	Private education	Total social expenditure	Total tax revenue
Welfare expenditure	1.00			
Private education	-0.35***	1.00		
Total social expenditure	0.99***	-0.38***	1.00	
Total tax revenue	0.93***	-0.47***	0.94***	1.00

Note: *** denotes statistical significance at 1 percent level.

3.3. Regression results

Regression results of equation (1) are presented in Table 4. We used various expenditure variables for SX. In most cases, δ has a negative and statistically significant estimate. An exception is private education, which has a positive and strongly significant coefficient estimate. This may reflect the fact that a large private educational spending is often associated with a large spending on higher education,[5] which plays an important role in supplying high-skilled labor force necessary for the growth of high-wage industries. The insignificant coefficient estimate on unemployment can be explained in a similar way because unemployment benefits are paid to high-wage as well as low-wage workers who are unemployed usually in proportion to their previous earnings.

[5] Private educational spending is concentrated in higher education while public spending in lower education. In 2002, OECD countries spent 3.8 percent of their GDP on primary, secondary, and post-secondary non-tertiary education and 1.7 percent on tertiary education. Public spending was 3.5 percent and 1.0 percent, respectively, and private spending was 0.4 percent and 0.8 percent, respectively (OECD, 2005).

[Table 4] Regression Results on Social Expenditures

Variable used for SX	Coefficient estimates		R^2	N
	γ	δ		
Old age, survivors, incapacity-related benefits	-0.0346 (0.0897)	-0.0138 (0.0040)***	0.46	306
Health	-0.0234 (0.0909)	-0.0270 (0.0114)**	0.44	306
Family	-0.0223 (0.0907)	-0.0329 (0.0126)***	0.45	306
Active labor market programs	-0.0368 (0.0914)	-0.0355 (0.0309)	0.43	306
Unemployment	-0.0591 (0.1002)	-0.0210 (0.0157)	0.43	289
Housing	-0.0695 (0.1099)	0.0550 (0.0419)	0.38	238
Other social policy areas	-0.0418 (0.0913)	-0.0917 (0.0567)	0.44	306
Subtotal (= Welfare expenditure)	-0.0320 (0.0900)	-0.0068 (0.0022)***	0.45	306
Government education	-0.0464 (0.0912)	-0.0255 (0.0138)*	0.44	306
Private education	-0.0498 (0.0892)	0.0840 (0.0214)***	0.46	306
Social expenditure (= Welfare + government education)	-0.0349 (0.0900)	-0.0061 (0.0020)***	0.45	306

Notes: In parentheses are standard errors of coefficient estimates. ***, **, and * denote statistical significance at 1, 5, and 10 percent levels, respectively. Estimates of the constant term and fixed effects are not reported.

Thus, our overall regression results are consistent with the claim that social spending disproportionately favors low-wage industries as against high-wage industries. However, some results do not lend themselves to easy interpretation. For example, old-age, survivors, and incapacity-related benefits has a negative and significant coefficient estimate. But they cannot be said to favor low-wage workers at least on the spending side because their main beneficiaries are retirees and their role in promoting labor market participation by low-wage workers is limited. In fact, existing literature has discussed the negative impact of early-retirement pensions on labor supplies (Feldstein, 1974). This raises the possibility of taxation rather than social spending generating cross-country differences as discussed above.

Another point to note is the insignificant coefficient estimate on active labor market programs that are supposed to help disadvantaged groups of workers. Many evaluation studies found very low effectiveness of these programs (Martin, 2000). On the other hand, the cross-country analysis by Arjona, Ladaique, and Pearson (2001) shows a positive correlation between the spending on active labor market programs and the economic growth. Our results indicate that these programs are either ineffective or are effective but do not necessarily favor low-wage workers.

Table 5 presents the regression results of equation (4). As expected, most estimates of θ are negative and many – including the total tax revenue – are statistically significant. In particular, the coefficient estimate of corporate income tax is very significant, indicating its exceptionally adverse impact on fast growing industries.

[Table 5] Regression Results on Tax Burden

Variable used for TB	Coefficient estimates		R^2	N
	γ	θ		
Personal income	-0.0552 (0.0997)	-0.0061 (0.0034)*	0.44	289
Corporate income	-0.0236 (0.0992)	-0.0322 (0.0117)***	0.45	289
Social security contributions	-0.0306 (0.0912)	-0.0059 (0.0034)*	0.44	306
Payroll and workforce	-0.0978 (0.1602)	-0.0217 (0.0339)	0.48	119
Property	-0.0382 (0.0924)	0.0029 (0.0155)	0.43	306
Goods and services	-0.0442 (0.0913)	-0.0089 (0.0051)*	0.44	306
Total Tax Revenue	-0.0279 (0.0900)	-0.0058 (0.0019)***	0.45	306

Notes: In parentheses are standard errors of coefficient estimates. ***, **, and * denote statistical significance at 1, 5, and 10 percent levels, respectively. Estimates of the constant term and fixed effects are not reported.

Table 6 shows the regression results of equation (5) when the total tax revenue is used for TB. The estimate of δ often has a wrong sign and loses statistical significance in all cases except for private education. But the estimate of θ remains negative in all cases and significant in most cases. Thus the relatively more favorable treatment of low-wage industries appears to come less from the spending side and more from the revenue side.

[Table 6] Regression Results on When Both Expenditures and Taxes are Included

Variable used for SX	Coefficient estimates		R^2	N
	δ	θ		
Old age, Survivors, Incapacity-related benefits	-0.0119 (0.0092)	-0.0009 (0.0042)	0.46	306
Health	0.0006 (0.0176)	-0.0059 (0.0029)**	0.45	306
Family	-0.0001 (0.0227)	-0.0058 (0.0033)*	0.45	306
Active labor market programs	0.0607 (0.0423)	-0.0084 (0.0026)***	0.46	306
Unemployment	0.0323 (0.0211)	-0.0114 (0.0031)***	0.46	289
Housing	0.0528 (0.0420)	-0.0024 (0.0025)	0.38	238
Other social policy areas	-0.0424 (0.0587)	-0.0054 (0.0019)***	0.45	306
Subtotal (= Welfare expenditure)	-0.0033 (0.0070)	-0.0032 (0.0059)	0.45	306
Government education	0.0016 (0.0174)	-0.0059 (0.0023)**	0.45	306
Private education	0.0680 (0.0273)**	-0.0022 (0.0023)	0.46	306
Social expenditure (= Welfare + government education)	-0.0024 (0.0063)	-0.0037 (0.0059)	0.45	306

Notes: The variable used for TB is total tax revenue. In parentheses are standard errors of coefficient estimates. ***, **, and * denote statistical significance at 1, 5, and 10 percent levels, respectively. Estimates of the constant term, fixed effects, and γ are not reported.

4. Trends in OECD Countries

4.1. Income distribution in OECD countries

In many OECD countries, income distribution changed little up to the mid-1980s but then deteriorated between the mid-1980 and the mid-1990 (Table 7). Some interpreted the deterioration as an inevitable outcome of globalization. In their view, increasing imports from low-wage countries play a major role in driving down the wage of low-skilled workers in advanced economies and widening the income

[Table 7] Overall Trends in Income Inequality

	Strong decline	Moderate decline	Small decline	No change	Small increase	Moderate increase	Strong increase
Mid-1970s to mid-1980s	Greece	Finland Sweden	Canada		Netherlands	US	UK
Mid-1980s to mid-1990s		Spain	Australia Denmark	Austria Canada France Greece Ireland	Belgium Germany Luxembourg Japan Sweden	Czech Rep. Finland Hungary Netherlands Norway Portugal UK US	Italy Mexico New Zealand Turkey
Mid-1990s to 2000		Mexico Turkey	France Ireland Poland	Australia Czech Rep. Germany Hungary Italy Luxembourg Netherlands New Zealand Portugal US	Austria Canada Denmark Greece Japan Norway UK		Finland Sweden

Note: "Strong decline/increase" denotes a change in income inequality above +/- 12%; "moderate decline/increase" a change between 7 and 12%; "small decline/increase" a change between 2 and 7%; "no change" changes between +/- 2%. Results are based on the values of the Gini coefficient in four reference years which may vary among countries.

Source: Förster and d'Ercole (2005).

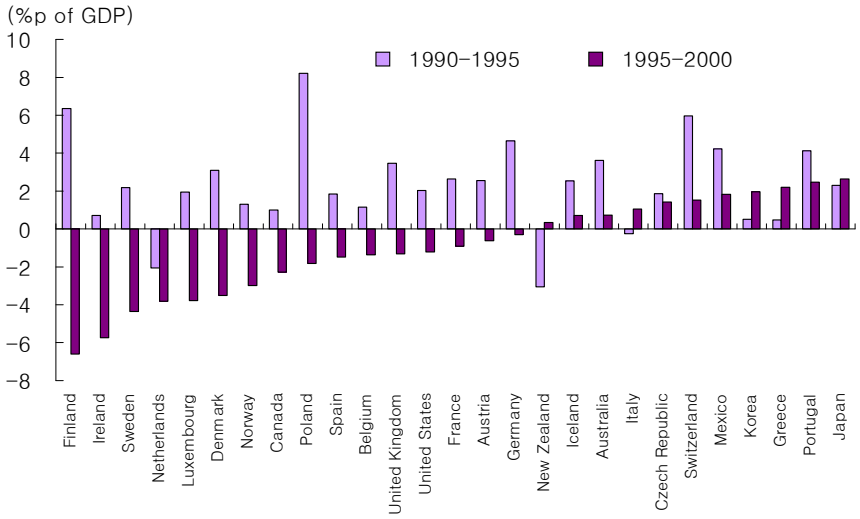
disparity. Others accorded a more important factor to the skill-biased technological progress, which replaces labor by equipment. In particular, the wide-spread use of personal computers reduces the demand for low-skilled labor and increases that for high-skilled labor, worsening the income equality.

Whichever view you endorsed, the implication was the same: the rise in income inequality would continue in the future with the acceleration of globalization and skill-biased technological progress. However, such expectation was not materialized between the mid-1990s and 2000. Income distribution changed little in many countries including US, Australia, Germany, and Italy and improved in some including France and Ireland.

These changes were accompanied by a rise in welfare spending as a proportion of GDP during the first half of the 1990s, and then a decline in the second half in most OECD countries (Figure 2). This suggests a causality running from inequality to welfare spending, with an increasing (decreasing) inequality inducing a larger (smaller) welfare spending. At the very least, it is unlikely that the partial improvement in distribution in the second half of the 1990s was due mainly to welfare spending.

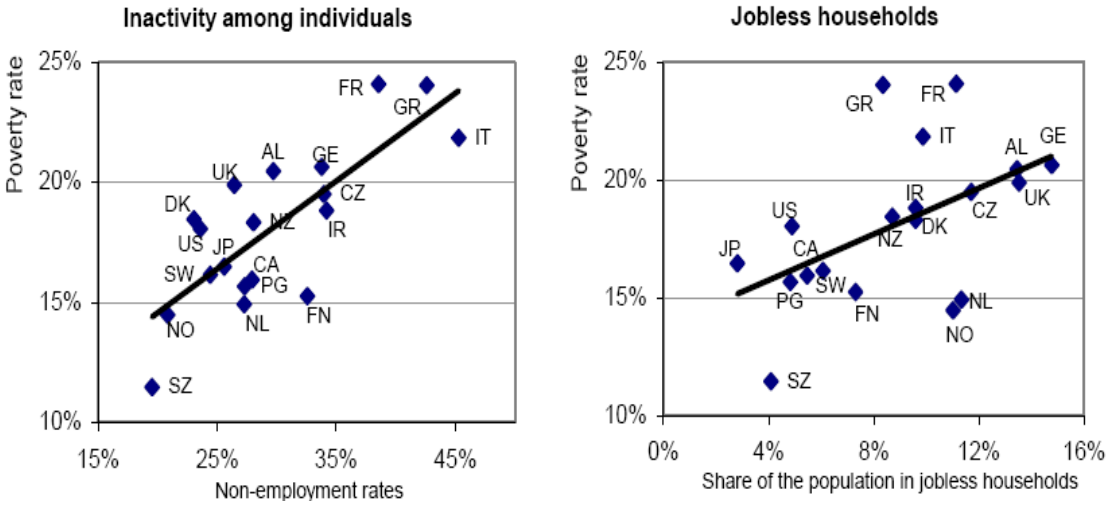
A stronger candidate to explain these changes is the changes in labor market conditions (Förster and d'Ercole, 2005). In fact, the OECD-average employment rate fell from 64.9 percent in 1990 to 64.3 percent in 1995 and then went up to 65.7 percent in 2000. The close relationship between employment and poverty is also indicated in Figure 3, where the poverty rate is plotted against the non-employment rate and the share of the population in jobless households.

[Figure 2] Changes in Social Expenditure



Source: OECD, *Social Expenditure Database*, 2004.

[Figure 3] Relative Poverty Rates among the Working-age Population



Note: Relative poverty rates of individuals aged 18 to 65 at the level of market income. Non-employment rates of persons aged 16 to 64. Joblessness is the share of the total population living in households with a working-age head and where no one works.

Source: Förster and d'Ercole (2005).

4.2. Welfare spending in OECD countries

As discussed in section 2, redistribution policies to enhance equity can promote growth by, among others, correcting for the capital market imperfection, reducing the resistance to economic reforms, and strengthening social cohesion. At the same time, however, their costs can be quite high in terms of both growth and equity. High marginal tax rates to finance welfare spending can result in deadweight losses; public spending is likely to crowd out private investment; public pensions tend to lower national saving and hamper growth; and generous welfare benefits can foster welfare dependency, leading to unemployment and poverty traps.

A partial evidence for these claims was offered in section 3 based on industry-level data. Our regression results show that the tax and transfer system has disproportionate effects on high-wage industries against low-wage industries. Subsection 4.1 also argued that improved employment conditions contribute to improved income distribution, and by implication that promoting employment will help lessen inequality.

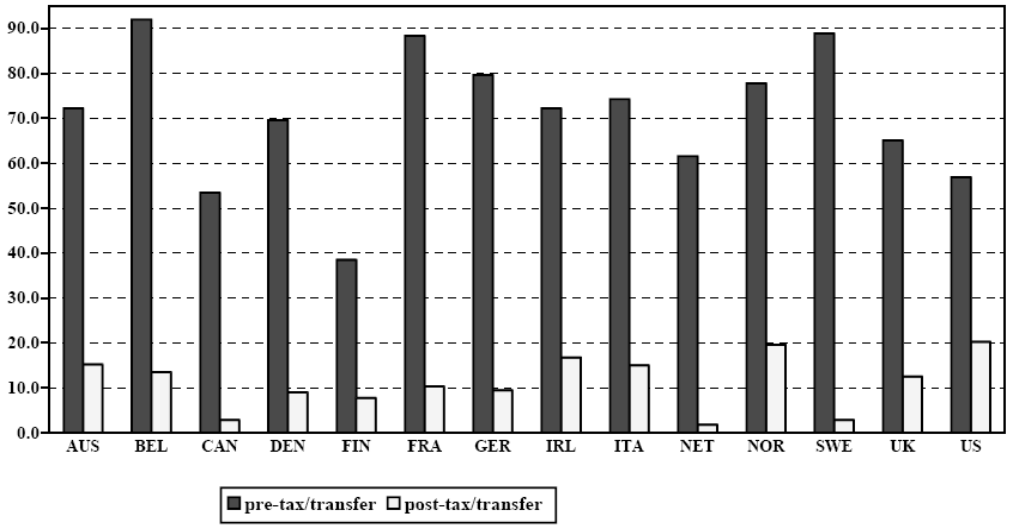
A natural conclusion from these discussions is that care should be taken in designing the tax and transfer system to minimize its adverse impact on the incentive to save, invest, work, and employ. In particular, the tax burden should be kept at the lowest level and the effectiveness and efficiency of spending should be enhanced to the highest level possible. For this purpose, it is important to target welfare programs at the needy, and let the more affluent take care of themselves whenever possible.

Does the current welfare spending in OECD countries share these features? A short answer to this question is "No." Förster and Pearson (2002) observe:

> Benefit systems redistribute income. But they do not primarily redistribute from rich to poor. Rather they redistribute from young to old, from those who work to those do not, and from childless families to families with children. In most countries (Australia and New Zealand being exceptions), most benefits are based not on the income of the individual or family, but on the circumstances of the family and the individuals that make up the family more generally (p.25).

In the first place, almost half of the total welfare spending is on pensions (old age and survivors). When pensions are excluded, the OECD-average welfare spending drops to 13.5 percent of GDP from 22.5 percent in 2001. Such large spending on pensions reduces the relative poverty among the retirement-age population substantially as indicated in Figure 4.

[Figure 4] Relative Poverty among the Retirement-age Population in Mid-1990s



Note: Relative poverty refers to the percentage of persons in households below 50 percent of median adjusted disposable income.
Source: Förster and Pellizari (2000).

At the same time, however, public pension provides large benefits even to the very wealthy retirees. In the mid-1990s, the top 30 percent of retirement-age population had 51 percent of their disposable income coming from pensions (Table 8). These people, however, would have no problem preparing for their retirement through private saving or corporate pension if public pension were not available to them. Public pensions in this sense have unnecessarily a large coverage. A diversified old-age income security system, with public pension focusing on low-income groups, would be a better choice than the current one.

[Table 8] Share of Public Transfers in Total Disposable Income

(Unit: %)

Types of transfer	Non-pension transfers to the working-age population			Old-age pension transfers to the retirement-age population		
Income deciles	Bottom 20%	Middle 60%	Top 20%	Bottom 20%	Middle 60%	Top 20%
Australia (1994)	43.4	7.6	1.1	74.6	55.8	13.2
Canada (1995)	15.1	7.2	3.0	84.9	57.2	29.0
France (1994)	33.0	13.0	4.0	80.8	83.4	85.0
Germany (1994)	10.3	2.8	1.0	90.5	83.5	67.7
Italy (1993)	12.6	6.7	2.9	69.5	74.2	55.3
Netherlands (1995)	50.4	16.0	6.4	92.7	68.2	35.3
Sweden (1995)	62.7	29.8	14.3	96.2	113.9	112.3
United Kingdom (1995)	42.0	9.2	2.0	71.0	49.4	24.4
United States (1995)	19.7	4.4	1.8	80.6	52.5	25.3
OECD average	39.1	13.7	4.5	79.6	71.8	51.0

Source: Förster and Pellizzari (2000).

The same can be said of non-pension transfers to working-age population. The top 20 percent of working-age population received 11.5 percent of total non-pension transfers, and the bottom 20 percent, 36.4 percent (Table 9). So low-income groups take a larger portion of social spending than high-income groups, but there are large

differences across countries. Australia and United Kingdom, for example, assign less than 5 percent of total non-pension transfers to the top 20 percent of working-age

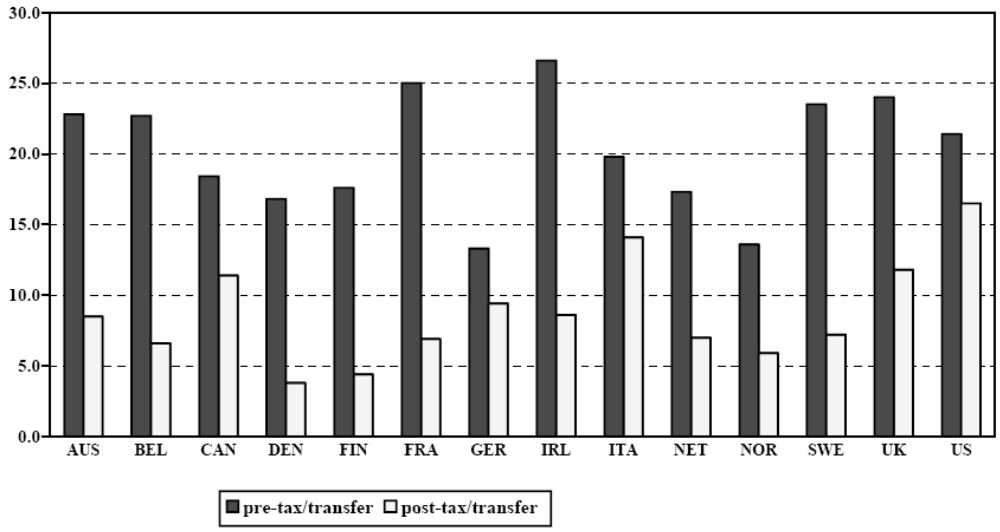
[Table 9] Distribution of Non-pension Transfers among the Working-age Population

(Unit: %)

Income deciles	Public non-pension transfers			Direct taxes		
	Bottom 30%	Middle 40%	Top 30%	Bottom 30%	Middle 40%	Top 30%
Australia (1999)	46.3	50.4	3.3	0.8	47.3	51.8
Canada (2000)	25.3	54.8	19.9	3.8	49.1	47.1
France (2000)	33.5	56.3	10.2	7.0	37.6	55.3
Germany (2001)	28.0	56.6	15.4	3.3	52.1	44.6
Italy (2000)	20.8	57.9	21.2	3.3	47.7	48.9
Japan (2000)	36.7	45.6	17.8	7.9	52.8	39.3
Netherlands (2000)	47.1	45.6	7.4	5.8	54.2	39.9
Spain (1995)	26.0	61.8	12.1	-	-	-
Sweden (2000)	33.0	55.7	11.4	6.1	52.8	41.2
United Kingdom (2000)	62.2	35.5	2.4	2.5	48.1	49.5
United States (2000)	33.6	50.9	15.5	1.8	41.1	57.1
OECD average	36.4	52.1	11.5	4.2	48.4	47.4

Source: Förster and d'Ercole (2005).

[Figure 5] Relative Poverty among the Working-age Population



Note: Relative poverty refers to the percentage of persons in households below 50 percent of median adjusted disposable income.

Source: Förster and Pellizari (2000).

Population, while Canada, Italy, and Japan assign around 20 percent. In the latter countries, there appears room for a sharper focus on low-income groups. These countries' post-tax and transfer poverty rates are higher than those of other countries even though their pre-tax and transfer poverty rates are not particularly high (Figure 5).

5. Implications for Korea

5.1. Welfare spending in Korea

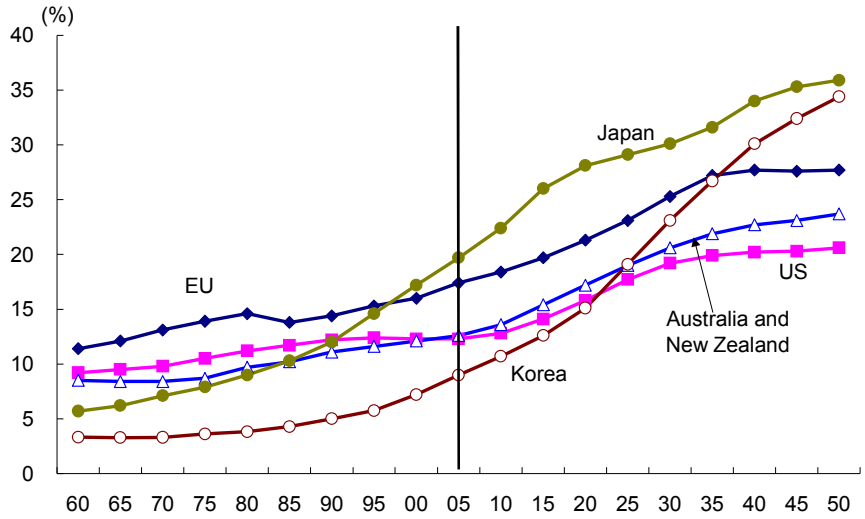
Korea is faced with a rapidly growing demand for welfare spending, starting from a much lower level than in other OECD countries (Table 10). The growth of welfare spending is expected to accelerate in coming decades due to the rapid aging of the Korean population (Figure 6).

[Table 10] Welfare Spending in 2001

	OECD average		Korea	
	% of GDP	% of total	% of GDP	% of total
Total	22.54	100.0	8.70	100.0
Old-age	8.06	35.8	1.22	14.0
Survivors	0.99	4.4	0.20	2.3
Incapacity-related	2.72	12.1	0.60	6.9
Health	6.18	27.4	3.24	37.2
Family	2.00	8.9	0.16	1.8
Active Labor Market	0.72	3.2	0.30	3.4
Unemployment	1.02	4.5	2.51	28.9
Housing	0.36	1.6	-	-
Others	0.51	2.3	0.47	5.4

Source: OECD, Social Expenditure Database, 2004.

[Figure 6] Proportion of the Old in Total Population



Note: The old is defined as those 65 years of age and over.
Source: United Nations.

[Table 11] General Government Spending in 2004

(Unit: % of GDP)

	Korea	U.S.	Japan	Germany	France	U.K.
Consumption	13.2	15.4	17.6	18.8	24.2	21.3
Investment	5.2	3.2	3.8	1.4	3.2	1.7
Subsidies	0.3	0.3	0.9	1.3	1.3	0.5
Social benefits (A)	2.2	11.7	10.9	19.5	18.5	13.6
Interest payments (B)	0.8	2.7	2.9	3.1	2.9	1.9
Others	5.4	2.4	0.0	3.2	3.5	4.7
Total spending (C)	27.1	35.7	36.1	47.3	53.6	43.7
C − A	24.9	24.0	25.2	27.8	35.1	30.1
C − A − B	24.1	21.3	22.3	24.7	32.2	28.2

Source: OECD.

Such a rapid increase will impose a heavy burden on public finance. Public spending in Korea is still lower than in major OECD countries, but most of the difference comes from the smaller amount of social benefits (Table 11). When social benefits increase in line with welfare spending while other types of spending remain at

the current level, total public spending will easily reach the level commonly observed in European countries, with the accompanying deterioration of financial balances and accumulation of public debts.

In many OECD countries, the spending growth gathered speed in the 1960s and 70s and then slowed down in the 1980s and 90s (Table 12). As a latecomer, Korea can perhaps learn from their experience to maximize the effectiveness and efficiency of spending and to minimize its burden on growth. Targeting welfare programs at low-income groups would be a necessary condition in this regard. Unfortunately, however, this condition is not being satisfied for many programs. This section addresses this issue in the areas of childcare, education, labor market policies, public pension, health insurance, housing, and credit guarantees.

[Table 12] Total and Social Expenditure by Government

(Unit: % of GDP)

		US	Japan	Germany	France	Italy	UK	Canada	Average
General government expenditure	1920	7.0	14.8	25.0	27.6	22.5	26.2	13.3	19.5
	1960	27.0	17.5	32.4	34.6	30.1	32.2	28.6	28.9
	1980	31.8	32.0	47.9	46.1	41.9	43.0	38.8	40.2
	1990	33.3	31.7	45.1	49.8	53.2	39.9	46.0	42.7
	1995	33.2	35.4	49.5	53.7	51.8	43.3	46.5	44.8
	2000	30.1	36.8	43.3	48.7	44.8	34.7	46.7	40.7
Social expenditure	1960	7.3	4.1	18.1	13.4	13.1	10.2	9.1	10.8
	1980	14.1	10.5	25.4	23.9	19.8	21.3	14.4	18.5
	1990	14.6	11.6	23.5	26.5	24.5	22.3	18.8	20.3

Source: OECD (1994); OECD, *OECD Economic Outlook,* various issues; Tanzi and Schuknecht (1995).

5.2. Childcare

Recent years witnessed a rapid rise in the demand for childcare, and the number of private care providers increased to meet the demand. Nonetheless, their service

quality is low mainly due to the fact that government support is concentrated on the public care providers. This creates "an unequal footing" between private and public providers and forces the former to lower their service charge far below the level adequate for a high-quality care. The government also sets strict ceilings on service charges for all types of providers, and prohibits for-profit organizations from entering the childcare market.

A first step to eliminate such market distortions brought in by the government would be reducing the subsidies to suppliers and strengthening direct supports to consumers, especially in low-income groups. If the government support to public care providers is to continue, their service should be open only to low-income groups. In addition, the ceilings on service charges need to be increased substantially or abolished altogether, and for-profit organizations allowed entering the market. At the same time, the government should introduce an accreditation system for childcare providers and build up a monitoring mechanism to reduce the information asymmetry between suppliers and consumers.

5.3. Education

A greater focus on low-income groups is needed in the educational sector as well. In case of primary and secondary education, there is no clear distinction between public and private schools as all of them receive about the same amount of control and support from the central government through local educational boards. This makes it difficult to promote diversity and creativity in educational service and to focus government support on low-income groups. It is therefore necessary to "liberalize" private schools from government control, reduce direct subsidies to them, and

strengthen the support to public schools and low-income groups.

In case of higher education, government supports often go directly to educational institutions (i.e., colleges and universities) and not through students or researchers. Direct supports encourage rent-seeking behavior by institutions. To promote both efficiency and equity, the government needs to reduce direct supports and instead expand scholarships and loans to students especially in low-income groups and research grants to professors. This would enhance competition between institutions for better educational service and research environment and widen the window of opportunity for low-income groups.

5.4. Labor market policies

Even though Korea has a low unemployment rate compared to other countries, it is important to strengthen the active labor market policies (ALMPs) in order to expand employment opportunities for disadvantaged groups and increase the overall employment rate. ALMPs are known to be effective when individual programs are kept small in size, are tailored to the needs of clearly defined target groups, and have a strong tie with local businesses (Martin, 2000). Otherwise, their performance is often found very poor.

Another important point is to decouple funding and service provision; while the government still finances ALMPs, the private sector is encouraged to provide the actual services. Currently, most of job training and employment services are provided by public bodies in Korea that face little competitive pressures and provide low-quality services. Deregulation (or re-regulation) and the introduction of a voucher system are required in these areas to remedy these problems.

5.5. National Pension Scheme

Financial instability is often held as the most serious problem with the National Pension Scheme (NPS) in Korea. Nevertheless, equally serious is the problem that NPS is unable to provide old-age income supports to those who are most in need of them. NPS requires a minimum participation of 10 years for pension entitlement and its benefit levels reflect beneficiaries' earnings history. Thus, those with a fragile labor market attachment or low earnings potential are unlikely to receive pension benefits adequate for their retirement. Kim (2005) predicts that more than half of the retirement-age population will stay in "blind spots" of NPS with no or very small pension benefits.

This calls for a fundamental review of the role of NPS. It is necessary to strengthen old-age income supports to low-income groups while expanding the role of corporate and personal pensions and reducing that of NPS. Without such reforms, NPS will remain an irrelevant program to those most in need of public supports, an objectionable state intervention to those who can prepare for their own retirement with private saving, and a harmful device that reduces national saving and economic growth for the whole population.

5.6. National Health Insurance

The National Health Insurance (NHI) in Korea covers two categories of participants, namely, firm-based participants (owners and employees of firms) and regional participants (often the self-employed of small shops and jobless). Insurance premiums for firm-based participants are proportional to their reported earnings, while premiums for regional participants take into account houses, cars, and other assets owned by participants as well as their reported income. This reflects the

difficulty of identifying the true income levels of regional participants.

The premiums collected from regional participants fall far short of expenditures made for them. The government helps fill the gap by sharing expenditures on regional participants with NHI. There are no such subsidies for firm-based participants.

Obviously, equity is violated in this system both horizontally and vertically. Horizontally, firm-based participants pay higher premiums than regional participants for the same amount of income. Vertically, high-income regional participants are offered with government supports while low-income firm-based participants are not. The remedy lies in cutting supports to high-income regional participants and providing supports to low-income groups regardless of their participation categories. To encourage cost-saving efforts by NHI, the supports should take the form of ex-ante premium rebate rather than ex-post expenditure sharing.

5.7. Housing

Housing supports are provided to low-income groups in three ways. First, the Housing Allowance in the National Basic Livelihood Protection System (NBLPS) – the most important public assistance program in Korea – offers cash benefits to those at the bottom of the income distribution. Second, public rental housing is being expanded, with 1 million new units to be built between 2003 and 2012. Third, the National Housing Fund (NHF) extends two types of loans at below-market interest rates; supplier loans are for construction companies that plan to build housing units, and consumer loans are for families that want to buy or rent a house on "Chonsei".[6)]

6) Chonsei is a special arrangement in Korea where the owner of a house borrows Chonsei money at zero interest rate and confers on the lender rights to occupy the house for a fixed term (usually two years). The occupier is effectively paying rents equivalent to the market interest on the Chonsei money.

The Housing Allowance, though well targeted at the poor, is limited to those who are eligible for NBLPS, a very small portion of the whole population. On the other hand, public rental housing and NHF loans are not well targeted, and need a new strategy to enhance their effectiveness. Out of 1 million new rental units to be built, 40 percent have areas of 63-80m^2. There will be little demand for these units from low-income groups; the average area of residential units was only 65m^2 in 2002. Similar problems exist for NHF loans. About half of the supplier loans are for housing units with areas of 60-85m^2. In case of "loans to workers," a variety of consumer loans, around 80 percent of borrowers came from top 60 percent of income distribution (Kim, Park, and Lim, 2004).

The government should therefore redefine the target population of the public rental-housing program and NHF loans and modify their designs. For example, the public rental housing construction plan needs to be revised to reduce the number of larger units to be constructed. In addition, rather than building new rental units, buying old units occupied by low-income families and then converting them into rental houses should be given a higher priority. It is also necessary to introduce rental subsidies and to reduce the interest rate on NHF loans and extend the loan period for low-income families. On the other hand, loans to middle and high-income families should be curtailed drastically. The share of NHF in housing loan market is around half, which suggests a strong competition between NHF, a public body, and private financial institutions.

5.8. Credit guarantees for SMEs

There are many public credit guarantee funds in Korea. Their problems lie in their bloated sizes and financial instability. Public guarantee funds take up 2/3 of the total corporate credit guarantee market, and run persistent deficits. In addition, public funds tend to extend guarantees of large amounts for a long period. In case of the two most important funds – Credit Guarantee Fund and Technology Credit Guarantee Fund – guarantees of KRW 500 million (USD 500 thousand) or more took up 51.1 percent of total guarantees, and guarantees extended for 6 years or more took up 50.5 percent.

Such a high share of large guarantees extended for long periods indicates that the roles played by these funds cannot be properly called "public." Their guarantees should instead be concentrated on starting or small-sized firms that suffer from information asymmetry and market failures. Specifically, the ceiling on guarantee amounts needs to be lowered and a mandatory graduation of firms from public credit guarantees after a certain period introduced. These measures will also help reduce the overall size of public guarantees, enhance the efficiency of resource allocation, and eventually strengthen the competitiveness of the Korean economy.

6. Summary and Conclusions

Welfare spending is growing fast in Korea after the recent economic crisis, and its growth is expected to accelerate in future with population aging. Recently, there has been a growing debate of whether and how much such spending growth will affect economic growth. This paper intends to contribute to the current debate by (1)

summarizing the existing literature on the relationship between economic growth on one hand and income inequality and redistribution policies on the other; (2) providing additional evidence on the negative impact of redistribution on growth; (3) evaluating the welfare spending in OECD countries; and (4) suggesting ways to improve the effectiveness and efficiency of welfare spending in Korea.

To minimize the negative impact of redistribution on growth and maximize its effectiveness, the best strategy for government is to focus welfare programs on those who need them most, and move away from supplier-orientation toward consumer-orientation. An important obstacle to such a change in policy direction is the poor quality of income-verification system in Korea. We see inadequate current effort on the part of government to improve the system.

Another serious obstacle is expected to come from the opposition from suppliers of various social services – public child-care centers, universities, public employment service centers, etc. – when the policy focus shifts from suppliers to consumers. In addition, current beneficiaries who will lose benefits – high-income regional participants in NHI, high-income borrowers from NHF, established firms relying on public credit guarantees – will also oppose the reform. The role of political leadership looks all the more important in bringing about the changes we need.

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