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PENSION REFORM IN KOREA

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Abstract

The public pension scheme in Korea, especially the civil service pension launched in 1960 and the military pension launched in 1961, are facing serious financial problems, though the degree of problems is less serious in the case of the private school teachers pension and the national pension system introduced much later. However, even these pension schemes are destined to face similar financial problems because of the inherent characteristics of "low contribution, high pension."

The Korean pension is at a crossroad. Without reforms the spending on the public pension scheme would rise to more than 10% of GDP by 2030. The pension system has to move toward a system less dependent on the state and on high payroll taxes of the future generations and a stronger private pension system. A systemic reform to pursue is a shift to a system that is partially defined contribution, funded and privately managed, rather than fully defined benefit, pay-as-you-go and publicly managed.

I. *Backgrounds*

Since 1960s, Korea has experienced a rapid social changes characterized by the emergences of nuclear families and dissolution of traditional extended family system due to high economic growth, and extension of life expectancy due to the increasing income level. At the same time, the total fertility rate has been declining drastically due largely to the increasing participation of women in ever-growing labor market.

The number of elderly aged over 65 has increased rapidly from 726,000 in 1960 to 3,371,000 in 2000 as shown in Table 1. National Statistical Office projects that the number of elderly aged over 65 will be well over 10 million marks in 2030. By the United Nations' definition of the aging society and the aged society, Korea became an aging society in 2000 when the share of elderly registered 7.13%, and will become an aged society in mid-2020 when this ratio exceeds 14%. Unlike the industrial countries where aging of population had been occurring rather gradually over time, the pace of aging was extraordinarily fast. It took 114 years for France to become an aged society from the aging society, while the same process took 82 years for Sweden, and 46 years for the United Kingdom, respectively. This transformation process is, in case of Korea, is expected to take only 22 years under the current pace of aging maintained.

Traditionally, Korea had an informal social protection system for elderly supported by the members of extended families. Despite its relatively high-income level, Korea had a young

TABLE 1. TREND IN POPULATION (In person, unit: thousand)

Year	Population	0-14 years(%)	15-64 years(%)	+65 years(%)
1960	25,012	10,588(42.3)	13,699(57.0)	726(2.9)
1970	32,241	13,709(42.5)	17,540(54.4)	991(3.1)
1980	38,124	12,951(34.0)	23,717(62.2)	1,456(3.8)
1990	42,869	10,974(25.6)	29,701(69.2)	2,195(5.1)
1995	45,093	10,537(23.4)	31,900(70.7)	2,657(5.9)
2000	47,275	10,233(21.6)	33,671(71.2)	3,371(7.1)
2010	50,618	10,080(19.9)	35,506(70.1)	5,032(9.9)
2020	52,358	9,013(17.2)	36,446(69.6)	6,899(13.2)
2030	52,744	8,448(16.0)	34,130(64.7)	10,165(19.3)

Source: National Statistics Office, *Future Population Projection*, 1996.

public pension scheme with limited coverage. The old still depend on the family and their own earnings. However the pattern is already changing. The decline in the role of informal transfers has been noted since 1980s, as support from children was replaced by own earnings and pension income. About 70% of elderly income in 1980s was fulfilled by support from children, half of which was replaced by own earnings and pension income in 1990s. With the expansion and maturation of the public schemes, this trend will become more pronounced during the next few years.

Until then however, the population already close to old age faces a difficult situation. On the other hand, the traditional system of old age support is in decline, and the ability of families to support their elderly relatives has been negatively affected by the recent economic crisis and recession. At the same time, emerging public and private pension schemes require a history of contributions. This cannot be achieved in the short-run. The only policy instrument available during the interim period while the national pension scheme matures is social assistance. Social assistance for the elderly is provided in the form of the livelihood protection program and the non-contributory old age allowance. This program provides modest cash and in-kind assistance under income and asset testing.

In many industrial countries, public pension income would have cushioned the loss of earnings and private transfers. In the Korean context however, the old must depend primarily on their own earnings, savings, and private transfers. Earnings likely were reduced sharply, and private transfers were already in decline. Many families would have found it difficult to maintain transfers in the context of unemployment and real wage cuts. Expanding social assistance in the interim period is an obvious option, and this has taken place, albeit on a limited scale.

II. *Current Pension System*

(1) Public Pension Schemes

The first public pension scheme in Korea was the Civil Service Pension launched in 1960. This was followed by the Military Pension Scheme in 1963, the Private School Teachers Pension Scheme founded in 1975, and the National Pension System (NPS) introduced in 1988. NPS covering all workplace employing more than 10 workers initially extended its coverage gradually over the years. Starting on April 1999, a new era of a universal pension system was heralded by extending its coverage to the urban self-employed and small firms (i.e., under five employees).

Despite the impressive development of old age protection, however, the public pension system in Korea is facing a serious challenge due to its financial sustainability problem which is attributed to the inherent structural weakness of the system, "low contribution and high pension."

A. National Pension Scheme

Until recently only government employees, teachers and the military were covered under public pension schemes. The only mandatory retirement scheme covering private sector workers was the retirement allowance program. This was mandatory for firms with five or more employees. After the introduction of the National Pension Scheme in 1988, two programs covered these workers. In 1999, the rural and urban, self-employed workers were added to the NPS membership. Retirement allowances do not cover these workers.

The NPS mandates its coverage to all residents aged 18 to 59 in Korea, regardless of their nationality. The current contribution rate is 9% each of the income, equally by both employers and employees. However, in the case of the locally insured persons, the premium rate was applied during April 1994-June 2000, and annually increased by 1% from July 2000 to reach of 9% in July 2005. The NPS is a defined benefit scheme. Benefits (old-age pension, disability pension and survivors' pension) are calculated according to a combination of flat-rate and earnings-related elements.

The pension amount is the sum of the basic pension amount (BPA) and additional pension amount (APA). The level of the BPA is about 60% of the final monthly income, where a person's income level during the insured term corresponds to the average of all insured persons and the insured term is 40 years. The BPA, the basis for calculation of all kinds of pensions, is determined by the average of Standard Monthly Income (SMI) of all insured persons for 3 years prior to payment of pension (equal part) and the SMI of individual (earnings-related part). If the pensioner has family, the APA is additionally provided. The APA, a kind of family allowance, is additionally provided for dependants who have been supported by the person entitled to a pension (by the insured person in the case of Survivors' Pension) on or after acquisition of the right to the pension.

Major problems on issue are to be examined. The National Pension Scheme applies to all citizens and all foreigners residing in Korea, but in reality there are still many people not covered by it. Because the NPS does not have enough income-related information, some people may avoid paying contributions while others may be exempted from paying contribution even though they are engaged in gainful activity. For solving this problem, the NPC is trying to establish an on-line network with other public organizations also managing other social insurance schemes, such as Health Insurance, Employment Insurance, and Industrial Accident & Compensation Insurance. If this network is established, the NPC can find these workplaces that are excluded even though they have 5 or more employees, because they must be covered by one of other social insurance schemes.

As well, to prevent the self employed insurer from dishonestly reporting their income, the NPC is planning to develop a new Income Estimation Model. The model is composed of two main components: one is the Standard Income, which has 8,320 categories, based on an average worker's estimated income in a particular industry and location. The other is the Adjustment Index, which reflects the value of an individual's car and real estate in their possession. After assignment into a Standard Income category, a person's estimated income is increased or decreased by the Adjustment Index.

B. Civil Service Pension

Launched in January 1960 as the first public pension scheme in Korea, the Civil Service Pension Scheme provided its coverage to employees of the central and local governments, public schoolteachers and employees, members of the judiciary branch and the Office of the Public Prosecutors, and policemen. Its participants grew rapidly from some 230,000 in 1960 to about 950,000 at present. The financial resources of the Pension Scheme were the contributions made by its participants and employers (central and local governments). Though the contribution rates have been gradually adjusted upward from 2.3% in 1960 to 7.5% in 1999 (total contribution of 15%) at present, the current Civil Service Pension Scheme is financially unstable in that pension payments are based on the last salary of participants. In this respect, it is a typical pension system designed under the premise of "low contribution, high pension" basis and its financial sustainability can not be attained so far as the system deficiency remains unreformed.

The contribution rate was further increased by 2 percentage points to 15% in 1999 to address the deteriorating financial position, but this rate increase was not sufficient enough to prevent continued erosion of the reserve. Though the current financial problems could be attributed to some special factors such as the unusually large number of retirees and the declining number of contributors, the more fundamental cause is the structural imbalance between an overly generous pension level and the low level of contribution. If the current trend continues without taking any remedial actions, it is projected that the reserve of the Civil Service Pension Scheme will be completely exhausted by 2001 and its deficits are projected to increase exponentially.

C. Private School Teachers' Pension Scheme

Launched in 1975 to provide cover for teachers and professors in private high schools, junior colleges and universities, the Private School Teachers Pension Scheme extended its coverage to administrative staff of those schools in 1978. The number of participants to the Scheme has increased rapidly from 40,347 in 1975 to 236,278 in 2000. The financial position of this scheme is improved compared to the Civil Service Pension. Because both schemes share the same structural deficiencies. One reason, why this pension scheme is much better off compared with the civil service and military schemes, is that the retirement ages of teachers are much longer than civil servants and military personnel. With the shortened retirement age of teachers, it is expected that financial position of this scheme will deteriorate soon. The Private School Teachers Pension Scheme is projected to record a pension deficit (contribution minus pension payments) in 2007, a financial deficit (total income minus total expenditure) in 2010 and an erosion of pension reserves in 2016, according to the financial projection.

Another factor, which contributes to deteriorating financial position of the private school teacher's pension, is the irrational criteria for pension calculation. As the pension is calculated on the base of the last salary, pension payment is overpaid compared to contributions.

TABLE 2. TAX TREATMENT OF PENSION IN KOREA

Scheme	Contribution	Returns	Benefit Payment
National Pension Scheme			
-employers	Exempt		
-employees	Taxed	Exempt	Exempt
-self-employed	40% exempt up to 720,000 won p.a.		
Occupational Schemes			
-employers	Exempt		
-employees	Taxed	Exempt	Exempt
Retirement allowances	50% exempt 100% insured is exempt	Not applicable exempt	Taxed at low rate; varies by amount
Individual Pension Plans	40% exempt up to 720,000 won p.a.	Exempt	Exempt

D. The Military Pension Scheme

The military pension was an integral pan of the civil service pension when it was launched in 1960, but an independent Military Pension Scheme was started in 1963 to cover military officers and long-term non-commissioned-officers (NCOs). Its operations and policies are closely coordinated with the Civil Service Pension Scheme.

The Military Pension Scheme is currently paying 15 different kinds of pension benefits to retirees and their dependent families and survivors. These benefits are classified into two broad categories of pension support for livelihood and public support for damages and injuries. The average replacement rate is about 50% to 76% of the last salary.

The main source of the Military Pension is the contribution by individual participants and the contribution by the government, as an employer, like in the case of the Civil Service Pension. Unlike the Civil Service Pension in which the number of participants has grown substantially over the years, the number of participants in the Military Pension has remained unchanged. On the other hand the retirees have gown rapidly with the introduction of mandatory retirement system for senior ranking officers who could not be promoted after certain years in the same rank. This imbalance between income and outlay resulted in serious financial strain to the Military Pension Scheme, which registered a deficit of 560 billion won in 1999. This large deficit was absorbed by the national budget.

E. Tax Treatment

Most OECD countries exempt contributions (up to certain level) and investment returns to encourage long-term savings for retirement and tax benefits when they are paid. In Korea, tax treatment of pension applies different tax treatment to different parts of the pension system. At the public pension scheme, employers' contribution, returns, and benefit payment are exempted.

(2) Voluntary Private Pension

Banks, investment trust companies and insurance companies under favorable tax treatment since 1994 have offered personal pension plans. They have become increasingly popular. For the tax deduction the individual must make a stream of contributions of at least 10 years duration and cannot withdraw the funds until reaching age 55. Funds are invested in three types of products, i.e., securities offering dividends linked to performance, variable interest rates or fixed interest rates. The benefit is typically paid in the form of a term certain annuity of at least five years. By 2000 the total value of individual annuity products was almost 5.3 percent of GDP.

Life insurance companies have dominated this market in terms of new account as well as asset under management. There are no separate investment regulations, although the assets are supposed to be segregated. The new, unified regulator, the Financial Services Supervision (FSS) is currently in the process of determining the supervisory strategy for all financial products including this one. Financial supervision in Korea has been lax, and many of the institutions that offer this product are fragile or even insolvent. The supervision system did not only work but was also controlled by the government. New institutional accounting standards and governance must be put into place before this voluntary retirement savings vehicle can be considered a useful part of overall public pension policy.

III. *Evaluation of The Current Pension System*

(1) Maturity of Pension System

The Korean pension system is still immature. Although the public pension schemes were introduced in 1960s, the national pension system was launched in 1988. The NPS is still new and immature system with pension payments small compared to contributions.

Let us investigate the maturity of the public pension schemes in 2000 by using three indicators. The ratio of numbers of pensioners to the number of participants was 9.4% for the civil service pension, 3.11% for the private school teachers pension, and 3.07% for the national pension system, respectively. Though NPS has a shorter history, launched only in 1988, it showed almost the same maturity with the private school teacher's pension. Because NPS has many pensioners under its special old age's pension and survivors' pension.

The ratio of pension payments to contribution income was 151% in the civil service pension, 21.3% in the private teachers pension, and 30.8% in NPS, respectively. The high rate recorded by NPS was due to the lump-sum payments made, but this is expected to decline sharply with tight condition imposed on lump-sum payments and the increased participation from urban regional participants. The ratio of pension payments to total income were 137% for the civil service pension, 9.6% for the private teacher pension, and 20.9% for the NPS.

(2) Redistribution Functions

Concerning with income distribution in Korea, inequality has not improved last two decades. Since 1977 of the economic crisis, the adverse effect has been widespread throughout the economy, and inequality has continued to increase sharply, with the Gini Index reaching a highest level at 0.3240 in 1999.

The expenditure inequality has been even worser than the income inequality since 1997. In particular, both inequalities of income and expenditures imply the quality of life in Korea declined after the crisis.

TABLE 3. GINI INDEX (INCOME) (unit: thousand won)

Year	1982	1985	1990	1995	1996	1997	1998	1999	2000
Gini index	0.3244	0.3154	0.2924	0.2986	0.3016	0.2928	0.3293	0.3240	0.3170
Average yearly income	3,480	4,756	10,184	21,032	23,561	24,818	22,614	23,956	24,135

TABLE 4. GINI INDEX (EXPENDITURE)

Year	1982	1985	1990	1995	1996	1997	1998	1999	2000
Gini index	0.3638	0.3487	0.3772	0.3803	0.3846	0.4044	0.4092	0.4135	0.4138

(3) Effect of Saving

Under an unfunded pension program, workers know they will receive benefits in return for paying the social security payroll tax, and thus a guaranteed retirement income is included into their saving plans. The reduction of private saving due to this link between current taxes and expected benefits is called the wealth replacement effect. On the other hand, by encouraging early retirement, public pension has an offsetting positive effect on saving, as workers increase saving over a shorted working period to provide for a longer period of retirement. This effect is called the induced retirement effect. Theoretically, the net effect on private saving would depend on the relative strength of these offsetting effects. A sharp debate has developed over the hypothesis that an unfunded public pension program has reduced substantially private savings; this debate is still open. This issue is crucial in context of concern about low levels of saving, capital formation, and the resulting impact on economic growth.

Because of very limited data available in analyzing the effect of pensions on savings in Korea, Chun (2000) investigated the relationship between the personal pension and the saving rate. The result showed that the introduction of the personal pension in 1994 raised the saving rate. However, this increase in the saving rate came from the provision of a new financial asset rather than tax incentives. The tax incentives allowed for the personal pension could tend to induce substitution savings from the usual form of saving. In addition, the tax incentives for the personal pension reduce government tax revenue, and the government has to raise the tax rates of other tax bases in order to compensate for the loss of tax revenue. This would in turn distort the economic behavior of agents.

(4) Fiscal Sustainability of Pension System

In the public pension scheme, there trends to be divergence between revenue stream (contributions from participants) and the outflow stream (pension payments). The NPS is currently running large surpluses of almost 2% of GDP. In the short run the main implication for public finance is the availability of a potential source of financing for other activities. When fiscal policy targets are set with regard to the consolidated budget deficit including social security system, and when that deficit is reduced because of public pension surpluses, spending on other programs will be higher than it would have been, had there been no pension surpluses. In other words, it is very possible that the policy of a partially funded public pension will not

TABLE 5. FINANCIAL SUSTAINABILITY

Public pension	NPS	Civil service	Military	PS teachers
Time in deficit	2023	1993	From beginning	2010
Time in exhaustion of fund	2033	2001	1975	2016

TABLE 6. RESERVE REQUIREMENTS IN 2000 (unit: billion won)

Public pension	Military	Civil service	PS teachers	NPS	Total
Mandatory reserves	9,318	74,960	14,458	156,835	255,571
Funded reserves	414	4,784	3,443	44,852	53,493
Shortfall in reserve(A)	8,904	70,176	11,015	111,983	202,078
Contribution(B)	261	3,312	519	7,841	11,933
A/B	34.1	31.7	22.5	16.1	19.7

have the desired positive impact on national saving, but rather will lead to higher government consumption.

During the first ten years of the system, the government managed to do this by borrowing from the NPS reserve directly. In fact, by the late 1990s, two third of the surpluses were automatically earmarked for this type of lending. In 1988 changes to the Public Funds Management Act (PFMA) phased out this automatic mechanism for channeling NPS surpluses to the central government. Automatic lending through the PFMA is rolled over. However, these changes and paralleled amendments to the National Pension Act do not preclude the continuation of this practice on a discretionary basis. The main restriction is that these loans must earn an interest rate at least equivalent to the yield on one-year treasury bills.

By the time the scheme fully matures, the deficits would be however at more than 6% of GDP. A more likely scenario is that contribution rates will rise or benefits will be cut, or both. A recent proposal by the National Pension Corporation for example, would preclude deficits by increasing the contribution rate gradually until it reached 18% in 2033. However, it would double taxes on labor in Korea, and distort the labor market and potentially reduce growth.

My simulation results on the financial sustainability of the public pension system in the long run are projected as Table 5.

Among public pension schemes, military and civil service pension schemes were already in deficit, and private teachers pension is expected to be in deficit in ten years. The public pension in Korea was entered into financially severe situation.

Further, implicit pension debts of public pension schemes were estimated to be significant, which was calculated under the assumption of an equilibrium pension level. The equilibrium break-even pension was assumed at 40% for both civil service and private teachers pensions, 60% for the military pension, and 21% for NPS, respectively. In the context of reserve requirements of public pension schemes as in Table 6, substantial shortfall arises. The total implicit public pension debts was estimated to be 202,708 billion won, amounted to 51.4% of GDP, which is about 20 times contributions. If compared with the total annual contribution of each pension scheme, the implicit pension debt is equivalent to 34 times of annual contribution in the case of the military pension, 32 times for the civil service pension, 22.5 times for the private school teachers, and 16 times for the NPS, respectively.

TABLE 7. GENERATIONAL ACCOUNTS, BASE=1998, GDP GROWTH=1.75%

(unit: won billion)

Age in 1998	3% Discount rate		5% Discount rate	
	Male	Female	Male	Female
0	1891	882	1713	962
5	2131	1005	2124	1207
10	2463	1183	2701	1572
15	3368	1603	4059	2323
20	3353	1555	4431	2491
25	4193	1185	6092	2644
30	2669	-973	5179	684
35	-453	-3108	3181	-1036
40	-4841	-4519	-1096	-2601
45	-10140	-5679	-6361	-3879
50	-16367	-7115	-12551	-5363
55	-23135	-8990	-19758	-7350
60	-20193	-8446	-18514	-7494
65	-10179	-5367	-9562	-4859
70	-4438	-3101	-4217	-2857
75	-1551	-1731	-1489	-1624
80	-542	-937	-519	-885
85	-136	-361	-131	-345
90	-25	-97	-24	-93
95	-4	-19	-3	-18
Aver. Future Generation	9501	4433.4	15671	8798.3

Source: Generational Accounts for Korea, by S. Yun, KIHASA, 2000.

(5) Intergenerational Fairness

The pension schemes affect the income and wealth distributions not only of the same generation but also the members of generations to come. To estimate the remaining life net taxes of people of different generations under certain economic and demographic assumptions, the generational accounts were developed. Here, let's take the generational accounts developed by Auerbach, Gokhale, and Kotlikoff (1994) in order to measure the equity of burden sharing among different generations. The generational accounts evaluate the intergenerational equity by comparing the tax payments made by the members of each generation and the transfer & services expected to be received by the government in the future.

The generational accounts are based on the government's inter-temporal budget constraint, which is described by the following equation,

$$\underbrace{\sum_{k=0}^{D} N_{t,t-k}}_{(A)} + \underbrace{\sum_{k=1}^{\infty} N_{t,t+k}}_{(B)} + W_t = \sum_{k=t}^{\infty} G_k \Pi_{i=t+1}^{k} (1/1+r_i)$$

where A is the sum of present value of net taxes to be paid by the existing generation, B is the present value of the net taxes to be paid by the future generations, W is the government's net wealth, and G is government's consumption.

The result of generational accounts in Table 7 shows that intergenerational inequality in

Korea is quite evident. The net burden of the older or middle-aged groups is quite different from that of younger generations. To the young generation with positive value of generational account, pension is lower than contribution. However, for the middle and older generations on negative value, pension is higher than contribution. The generational net benefit turns out to be skewed toward the older.

IV. *Pension Reform*

(1) Evolution of Pension Reform

The National Welfare Pension Act was originally promulgated in 1973, but was delayed due to the crisis arising from the oil price shock in the middle-1970s. In 1988 the National Pension Act established a scheme that covered all firms with more than 10 employees. In 1999 an amendment to the National Pension Act extended coverage to the rural and urban, self-employed and small firms, just 11 years after its introduction. Since the NPS was established in 1988, it has been extended gradually to universal coverage in 1999.

Given the serious financial insecurity faced by some public pension scheme in Korea, for example, the Civil Service Pension Scheme, it is inevitable that some remedial reforms, such as the increased contribution or the reduced pension, must be taken to restore financial stability. No meaningful reform, however, has been so far undertaken due to the resistance of participants and pensioners. In the case of the Private School Teachers Pension, some substantial reform measures including the change in the pension calculation formula are expected to be taken sooner or later. Subsequently, many private school teachers applied for early retirement during the period from 1998-1999 to maximize their pension benefit, which had caused serious disruption in the supply and demand situation of private school teachers.

In case of NPS, it has established the "National Pension System Improvement Planning Team" within NPS with a clear mandate to recommend policy measures to ensure long term financial sustainability in the wake of coverage extension to urban self-employed in 1997. One of the major recommendations of this team is that the target replacement rate of 70% for the retiree with 40 years service be revised downward to 40% in order to redress the system deficiency of "low contribution, high pension" and to restore financial sustainability of NPS.

A public hearing on this recommendation was held in January 1998 in which several civic groups and labor union voiced their strong opposition to the sizable reduction in replacement rate. Reflecting the comments, the National Assembly proposed an amendment to the National Pension Act in which the compromised replacement rate of 55% was specified. In the course of further debate at the National Assembly, the replacement was further compromised to 60% in the final amendment, which was approved on 17 December 1998. Therefore, the effort to rectify the "low contribution, high pension" nature of NPS was not fully materialized and this system deficiency and the ensuing financial instability will continue to prevail.

Recently, the government has taken comprehensive and reformatory measures, in order to settle the Scheme in the long term, for major issues that have been raised continuously since the first complementation of the NPS.

First, for the long term financial stabilization of the Pension Fund, beginning from the year 2003, it is mandated to set the overall plan for the National Pension Operation, including contribution rate, adjusting benefit level, etc., based on the financial projections every 5 years to look into the financial situation of the Fund and maintain its long-term balance. The result should be reported to the parliament, as well as announced to the public.

In addition, the benefit level of the average earner who earned 40 years of coverage (income replacement ratio) was lowered from 70% to 60%, and as the average life span become longer, the pensionable age will be raised from the present 60 to 65 until 2033, gradually increasing one year every five years from 2013.

Second, in fund operation, the number of members in the National Pension Fund Management Committee (NPFMC) was increased from the previous 15 to 21 as the participation of the insured was broadened. The NPFMC is responsible for deliberation and decisions on how to operate the Fund, as well as monitor the result of its operation. It is composed of 12 members of covered nationals, including employers, employees and individually (locally) insured persons, 2 related experts and 7 representatives of the government. A NPFMC meeting is held on a quarterly basis and members should document the minutes and announce the result after a face-to-face conference. Members who do not attend the meeting will have their rights to vote limited.

Furthermore, the National Pension Fund Operation Technical Evaluation Committee (NPFOTEC) was established in order to enhance the expertise of the NPFMC. The NPFOTEC is composed of experts who were chosen by the representatives of the insured. An Executive Director for Fund, who is in charge of managing and operating the National Pension Fund, is openly recruited and contracted from related experts.

Besides, two thirds of the government's borrowing of the Pension Fund decreased to 40% in 2000, and from this year, instead of the required deposit into the Public Fund Management Reserve, the government bond will be bought to a degree not to harm financial stabilization. For responding actively to a volatile investment market, fund investment items are diversified: invest through external consignment, invest into overseas, KOSDAQ (Korea Securities Dealers Automated Quotation), securities, futures and options, etc.

Third, in improving rights of the insured and beneficiary, to increase the number of insured receiving benefits, the minimum length of coverage period for the Old-Age Pension was reduced from the former 15 years to 10 years, and the 1-year period of coverage requirement for the Disability and Survivors' Pension was abolished. Additionally, pension splits were introduced to divide the Old-Age Pension of divorced spouses to evenly secure the old age lives of both men and women.

Moreover, payment of pension benefits was adjusted from a quarterly to a monthly basis. Insured persons are able to pay his/her unpaid contributions of the payment-exempted period due to military service, etc. The calculation basis for pension amounts was changed from the former average monthly income of the previous year of the year of pension entitlement to that of the previous 3 years of the year of pension entitlement. This is to prevent drastic changes to the level of benefit and maintain equivalence among beneficiaries.

At the beginning of the NPS, an insured in a workplace could claim his/her paid contributions by lump sum if the subscriber was still unemployed in 1 year after retirement. However, the contributions for the lump-sum payment were changed to paid pensions in order to secure lives in old age, except the following: reaching age 60, death or emigration from Korea.

(2) Future Pension Reform

The Korean pension system is still immature, but it already faces at a crucial juncture, and is in financially unstable situation. As noted already, military and civil service pensions were already in deficit, while private school teachers pension and the NPS are respectively projected to be also in deficit within a decade and three decades. In this context, future pension reform will put clear focus on achieving financial security in the long run.

First, the management of the NPS reserves has to be improved increase profitability and efficiency. The NPS reserves will be moved toward greater investment in private markets and contractual private assets including international firms.

Second, the civil service pension scheme is too expensive and needs to be reformed. With harmonizing some of the eligibility conditions and the benefit formula with the NPS, the long run measures will be taken to raising retirement age to 65 by 2030, and changing from final salary to lifetime average wage gradually.

Third, systematic reform is to be developed for the establishment of a multi-pillar pension system composed of a mandatory public basic pension, a mandatory private pension, and a voluntary private pension. The first step would integrate the new employer based pensions with the NPS in a multi-pillar framework where public and private pensions were balanced. The second step would bring occupational pensions schemes into a multi-pillar arrangement and their linkage with the NPS.

Fourth, the retirement allowance system should be converted into a private pension scheme under a multi-pillar pension system. The nature of employment is changing in Korea. In the future, the labor force is likely to be more mobile, more educated and more likely to be in the service sector.

Therefore the Korean pension reforms are required especially to ensure sustainability, to phase out retirement allowances, to end the distinction between the NPS and occupational pensions schemes, and to achieve greater transparency and efficiency in the management and operation of the scheme. It is essential that these reforms be carried out in the context of a joined-up policy strategy in which economic, employment and social policies seek to achieve the same goal.

V. *Conclusion*

The public pension schemes in Korea, especially the civil service pension launched in 1960 and the military pension launched in 1961, are facing serious financial problems, though the degree of problems is less serious in the case of the private school teachers pension and the national pension system introduced much later. However, even these pension schemes are destined to face similar financial problems because of the inherent characteristics of "low contribution, high pension."

The Korean pension is at a crossroad. Without reforms the spending on the public pension scheme would rise to more than 10% of GDP by 2030. The pension system has to move toward a system less dependent on the state and on high payroll taxes of the future generations and a stronger private pension system. A systemic reform to pursue is a shift to a system that is partially defined contribution, funded and privately managed, rather than fully defined benefit, pay-as-you-go and publicly managed.

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