An Evaluation of Korean National Pension Scheme with a Special Reference to Japanese Experience

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I. Introduction

Korea is one of the countries that are faced with a very rapid aging of the population. While family-ties still play a major role in securing income after retirement, there is a growing demand for public pensions in place of family support. It has not been long since Korea introduced a universal pension scheme. The rapid aging of the Korean population along with further development and refinement of the pension system may impose financial difficulties in maintaining the current pension system around 2030 considering that there still remains the issue of the unbalance between contributions and benefits in the current pension program to be resolved.

The Korean pension scheme is similar to that of Japan. However, Japan has a longer history in handling the public pension scheme, has experienced population aging earlier, and already has experienced both shortfalls and success. Hence, Japanese public pension scheme and its experiences may be a good comparative study for Korea.

Section two of this chapter gives a brief outline on the National Pension Scheme of Korea. Section three compares the National Pension Scheme of Korea and the public pension scheme of Japan. Section four provides some implications from the Japanese experience along with those in other OECD countries. The last section gives a concluding remark.

II. Pension Scheme in Korea

The earliest plan was established in 1960 for the civil servants. 3 years later, a special program for the military servants was developed. Another program started from 1975 targeted for private school teachers and their staffs.[1] A more comprehensive scheme called the National Pension System came into effect in 1988 for the private sector employees of ages 18 to 59, and its coverage was extended to include self-employed in rural areas in 1995. The NPS was further extended to cover self-employed in urban areas in 1999.[2] Programs are divided to cover different sectors of the population, and they are run financially independent from each other. However, a small portion of the population is still not covered with any public pension schemes. These people are the non-active spouse of the person insured in any compulsory schemes, non-active students or the draftees for military service of ages 18 to 26, and those people protected under public assistance.

The contribution rate for the National Pension Scheme was initially set at 3% in 1988, and has been gradually increased since then, reaching 9% in 1998. It is shared equally between employees and their employers. The contribution rate for the self-employed started at 3% in 1995 and has been

[1] Employees of the specially designated post offices are covered with the other special program, as well.

[2] The persons working at the workplace with full-time employees of 5 or more are covered in the workplace, while those working at the workplace with full-time employees of less than 5 are covered in respective local areas along with the self-employed.

increased by 1% per year from 2000 until reaching 9% in 2005[3]. The contribution rate is determined based on the Standard Monthly Income (hereinafter SMI), which has 45 grades from 220,000 won to 3,600,000 won as of 2001.[4] Upon thorough examination of applications, a qualified insured person can be exempt from paying his/her contributions. These are those suffering from business closure/suspension, unemployed, retired persons, students, those drafted in military service, patients in hospital and the poor. Deferred contributions either in form of lump sum or installment basis may be available for such people. The period of no-payment is not recognized as the insured term. Government subsidy is provided to the National Pension Scheme for covering its administrative cost. In the case of farmers and fishermen, the reduced contribution rate by one third of the lowest grade in the SMI is being applied between 1995 and 2004, and the difference is being compensated by the general revenue.

In Korea, there are old-age, disability and survivors' benefits, and a special lump sum refund. The amount of each benefit is the sum of the basic pension and any additional pension. The basic pension benefit is of the two-tier structure: the flat-rate benefit and the earnings-related benefit. The additional pension benefit may be considered as family allowance, paid in a fixed amount, solely based on the number of dependents. In the following, the methodology for the detailed benefit calculation for basic Old-age Pension will be given.

The normal flat-rate basic benefit for old-age pension is 30% of the average price-indexed SMI for all insured persons over 3 years prior to pension contribution. This normal benefit will be paid to persons insured for 40 years. The flat-rate basic benefit is proportional to years insured. The minimum contribution years required is 20. Consequently, those who have contributed for 20 years will be applied with a flat-rate basic benefit being 15% of the average SMI. The earnings-related benefit is proportional to years insured (20 years or more) and to the average SMI of the insured person. The average SMI of the insured person is calculated over his/her entire period of coverage (and *not* for the last 3 years), adjusted by a wage index factor, and converted to the current earnings level. These conversions are carried out every year. The accrual rate for the earnings-related component of old-age benefits is 0.75% per year. Thus, 40-year contributions will earn 30% of the career average monthly real earnings. For example, a typical employee who's average SMI is the mean of the Standard Monthly Income of all insured persons, his/her replacement rate is estimated to be 60% after 40 years of contributions.[5] The benefit is indexed automatically each fiscal year (starting from 1 April) to reflect any changes in the consumer price index of the previous calendar year.

Old-age benefit is reduced for those insured for 10 years or more but less than 20 years and this reduced benefit is nearly proportional to years insured[6]. Another reduced old-age benefit, called "Special Old-age Pension" was introduced to cover the special cohort group at the time of National Pension Scheme enactment. This specific cohort was unable to meet the minimum requirements of 10-year contributions because their age was already over 50 at the time. Subsequently, the special old-age pension is paid when a person of the above cohort reaches age 60 with contributions of 5 to 9 years. The benefit ranges between 25% to 45% depending on the number of contribution years(5 to 9), which is regarded as being proportional to the normal benefit of 20-year contributions.

Full pension can be currently claimed at age 60 to retired persons insured for 20 years or more. In 2013, the normal pensionable age is to be increased to 61 and then on, one year every five years, eventually reaching 65 in 2033.[7] On reaching age 60, an individual who has not fully retired can receive a reduced pension (called "Active Old-age Pension"). The reduction is not based on his/her current earnings, but based solely on age before 65. The reductions are by 10% by one year; for example, 10% reduction for those of age 64 and 50% for those of age 60, and so forth. Further, old-age pension can be claimed as early as 55 years of age if one is fully retired with contributions of 10 years or more, though it is subject to actuarial reduction. The reductions are currently by 5% by one year before age 60. Consequently, the proportion of benefits to the normal amount is 75% for those making an initial claim at age 55. One half of the old-age benefits accrued to a partner during the period of

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[3] The person covered on the local basis pays the full amount of contributions.

[4] 1 million won = US$ 801 = EURO 889 = UK£ 558 = 99,500 yen as at 3rd December 2001. Note that the SMI is the monthly income of the *previous* year, determined by dividing the *total yearly income* of the workers concerned by 12.

[5] The miners or fishermen currently can claim the full Old-age benefit from age 55.

6 see National Pension Corporation (2001) for more detail.

[7] The replacement rate was first set to 70%, but was lowered recently to 60% for the average salary earners with 40-year contributions.

marriage may be granted to the divorced person of age 60, given the marriage lasted for at least five years. This will enhance the pension rights for women. If the divorced person remarries, the above claim will be suspended.

The Lump Sum Refund is payable to a person: 1) who had been covered by the National Pension Scheme but newly became a government official, 2) military personnel, 3) private school teacher, 4) an employee of the specially designated post office, 5) who emigrates to a foreign country, 6) who is a survivor of the insured person but not qualified for the survivors' pension, and 7) who reaches age 60 with contributions of less than 10 years. The lump sum amount is based on the contributions and legally fixed interest.

When a person is eligible for two or more pension benefits (including the lump sum refund), only one benefit is allowed at his/her choice and the other benefits are not paid. Pension benefits are paid monthly to a beneficiary on the last working day of each month. In fiscal 2000, 91% of beneficiaries were the recipients of the lump sum refund, whereas old-age pensioners were only 6.6%. In terms of the benefit amount, aggregate old-age pension benefits accounted only for 12.3% of the total benefits due to the relatively short operational time for the Korean National Pension Scheme.

The National Pension Scheme is a defined-benefit plan, financed mainly on the pay-as-you-go basis with partial funding. As at the end of March 2001, it had fund reserves of 76.8 trillion won. The fund reserves have been invested mainly to construct social overhead capitals. They have been invested in the financial sector as well, including investments to private bonds, stocks, and shares. The medium- and long-term financial projections are to be conducted every five years from 2003, promoting the fortification of the financial sustainability of the National Pension Scheme in the future.

III. Comparison between the Japanese and Korean Pension Schemes

There are many aspects of similarity between the national pension scheme of Korea and the public pension scheme of Japan[8]. First, the coverage was widened step by step by setting up respective programs for different sectors of the population. The pension scheme was first set up for public servants, and then the coverage was extended to include private sector employees. The self-employed were the last portion of the population to be covered. Second, the pension benefit is more generous for public sector employees than for private sector employees, though since 1986, Japan has reformed the system to unify the benefit formula between public and private sector employees as far as the social security component is concerned. Third, the program is a defined benefit plan, financed mainly on a pay-as-you-go basis with partial pre-funding. Fourth, the program has a two-tier benefit structure; the flat-rate benefit and the earnings-related benefit. Fifth, the normal replacement rate is 60% and the benefit is CPI-indexed automatically. Sixth, the average age for the beneficiary for old-age benefit is to be increased step by step to 65. Seventh, the contribution rate has been increased gradually and will continue to do so in the future, though further hikes in the contribution rate of more than 9% have not been announced yet in Korea. Eighth, while contributions are generally earnings-proportional, shared equally by employees and their employers, farmers and fishermen are exceptions where a flat-rate is applied for their contribution rate. Ninth, the fund reserves of the public pension programs have been invested mainly to construct social overhead capitals to boost economic growth. Tenth, reforms of public pension program are to be made at least every five years. Such frequent changes are necessary for fine tunings in order to take consideration of the rapidly changing socio-economic circumstances.

However, there exist several differences between the national pension scheme and the public pension scheme of Japan. The national pension scheme of Korea can be regarded as more advanced than the public pension scheme of Japan because of the following: a) private sector employees and the self-employed are covered within a unified program, both eligible for the earnings-related benefits i.e., the self-employed in Japan have no earnings-related benefit, b) the minimum contribution years for old-age benefit are 10 years in Korea, whereas they are still 25 years in Japan, c) pension benefits are paid monthly in Korea, while they are paid every two months in Japan, d) upon divorce, pension

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[8] Takayama (1998, 2001) for details of the Japanese public pension program.

payment is split equally in Korea. However, Japan has just started discussion on such a system, e) from the outset Korea has introduced the SMI which includes bonuses as the benefit/contribution base. In Japan the shift to incorporate the yearly income base will be from 2003, and f) Korea has no contracted-out plans for the earnings-related component. This issue caused much controversy, and after cautious consideration, Korean citizens came to a wise conclusion that the proposal of introducing contracted-out plans should be turned down. By contrast, Japan has made a mis-judgement by introducing contracted-out plans. A majority of contracted-out plans in Japan are currently suffering from a serious deficit in pension liabilities.

Japan has much longer experiences in handling public pensions and has managed to overcome some difficulties in terms of designing public pensions. It should be noted, among others, that: 1) since 1961, the portability of one's pension rights has been adjusted among the divided public pension programs in Japan. Since then, when an individual changes his/her job, that person will no longer lose the pension rights. Incidentally, the lump sum refund has been abolished in Japan except for short-term foreign employees, who can recoup their contributions in lump sum subject to a maximum of three years' contributions. Abolition of the lump sum refund dedicates, in particular, to strengthen pension rights for women who are most likely to temporarily leave their career upon marriage or child-bearing, and return to labor market after child-raising. As mentioned above, the minimum contribution period for old-age benefits (25 years) is relatively long in Japan. With a lump sum refund, a majority of Japanese females would have been one of the most disadvantaged groups in old-age income security. 2) Japan has already set up a revenue-sharing scheme among different public pension programs. The public pension program for the military servants are fully integrated into the program of civil servants in central governments. Generally, military servants retire early, and start receiving their old-age pension benefits much earlier compared to civil servants. The advance benefits for veterans are fully financed from general revenue, and not from the social security contribution. Thus, any crisis in financing the pension program for military servants could be avoided. 3) There are other revenue-sharing schemes in Japan. Due to the fact that the self-employed have been decreasing in number, the pay-as-you-go pension program for them became even harder to maintain. Since 1986, the first-tier, flat-rate portion has been fully integrated into one program for all sectors of the population in Japan. It is financed on a complete pay-as-you-go basis with revenue-sharing by equal annual contributions per enrollees from all divided programs. Considerable amount of money is currently transferred every year from employees in the private sector to self-employed people. This transfer has been justified and accepted, since the majority of children for pension recipients in the self-employed group are currently employees in the private sector. 4) The same is true for fishermen, employees of Japan Railway company, Japan Tobacco company and National Telephone and Telecommunications company; they have been decreasing in number. They have all been included in the general program for employees in the private sector in order to avoid any bankruptcy of each pension program for financing the second tier, earnings-related benefits. From 2002, employees in cooperatives of agriculture, forestry and fishery will be included, as well. 5) Public servants in Japan once enjoyed old-age pension benefits based on their final salary. Since 1986, the earnings-related pension for them has become lifetime average salary based, similar to one applied for employees in the private sector. Integration of pension benefit formula between public servants and the private sector employees has been accomplished. 6) Up until October 1994, pension benefits in Japan were adjusted in line with the hikes in gross wages, but since then, they have been in net wages. This implies a shift to define the replacement rate in terms of *net* earnings, inducing a more equitable balance of income between the actively working generation and the retired generation in consideration of social security contributions and tax payments that are increasing in real terms for the actively working generation.

IV. Implications from Experiences of Japan and Other OECD Countries

Learning from prior experiences of Japan and other countries, Korea can implement reform measures to the public pension program before beneficiaries start to receive the full amount of old-age benefits from 2008. Also, it may be helpful for Korea to review the past painful experiences of OECD countries in order to avoid taking the same path. In this section, short and long term issues will be discussed. Some suggestions for the future pension reform will also be given.

Largely, there seem to be eight short-term problems. First, the special program for the military servants is presently facing current account deficits. The government has been held responsible for making up deficits with general revenue due to an absence of a mechanism for the revenue-sharing scheme or integration. The Japanese case mentioned above may be useful in finding an adequate resolution to this problem and determine the optimal provisions. Furthermore, contribution periods when an individual is involved in a battle are currently counted as three times the actual periods, and this generous way of calculation might pose a problem.

Second, there is a question of transparency in determining the income of the self-employed in Korea and the same applies for Japan. Low reported incomes by the self-employed raises the issue of equity between employees and the self-employed, subsequently causing dissatisfaction among employees. One suggestion might be to reduce the flat-rate pension benefit. However, this will lower old-age income security for the self-employed in turn. The problem of underreported income may be resolved through implementing a funding shift to a consumption-based tax, since consumption is basically based on the actual income and not on the reported income to the tax authorities.

Third, the drop-out problem especially for non-employed or self-employed people is serious.[9] This is quite contrary to achieving a state of the "pension scheme for everyone," the nation's long-cherished dream. Japan also faces the same problem where some non-employed or self-employed people are forced to rely on public assistance in their old age, mainly due to their drop-out from the public pension program. Again, the solution to this problem may be a funding shift to a consumption-based tax for financing the flat-rate pension benefit.

Fourth, shifting to the net-wage indexation seems more advantageous. This shift has already been introduced in Germany and Japan in 1992 and 1994 respectively.

Fifth, implementing the improved benefit formula with adjusted pension requirements, well equipped with portability[10] among different programs should be pursued with the assumption that the public pensions remain in defined benefit plans. Under this premise, the reform of the pension program for civil servants is urgently needed at this point. Their benefit is still wholly based on their final salary and its accrual rate is considerably generous (i.e., the replacement rate is 80% for 35 years service). Furthermore, they can receive old-age benefits just after retirement regardless of age if they have continuous employment history of 20 years or more. Indeed, they are enjoying much greater benefits than the private sector employees in spite of deficits on current account of their pensions. The down-sizing of the public sector will be inevitable in the future. However, this will intensify financial difficulties in the pension program for civil servants even more. Thus, there should be some revenue-sharing scheme between programs for civil servants and private sector employees. The benefit formula and pension requirements should be in balance until then. Another thing to note is that it is possible for civil servants to have additional occupational pensions of their own, which are apart from social security.

Sixth, investment from fund reserves of public pensions should be done with careful consideration since it is most likely to be influenced by political situations, often causing non-transparent political scandals. The U.S. made a wise choice using fund reserves wholly invested to buy federal government bonds, which enables investment to be free from any political pressures.

Seventh, the old-age pension of Korea is rather unique: its reduction is solely dependent on ages. The younger the active workers in their early sixties, the heavier their penalty become. The active old-age pension could virtually operate as a strong employment subsidy for employers. If its purpose is to promote delayed retirement, the penalty should be reformed: the younger the active workers in their early sixties, the less they are to be penalized. Alternatively the penalty (the reduction) should be wholly deleted in early sixties. If it is too extreme, then, a reduction of pension benefits by, for example, 50% with any additional earnings may be recommended.

Turning to the medium- and long-term issues, one cannot neglect adverse effects resulting from further increases in the contribution rate for public pensions. With the current level of pension benefits fixed, the future generations will be forced to pay increased contributions up to around 30% for public

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[9] Yoon (2001) mentioned that recently 51% of eligible urban participants did not pay pension contributions.

[10] The portability is currently operated among three special programs, but *not* between the national pension and those three pensions. The unified public pension number is highly advisable to be implemented.

pensions.[10] 30% contributions are more than three times the current contribution rate, doing greater harms to the Korean economy. There could be some room for Korea to further increase the contribution rate for public pensions, but considering its adverse effects into account, any tremendous increases in the contribution rate should be avoided in the future. There may be two alternatives; a funding shift or a change in the benefit structure. Some funding shift to a consumption-based tax is preferable, as stated above. It should be remembered, as well, that a consumption-based tax will be the least in circumventing constraints on economic growth, compared with payroll tax or income tax[11]. As regards to possible changes in the benefit structure, let us look at international examples. One can observe a shift from the conventional two-tier benefit system to the earnings-related benefit with guaranteed income supplement in Sweden (see Figures 1 and 2). Canada has a two-tier system, with the income-tested flat-rate benefit for higher-income seniors. Australia has the earnings-related benefit with the means-tested flat-rate one. The United Kingdom is to introduce the second state pension or the pension credit for low-income groups. It can be regarded as a variant of guaranteed income supplement, the U.K. version. The essence of the new system is that the benefit is more closely related to contributions, which is more transparent and understandable to any generations. If introducing the notional defined contribution plan is combined with the above change in the benefit structure, any further increases in the contribution rate above some percentage point will be no longer required.

Figure 1 A Two-Tier Benefit System

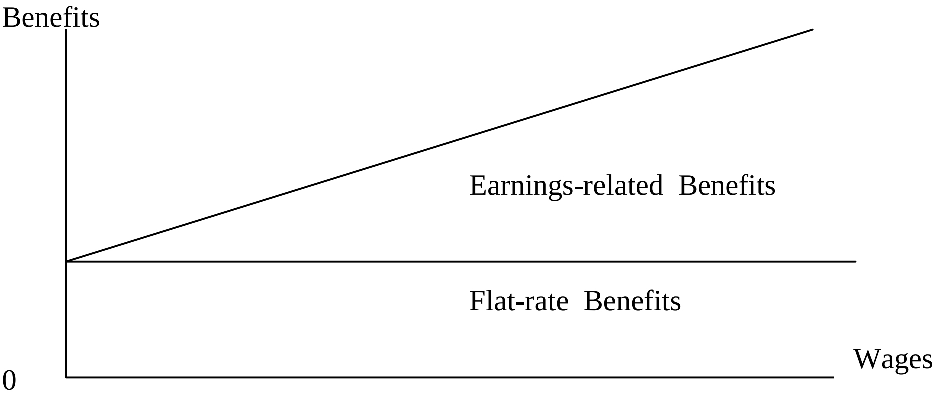
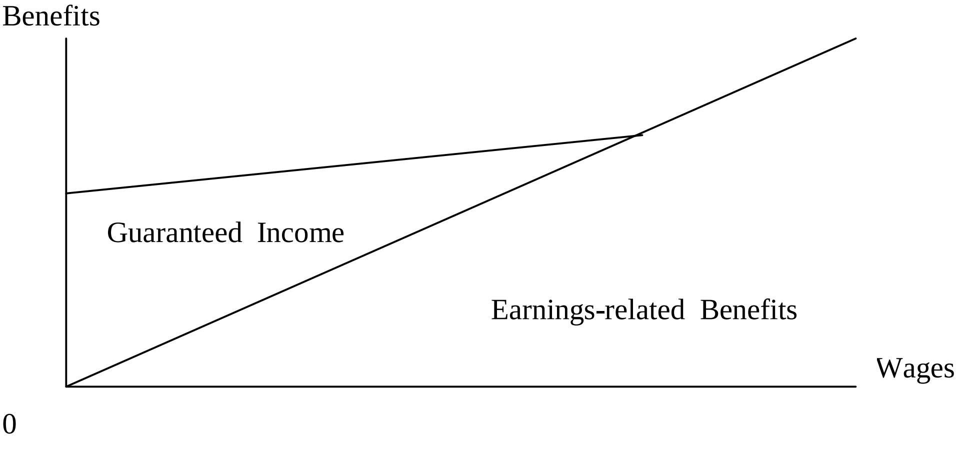


Figure 2 A New Benefit System



The guaranteed income supplement is paid to those whose earnings-related benefits remain insufficient. It is financed separately from the earnings-related part. It can be financed from general revenue or an earmarked consumption-based tax. It is not a universal benefit to all persons, thus enabling considerable amounts of money saving for public pensions. It is a pension benefit to meet

[10] The long-term maturity ratio (number of beneficiaries/insured) is estimated to be over 50% (near 60% after 2040) under the current provisions of the national pension system (see Yoon (2001)). With a purely pay-as-you-go financing, the required contribution rate would be more than 30% if the 60% replacement is to be maintained.

[11] Takayama (1997)

with the social adequacy objective.[12]

In my opinion, a shift mentioned above reflects the current trend and should be regarded when Korea , as well as Japan, put the country's great efforts striving to formulate the benefit structures that are well suited to each country's socio-economic situations.

Along with some move mentioned above, private initiatives should be encouraged more with strong tax incentives. This is mainly because in the future, the middle- and high-income groups are likely to receive lesser pension benefits from social security and therefore, considerable efforts still need to be directed in compensating this fall in securing income after retirement.

Korea has already mandated lump sum retirement allowances into its national policy. However, they are often of defined benefit type, possibly facing risks of huge under-funded liabilities. The retirement allowances can be shifted to a high-brid plan (of the U.S. cash-balance-plan type) or to a defined contribution plan. Through this shift, investment-based pensions with higher rates of return will be provided, while they may still face market risks. Some people advocate total conversion of lump sum retirement allowances into annuities. However, lump sum retirement allowances still seem quite important for Korean retirees. There should be freedom to choose between lump sum allowances and annuities.[13]

Ⅴ. Concluding Remarks

This chapter has evaluated the Korean national pension scheme from a financial point of view. Special reference was given to Japanese experiences, since the Korean scheme is very similar to that of Japan. Luckily enough, the Korean national pensions are still at their start-up phase, and it is rather easy for Korean people to reform the pension scheme, making it more sustainable in the long run. Trivial flaws can be remedied with small pains. The future picture on Korean pensions are wholly at the hands of currently active generations in Korea.

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[12] Korean people are currently discussing on a reform plan to give "contribution period credits" to the unemployed, low income groups, students, military draftees and those in child birth or caring the old. This might be on their way to attain the guaranteed income supplement within the pension system.

[13] When South and North Korea are unified to one nation, the public pension programs have to be integrated. Experiences of the German unification or the Okinawa case of Japan can be a lesson for that kind of integration.