2001-06

WORKING PAPER

The Korean Social Security Pension System: an Evaluation with a Special Reference to the Japanese Experience

By

Noriyuki Takayama

Professor of Economics
Institute of Economic Research, Hitotsubashi University, Japan
e-mail: takayama@ier.hit-u.ac.jp

Korea Institute for Health and Social Affairs

The Korean Social Security Pension System: an Evaluation with a Special Reference to the Japanese Experience

by

Noriyuki Takayama

Professor of Economics
Institute of Economic Research, Hitotsubashi University, Japan
e-mail: takayama@ier.hit-u.ac.jp

Korea Institute for Health and Social Affairs

Korea Institute for Health and Social Affairs
San 42-14, Bulkwang-dong, eunpyung-ku,
Seoul 122-040, Korea
ISBN 89-8187-074-8 93330

CONTENTS

1. Introduction

Korea is still a young country, but will face a very rapid aging of the population in the 21st century. While families are currently still playing a major role in securing income after retirement, there is a growing demand for social security pensions in place of family support.

It has not been so long since Korea introduced her social security pension system. The rapid aging of the Korean population along with fuller growth of the system might induce financial difficulties in maintaining the current pension system around 2030, since there still seems to remain some unbalance between contributions and benefits in the current pension program.

The Korean program seems to be very similar to the Japanese one. However, Japan has much longer history in handling social security pension programs. Japan has experienced her population aging much earlier. Japan has a painful story with many mistakes as well as successes when it comes to social security pensions. I believe that Korea can learn a great deal from these experiences of Japan.

Section 2 of this paper explains the brief outline of the Korean social security pension program. Section 3 compares the program with the Japanese one. Section 4 gives some implications from the Japanese experience together with those in other OECD countries.

2. Brief Outline of the Social Security Pension Program in Korea

The earliest plan was established in 1960 for the civil servants. In 1963, the special program for the military servants enacted. Another special program started from 1975 for private school teachers and their staffs.[1] The general scheme (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 the self-employed in rural areas in 1995. It was further extended to the self-employed in urban areas in 199 9.[2] The programs are divided into the different sectors of the population, financially run independently from each other.

There remain some types of people who are not yet covered with any social security pension programs. 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 general scheme was initially set at 3% in 1988, and has been gradually increased since then, reaching 9% in 1998. It is shared equally by employees and their employers. The contribution rate for the self-employed started at 3% in 1995 and has been increased by 1% year by year since 2000 until reaching 9% in 2005.[3] The contribution base is the Standard Monthly Income (SMI), which has 45 grades from 220,000 won to 3,600,000 won as of 2001.[4]

Upon applications, a qualified insured person can be exempt from paying his/her contributions; those people suffering from business closure/suspension, the unemployed, retired persons, students, those drafted in military service, patients in hospital and

---

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.

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

4) 1 million won = USD801 = EURO889 = 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.

the poor are such examples. Deferred contributions in a lump sum or installment basis are available for these people. The period of no-payment is not recognized as the insured term.

A transfer from general revenue is provided to the general 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 applied between 1995 and 2004, and its compensation comes from general revenue.

In Korea, there are ordinary old-age, disability and survivors' benefits, and a special lump sum refund. The benefit is the sum of the basic pension and the additional pension. The basic pension benefit is of the two-tier structure; the flat-rate benefit and the earnings-related benefit on the top of it. The additional pension benefit is a kind of family allowance, paid in a fixed amount, depending basically on the number of dependents. In the following, the benefit calculation for basic old-age pensions will be given in more details.

The normal flat-rate basic benefit for old-age pensions is 30% of the average price-indexed SMI for all insured persons over 3 years just before paying pensions. 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 are 20. Consequently those who have contributed for 20 years, have a flat-rate basic benefit of 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, as well. 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 the typical employee who's average SMI is just the same as that of all insured persons, his/her replacement rate is 60% in the case of 40 years contributions.[5]

The benefit is indexed automatically each fiscal year (from 1 April) to reflect changes in the consumer price index of the previous calendar year.

There is a reduced old-age benefit for those whose insured term is 10 years or more but less than 20 years. The reduced benefit is nearly proportional to years insured, but a little less than the proportional amount (see National Pension Corporation (2001) for more detail).

There is another reduced old-age benefit, called "Special Old-age Pension". This benefit was introduced to cover the special cohort group at the time of enacting the general scheme. The cohort was not able to satisfy the minimum requirements of 10-year contributions because their age was already over 50 at that time. 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 is 25% to 45% depending on contribution years of 5 to 9, the proportion to the normal benefit of 20-year contributions.

The full pension is currently payable at age 60 to fully retired persons insured for 20 years or more. The normal pensionable age is to be increased by one year in every five years from 2013, reaching 65 by 2033.[6]

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; namely they are 10% for those of age 64 and 50% for

5) The miners or fishermen currently can claim the full old-age benefit from age 55.

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

those of age 60.

The old-age pension may be claimed at age 55 at the earliest 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 old-age benefits accrued to a partner during the marriage period may be granted to the divorced person of age 60, who had been married for at least five years. This will virtually enhance the pension rights for women. If the divorced person remarries, the above claim shall be suspended.

The lump sum refund is payable to a person; 1) who had been covered by the general scheme but newly becomes a government official, military personnel, private school teacher, or an employee of the specially designated post office, 2) who emigrates to a foreign country, 3) who is a survivor of the insured person and is not qualified to the survivors' pension, and 4) who reaches age 60 with contributions of less than 10 years. Its amount is composed of contributions and legally fixed interest.

When a pensioner has the right to 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 pensioner 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. This is mainly due to the fact that the Korean general scheme of pensions is still at the start-up phase.

The general scheme is a defined-benefit plan, financed mainly on the pay-as-you-go basis with partial prefunding. As at the end of March 2001, it had funded reserves of 76.8 trillion won, which was equivalent to x.x times of the 2000 aggregate benefit payments. The funded reserves have been invested mainly to construct social overhead capitals. They have been invested into 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 general scheme in the future.

3. Comparison with the Japanese Social Security Pension Program

There are so many aspects of similarity between the Korean and the Japanese systems.[7)]
First, the coverage was widened step by step by setting up the respective programs for different sectors of the population. The program was first set up for public servants, and then extended to cover private sector employees. The self-employed were the last 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 basically on a pay-as-you-go basis with partial prefunding.

Fourth, the program has a two-tier benefit structure; the flat-rate benefit and the earnings-related benefit on top of it.

---

7) See Takayama (1998, 2001) for details of the Japanese social security pension program.

Fifth, the normal replacement rate is 60% and the benefit is CPI-indexed automatically.

Sixth, the normal pensionable age for old-age benefit is to be increased step by step to 65.

Seventh, the contribution rate has been increased step by step and is scheduled to increase further in the future, though in Korea further hikes in the contribution rate of more than 9% have not been announced yet.

Eighth, contributions by farmers and fishermen are exceptionally flat-rate, while contributions are generally earnings-proportional, shared equally by employees and their employers.

Ninth, the funded reserves in the social security pension programs have been invested mainly to construct social overhead capitals to boost economic growth.

Tenth, reforms of social security pension program are to be made at least every five years. Such frequent changes are considered to be fine tunings resulting from the rapidly changing socio-economic circumstances.

There are several differences, however, between the Korean and the Japanese programs. The Korean system can be regarded as much more advanced in that:

a) private sector employees and self-employed people are covered within a unified program, both enjoying the earnings-related benefits. Self-employed people in Japan have no earnings-related benefit in their social security pension system,

b) the minimum contribution years for a person to be eligible for receiving an 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) pension splitting among a couple upon divorce has already been implemented in Korea. Japan is just starting discussion on pension splitting among couples,

e) from the outset Korea has introduced the SMI which includes bonuses as the benefit/contribution base. The shift to the yearly income base will be from 2003 in Japan, and

f) Korea has no contracted-out plans for the earnings-related component. People in Korea argued this problem with great care, coming to a wise conclusion that the proposal of introducing contracted-out plans should be turned down. In a sharp contrast, Japan made a mistake in introducing contracted-out plans. A majority of contracted-out plans in Japan are currently suffering from huge unfunded pension liabilities.

Japan has much longer experiences on handling social security pensions. Japan has managed to overcome some difficulties in terms of designing social security pensions. It should be noted, among others, that:

1) since 1961, the portability of one's pension rights has been perfect among the divided social security pension programs in Japan. Since then, changes in jobs will lead to no loss of pension rights, as far as social security pensions are concerned. Incidentally, a lump sum refund has been abolished in Japan except for short-term foreign employees, who can recoup their contributions in a lump sum subject to a maximum of three years' contributions. Abolition of a lump sum refund dedicates, in particular, to strengthen pension rights for women who are most likely to temporarily stop their job career upon marriage or child-bearing, returning to market work after child-raising. As mentioned above, the minimum contribution years for old-age benefits are quite long in Japan. Minimum 25 years are required. 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 social security pension programs. The program of military servants are fully integrated into the program of civil servants in central governments. Military servants retire early in usual cases, and start receiving their old-age pension benefits much earlier than the normal pensionable age of civil servants. The advance benefits paid for veterans before that normal pensionable age are totally financed from general revenue, and not by the social security contribution for pensions. Thus, any crisis in financing the pension program for military servants could be avoided.

3) There are other revenue-sharing schemes in Japan. The self-employed have been decreasing in number. The pay-as-you-go pension program for them became harder and harder to be maintained. Since 1986, the first-tier, flat-rate portion has been virtually integrated into one program for all sectors of the population in Japan. It is financed on a fully pay-as-you-go basis with revenue-sharing by equal annual contributions per enrollees from all divided programs. Virtually, considerable amounts of money are 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 marine workers, employees of Japan Railway company, Japan Tobacco company and National Telephone and Telecommunications company; they have been decreasing in number. They have been all 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 shifted to lifetime average salary based ones, which is quite the same as those for employees in the private sector. A unification 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 defining the replacement rate in terms of net earnings, inducing a more equitable balance of income between the actively working generation and the retired generation when social security contributions and tax payments are increasing in real terms for the actively working generation.

4. Implications from Experiences of Japan and other OECD Countries

It is fortunate for Korea that the country can implement additional reform measures to the social security pension program before entrollees start to receive the full amount of old-age benefits from 2008. Korea can learn more from the past painful experiences of other OECD countries including Japan. Short-term issues and medium- or long-term ones should be argued separately. This section first discusses short-term issues and proceeds to talk on medium- or long-term issues.

There seems to be eight short-term problems, at least.

First, the special program for military servants are presently facing current account deficits. The government has been held responsible for making up the deficits with general revenue. Some revenue-sharing scheme or integration is missing. The Japanese case mentioned above can be a hint. Too generous provisions might be curtailed, as well. For example, contributed periods involved in actual war battles are currently counted as three times the actual periods. Isn't this treatment too generous?

Second, income of the self-employed in Korea seems non-transparent. This is often the case in Japan, as well. Underreporting of income will generate a fairly good deal in social security pensions with a flat-rate benefit. This may increase dissatisfaction of the employees whose income is much more transparent, on the other hand. Unless non-transparency of income for the self-employed is removed soon with ease, one option to diminish the dissatisfaction for the employees' part will be a reduction in the first-tier, flat-rate pension benefit. This reduction will lower old-age income security for the self-employed in turn, however. The problem of underreported income can be cleared if some funding shift to a consumption-based tax will be implemented, since consumption is basically based on actual income and not on reported income to the tax authorities.

Third, the drop-out problem especially for non-employed or self-employed people is serious.[8] This is quite contrary to achieving a state of the "pension scheme for everyone," the nation's long-cherished dream. It is quite the same as the Japanese case. Not a few non-employed or self-employed people will be forced to rely on public assistance in their old age, mainly due to their drop-out from the social security pension program. The ultimate solution to this problem may be a funding shift to a consumption-based tax for financing the flat-rate pension benefit.

---

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

Fourth, shifting to net-wage indexation will be more advisable. This shift has been already introduced in Germany since 1992, and also in Japan since 1994.

Fifth, a unification of the benefit formula and pension requirements, together with perfect portability[9] among different programs should be pursued, as long as the social security pensions remain in defined benefit plans. The reform of the pension program for civil servants will be urgent in 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 more generous 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 future Korea, however, which will intensify financial difficulties in the pension program for civil servants. There should be some revenue-sharing scheme between programs for civil servants and private sector employees. The benefit formula and pension requirements have to be the same until then. Note that civil servants can have additional occupational pensions of their own, which are apart from social security.

Sixth, investment from funded reserves of social security pensions should be done with much care. It is most likely to be influenced by political arbitraries, often causing non-transparent political scandals. The U.S. is wise enough in this sense that funded reserves are wholly invested to buy federal government bonds, which enables investment to be free from any political pressures.

---

9) The portability is currently operated among three special programs, but *not* between the national pension and those three pensions. The unified social security pension number is highly advisable to be implemented.

Seventh, the Korean active old-age pension is rather unique: its reduction is solely dependent on ages. The younger the active workers in their early sixties are, the heavier their penalty is. The active old-age pension could virtually operate as a strong employment subsidy for employers. If its purpose is to promote later 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 say, 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 social security pensions. With the current level of pension benefits fixed, the future generations will be forced to pay increased contributions up to around 30% for social security pensions.[10] 30% contributions are more than three times the current contribution rate, doing much more harms to the Korean economy. There could be some room for Korea to further increase the contribution rate for social security pensions, but taking 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 and 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 (see Takayama (1997) for more details).

As regards to possible changes in the benefit structure, one

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.

can recently observe a shift from the conventional two-tier benefit system to the earnings-related benefit with guaranteed income supplement in Sweden and Canada (see Figures 1 and 2). Australia has the earnings-related benefit with the means-tested flat-rate one. The United Kingdom is to introduce the state second pension or the pension credit for low-income groups. They can be regarded as a variant of guaranteed income supplement, a 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.

The guaranteed income supplement is paid to those whose earnings-related benefits remain small. It is financed separately from the earnings-related part. It can be financed from general revenue or an ear-marked consumption-based tax. It is not a universal benefit to all persons, leading to considerable amounts of money saving for social security pensions. It is a pension benefit to meet with the social adequacy objective.[11)]

A shift stated above is, I believe, a recent move towards the future. Korea as well as Japan, can learn a great deal from this move, with country's great efforts to strive for formulating its own benefit structure. I am quite sure that Korean people will be wise enough to figure out a new benefit system with their originality.

Along with some move mentioned above, private initiatives should be encouraged much more with strong tax incentives. This is mainly because in the future the middle- and high-income

11) 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.

groups will probably receive lesser pension benefits from social security. There should remain considerable efforts to compensate this fall in securing income after retirement.

Korea has already mandated lump sum retirement allowances. They are often of defined benefit type, possibly facing risks of huge unfunded 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.[12]

12) When South and North Korea are unified to one nation, the social security 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.

References

National Pension Corporation, Korea (2001), "National Pension Scheme in Korea", available at the website (http://www.npc.or.kr/end/enpsk.html?code=./enpsk/).

Takayama, N. (1998), The Morning After in Japan: Its Declining Population, Too generous Pensions and a Weakened Economy, Tokyo: Maruzen Co. Ltd.

Takayama, N. (2001), "Pension Reform in Japan at the Turn of the Century, " The Geneva Papers on Risk and Insurance, 26(4), Oct., pp. 565～574.

Takayama, N. (1997), "Summary Comments by Rapporteur," a paper stated at ILO-OECD workshop on Development and Reform of Pension Schemes, Paris, available at the website: (http://www.ier.hit-u.ac.jp/~takayama/index.html).

Yoon, (2001), "Introduction to Mandatory Old-age Income Security System in Korea," mimeo.