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# SOCIAL AND ECONOMIC DIMENSIONS OF AN AGING POPULATION

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**Path Dependence and Possible Regime Shifts**
**in Korea's Evolving Pension System**

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**SEDAP Research Paper No. 262**

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# A New Bismarckian Regime? Path Dependence and Possible Regime Shifts in Korea's Evolving Pension System

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**Abstract:** This paper sheds light on the current state and the likely future development of Korea's evolving pension system by analyzing it from a comparative perspective. It shows that, because of its many institutional layers, the Korean pension system could evolve into one of several different types of pension regimes: if the National Pension Scheme (NPS) were to continue to be dominant and occupational pensions continued to be marginal, a classic Bismarckian system would emerge; if the NPS were to be significantly reduced and occupational pensions were to be significantly expanded, a Bismarckian-light system would be the outcome; if other changes were to occur—such as the conversion of the basic pension into a universal, poverty-preventing pension and the partial replacement of the NPS by a mandatory personal or occupational-pension scheme—a mixed regime would emerge. The paper argues that the emergence and consolidation of a Bismarckian-style, single-pillar system is more likely than the shift to one of the variants of the multi-pillar system, such as the Bismarckian-light and the mixed regime type. Since there are many sources of path dependence that reinforce the Bismarckian path of development, a shift to a different pension regime is very difficult. For example, large accumulated entitlements and the strong redistributive role of the NPS make it difficult to reduce the public, earnings-related pension program, and significant accumulated entitlements and the important role of the severance pay scheme in company financing also make it difficult to expand occupational pensions.

**Keywords:** welfare state, pension systems, path dependence, institutional change, Korea

**JEL Classifications:** D02, H53, H55, J32

**Résumé:** Cet article met en lumière l'état actuel et l'évolution probable du système de pension de la Corée à la lumière d'une analyse comparative. Cette dernière suggère qu'en raison de ses multiples couches institutionnelles, le système de pension coréen pourrait converger vers l'un des régimes de retraite suivants.  Dans le cas où le *National Pension Scheme* (NPS) devait continuer à occuper une position dominante et les régimes de pensions privés à jouer un rôle marginal, un système bismarckien classique devrait émerger. En revanche, si le place prépondérante du NPS devait être considérablement réduite et les fonds de pensions privés significativement élargis, un système bismarckien-*light* émergerait. Finalement,  si d'autres changements devaient s'opérer, comme la conversion du régime de pension de base en un système universel  de retraite ciblant la prévention de la pauvreté et le remplacement partiel du NPS par un régime de retraites privés obligatoires, un régime de pension mixte se dégagerait. Cet article soutient que l'émergence et la consolidation d'un système bismarckien, c'est-à-dire,  un système à un seul pilier est plus probable que l'émergence de l'une des variantes des systèmes à piliers multiples, tels que le système bismarckien-light et les systèmes à régimes mixtes. Comme il existe de nombreuses sources de « dépendance de sentier » qui renforcent le développement d'un régime bismarckien, le passage à un régime de retraite différent apparaît très peu probable. Par exemple, le large volume des droits accumulés et le rôle redistributif très fort de la NPS rend difficile la réduction du système de pension public dont le niveau des prestations est lié aux revenus et aux droits accumulés; de plus le rôle important des indemnités de départ dans les finances des entreprises rend également difficile l'élargissement des régimes de pensions privés.

## INTRODUCTION

Pension systems play a central role in welfare states. Public pension plans were, in most advanced industrialized countries, the first social program to insure either workers or citizens against one of the major social risks in their lives and to cover a large proportion of the population. Pension systems thus shaped the development of modern welfare states. In addition, since in many OECD countries pensions are the single largest social program, accounting for more than 10 percent of GDP, they are one of the biggest items in government budgets and thus a key driver of taxes and public expenditures. The role of pension systems will become even more important over the next 50 years: because public pensions are needed to prevent poverty and provide income security for retirees, population aging will lead to a rise in pension expenditures and significant fiscal challenges for governments. The study of pensions thus helps to gain insights into the emergence and change of welfare states, the politics of social policy, and the policy responses to population aging.

The formation and development of Korea's pension system is truly remarkable: over the course of only two decades, governments have created a social insurance program—the National Pension Scheme (NPS)—that seeks to provide generous pension benefits to a very large proportion of the working population; a basic old-age pension program for more than two thirds of citizens; a social assistance program targeted at poor retirees; and voluntary, tax-subsidized occupational-pension plans. Despite a rapid expansion of coverage and very low pension spending, Korean governments have made major changes

to the NPS' key parameters and thus significantly reduced pension benefits (OECD 2007b, 73). Most importantly, the 2007 pension reform led to a reduction of the benefit level from 60 to 50 percent in 2008 and a reduction from 50 to 40 percent over a 20-year period (Kim 2010; Phang 2010). These extraordinary developments—the creation of many new pension programs and the retrenchment of only recently created ones—show that Korea's pension system is not fully institutionalized. Key indicators of institutional stability—a dominant pension policy paradigm, a permanent set of policy instruments, and a broad and stable support coalition—are still lacking. Since Korea's core program was created only about 20 years ago, it has not yet reached maturity: the first cohort that will have paid contributions over its entire work career will retire only in 2028. Even though NPS coverage was expanded in the 1990s to more than three quarters of the working population, the number of beneficiaries, the average pension amount, and annual expenditures continue to be very low by international standards. The NPS contribution rate of 9 percent of wages is well below the OECD average. Most importantly, the NPS' role in poverty prevention and income security provision is not yet fully determined. To conclude, since Korea's pension system is still in the process of development, the division of responsibilities among Korea's public-pension programs, and the relative importance of the state and the market in pension provision, is uncertain.

The Korean pension system is at a crossroads (Kim and Kim 2005; Kwon 2002; Yang 2004; Moon 2002). Over the course of the next 50 years, it could turn into a single-pillar system: public pensions, primarily those provided by the NPS, would guarantee a level of income sufficient for replacing most of employees' income in retirement, and private

pensions would not be an important source of income. Alternatively, it could become a multi-pillar system: public pensions would keep most pensioners out of poverty, and private pensions would top up public ones. If they combined public and private income sources, middle- and higher-income workers would likely be able to maintain their standard of living in retirement. If Korea chose the single-pillar route, it would most likely follow the path of Austria, France, Germany, and Italy. In these Bismarckian countries, large public pensions provide income security even for employees with medium and high earnings. If Korea chose the multi-pillar route, it would most likely follow the path of Canada and the United States. In these Bismarckian-light countries (Weaver 2004), earnings-related public-pension schemes replace only a small portion of medium and high earnings and thus leave a gap that personal and occupational pensions are expected to fill. The implications of following either the single-pillar or the multi-pillar path for benefit levels and contribution rates can be illustrated by a brief comparison of Germany and Canada (in the early 2000s): the German Statutory Pension Insurance—the first Bismarckian scheme in the industrialized world—provided, up until its transformation in 2001, benefits of close to 70 percent of wages for average earners, had a contribution rate of about 20 percent of wages, and received funds from general revenue to pay for non-contributory benefits such as child-care credits. The Canada/ Quebec Pension Plan, a "Bismarckian-light" program, provided benefits of 25 percent for average earners, had a contribution rate of about 10 percent, and used surpluses for building up a significant reserve fund.

In many advanced industrialized countries including Korea, recent pension reform debates have focused on the fiscal necessity and political feasibility of transforming Bismarckian pension systems into multi-pillar ones (World Bank 1994; Myles and Pierson 2001; Holzmann et al. 2003). Both the World Bank and the OECD urged the Korean government to cut the level of NPS benefits drastically and to convert the existing severance pay program into mandatory occupational pensions (World Bank 2000; OECD 2001). The World Bank found the replacement rate of the NPS "extremely high by international standards" (World Bank 2000, 12) and warned that the contribution rate increase required for financing the costs generated by population aging would "almost double the taxes of labor in Korea" (World Bank 2000, 18). It recommended that the contribution rate be kept at the present level of 9 percent and that the benefit level be cut in half. In addition, the World Bank argued that a move towards a multi-pillar system was feasible: the NPS "[i]s still immature and the debt owed to those that have contributed since 1988 is still manageable. A shift to a system less dependent on the state and on high payroll taxes on future generations can still be made comfortably" (World Bank 2000, 50). Since it seems to be easy to make a regime shift, Korea is an exception among Bismarckian OECD countries: in Austria, Canada, France, Germany, Italy, and the United States, a large-scale privatization of pensions is extremely difficult (Myles and Pierson 2001).

By analyzing Korea's experience from a comparative perspective, this paper seeks to shed light on the current state and the likely future development of its evolving pension system. It is divided into three sections: the first section analyzes the institutional design

of the Korean system and identifies models of pension provision that could emerge from it; the second section reviews three key sources of path dependence—ideas, interests, and institutions—and examines their role in stabilizing the Korean pension system; the third section studies the effects of different pension reform choices on path dependence and draws lessons from the experiences of Bismarckian OECD countries. This paper concludes that the Korean pension system is more likely to evolve into a single-pillar system than into a multi-pillar one. Thus, in about 50 years, it will likely look more like the German and Austrian pension systems than like the Canadian and American ones.

## INSTITUTIONAL DESIGN OF PENSION SYSTEMS

Despite uncertainties regarding the development of Korea's pension system, one can gain a better understanding by comparing its institutional design to that of existing pension regime types. In this section, the following four typologies of pension regimes will be used: (1) Esping-Andersen's classification consisting of corporative state-dominated insurance systems, residualist systems, and universalistic state-dominated systems; (2) Korpi and Palme's classification made up of targeted, voluntary state-subsidized, corporatist, basic security, and encompassing systems; (3) Weaver's classification consisting of notional defined contribution, Bismarckian, Bismarckian-light, universal, residualist, and mixed systems; and (4) the OECD's classification of pension systems which takes into account several key institutional features and economic indicators (Esping-Andersen 1990; Korpi and Palme 1998; Weaver 2004; OECD 2007b). It should

be noted that almost all pension regimes are ideal types and that many pension systems have elements from more than one type. A striking example is Japan's pension system: it blends two of Esping-Andersen's regime types—the corporative state-dominate insurance system and the residualist system (Esping-Andersen 1997). In addition, it should be noted that pension regime typologies are most useful for analyzing future scenarios of Korea's pension system and, since they were developed for well-established pension systems, provide an only partial picture of the current state of Korea's emerging and immature system.

*Table 1 Pension Regime Typologies and Possible Regime Shifts in Korea*

| *Esping-Andersen (1990)* | *Korpi/ Palme (1993)* | *Weaver (2004)* | *Possible regime shifts* | *Country examples* |
|---|---|---|---|---|
| Residualist | Targeted<br><br>Voluntary state-subsidized | Residual | | Australia (before 1990s) |
| | Basic security | Universal | | New Zealand |
| | | Bismarckian-light | ↑ | Canada<br>United States |
| | | Mixed | ↑ | Australia<br>United Kingdom<br>Switzerland |
| Corporativist state-dominated | Corporatist | NDC | | Italy |
| | | Bismarckian | Korea | Austria<br>France<br>Germany |
| Universalist state-dominated | Encompassing | NDC | | Sweden |
| | | Mixed | ↓ | Denmark<br>Netherlands |
| | | Bismarckian | | Norway |

## State and Market in Pension Provision

Esping-Andersen's typology of pension systems is a mirror image of his well-known classification of liberal, conservative, and social democratic welfare regimes. It takes two crucial features of pension systems into account: first, the relative role of the state and market in pension provision and, second, the degree to which certain occupational groups, especially civil servants, enjoy better retirement income security than the majority of workers or citizens. The role of the family in pension provision—which is still very large in Korea (Moon 2008, 3)—is not a key criterion in this typology since the maturation of public and private-pension programs are expected to marginalize both family transfers and other traditional forms of old-age poverty relief. In residualist systems, which exist mostly in liberal welfare states such as the United States and Canada, both private and public programs play an important role in retirement income security, and civil servant privileges are largely absent. In corporative state-dominated systems, which are typical of the Germany and France's conservative welfare states, public-pension programs have a dominant role and grant strong status privileges to civil servants. In universalistic state-dominated systems, which exist in Sweden and Norway's social democratic welfare states, the state is also a dominant source of retirement income but does not provide special pensions to civil servants.

The Korean pension system is most similar to the corporativist state-dominated ideal type. The NPS was designed to be the dominant pillar of old-age security: it promises high replacement rates for workers with long contribution histories and covers almost the

entire working population, including self-employed persons. Occupational pensions and private retirement savings play only a small role in the Korean system. Companies are encouraged to convert their severance pay schemes into occupational-pension plans but, so far, only few have made this change (Phang 2010). In 2008, company pension plans covered less than 4 percent of the workforce (OECD 2008, 145). Korean civil servants have special pension schemes and get much higher retirement benefits than private sector workers (Bae 2010). Even though Korea seems to fit the corporativist type well, it could eventually become more similar to the residualist one. Since the NPS is maturing only very slowly—about half of retirees will not receive benefits until 2030 (Moon 2008, 4)—and the benefits from the new basic pension program—which is supposed to compensate for the long transition to a fully mature NPS—are very low, there is a significant gap in retirement income provision. If tax-subsidized occupational pensions were to fill this gap sooner than public programs, the market would gain weight and the state would likely lose its dominant role. Thus, a hybrid system that combines elements from both the corporativist state-dominated and the residualist regime types is a possible outcome in Korea.

**Flat-Rate and Earnings-Related Pension Benefits**

Korpi and Palme's corporatist and encompassing regime types are closely related to Esping-Andersen's corporativist and universalistic state-dominated models (see Table 1). The two main criteria for classifying pension systems are the principle for calculating benefits and the basis of eligibility. In the corporatist type, benefits are related to

earnings, and eligibility depends on both employment status and occupational group membership; in the encompassing type, there is not only an earnings-related program for employees but also a flat-rate program for citizens. Korpi and Palme's targeted, voluntary state-subsidized, and basic security models are variants of Esping-Andersen's residualist regime type. Of these residualist variants, only the basic security type is relevant for understanding the Korean case: benefits are low and are either at a flat rate or are related to earnings, and eligibility is based on either citizenship or employment. Unlike the corporatist and encompassing types, the basic security model seeks to prevent poverty only; income security in retirement, especially for high-income groups, is a private responsibility.

The Korean pension system shares many features with the corporatist model and a few with the basic security and encompassing models. The NPS is an earnings-related program for employees, but its benefits are in part related to average earnings in the economy: all employees with 40 years of contributions can expect to receive a pension at least as high as 30 percent of the average wage (OECD 2007a, 119). Since the program redistributes funds from higher-income groups to lower-income ones, it provides a basic level of security for all workers. In addition, the new basic old-age pension, which complements the NPS' basic protection, is similar to a citizenship pension: it covers about 70 percent of retirees and excludes only high-income earners. If the replacement rate of the NPS were to stay at a high level, and basic pension benefits were to grow, Korea's pension system would become more similar to the encompassing system; if the

level of NPS benefits were to decline significantly, and basic pension benefits were to stay low, Korea would become more similar to the basic security model.

**Replacement Rates in Bismarckian Pension Systems**

Weaver's classification is useful for analyzing the development of pension regime types from the 1950s to the 2000s and for understanding the structural changes in OECD countries that have led to regime shifts. It shows that the Bismarckian and Bismarckian-light types—which provide public, earnings-related pensions with high and low replacement rates, respectively—are the most stable pension regimes. Austria, France, and Germany are examples of the Bismarckian type, and Canada and the United States are examples of the Bismarckian-light one. Two new types emerged in the 1980s and 1990s: the mixed type which has a mandatory or opt-out occupational-pension tier and a relatively small public tier, and the notional defined contribution (NDC) type, which provides contribution-related benefits and relies mostly on pay-as-you-go financing. Sweden and Italy are two examples of the NDC type. Two other types—the universal type which provides only flat-rate benefits, and the residual type which has only a small, targeted public-pension program—have almost ceased to exist and are thus no longer important for an analysis of future developments in pension systems.

Since the NPS is an earnings-related social insurance program with high replacement rates, Korea's pension system is most similar to the Bismarckian regime type. But if the NPS's benefit level were to decline significantly, the Korean system could turn into a

Bismarckian-light regime. This would most likely occur if the contribution rate were to be limited to a relatively low level of between 10 and 15 percent of wages, which is the approximate range in Bismarckian-light pension systems. In 2009, the contribution rate was 9.9 percent in the Canada/ Quebec Pension Plan and 12.4 percent in the U.S. Social Security program. The NDC system presents another scenario for the Korean system. If the level of NPS benefits were to be reduced to a near-adequate level for income security, and either private or occupational programs were to fill an only small gap in pension provision, Korea's pension system could become more similar either to Sweden and Italy's NDC regimes or to Germany's pension system which was recently converted from a Bismarckian system into a quasi-NDC system with a quasi-mandatory private pension pillar (Börsch-Supan and Wilke 2006; Hering 2004).

**Redistributive and Insurance Tiers in Pension Regimes**

The OECD has developed a real-world typology that allows for a comprehensive and unambiguous categorization of pension systems in advanced industrialized countries. Unlike the other classifications, the OECD's does not define pension regime types—it analyzes the structure of pension systems. It differentiates between two tiers: a public, redistributive tier with universal coverage, and a mandatory insurance tier, which is either public or private or both. The goals of the first and second tiers are, respectively, the prevention of poverty in old age and the maintenance of an adequate income after retirement. The first tier includes targeted pension programs and basic pension programs; the second tier includes defined benefit (DB), notional defined contribution (NDC), and

defined contribution (DC) programs. In addition, the OECD measures the key parameters—such as the benefit levels, contribution rates, retirement ages, and coverage rates—of the first and second tiers. The OECD's classification is thus a very useful complement to other pension-regime typologies and especially to Weaver's classification.

*Table 2 Redistributive and Insurance Pension Tiers in OECD Countries*

| | *Universal, redistributive tier (percent of average earnings)* | | *Mandatory, insurance tier* | |
|---|---|---|---|---|
| | *Targeted* | *Basic* | *Public* | *Private* |
| Korea | | 30 | DB | |
| *Bismarckian* | | | | |
| Austria | 28 | | DB | |
| France | 32 | | DB | |
| Germany | 19 | | DB | |
| *NDC* | | | | |
| Italy | 22 | | NDC | |
| Sweden | 34 | | NDC | DB, DC |
| *Bismarckian-light* | | | | |
| Canada | 17 | 14 | DB | |
| United States | 22 | | DB | |
| *Mixed* | | | | |
| Australia | 25 | | | DC |
| Denmark | 18 | 18 | | DC |
| Japan | | 16 | DB | |
| Netherlands | | 31 | | DB |
| Switzerland | 24 | | DB | DB |
| United Kingdom | 15 | 15 | DB | |

*Source:* OECD 2007b, Table I.1., I.2.

Regarding its structure, the Korean pension system is most similar to the Bismarckian systems in Austria, France, and Germany and to the Bismarckian-light systems in the United States and Canada: it has a first tier for preventing poverty and a public, second tier that provides income security and operates on the defined benefit principle (see Table 2). The OECD considers the NPS both as a first tier and as a second tier program: it has classified the portion of NPS benefits that is based on average, economy-wide earnings as a basic, first tier pension, and the portion that is based on life-time, individual earnings as a public, second tier pension. The replacement rate of the first tier program is as high in Korea as it is in Austria, France, and Canada, and is higher in Korea than it is in Germany and the United States. The overall replacement rate of the NPS is higher than the OECD mean at most levels, which range from half to two times average earnings (see Table 3). The Korean pension system is most similar to the German and French Bismarckian systems: the replacement rates at average or above-average earnings are at similar levels; because of the NPS' large redistributive component, the replacement rates at below average earnings are significantly higher in Korea than in either Germany or France. The NPS provides lower benefits than the very generous Bismarckian system in Austria but higher ones than the Bismarckian-light systems in the United States and Canada. It is difficult to compare Korea to countries with either NDC or mixed systems. Since the OECD's replacement rate calculations include both public- and mandatory private-pension benefits, it is not possible to compare Korea's state-dominated pension system to the public, earnings related programs in countries—such as Australia, Denmark, the Netherlands, Sweden, and Switzerland—that have either NDC or mixed systems and also mandatory or quasi-mandatory personal or occupational-pensions tiers. However, a

comparison of the Korean system to mixed regimes with voluntary occupational pensions—such as the United Kingdom's and Japan's—suggests that the NPS likely provides more generous benefits than public-pension programs in most non-Bismarckian countries.

*Table 3 Net Replacement Rates by Earnings Level in OECD Pension Systems*

| | *Individual earnings, multiple of mean* | | | | |
|---|---|---|---|---|---|
| | *0.5* | *0.75* | *1* | *1.5* | *2* |
| Korea | 106 | 83 | 72 | 62 | 51 |
| *Bismarckian* | | | | | |
| Austria | 90 | 91 | 91 | 89 | 66 |
| France | 78 | 65 | 63 | 58 | 55 |
| Germany | 53 | 57 | 58 | 59 | 44 |
| *NDC* | | | | | |
| Italy | 82 | 78 | 78 | 78 | 79 |
| Sweden | 81 | 69 | 64 | 72 | 74 |
| *Bismarckian-light* | | | | | |
| Canada | 89 | 68 | 57 | 40 | 31 |
| United States | 67 | 58 | 52 | 48 | 43 |
| *Mixed* | | | | | |
| Australia | 84 | 66 | 56 | 46 | 41 |
| Denmark | 133 | 102 | 87 | 77 | 72 |
| Japan | 53 | 44 | 39 | 34 | 31 |
| Netherlands | 97 | 104 | 97 | 96 | 95 |
| Switzerland | 75 | 68 | 64 | 46 | 35 |
| United Kingdom | 66 | 49 | 41 | 31 | 24 |
| OECD average | 84 | 74 | 70 | 65 | 61 |

*Source:* OECD 2007b, 35.

It should be noted that Korea has neither a mandatory occupational-pension tier—which exists in Australia, Denmark, the Netherlands, and Switzerland—nor many voluntary personal or occupational-pension schemes like Britain, Canada, and the United States do. Even though the mandatory severance pay program in Korea functions in part as a retirement scheme, the OECD does not classify it as an occupational-pension program. If many companies were to convert their severance schemes into occupational-pension plans (Phang 2010), the Korean pension system could become a variant of the mixed pension regime type: the contribution rate of Korea's severance pay program—about 8.3 percent wages—is similar to the contribution rate of voluntary or mandatory occupational-pension programs—about 9 percent of wages—in Australia, Britain, Canada, and the United States (OECD 2007b, 77). If Korean occupational-pension plans were to be made mandatory or quasi-mandatory, they would likely cover more than 90 percent of employees, and if they were to continue to be voluntary, they could possibly, in the long term, reach a coverage rate of between 40 and 50 percent.

To conclude, the review of four pension regime typologies showed that Korea's pension system is most similar to the Bismarckian regime type, which is a variant of the corporatist and corporative state-dominated types (see Table 1). The analysis of the OECD's replacement-rate projections provided support for this categorization. Even though it is likely that the Korean system will continue to follow the Bismarckian path, a regime shift is a possibility: significant retrenchment of the NPS and an expansion of the new basic old-age pension would lead to a shift to the basic security regime type and specifically to this type's Bismarckian-light variant; an expansion of occupational-

pension schemes would make the Korean pension system more similar to the mixed systems which exist both in countries with a residualist regime, such as Australia and the United Kingdom, and in those with a universalist state-dominated regime, such as Denmark and the Netherlands. A shift from the Bismarckian system to either the classic residualist regime, which existed in Australia before the 1990s, or the classic encompassing regime, which continues to exist in Norway, is very unlikely—the former because of strong opposition to radical retrenchment and the latter because of strong fiscal pressures generated by rapid population aging.

## SOURCES OF PATH DEPENDENCE IN PENSION SYSTEMS

Since several institutional outcomes are possible, one cannot predict with certainty the Korean system's path of development. However, one can examine the key factors that influence the development of pension systems and lead either to path dependence or to regime shifts. In addition, one can draw lessons from the experiences of other advanced industrialized countries. Even though history rarely repeats itself, an analysis of stability and change in foreign pension systems allows one to assess the likelihood of different scenarios. This section reviews three important sources of path dependence and regime shifts—ideas, interests, and institutions—illustrates their effects with examples from other OECD countries, and discusses implications for the Korean pension system.

## Ideas of Income Security and Poverty Prevention

Ideas and principles are key drivers of stability and change in modern welfare states (Cox 2004; Béland 2005; Schmidt 2000; Peng and Wong 2008). In addition, they were one of the main reasons for the emergence of three different welfare regimes—the liberal, the conservative, and the social-democratic ones—in OECD countries (Esping-Andersen 1990). The ideas regarding the relative weight of the state and the market played an important role in the development of pension systems (Myles 1989). In the 1950s and 1960s, policymakers in Bismarckian countries—such as Germany, Austria, and Italy—decided that public, earnings-related pension programs should provide a high replacement rate so that public pensions enable workers to enjoy the same standard of living in retirement that they had during their employment years. Policymakers regarded private pensions, both personal and occupational, as only a desirable but mostly unnecessary supplement to generous public pensions. A high replacement rate required a high contribution rate: in Germany, for example, the target replacement rate of 80 percent of gross wages required, in 1957, a contribution rate of 14 percent. For almost 50 years, the Bismarckian pension programs in continental Europe crowded out the private pensions market because of key decisions regarding the benefit level and the contribution rate. Canadian and American policymakers held different ideas than German, Austrian and Italian ones. In Canada, policymakers did not want that earnings-related public pensions be a full replacement of workers' income in their retirement years; their goal was to provide a basic retirement income and thus only a dependable foundation for old-age income security. Policymakers who wanted to preserve sufficient room for voluntary,

occupational pensions advocated a replacement rate of only 20 percent of wages; those who favored a stronger role of the state proposed a benefit level of 30 percent (Simeon 1972). The compromise solution was 25 percent of wages, and this level has been maintained since the 1960s. Policymakers had limited goals in the United States as well: even though they gradually increased the level of Social Security benefits between the 1940s and 1970s, they did not want to achieve a level that would be sufficient for income maintenance (Derthick 1979). Social Security's main guiding principles were the prevention of poverty and the provision of a secure basis for an adequate retirement income. Both in Canada and in the United States, occupational pensions filled the gap left by the public system and thus became an essential component of their pension systems (Sass 2006).

The dominant ideas at the program level—income security or poverty prevention—are critical factors in the long-term development of pension systems. Since the founding ideas and principles define both policy goals and limits, they leave a legacy that is difficult to change (Hall 1993). For example, when German policymakers sought to transform the Bismarckian pension system into a quasi-NDC system, they had to find a solution that would allow them to depart from the pension program's goal of income security without giving up this long-standing principle. They found the following one: after the reform, public pensions were to provide benefits that would be close to the income security level; newly introduced quasi-mandatory private pensions were to compensate for the reduction of public-pension benefits. Thus, future retirees were able to expect a pension income from public and private sources that would be at least as high

as the benefits that the public program had previously provided. Another example is the attempt in the 1970s to increase the replacement rate of the Canada/ Quebec Pension Plan significantly (Banting 1985). Even though the contribution rate was at a low level and thus could have easily been doubled, it was not possible to build a coalition among the federal and provincial governments for a change of the plan's purpose. The founding idea of preserving plenty of room for occupational pensions prevailed. In 2009, in a new debate on expanding public pensions in Canada, options for creating a supplementary plan, which were to cover only workers who did not have an occupational-pension plan, were discussed (Ambachtsheer 2008; Chase and Carmichael 2009) but the option of an across-the-board increase of the level of Canada/ Quebec Pension Plan benefits was not put on the agenda. The original idea of providing basic security continued to be dominant in Canadian pension policy.

The German and Canadian experiences suggest that the founding ideas and principles matter more than ideas introduced at a later point in time. Core ideas formulated and institutionalized in the early stages of development can influence and constrain the long-term development of the entire retirement income system. It is likely that these experiences will be repeated in the Korean case. In the Korean pension system, the principle of income security was important much earlier than the idea of poverty prevention. The civil servants' pension programs, which had been introduced in the 1960s, were designed to be generous earnings-related programs: they provided a high level of benefits and thus enabled public employees to maintain their living standards in retirement without having to rely on private savings. In the late 1980s, the principle of

income security was applied to the NPS, which initially promised a replacement rate of 70 percent after only 40 years of work. Income security has thus been a long-standing idea in Korean pension policy. Even though the Korean government has made the decision to gradually reduce the NPS' replacement rate from 70 percent to 40 percent over the next 20 years, public-pension benefits will continue to be quite high. In addition, since the implementation of benefit retrenchment will be completed only in 2028, a reversal is possible—it would require only increases of the benefit accrual and the pension-contribution rate. Since the Korean economy is expected to continue growing, voters' demands for adequate, earnings-related pensions will likely become much stronger than they were at the time when the decisions to reduce the NPS' replacement rate were made. The experiences of many OECD countries have shown that voters' demands for better pensions lead either to a generous public-pension program or to a mandatory or quasi-mandatory occupational-pension pillar (Myles and Pierson 2001). Since income security was one the NPS' founding ideas, the Korean pension system is more likely to follow the former path than the latter one.

**Interests of Middle- and High-Income Earners**

Interests and coalitions are important causal mechanisms of path dependence and regime shifts in welfare states (Baldwin 1990; Korpi and Palme 1998; Esping-Andersen 1990; Pierson 1994). There are at least three sources of support for welfare state programs: first, the founders of a social program, including political parties, civil servants, and interest groups; second, the beneficiaries of a social program, especially workers and pensioners;

and third, previous opponents that have turned into supporters. Since existing institutions—and the ideas and principles embedded in them—shape the interests and ideas of individuals and organizations, actors can over time change their positions: political parties that originally opposed a program's creation can become its supporters, and citizens who derive relatively small benefits from a program can become important partners in its support coalition. For example, even though the Swedish conservative parties had voted against the introduction of a public, earnings-related pension program in the 1950s (Heclo 1974), they were part of a coalition for saving it in the 1990s. Another example is the role Canadian high-income earners played in pension reforms: in the debates on reforming the Canada/Quebec Pension Plan in the 1990s, they did not demand the partial privatization of public, earnings-related pensions—which replace only a small percentage of their earnings—and did not oppose a large increase of the contribution rate from 5.6 to 9.9 percent. They thus became part of a broad coalition for reform that also included the main beneficiaries of the Canada/Quebec Pension Plan: low- and middle-income earners.

The interests of middle- and high-income earners are a key factor in the development of pension systems: the more they support a program, the more likely is the latter's maintenance and expansion (Korpi and Palme 1998). Which kinds of pension programs do these groups support? The following three design features of pension systems are important determinants of middle class support: (1) eligibility rules, (2) the degree of redistribution, and (3) replacement rates. The first condition is the rules for benefit qualification: if a program targets low-income groups, it rarely receives strong support

from middle- and high-income groups; if a program covers either all citizens or all workers, it receives support from a broad coalition that cuts across high- and low-income groups. The second important feature is the degree of redistribution in universal or employment-based pension programs (Myles 1989): if a program provides flat-rate benefits and thus produces a high degree of redistribution, it is less likely to be supported by middle- and high-income groups; if a program provides benefits that are related to individual earnings and thus produces a low degree of redistribution, it is more likely to be backed by these groups. The third important condition is the replacement rate of earnings-related programs for middle- and high-income groups: if a program guarantees a replacement rate that is sufficient for income security even at medium and high income levels, it generates a broad support coalition; if it provides income security only for low income groups, it creates only a narrow support base.

The Austrian earnings-related pension scheme is an example of a program that leads to a commonality of interests among low-, middle-, and high-income groups: it provides almost universal coverage, limits redistribution in the earnings-related program, and replaces a very large portion of income even at high levels. Employees who earn twice the average wage in the economy can expect a net replacement rate of about two thirds of their income—a level that is more than sufficient for income security. Even though the Austrian pension system was reformed many times in the 1990s and 2000s, it has not deviated from its path: since its new goal is to guarantee a replacement rate of 80 percent of earnings after 45 years of work, income security continues to be its key principle. Initiatives by conservative governments to partially privatize retirement income security

failed because of massive citizens' protests. The United States' Social Security program is an example of a program that produced a weak support coalition: it has a high coverage rate, redistributes funds from higher- to lower-income groups, and replaces only a relatively small proportion of earnings at higher income levels. Thus, middle- and high-income Americans cannot depend on the public, earnings-related program for their income security needs and are simultaneously required to fund a portion of low-income earners' pensions. The weak support of middle- and especially high-income Americans explains in part why the long-term funding problems of Social Security, which could be solved by only a small increase of the contribution rate, have not been addressed. Because of resistance to tax increases, especially from middle- and high-income earners, the Social Security contribution rate has not been raised since the early 1980s (Weaver 2004).

What are the support bases of the Korean pension system? Between the mid-1990s and the late 2000s, the actors who contributed to either the founding or the expansion of the NPS and the new basic pension program—the civil servants in the Ministry of Health and Welfare, the Democratic Party, trade unions, and civil society groups—were the most important support base. The Welfare Ministry was strongly committed to the NPS, trade unions, and civil society groups were both defenders of earnings-related pensions and advocates of a better basic pension (Kwon 2003; Yang 2004; Kim 2008; Hwang 2007; Bateman 2007). Political parties in Korea have so far played a smaller role than in other OECD countries (Kim and Kim 2005; Choi 2008) but their support for, and influence on, the NPS and the basic pension program is likely to grow: the expansion and defense of

public pensions is a credit-claiming opportunity in electoral contests that political parties cannot afford to miss. This has been the experience of Austrian, French, and German political parties, for example. In 2007, competition between the Democratic Party and the Grand National Party had a positive impact on the introduction of the Korean basic pension (Hwang 2009; Moon 2008); it is likely that party competition will play an expansive and defensive role also in future rounds of pension reform. The level of support from beneficiaries in Korea's maturing pension system is not yet as high as it is in most long-established pension programs. But since the number of NPS beneficiaries and near-beneficiaries has been increasing, and since a large proportion of the workforce has been paying contributions to this program, one can expect that many workers would defend their entitlements to future benefits if a government were to attempt a partial privatization of the NPS.

*Table 4 Redistribution and Earnings Coverage in OECD Pension Systems*

| | *Progressivity index (percent)* | *Earnings ceiling (percent of average earnings* |
|---|---|---|
| Korea | 55 | 160 |
| *Bismarckian* | | |
| Austria | 30 | 147 |
| France | 25 | 101 |
| Germany | 27 | 151 |
| *NDC* | | |
| Italy | 3 | 370 |
| Sweden | 13 | 132 |
| *Bismarckian light* | | |
| United States | 41 | 290 |
| Canada | 87 | 96 |
| *Mixed* | | |
| Australia | 73 | — |
| Denmark | 59 | — |
| Japan | 47 | 150 |
| Netherlands | 0 | — |
| Switzerland | 53 | 108 |
| United Kingdom | 81 | 115 |
| OECD average | 37 | 189 |

*Source:* OECD 2007b, 45, Table I.2.

*Note:* The progressivity index ranges from 0 (pure flat-rate scheme) to 100 (pure earnings-related scheme)

A crucial determinant of the NPS' stability will be the degree of support from middle- and high-income Koreans. In the 1990s and 2000s, these groups depended on the NPS and other public programs because occupational pensions were largely lacking. But this could change over the next decades. If most middle- and higher income workers were to be covered by occupational-pension plans, they would likely find the NPS increasingly less attractive both because of its progressive benefit structure and because of its insufficient replacement rate for workers with high incomes. Unlike the earnings-related pension programs in classic Bismarckian countries such as Austria, France, Germany, and Italy, the NPS leads to a high degree of redistribution (see Table 4). As shown in the OECD's data, the Korean benefit formula is very progressive: the progressivity index—which ranges from 0 in a pure flat-rate program to 100 in a pure earnings-related one—was 55 in Korea and thus about twice as high as it was in Austria, France, and Germany. Even though the NPS' replacement rate was relatively high for middle-income earners, it was barely adequate for high-income ones (see Table 3). The 2007 pension reform reduced the NPS' adequacy for high-income earners further (Moon 2009, 16). The replacement rate for high-income earners is to a large extent determined by a program's ceiling on pensionable earnings: in Korea and most other OECD countries, high-income workers are liable to pay pension contributions only up to an earnings ceiling and thus do not earn entitlements to benefits on the portion of their wages that exceeds this limit. Thus, if the ceiling on pensionable earnings is low, high-income workers depend on private-pension provision to meet their need for income security. The NPS' ceiling was 160 percent of average earnings, which was below the OECD average of about 190 percent but similar to the Austrian and German ceilings (see Table 4). But since the

Korean ceiling was not indexed to wage growth (Moon 2009, 16), its magnitude relative to average wages is expected to decline over the next decades. This would increase the dependency of middle- and high-income groups on private-pension provision, likely diminish their support for the NPS, and thus weaken the broad coalition among workers with low, medium, and high incomes.

**Institutional Constraints on Change**

Since institutional rules of pension systems create incentives and constraints for policymakers and thus limit reform options, they are key determinants of path dependence and regime shifts in pension systems (Weaver 2003; Bonoli 2000; Myles and Pierson 2001). The classic example of path dependence in pension systems is the difficulty of shifting from a public, pay-as-you-go program to a private, funded pension system. Since younger workers would have to pay both for the entitlements that have been earned by older workers and for the contributions to their own retirement funds, they would face a double-payment problem. Thus, once a pay-as-you-go pension program has been created, it is difficult to abolish: new entitlements are established because current contributions from employers and employees are used to pay for the pensions of current retirees. An excellent example of the institutional constraints in a mature pension system is the Bush administration's 2005 proposal for the partial privatization of Social Security: even though only 2 percent of the Social Security contribution rate was to be diverted to individual accounts, this measure would have created a financing gap of $4.5 trillion over two decades (Orzag 2005, 15). These

enormous transition costs were one of the main reasons for the failure of this reform initiative. In the 1980s, the Thatcher government's unsuccessful attempt to abolish the UK's new earnings-related pension program showed that it is difficult to change even an immature pay-as-you-go pension scheme (Pierson 1994). The problem of high transition costs makes difficult not only the shift from public to private programs but also the integration of special civil servants' schemes into a general, earnings-related program. The German case illustrates these challenges of integration well: civil servants have separate, unfunded pension schemes that are financed from the revenues of the federal, state, and local governments; if they were to join the general earnings-related pension program, German governments would need both to continue to finance existing pension entitlements from current tax revenues and to contribute to the general public-pension program. Since this would create a significant fiscal burden, governments have not yet attempted to integrate civil servants in the general public-pension scheme (Sachverständigenrat Wirtschaft 2001, 161). The double-payment problem plays a role not only in the restructuring of public-pension programs but also in the conversion of occupational pensions from book reserve schemes—which are an important internal source of corporate financing—to externally funded pension plans: companies that want to convert their plans need to honor past pension commitments and to make contributions to a new funded program.

Another example of the effects of institutional constraints is a shift from a partially redistributive program to a pure earnings-related one. Many public earnings-related pension programs have one or more rules that produce redistribution: they give credits for

periods of child care, military service, unemployment, and education; they provide minimum pensions for people with low incomes or short work histories; and they have benefit formulas that ensure high replacement rates for below-average income earners. In most earnings-related programs, redistributive benefits are financed by employer and employee contributions. Governments that want to reduce redistribution in a pension insurance program are faced with the problem of financing existing entitlements and, if they continue the provision of redistributive benefits in another form, the problem of setting money aside for new entitlements. In Germany, the cost of financing child-care credits in the public-pension scheme from general taxes—as opposed to from employer and employee contributions—has exceeded €11 billion per year since 2001. In addition, in order to cover other non-contributory pension credits and payments, the federal government has transferred up to €50 billion per year to the pension-insurance program (Deutsche Bundesbank 2008, 54). This case illustrates the problem resulting from a reduction of redistribution in an earning-related pension program: the emergence of a large funding shortfall which requires either an increase of general tax revenues or a reduction of benefits.

Which institutional rules produce path dependence in the Korean pension system? Constraints on change exist in four retirement income programs: the NPS, the basic pension program, the civil servants' schemes, and the severance payment scheme. The NPS has accumulated large pension entitlements since it uses primarily the pay-as-you-go financing method and has received contributions for more than 20 years. The World Bank estimated that the NPS' implicit pension debt ranged from 26 to 57 percent of GDP

in 2000 (Holzmann et al. 2004, 24). Using the World Bank's projection model, the Korea Institute for Health and Social Affairs estimated that the NPS' unfunded liabilities would rise from 47 percent to 140 percent of GDP between 2006 and 2050 (Yun 2007, 14). Thus, a large-scale privatization of the NPS would create prohibitive transition costs, and even a partial privatization of the NPS would be very difficult to finance. The NPS' strongly redistributive benefit formula—which calculates pensions in part on the basis of average economy-wide earnings as opposed to individual ones—presents an additional barrier to a regime shift. Since the NPS is expected to serve as the key program for poverty prevention in old age, a shift from its partially redistributive formula to a purely earnings-related one would require a large transfer of funds from general revenue to the NPS. A massive expansion of the tax-financed basic pension program would be an alternative to refinancing the NPS, but this would generate high costs—mostly because of the basic pension program's high coverage rate—and likely require higher taxes. Specifically, if basic pension benefits were to be raised to a poverty-preventing level and coverage were to be made universal, the projected costs in 2050 would increase from 1 percent of GDP to about 7 percent of GDP (Moon 2008, 7; OECD 2007a, 122). In Korea's special civil servants' pension schemes, existing financing provisions make an integration in the NPS difficult; even though both employers and employees pay contributions, the government pays subsidies to these schemes because benefit expenditures exceed contribution revenues. Excluding employer contributions, annual subsidies were 1.5 trillion (more than $1 billion) in 2005 and are expected to increase to more than 30 trillion (more than $24 billion) by 2020 (OECD 2007a; Moon 2002). If the special schemes' members were to join the NPS, the government would have to pay

for their existing entitlements but would no longer receive revenues from contributions. Like in the public-pension programs, in the occupational-pension system change is constrained by the double-payment problem: a full conversion of Korea's unfunded severance payment schemes into externally funded occupational-pension plans would create high transition costs since companies that were to opt for conversion would be required to pay both workers' accumulated entitlements to severance benefits and employer contributions to new pension funds. It is thus unlikely that a market alternative to the NPS would emerge in less than 10 or perhaps even 20 years.

## POLICY RESPONSES IN BISMARCKIAN PENSION SYSTEMS

Path dependence and regime shifts in pension systems are not only influenced by macro-causal factors—ideas, interests, and institutions—but also by micro-causal ones: the types and sequences of policy responses to social, economic, and demographic challenges (Weaver 2004; Bonoli and Palier 2007). Which policy responses are most likely to produce path dependence? A review of differences in the development of established Bismarckian pension systems is a starting point for answering this question: Canada and the United States maintained and, especially in Canada's case, strengthened their Bismarckian-light systems despite fiscal pressures; Austria, France, Germany, and Sweden developed dominant Bismarckian programs and maintained them over many decades; since the 1990s, Germany and Sweden have shifted from the Bismarckian to the NDC system while Austria and France have defended their classic Bismarckian programs

even in the face of political and economic challenges. Did past policy responses and reform sequences influence these outcomes? This section reviews the principal reform options that are available in earnings-related pension programs, examines their likely effects on the long-term development of Bismarckian pension systems, analyzes policy responses in countries with mature pension systems, and suggests lessons for Korea's evolving pension system.

**Four Types of Policy Options**

In order to achieve stability, Bismarckian pension systems need to change—they need to adapt specifically to economic and demographic challenges. Two design features create vulnerabilities that present difficult challenges for policymakers (Myles and Pierson 2001; Schludi 2005; Weaver 2004): first, since most Bismarckian pension programs are financed from wage-based contributions paid by employers and employees, their finances are strongly influenced by changes in wage and employment growth; and second, since they operate either primarily or exclusively on a pay-as-you-go basis, they are affected by the reduction of the number of contributors and the increase of the number of beneficiaries in an aging population. Despite these vulnerabilities Bismarckian pension systems can be maintained over long periods of time—but only if they are frequently and effectively adjusted. For example, German governments reformed the earnings-related pension program a staggering number of times: they made more than 400 pension laws in the period between 1957 and 2006 (Ruland 2007, 32). Most of these adjustments were

effective, but a few weakened institutional stability and thus contributed to Germany's shift to a quasi-NDC system in the early 2000s.

*Table 5 Types of Policy Options in Bismarckian Pension Systems*

| | *External* | *Internal* |
|---|---|---|
| Retrenchment | Eligibility Restrictions | Benefit Reductions |
| Refinancing | Contribution Increases | Reserves Reductions |

Bismarckian pension systems offer policymakers a large number of refinancing and retrenchment options (Schludi 2005, 20-43; Whiteford and Whitehouse 2007; Weaver 2003): to increase revenues, policymakers can increase the contribution rate, include previously uncovered groups, shift from contribution to tax financing, and create a tax-financed basic pension that is separate from the earnings-related program; to reduce expenditures, they can increase retirement ages, shift from a final-salary formula to a lifetime-average-salary one, reduce non-contributory benefits, change the method of benefit indexation, and harmonize occupationally segmented schemes (Schludi 2005, Tables 1.2 and 1.3). To understand the effects of refinancing and retrenchment options better, let us assign them to the following four categories: eligibility, benefits, contributions, and reserves (see Table 5). The first category—eligibility— encompasses all options that change the definition of beneficiaries: the groups that are entitled to pensions and the conditions under which individuals qualify for benefits. For example, in order to cover funding shortfalls, policymakers can increase the retirement age or close early retirement pathways. The second category—benefits—consists of options that

change the calculation of benefits: reductions of the benefit level, changes in the valorization of past contributions, changes in the indexation of pensions, actuarial adjustments for early retirement, and reductions of non-contributory benefits, for example. The third category—contributions—includes not only increases in the contribution rate but also measures such as the introduction or expansion of transfers from general tax revenue, the extension of the liability to pay contributions to previously excluded groups, increases in the wage ceiling, and increases of transfers from other social insurance schemes such as health and unemployment programs. The fourth category—reserves—includes not only cash reserves or investments stored in a reserve fund but also "hidden" reserves that could be used in the event of a funding shortfall: an equalization of white-collar and blue-collar pension schemes and a conversion of special pension schemes for civil servants, for example.

**Political Constraints on Policy Change**

Pension policymakers have a broad range of options but often face political constraints. In the United States, for instance, the Republicans and the Democrats have a consensus that even a minor increase of the Social Security contribution rate should not be tolerated; this constraint was one of the reasons for the Bush administration's proposal to partially privatize Social Security. In Germany, the Christian Democrats and the Social Democrats made the political agreement to prevent the pension contribution rate from exceeding 20 percent up until 2020 and 22 percent up until 2030; this agreement was turned into a formal rule that, because it limits contribution increases, played an important role in

Germany's shift from the Bismarckian to the quasi-NDC system. Since political constraints can lead to regime shifts, an analysis of their causes and of possible ways either to delay or to avoid them is critical. As a first step towards this analysis, policymakers' likely political constraints in employing the four types of options—eligibility, benefits, contributions, and reserves—can be examined. Since both an increase of the retirement age and an increase of the contribution rate affect labor markets and economic growth, pension policymakers can usually not make decisions on eligibility conditions and contributions without the consent of other key political actors such as economic policymakers and government leaders. But decisions regarding benefit cuts and the reduction of reserves usually fall within the jurisdiction of pension policymakers and tend to be supported by economic policymakers. Thus, pension policymakers face stronger political constraints in using external options—eligibility changes and contribution increases—than in using internal options—benefit and reserve reductions.

In addition to being constrained by other policymakers, pension policymakers are constrained by citizens' preferences. As opinion polls from many European countries have shown, retirement age increases and benefit cuts are the least acceptable options in pension reforms, and contribution-rate increases are the most acceptable option (Kohl 2002). Policymakers are usually free to reduce reserves because, as Germany's experience in the 1960 and 1970s and Canada's experience in the 1980s and early 1990s have shown, the reductions go unnoticed. To conclude, pension policymakers are more constrained in using retrenchment options—a retirement age increase and benefit cuts—than in using refinancing options—contribution increases and reserve reductions. By

making distinctions between external and internal options and between refinancing and retrenchment ones, one can rank the reform options by the expected strength of political constraints: eligibility restrictions likely lead to strong political constraints, contribution increases and benefit cuts to medium ones, and reserve reductions to weak ones.

The sequences in which the four reform options are used are likely to influence the development of Bismarckian pension systems: if pension policymakers were to use the most constrained options before the least constrained ones, they would preserve political flexibility in responding to social, economic, and demographic challenges; however, if they were to use the least constrained options before the most constrained ones, they would limit their capacity to adjust a program effectively to projected or unexpected changes. Put differently, in the early stages of development, retirement age increases would be the best choice for maintaining adjustment capacity, and a reduction of reserves would be the worst one; both benefit reductions and contribution increases would be second-best choices. Differences in political acceptability affect not only policymakers' general ability to use pension reform options but also their ability to implement changes in short order. Since retirement age increases are very unpopular among citizens and put occupational-pension arrangements under pressure, they need to be implemented gradually. Almost all countries that raised the retirement age delayed the start of implementation by several years and used a long transition period: in Germany, for example, the age increase from 65 to 67 years was delayed by 4 years and will be phased in over 18 years; in the United Kingdom, the age increase from 65 to 68 years was postponed by 18 years and will be implemented gradually over 22 years. The need for

gradual implementation is important also with regard to benefit reductions: benefit levels can be reduced only by slow and indirect measures such as changes to the accrual rate and to the indexation rule because citizens strongly oppose benefit cuts and because policymakers, for electoral reasons, do not want to reduce absolute pension amounts. To conclude, policymakers that seek to preserve adjustment capacity would be best off if they were to increase retirement ages and reduce benefits in the early stages of development. The use of contribution increases and reserve reductions is not as critical as the use of the other two options since the former are more acceptable and can be implemented without a long delay.

**Policy Responses and Path Dependence**

The development of the Canadian and German pension systems illustrate the effects of policy responses on institutional stability: Canada's decisions—to allow early retirement only with actuarially reduced benefits, to index benefits only to inflation, to implement a large contribution increase, and to protect the reserve fund—contributed to path dependent development; Germany's decisions—to allow early retirement with unreduced benefits, to index benefits to wage growth, to limit contribution increases, and to deplete the reserve fund—weakened institutional stability. Regarding the retirement age, Germany made a destabilizing decision in the early developmental stages: in the early 1970s, it created a flexible—and very expensive—retirement option that allowed workers with 35 years of contributions to retire at age 63 with full benefits. In the late stages of development, it was very difficult to change these rules and partially reverse the long-

term trend toward early retirement (Ebbinghaus 2006). The German government's decision to raise the normal retirement age from 65 to 67 years was made only after the shift from the Bismarckian to the quasi-NDC system had been implemented, and was thus made too late. Canada introduced the option of early retirement only in the mid-1980s and applied relatively high actuarial deductions—6 percent per year—to early pension benefits, which largely protected the Canada/ Quebec Pension Plan from escalating costs generated by early retirement. Regarding benefits, Germany followed the principle of gross wage indexation, which had been the cornerstone of its 1957 pension system. In the 1970s and 1980s, this ambitious goal led to a rapid rise of pension costs and thus reduced the Social Pension Insurance's capacity to adjust to economic and demographic changes. Since Canada had adjusted benefits in line with prices since the 1960s, its indexation rule limited cost increases and contributed to long-term stability.

Regarding contributions, Germany made stabilizing decisions in the 1950s and 1960s. The contribution rate was set at a high level: at 14 percent of wages in 1957 and at 18 percent only a decade later. In the 1960s, Germany's high contribution rate still produced small surpluses. But since partial pre-funding was not one of the program's objectives, policymakers were able to spend excess revenues on new or improved benefits, for example the early retirement option with unreduced benefits. The German system received, in addition to contributions from wages, significant annual transfers from the federal budget which reimbursed the pension insurance scheme for the payment of non-contributory benefits. These transfers contributed to path dependence and, because of a significant increase in the 1990s, briefly stabilized the Bismarckian pension system. Even

though the contribution rate of the Canada/ Quebec Pension Plan was only 3.6 percent in the 1960s, it produced surpluses that were saved in a dedicated investment fund, and this improved institutional stability. In the 1990s, Germany and Canada made different choices regarding contributions: Germany decided to keep the contribution rate at below 20 percent, and thus barely above the level that had first been established in the late 1960s, while Canada almost doubled its rate from 5.6 percent to 9.9 percent of wages. Germany's introduction of a fixed ceiling for the contribution rate undermined path dependence but Canada's steep contribution hike reinforced the path dependent development of its pension program and, because it was projected to increase the reserve fund from 2 years to more than 6 years of program expenditures, enhanced the program's adjustment capacity in the long run. Regarding reserves, Germany made a very destabilizing decision in the early stages of program development: after 1967 it reduced the required size of its small reserve fund from 1 year to only 1 month of program expenditures. Thus, policymakers were no longer required to build up the fund to its previously required level and were free to spend most of the program's accumulated reserves. Unlike Germany's choices regarding the reserve fund, Canada's stabilized the earnings-related pension program in the long run. In 1985, Canadian policymakers implemented a rule that was to protect the reserve fund: the contribution rate had to be increased if it was not sufficient for maintaining a reserve level equivalent to 2 years of program expenditures. In the mid-1990s, policymakers not only increased the required level to about 6 years of expenditures but also strengthened the fail-safe rule by mandating that, if the prescribed level should not be expected to be reached in the long

run and an agreement on reform could not be found, the contribution rate would automatically be increased and benefits would automatically be frozen (Little 2008, 249).

### Effects of Policy Responses in Korea

Were the policy choices that Korean governments made in the NPS' early development stage favourable or unfavourable to path dependence? Which future choices are likely to either reinforce or undermine the NPS' path dependent development? The 1998 decision to increase the retirement age from 60 to 65 years will likely have a positive effect on path dependence. But since it will bring Korea's normal age only up to the standard age in most OECD countries and its implementation will begin only in 2013 (and then be phased in over a 20-year period), its potential effectiveness in stabilizing the NPS has not been reached. An acceleration of the legislated age increase and a further increase from 65 to 67 or 68 years—similar to that in Britain, Germany, and the United States—would improve the stability of the NPS in the long term. Even though the reduction of the NPS' target replacement rate from 70 percent to 40 percent, legislated in 1998 and 2007, created the risk that Korea's Bismarckian system might be transformed into a Bismarckian-light one, it was likely a stability-enhancing decision: it reduces financing pressures in the medium term (Moon 2009, Table 2) and does not rule out future increases of the benefit level. Korea's choice of price, as opposed to wage, indexation of pension benefits will also contain costs in the long run. The contribution-rate increases, enacted in the 1990s, from 3 percent to 6 percent and from 6 percent to 9 percent of wages were important decisions that increased the likelihood of path-dependent

development. Nonetheless, even after its increase to 9 percent, Korea's pension contribution rate continues to be very low compared to Austria, Germany and Italy's which, respectively, were about 17, 14, and 16 percent of wages in the 1960s (Blöndal and Scarpetta 1998, 100). In order to avoid future financing problems, and reinforce the NPS' path dependent development, Korean policymakers would need either to increase the contribution rate significantly—likely to more than 15 percent (Moon 2009, 18-19)—or to introduce large transfers from general revenue. The initial decision to build up a massive reserve fund for financing NPS benefits was one of the most important steps toward creating a strong capacity for adjusting to economic and demographic changes. If policymakers were to make a commitment to permanent partial pre-funding—either by raising the retirement age or by increasing the contribution rate, or both—they would create a secure anchor for the NPS and thus stabilize the program's development in the long term.

## CONCLUSION

This paper has shown that, because of its many institutional layers, the Korean pension system could evolve into one of several different types of pension regimes: if the NPS were to continue to be dominant and occupational pensions continued to be marginal, a classic Bismarckian system would emerge; if the NPS were to be significantly reduced and occupational pensions were to be significantly expanded, a Bismarckian-light system would be the outcome; if other changes were to occur—such as the conversion of the basic pension into a universal, poverty-preventing pension and the partial replacement of

the NPS by a mandatory personal or occupational-pension scheme—a mixed regime would emerge. In addition, this paper has shown that these outcomes are not equally likely. Even though the Korean pension system is still maturing, there are many sources of path dependence that reinforce the Bismarckian path of development and make a shift to a different pension regime difficult. Large accumulated entitlements and the strong redistributive role of the NPS make it difficult to reduce the public, earnings-related pension program, and significant accumulated entitlements and the important role of the severance pay scheme in company financing also make it difficult to expand occupational pensions. The emergence and consolidation of a Bismarckian-style, single-pillar system is thus more likely than the shift to one of the variants of the multi-pillar system, such as the Bismarckian-light and the mixed regime type. Korea is at a crossroads but would have a hard time turning either left or right and, most importantly, seems to be looking straight ahead: income security has been an important idea and principle in Korean pension policy and is likely to continue to be important. Since the NPS is better able to provide income security than Korea's underdeveloped occupational-pension plans, it will likely be the dominant pillar in retirement income provision.

One of the key challenges for policymakers is the maintenance of the support from middle- and high-income earners. If the NPS replacement rates were to be inadequate for them, they would likely demand private alternatives; and if the redistributive role of the NPS were to continue to be very large, they would likely resist a significant contribution-rate increase—which, in the face of Korea's rapidly aging population, is absolutely necessary for reinforcing the NPS' dominant role. A reduction of redistribution in the

NPS and an increase of the NPS' earnings ceiling would likely not only increase support from middle- and high-income groups but also, in the long run, increase the volume of redistribution. There is a paradox of redistribution: "... the more we are concerned with creating equality via equal benefits to all, the less likely we are to reduce poverty and inequality" (Korpi and Palme 1998, 661). This is because very progressive programs reach their political limits of expansion much sooner than predominantly earnings-related ones. Even though strongly earnings-related programs redistribute a smaller percentage of funds than strongly redistributive ones, they tend to redistribute a larger overall amount and thus effectively reduce poverty and inequality in societies. Another key challenge for policymakers is the formation of a broad political consensus on the principles and goals of the Korean pension system. Since pension systems are difficult to change and critically shape the retirement plans of individuals and companies, pension policymaking needs to have a long time horizon and be based on the participation of, and agreement between, political parties, interest groups, and citizens. The experiences of Canada and Germany have shown that a broad consensus on pensions is the foundation of both a stable pension system and of a successful regime shift.

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