Preliminary, to be revised

The Japanese Public Pension System:

What Went Wrong and What Reform Measures We Have

by
Noriyuki Takayama

Professor of Economics, Hitotsubashi University
takayama@ier.hit-u.ac.jp
http://www.ier.hit-u.ac.jp/~takayama/

a paper presented at the international conference on
Japan and Italy: Economic Performances and Policies Compared,
Bocconi University, Milano, 9-10 October 2003

1 Introduction[1]

Japan has already had the oldest population in the world. The latest official population projections were published in January 2002. The update makes the future picture look even darker. More stresses will be put on financing social security, since major parts of social security benefits are given to the elderly.

This paper first describes past developments in Japan's social security pension program (Section 2). Current Japanese pension programs are outlined in Section 3. Sections 4 explains the main contents of the 2002 population projections, providing financial performance of pensions and cost estimates of social security for future Japan. Section 5 discusses policy options for the future. Section 6 gives concluding remarks.

2 Developments in Japan's Social Security Pension Program

Japan currently has five social security pension programs covering different sectors of the population. The earliest plan was established in 1890; the most recent, in 1961. The earliest plan was for military servants. It required no individual contributions, and was totally financed by general revenue. The scheme was then expanded to civil servants. From the outset, the old-age benefit for military and civil servants was based on the final salary and its level was generous.

The principal program mandatory for private sector employees is the *Kosei Nenkin Hoken* (KNH, Employees Pension Insurance) which was enacted in the wartime in 1942. Old-age pensions of the KNH were forced to be suspended immediately after the end of the war and the KNH contribution rate was reduced from 11% to 3%. The KNH was rebuilt in 1954 shifting from an earnings-related pension to a two-tier benefits system with flat-rate basic benefits.

High-speed Growth Period

In the early stages, the KNH benefit level was not charming yet, and for the old-age retirees at that time a lump-sum retirement benefit provided on a private basis by their employers was often of much more significance. On the other hand, pension benefits for civil servants were considerably higher. This difference induced "gap-decreasing" adjustments in benefit levels between private and public sector employees. Drastic improvements in the KNH old-age benefits took place in 1965 and 1973; the

[1] This is a revised version of takayama (2003b).

replacement ratio in gross wage terms was increased to 40% and then to 60%. In 1973 the updating of past salary together with the benefit indexation made it possible for most people to manage in their old-age with the KNH benefits. In the meantime, there was a sharp decline in the real significance of the lump-sum retirement benefits provided privately by the employers.

Under the KNH, equal percentage contributions are required of employees and their employers. The 3% contribution rate had been gradually increased and the total percentage went up to 7.8% by 1973.

At the outset, the KNH was established as a defined benefit (DB) plan on a fully funded basis. It was initially regarded as a compulsory saving program to prevent inflation. Its finance shifted gradually from funded to pay-as-you-go. Currently the KNH has a reserve fund of about 138 trillion yen[2] in 2003. KNH contributions have been accumulated in a reserve fund to be invested in social overhead capital for the construction of highways, railways, bridges, airports, and other public projects.[3]

Before 1961 the self-employed, people engaged in agriculture/forestry/fishery, the unemployed, persons with no occupation, and employees working in small firms were still excluded from the social security pension system. The *Kokumin Nenkin* (KN, National Pension) Law was put into effect in April 1961, embracing all the people previously uncovered, under social security. Participation in the KN became compulsory for everyone (even for the jobless persons) between 20 and 59 years old.

The KN is a defined benefit plan. The basic structure of the KN is a flat-rate basic benefit and a flat-rate contribution on an individual basis. One-third of the KN benefits were (and are) financed by subsidy through general revenue. The full old-age benefit of the KN was payable initially after 25 years of contributions from age 65, although an actuarially reduced or increased benefit could be claimed at any age between 60 and 70. The transitional KN old-age benefit with a special 10-year-contribution requirement began to be paid actually in 1971. A majority of the elderly came to enjoy this special benefit, which contributed to making the public aware of the significant role of social security pensions in old-age income security. "Go and Go" policies were immediately adopted. The benefit formula of the KN had been

---

[2] 1,000 yen = US$ 8.783 = Euro 7.740 = UK £ 5.386 as at 19 Sept. 2003.

[3] Since 2001, investment from the reserve fund has been drastically changed. It is invested to buy financial products including shares and stocks through financial intermediaries.

revised to become more and more generous. Meanwhile indexation of the KN benefit was also enforced in 1973.

Period of Diminished Expectations

The KN started with a very small contribution, which was politically difficult to increase. The KN soon faced severe difficulties in financing benefits. An enormous shift of the population from farmers to salaried-men during the rapid growth period necessitated some cost-sharing scheme between employees' and non-employees' pensions. The scheme was established in 1986, and since then, the first-tier basic flat-rate benefits of all the pension systems have been financially integrated. Currently the total annual cost of flat-rate pension benefits is shared by all the systems on a fully pay-as-you-go (PAYG) basis. This cost sharing is in proportion to the number of persons covered. It should be noted that those covered by the KNH (and the other employee pension systems) are not required to make individual contributions to the KN, while the KNH itself is responsible for the financial participation in the integrated first-tier, flat-rate basic pensions.

The 1985/1986 reform has changed some requirements of the KN; the full old-age pension became payable after 40 years of contributions, provided the contributions were made before 60 years of age. Special transitional provisions were introduced for those born after 1926 with at least 25 years of coverage. These people could now receive the maximum pension even with fewer contribution years, provided they had been contributing since 1961.

Since the 1985/1986 reform, if the husband has the contribution deducted from his salary and placed in the KNH, his dependent wife also became automatically entitled in her own name to the flat-rate basic benefits, and she was not required to make any individual payments to the public pension system. With this arrangement, the women's right for pension has been comprehensively established.

Through the 1986 pension reform, the accrual rate for the earnings-related component of the KNH old-age benefits was to be reduced gradually from 1.0% per year to 0.75% cohort by cohort. The reductions corresponded to the longer average contribution years of the younger cohorts. On average, each cohort was expected to receive 30% of his career average monthly real earnings as the earnings-related component.

The future demographic situation of Japan was getting darker and darker. In the 1990s, when the asset bubble finally burst, the Japanese economy faced a dramatic

change. In fiscal 1997, Japan's GDP showed negative growth in real terms, and in fiscal 1998, the economy appeared to have shrunken further, with fiscal deficit around 10% of its GDP. Thus the colorful dreams that Japanese youth had placed in their economy were rapidly destroyed.

Both demographic and economic factors would impose greater stresses on social security pension programs. The biggest political issue in the Japanese pension system was when to start benefit payments. The pension age was 60 years for workers in the 1990s. The government had proposed twice in 1979 and 1989 to raise the eligibility age for all workers to 65. The proposal was turned down by the Diet both times since trade unions and opposition parties were strongly against the bill.

In summer 1993, the political situation changed dramatically. The Liberal Democratic Party, which had been ruling Japan ever since the end of the Second World War, fell from power. It was replaced by a coalition of opposition parities (excluding the Japanese Communist Party). It was this coalition that prepared the 1994 legislation.

The approved legislation guaranteed that the tier-2 earnings-related benefits for retired employees between 60 and 64 would be paid without any reduction. The tier-1 basic benefits for this age group were to be phased out by stages (between 2001 and 2013 for men), and eventually nobody under 65 will receive full basic benefits (the phasing out of basic benefits for *female* employees will be delayed by five years starting only in 2006).

Up to October 1994, benefits were adjusted in line with the hikes in gross wages, but from November 1994, the benefit indexation in *net* wages started.

The 1999/2000 Reform

In December 1998, the Japanese government decided to temporarily freeze increases in social security contribution rates for pensions for some years from fiscal 1999. This freeze was mainly due to the ongoing downturn of the Japanese economy. Also in December 1998, the government decided to increase existing pension benefits in fiscal year 1999 to reflect only changes in the CPI over the previous calendar year, though fiscal year 1999 was previously anticipated as seeing net-wage indexation of existing pension benefits after a five-year interval.

In July 1999, the government submitted the 1999 social security pension reform

bill to the parliament, which was passed in March 2000. The purpose of the reform was to reduce aggregate pension benefits by 20 percent by 2025. Following four measures were adopted to attain this purpose.

A: Reductions in the Benefit Level

The earnings-related benefits were to be reduced by five percent; more specifically, the former annual accrual rate of 0.75 percent was to be decreased to 0.7125 percent from fiscal year 2000.

B: Shift to CPI-indexation

Both the flat-rate basic benefits and the earnings-related benefits once paid were to be CPI-indexed after age 65 from fiscal year 2000. In Japan, the gap in future increases between wages and CPI is assumed to be 1.0 percent annually. A shift from wage-indexation to CPI-indexation will bring a considerable effect on reducing aggregate pension benefits as years go. The relative level of pensions over wages will continue to decline after receiving benefits. At age 87 the relative level of benefits will be reduced by 20 percent.

C: New Earnings-test Introduced

An earnings-test for those aged 65 to 69 was newly introduced from fiscal year 2002. However, the newly introduced earnings-test may induce earlier retirement for those currently working in their late sixties.

D: Pensionable Age Increased to 65

The normal pensionable age for earnings-related old-age benefits is to be increased step by step from age 60 to 65 for men from fiscal year 2013 to 2025. The phasing out of earnings-related old-age benefits for *female* employees in their early sixties will be delayed by five years starting only in 2018. In exchange those between 60 and 64 will become eligible for advance payment at a reduced rate out of the earnings related benefits.

Note that the normal pensionable age for the *first-tier*, basic old-age benefit was increased step by step from 60 to 65 for men from fiscal year 2001 to 2013. This was decided by the 1994 pension reform. The 1999/2000 pension reform act raised the normal pensionable age for the *second-tier* benefit from 2013, just after the shift's end of the normal pensionable age of the first-tier benefit (see Table 1).

(Table 1 about here)

There were so many debates for and against increasing the normal pensionable age in Japan. It seemed to be universal to all employees, at first sight. It will turn out, however, to be virtually selective, harming more those with shorter schooling experience, coming earlier to the labor market. These people are apt to be burnt out or to have a sense of fulfillment after 40 or 45 years working experience. Most are weary and ready for retirement by the time they reach the age of 60, making them likely to receive reduced benefits from age 60.

Compare this increase with an extension of the normal contribution period from current 40 to 45 years. The latter alternative will most damage those with longer schooling experience, say, the university graduates or MA/PhD holders. Usually they are competent, facing a very advantageous labor market even after age 60. It is easy for them to stay in an excellent job up to age 65. This means that they will suffer the least if the normal pensionable age is to be increased to 65. However their disadvantage will not be small if the normal covered years are to be extended to 45. Their level of benefits will be reduced due to shorter contributing years.

Some proposed to extend the normal covered years to 45, first. The government turned down this proposal.

Encouraging later retirement is advisable, but there have been little signs for any increases in the male labor force participation rate after age 60 in Japan. In promoting later retirement, it is crucial for older workers to have higher productivity. Training programs should be more freely available. Job re-designing for greater productivity in part-time or flexitime is also required.[4]

By the four measures listed above, the contribution rate of the KNH would peak by 2025 at 27.8 percentage point, instead of 34.5 percentage point anticipated without the 1999/2000 reform (these estimates were based on the 1997 population projections of the NIPSSR).

3 Outline of Current Japan's Pension Programs

Public Pensions

[4] See Takayama (1996b) for more details. However, promoting later retirement may induce increased unemployment for young people. Different objectives are often competing.

A: Old-age Benefits

The present system is based on the 1985/1986 reform. Under the new system, which became effective on 1 April 1986, all sectors of the population receive a common, flat-rate basic benefit. The pension for different sectors of employees provide a supplement on top of it related to contributions. Although each system has its own contribution and benefit structure, all systems are similar, operating largely like pay-as-you-go defined-benefit systems.

This section will mainly focus on the KNH (see Takayama, 1996a, 1998a, 2001b for more details of Japan's pension system).

The maximum basic benefit is 65,000 yen per month at 1994 prices. The benefit is indexed automatically each fiscal year (from 1 April) to reflect changes in the consumer price index (CPI) of the previous calendar year. The current maximum basic benefit for 2002 fiscal year is 67,017 yen per month. In principle, benefit payments begin at the age of 65, but there was a special legal provision allowing employees to receive the full amount of the basic benefit from age 60. The tier-1 basic benefits were to be phased out by stages between 2001 and 2013 for men in their early 60s. The phasing out for female employees will be delayed by five years starting in 2006. Eventually nobody under 65 will receive full basic benefits. In exchange, employees between 60 and 64 will become eligible for advance payments at a reduced rate from the basic benefit.

The rate of reduction is 0.5% by one month (6% by one year). If a person begins to receive the advance payment from age 60, his/her benefit level will be 70% of the normal amount.

Under the KNH, the accrual rate for the 2nd-tier, earnings-related component of old-age benefits is 0.7125% per year. Thus, 40-year contributions would earn 28.5% of the career average monthly real earnings. The career average monthly earnings are calculated over the employee's entire period of coverage, adjusted by a *net* wage index factor, and converted to the current net earnings level. These conversions are carried out at least every five years; after each conversion, benefits are indexed automatically every fiscal year to reflect changes in the CPI.

The full earnings-related portion is currently payable from age 60 to an employee who is fully retired. On reaching age 60, an individual who has not fully retired can receive a reduced pension with the earnings test.

The reduction is based on the individual's current monthly earnings. A 20% cut in benefits is mandatory for anyone who, upon reaching the age of 60, continues to earn a wage. The remaining 80% is added to the worker's monthly pay. If the total is under 220,000 yen, the worker receives all these benefits. If the total exceeds that level, the benefits are reduced by 10,000 yen for each 20,000 yen increment in wages. After monthly wages reach 370,000 yen (a level more or less in line with the average pay of male employees), each additional step up on the wage scale causes benefits to step down by the same amount.

The earnings test changes upon reaching the age of 65, turning into a more generous one as follows. The first-tier, basic benefits are fully paid regardless of salary and wage earnings. There are no reductions in earnings-related benefits until the total monthly sum of the benefits and earnings come up to 370,000 yen. If the total exceeds that level, the earnings related benefits are reduced by 10,000 yen for each 20,000 yen increment in wages.

The KNH old-age benefits for the newly awarded "model" retiree (with an average salary earned for 37 years of coverage) with his dependent spouse (full-time housewife) has about 231,000 yen per month in 1994, replacing 68 percent of average gross monthly earnings of currently active male workers.

In Japan, employees usually receive semi-annual bonuses which typically amount to four to five months salary, although in small companies they are often much smaller. Since these bonuses have not been included in the earnings base for either public pension contributions or benefits so far, the replacement rate for the above-mentioned "model" retiree is considerably lower, about 50 percent of the average *annual* earnings.

To put it another way, the 68 percent replacement is the rate for gross salary. Active workers pay income tax and make social security contributions, and their deductions currently average about 16 percent of their monthly earnings. For retirees the deduction from their pension benefits is zero or quite small. Consequently the current replacement rate to take-home pay or net income is about 80 percent.

B: Disability Benefits

A disability pension is payable to any disabled person if he or she has contributed to social security for two-thirds or more of the covered period. Since April 1986, Japan has had a special arrangement for dependent young disabled people. They are eligible for the disability pension benefit from age 20 if they have become disabled before age

20.

The two-tier benefits are provided as disability pensions. The first-tier basic benefit is 65,000 yen per month at 1994 prices. Japan gives the seriously disabled persons a basic disability benefit of 81,250 yen (25% up from the normal amount) per month. The earnings-related component of disability pensions is calculated essentially in the same way as old-age pensions. There are two differences between the two. One difference is that the covered period for disability pensions is regarded as 30 years if it is less than 30 years. The other is the 25% increase in the level of earnings-related disability benefits for seriously disabled persons.

A medical check for qualifying disability pensions is usually very strict in Japan and it is believed that there are quite few cases of its abuse. The aggregate amount of disability pension benefits was only 4.5% of the total sum of the 1999 pension benefits.

C: Survivor's Benefits

A surviving child (or children) of age less than 18 is eligible for the basic survivor's benefit if the deceased father has contributed to social security for two-thirds or more of the covered period or if the deceased father has contributed for 25 years or more. If the child's (or children's) mother is alive, the basic survivor's benefit is paid in the name of the surviving widow.

The basic survivor's benefit is 65,000 yen per month at 1994 prices. There are additional basic payments for surviving children; the first and the second child receive 18,700 yen per month per each and from the third child he or she receives 6,233 yen per month per each at 1994 prices.

The earnings-related survivor's benefit is payable for the dependent spouse, the dependent parents (or dependent grandparents) of age 60 and over, or the dependent child (children) of age less than 18. The normal amount is three-fourths of the old-age equivalent benefit. If the covered period is less than 30 years, then it is regarded as 30 years. For the surviving dependent widow aged 35 or over with no child, an additional pension benefit is given between ages 40 to 65. Its monthly amount is 48,750 yen at 1994 prices.

Any Japanese is usually eligible for only one pension from old-age, disability and survivor's benefits. One exception is that a survivor can receive his or her own basic old-age benefit and an earnings-related survivor's benefit. For the surviving spouse aged 65 or over of a dual-earner couple, the earnings-related benefit is the best of the

following three options: his or her own old-age benefit, three-fourths of the old-age benefit for the deceased partner, or one half of the combined old-age benefits.

D: Contributions

Under the KNH, equal percentage contributions are required of employees and their employers. The contributions have been based on the monthly standard earnings. The monthly standard earnings base for social security pensions was upgraded to the 98,000 to 620,000 yen range from October 2000. The total percentage in effect since October 1996 has been 17.35%.

Since April 1995, contributions have been deducted from bonuses. The initial rate was 1% of the bonuses, with employees and their employers each contributing half this amount. These contributions were not used for benefit calculation purposes.

The benefit/contribution base is to be shifted from current, monthly standard earnings to annual earnings including semi-annual bonuses from fiscal year 2003. The shift is to be adjusted to induce no changes in aggregate income from contributions in the starting year. The current contribution rate of 17.35 percentage point over monthly standard earnings for the KNH will be changed to 13.58 percentage point over annual earnings from April 2003. At the same time, the new accrual rate of 0.5481% will be applied.

The special 1.0 percentage point contributions for social security pensions from semi-annual bonuses will be abolished from April 2003 and instead, the same percentage point of 13.58 will be levied on semi-annual bonuses as contributions for social security pensions.

This shift is expected to induce more equitable contributions among different levels of wage and salary earners. One serious problem is that there is a ceiling for the covered bonuses; 1.5 million yen, one time. This ceiling will encourage people to pay bonuses not semi-annually but once annually, especially for high-income earners. For them, the current pay system of basic monthly salaries with semi-annual bonuses will no longer look charming. An alternative system on an annual salaries base (with no bonuses) may even help avoid paying in some of the contributions for social security pensions.

Employers became exempted from paying their share of social security pension contributions for their employees on child-care leave from fiscal year 2000. Employees on child-care leave have already been exempted from their share of

contributions since April 1995. Yet, no special transfers from general revenue have been arranged to make up for the loss due to this exemption. Compensations virtually come from contributions from those not on child-care leave. Needless to say, the aim of the above exemption is to give support to child-bearing in the age of the fertility decline.

E: Subsidy from General Revenue

The government covers one-third of the total cost of the flat-rate basic benefits. There is no subsidy for the earnings-related part of the KNH. The government pays administrative expenses, as well.

Occupational Pensions

A: Lump-sum Benefits Mentality

Japanese employees receive occupational pensions and/or lump-sum retirement benefits. Currently the coverage of occupational retirement benefits is close to 90%, although the coverage of occupational *pension* plans is about 50%. Typical in retirement benefits has been a defined-benefit (DB), final pay scheme. Both manual and desk workers within each company are covered by the same plan.

The average lump-sum retirement benefits paid to mandated career male retirees were 25 to 29 million yen in large firms and 11 to 16 million yen in smaller firms in 1999. The main purpose for employers to have occupational *pension* plans is not to pay annuities, but to accumulate funds under favorable tax treatments. In fact, very often, retiring employees choose lump sum retirement benefits, although their employers have a formal pension plan whose basic form is an annuity.

B: Three Major Schemes

There were three major schemes for employers to prepare for paying retirement benefits.

1) Pay-as-you-go schemes with book reserve accounting (started in 1952, similar to those of Germany). Book reserves are tax deductible within certain limits: namely 20% of the benefit liability can be deducted from income tax calculations as a corporate expense. Originally a deduction was permitted on 100% of the liability.[5]

[5] This deduction is to be entirely abolished in 2004. Book reserves were not funded outside, but they had actually been retained as internal profits.

2) Tax-qualified plans (started in 1962). The plan must be funded outside through a group annuity contract or a trust agreement. The employers' contributions to a tax qualified plan are 100% tax deductible as a business expense. A special 1.173 percent corporate tax is levied annually on fund assets.[6] The plan must contain a provision for annuity payments, though a lump sum option is permitted.
3) Contracted-out plans (started in 1966) through the *Kosei Nenkin Kikin* (KNK, Employees' Pension Fund). The benefits of the KNK consist of two components: the equivalent benefit of the earnings-related portion of the social security (excluding the benefit resulting from indexing), and the supplementary benefit. The latter is primarily financed by the employer. It can be received in a lump sum at the discretion of the employee, although in principle it should be in the form of a life annuity. The plan must be funded through a trust fund or an insurance contract. The tax treatment of the contracted-out plan is virtually the same as that of the tax qualified plan, except that the KNK does not pay special taxes on accrued benefit liabilities equal to 2.7 times the equivalent benefit of the earnings-related portion of the State scheme (with only the undynamized benefit).

C: The 2001 Legislation on New DC Plans

A long awaited defined contribution (DC) plan was introduced in Japan from 1 October 2001. There are two types of new DC pension plans: the employer-sponsored type and the individual type. Under the former, the employer pays contributions of the pension plan for its employees (of age 60 or younger), but the employees are not permitted to pay matching contributions. This is similar to money purchase plans in the US. Participants will be fully vested with three years of service.

Non-salaried workers can contribute to a DC individual pension plan, if they are paying flat-rate contributions to social security pensions. In the case of a company that does not have a contracted-out DB plan (an employee pension fund), a tax-qualified DB pension plan nor a DC employer-sponsored pension plan, employees can contribute to a DC individual pension plan at their discretion, provided they are 60 years of age or younger. The individual type is similar to the US 401(k) plans or the IRA, but employers cannot make matching contributions to it.

Civil servants and full-time housewives are not eligible to contribute to either of the DC pension plans.

---

[6] This tax has been provisionally suspended since 1999.

In the case of a DC employer-sponsored pension plan, the employer and the employees have to work out a set of rules agreeable to both parties, and get the approval of the minister concerned. On the other hand, subscription to a DC individual pension plan must be filed through the National Pension Fund Association.

The *monthly* amount a person can contribute is limited to the amounts set forth below. Any amount in excess of these amounts is not accepted.

Employer-sponsored type:

If the employer has no contracted-out DB plan nor a DB tax-qualified pension plan	36,000 yen
If the employer has a contracted-out DB plan or a DB tax-qualified pension plan	18,000 yen

Individual type:

Self-employed person (together with the contribution to the DB national pension fund)	68,000 yen
An employee in a private company	15,000 yen

Contributions are fully tax deductible, and investment earnings are tax-deferred. However, the special corporate tax of 1.173 percentage point applies on pension assets annually, as is the case for the existing DB corporate pension plans, though it is suspended until March 31, 2003 under the current adverse investment environments in Japan. Benefits are taxable as a rule. But the generous deduction of income from social security pension benefits and from a lump-sum retirement benefit is applied to benefits paid. Rollovers are tax-free.

There are three types of benefits payable in a lump sum; old-age benefits, disability benefits and death benefits. In principle, people 60 years of age or older are eligible for old-age benefits with over 10 years of participation. This means that at termination of employment, employees cannot receive benefits unless they are 60 years old or more. They are forced to just rollover their account balance to the new employer's DC plan or an individual DC plan before they reach age 60. This completely differs from DC plans of the US.

Participants can start receiving old-age benefits at any time between 60 and 70 years old. When they reach age 70, they have to receive it.

Plan administrators will give planholders instructions on how to invest their

pension assets. There should be more than three options, ranging from a capital guaranteed product to bank deposits, bonds, stocks, mutual funds and insurance products. Pension assets can also be invested in individual stocks and shares of the company the planholder is employed by. Planholders can reshuffle the portfolio at least every three months.

D: The 2001/2002 DB Occupational Pension Reform

The Japanese government recently submitted the DB Occupational Pension Bill to the parliament and the Bill passed it in June 2001. It took effect on 1 April 2002. The main contents of the 2001/2002 reforms were as follows.

1) As stated above, the benefits of the existing contracted-out plans through the KNK consist of two components: the equivalent benefit of the earnings-related portion of social security pensions (excluding the benefit resulting from indexing) and the supplementary benefit. Due to the bad investment performance for the past ten years, most contracted-out plans were seriously suffering from under-funding. They had been forced to pay considerable additional money to compensate for the under-funded portion for the social security equivalent benefit. Managements and trade unions were strongly demanding to abolish the contracted-out or to drastically relax requirements for the contracted-in from contracted-out plans by lowering the set rate of return used in calculating the asset amount to be transferred to social security. The new DB Occupational Pension Reform Act allows a new DB corporate scheme (the Fund Type DB Plan) which excludes the equivalent benefit of the earnings related portion of social security, by relaxing requirements mentioned above. A separate pension entity from the employer is to be set up, as is the case in existing contracted-out plans.

2) Many tax-qualified pension plans have been terminated recently without enough assets to pay benefits. To enhance protection of participants' rights and beneficiaries, some measures were necessary to strengthen the operational rules. The new Act created another new DB scheme (the Contract Type DB Plan) to replace existing tax-qualified plans. The new scheme is not required to set up a separate pension entity from the employer. This is the same as the existing tax-qualified plan. The existing plans have to be terminated by March 2012. Under the new plan, minimum funding rules are to be introduced, with fiduciary duties defined. Disclosure of plan operations to participants will be required, as well.

3) Plan termination insurance was not introduced. It is mainly because most

employers were reluctant to pay extra money to save unhealthy company's pension plans.

4) Designing of benefits was to be liberalized. Hybrid cash balance plans of the US type were newly allowed to be set up.

Personal Pensions

The accumulation of private savings in Japan is among the highest in the world. The distribution of monetary asset holding, however, is very much skewed. In the past, the role of personal pension plans was not so great. It has been rapidly growing, however. The household coverage of personal pension plans had risen to about 22% in 2001.

In April 1991, a special defined-benefit type of personal retirement pension accounts, called the *Kokumin Nenkin Kikin* (national pension fund) became available for non-employees and their spouses (aged 20 to 60). A contribution of up to 68,000 yen per *month* per person is now tax-exempt, which is very generous compared with 50,000 yen per *year* (for all) for personal "pension" insurance policy premiums.

4 Demography and Some Basic Facts on Pensions

The 2002 Population Projections

In January 2002, Japanese National Institute of Population and Social Security Research (NIPSSR) released the latest population projections. These indicate that the total population will peak at 128 million around 2006 and then begin to fall steadily, decreasing to about 50% of the current number by 2100 (see Figure 1).

(Figure 1 about here)

The total fertility rate (TFR) was 1.32 in 2002. There is still little sign that the TFR will stabilize or return to a higher level. Yet, the 2002 *medium variant* projections assume that it will record the historical low of 1.31 in 2006 and will gradually rise to 1.39 around 2050, progressing slowly to 2.07 by 2150 (see Figure 2). The number of birth, currently about 1.15 million in 2002, will continue to decrease to less than 1.0 million by 2014, falling further to 0.67 million in 2050.

(Figure 2 about here)

Because it has the longest life expectancy,[7] Japan is now experiencing a very rapid

[7] In 2000, life expectancy at birth was 77.64 years for males and 84.67 years for

aging of its population. The number of the elderly (65 years and above) is currently 24.3 million in 2003. It will increase sharply to reach 34 million by 2018, remaining around 34-36 million thereafter until around 2060. Consequently the proportion of the elderly will go up very rapidly from 18.5% in 2002 to 25.3% by 2014, rising further to more than 30% by 2033. Japan already has one of the oldest populations in the world (see Figure 3).

(Figure 3 about here)

The NIPSSR makes population projections every five years just after each population census. After 1975, its medium variant projections were found to be too optimistic each time. Indeed, the future picture gets much darker than five years ago. The 1997 projections assumed that total births per family would reach the historical low of 1.38 in 2000 and will return to 1.61 in 2025.

The NIPSSR was much more careful than before, in making the 2002 population projections, but whether or not the latest projections will be more accurate, remains quite uncertain.

Increasing Difficulties in Financing Social Security

In Japan, nearly 70% of social security benefits are currently distributed to the elderly. Along with the ailing domestic economy, the rapid aging will certainly put more and more stresses on financing social security.

In May 2002, the Ministry of Health, Labor and Welfare, Japan, published the latest estimates of the cost of social security, using the 2002 population projections of the NIPSSR. According to the latest estimates, the aggregate cost of social security in terms of national income is currently 22.5% in 2002. It will steadily increase to 32.5% by 2025,[8] if the current provisions for benefits remain unchanged.

Of the various costs, that of pensions is quite predominant, amounting to 12% of national income in 2002, with further increase to 16% by 2025. The cost for health care is 7% in 2002, but will rapidly rise to 11% by 2025. The cost of long term care is currently very small: about 1% of national income. This will increase to 3.5% by 2025.

Further increases in the cost of social security are intensified by updating population projections. Take pensions, for example. The contribution rate for the KNH is currently 17.35% point of covered earnings in 2002.[9] It needs to be raised up to 31.9% by 2025.

---

females. It is projected to increase to 80.95 years (males) and 89.22 years (females) by 2025 in Japan.

[8] The estimates assume that national income will grow annually at 1.0 percent in real terms until 2025.

[9] The nationwide aggregate amount of social security pension contributions is currently 36 trillion yen, which is equivalent to 10 percent of national income in 2002. It will

Note that on the basis of the 1997 population projections, the 2025 required rate would be 27.8%. The 2002 update of population projections implies an increase of about 15% in the peak rate of social security pension contributions.

The Japanese economy is still reeling from the effects of its burst bubble, and the decline in population will soon be reflected in a sharp decline in young labor, in a falling savings rate and in a decrease in capital formation, all of which will contribute to a further shrinking of the country's economy.

Persistent Deficit in Current Account

Since 2001, the KNH has been facing a current-account deficit, as is depicted in Figure 4. It is estimated that the current-account deficit will persist for a long time, unless radical remedies are made in the KNH financing.

(Figure 4 about here)

Huge Excess Liabilities in Balance Sheet

The KNH balance sheet is shown in Figure 5. In calculating the balance sheet, we assumed that:

a) annual increases in wages and CPI are 2.5 percent and 1.5 percent respectively in nominal terms, while the discount rate is 4 percent annually,
b) current contribution rate of the KNH, 13.58 percentage point, will remain unchanged in the future.

Figure 5 indicates that as at 31st March 2000, there were excess liabilities of 530 trillion yen, which is a quarter of the total liabilities.[10]

(Figure 5 about here)

Figures 6 and 7 are balance sheets, broken down into two parts; Part 1 is liabilities accrued from future contributions and Part 2 is those accrued from past contributions. Figure 3 implies that, as far as Part 1 is concerned, balance sheet of the KNH has been almost cleaned up. The funding sources of the current provisions will be sufficient to

---

increase to 14 percent by 2025, if the current provisions for benefits remain unchanged.

[10] Excess liabilities of all social security pension programs in Japan as at the end of March 2000 amounted to around 600 trillion yen, which is equivalent to 1.2 times the year 2000 GDP of Japan.

finance future benefits, and the only task left is to slim down future benefits by 5.6 percent.

(Figure 6 and Figure 7 about here)

But if we look at Figure 7 (Part 2), things appear quite different. The remaining pension liabilities are estimated to be 720 trillion yen, while pension assets are only 270 trillion yen (a funded reserve of 170 trillion yen plus transfers from general revenue of 100 trillion yen). The difference is quite large -- about 450 trillion yen, which accounts for the major part of excess liabilities in the KNH.

450 trillion yen is nearly two-thirds of Part 2 liabilities, equivalent to about 90 percent of GDP of Japan in 2000. In the past, too many promises on pension benefits were made, while sufficient funding sources have not been arranged. The Japanese have enjoyed a long history of social security pensions. However, contributions made in the past were relatively small, resulting in a fairly small funded reserve. Consequently, the locus of the true crisis in Japanese social security pensions is how to handle the excess liabilities of 450 trillion yen which were entitled from contributions made in the past.

5 Policy Options for the Future

Changes in the social security pensions system have thus far been made at least every five years in Japan. Because the extensive overhaul was proposed in 1999, the chances are that 2004 could become another year of pension reform.

This section will present policy options for future Japan.

Incentive-compatible?

Japan has a pay-as-you-go defined-benefit (PAYG DB) system for social security pensions. Japanese have once had a successful story of this system when the economy enjoyed a relatively high speed of growth with relatively young populations. It has been effective in reducing poverty among the elderly and also in providing people with a stable living standard after retirement. Further, administrative costs of this system have been relatively low, showing quite an efficient system-operation.[11]

[11] See Beattie-McGillvray (1995) for more comparative advantages of the PAYG DB public pension system.

For the past 10 years, however, the PAYG DB plan for public pensions has been facing severe and growing criticisms. Among others, financial stresses are becoming ultra-severe under the declining economic growth and rapid population aging. The system is now quite unpopular among younger people.

Also, it becomes quite difficult and undesirable for Japan to increase the contribution rate for social security pensions. In fiscal 2003, the contribution amounted to 29 trillion yen, while personal income tax was 13.8 trillion yen and corporate income tax was 9.1 trillion yen respectively in the same year (see Figure 8). Contributions to social security pensions operate as "penalties on employment." Further hikes in the contribution rate will bitterly damage domestic companies which have been facing the mega-competition on a global scale, thereby exerting negative effects on the economy, inducing a higher unemployment rate, lower economic growth, lower saving rates and so on. Further increases in the contribution rate will be sure to decrease take-home pay of actively working people in real terms, producing lower consumption and lower effective demand.

(Figure 8 about here)

Moreover, hikes in the contribution rate will induce an incentive compatibility problem. For the younger cohorts, the internal rate of return in the social security pension system will be quite low or may even become negative. They may well find that their participation in the system does not pay.

Indeed, in 2000 nearly 50% of non-salaried workers and persons with no occupations dropped out from the basic level of old-age income protection, owing to exemption, delinquency in paying contributions or non-application. Also employers are carefully trying to find ways of avoiding to pay social security pension contributions.

The Japanese are increasingly concerned with the "taste of pie" rather than the "size of pie" or the "distribution of pie." When it comes to social security pensions, the most important question is whether or not they are worth buying. It has become a secondary concern how big or how fair they are. The basic design of the pension program should be incentive-compatible. Contributions should be much more directly linked with old-age pension benefits, while element of social adequacy should be incorporated in a separate tier of pension benefits financed by other sources.

There is another criticism on the current PAYG DB plan. It exerts perverse redistribution. Through a massive transfer of income by social security pensions, the

rich elderly are becoming richer, while other elderly people are still suffering from low income.

Political resistances to cutting the benefits level or to further increasing the normal pensionable age have been so strong. Indeed, many people in Japan are feeling that the government is breaking its promise with them. There has been a growing concern on an incredibility problem. Namely, distrust against the government commitment is growing.

With a better understanding of the PAYG DB system, however, some of the criticisms might disappear. Moreover, we could rectify some of the deficiencies and inequities in the existing system.

We can draw some lessons from the experiences in other developed countries for the past 20 years where they have had painstaking reforms of social security pensions and from the world-wide heated pension debate which have been taking place just after the publication of the 1994 World Bank report (World Bank, 1994). The important lessons are as follows.

First, the PAYG DB system has been working not as a pure insurance system but rather as a tax-and-transfer system involving huge amounts of income transfers between generations. It is possibly a problem between managers and trade unions, but mainly is a problem *between generations*.

We have a political difficulty in this sense. Seniors are strong voters while the younger people and future generations currently have weak or no political powers. The interest of future generations is likely to be neglected.

Second, the nature of the intergenerational contract is difficult for many people to understand. Maintaining a fixed rate of replacement in gross income terms is by no means “a contract.” It is found to be quite risky, pushing its costs entirely to actively working generations or future generations.

In a PAYG system, pension benefits don’t come from the heaven. Pension benefits for the aged parents are financed mainly by contributions of their children and grandchildren. It is a socialized system of intergenerational transfers between parents and their children. Without a socialized system, ordinary parents and their children would have responded quite flexibly to a changing circumstance. The retired parents are expected to maintain their dignity, while actively working children should be

adequately rewarded for their labors. There should be little difference in the design of a PAYG DB social security pension plan and the privately based income transfers between aged parents and their children. The PAYG DB system should prescribe the rules for satisfying two needs of the aged parents and their children just stated.

The benefits and contributions in PAYG DB plan should be changed flexibly to respond to changing circumstances. As Diamond (1996b) explained, it partly comes from the incompleteness of planning for different possible outcomes in the future. Consequently we have found that the replacement rate embedded in the law is not a "promise" in a strict sense, but it is just the "starting place" of an ongoing process of adaptation to a changing and unpredictable world. Everlasting reforms are required to keep the system viable, while they can be viewed as "political risks."

With smart politics and a wise government, Japan could neatly avoid these political risks. However, growing distrust against the government commitment implies that the Japanese should not overlook these political difficulties.

Switching to an NDC Plan

The notional defined contribution (NDC) plan, which has already been introduced in Sweden, Italy, Poland and Latvia, can be an alternative policy option in Japan. It has several advantages (see Palmer, 2003 and Franco, 2003).

First, with the NDC plan the incentive-compatibility problem can be avoided. It will be demonstrated to the public that everybody will get a pension equivalent to his/her own contribution payments. "Any penny counts" was the selling phrase in Sweden when the NDC plan was advocated in early 1990s (see K0nberg, 2002).

Second, the NDC plan prevents political risks, as well. As Cichon (1999) pointed out, it can be used both to reduce the average pension benefits without being seen as unfair and to increase the *de facto* retirement age by penalizing early retirement through lower benefits. A reduction in pension benefits would be regarded as a natural outcome from changing demographic and economic circumstances. Necessary adjustments at the benefit side can be made automatically without any time lag. Ruling parties and government officials will no longer be blamed for reduced benefits.

Third, the NDC plan can completely avoid the twice-burden problem, which any government shifting from a PAYG- to a funded-system needs to overcome during the transition period. Switching to the NDC plan will be done while maintaining the current

PAYG financing.

Fourth, as James (1996) observed, unfunded DC schemes can make transparent the relationship between contributions and benefits, thereby deterring evasion and other distortionary behavior. This can also eliminate undesirable redistribution within the same cohort of individuals.

On the other hand, the NDC plan does have some disadvantages. First, risks will be entirely on the shoulders of pensioners. There is no risk sharing between old parents and their children. Second, it will not be easy for NDC plans to provide social security in the event of the invalidity or death of the breadwinner. Third, NDC plans will not automatically cope with the fertility risk or with unforeseen economic developments. Fourth, the *notional* rate of return is usually set to equal wage increases, long-term averages of which were lower than long-term interest rates. If this is to be the case in the future, NDC benefit levels will be potentially lower than those under real DC plans.

An automatic balancing mechanism introduced in Sweden can prevent some of these problems (See Settergren, 2001).

With regard to practical switching to the NDC, indeed there is much room to consider it in Japan, as well. As indicated above, Part 1 balance sheet (see Figure 6) which relates pension liabilities accrued from *future* contributions to future pension assets has been almost cleaned up. Slimming down future benefits by 5.6 percent will not be difficult, and the Swedish automatic balance mechanism will be helpful when this happens.

In Japan, we have an additional specific problem. That is, we still have a huge amount of excess pension liabilities in balance sheet (Part 2), as already explained. We have several ideas to diminish excess liabilities. One employer group (Keizai-Douyukai) observes that the KNH is in fact facing bankruptcy. If the KNH goes in to liquidation, the entitled benefits should be cut down by about 30 percent (220 trillion yen) including benefits to current pensioners. The remaining excess pension liabilities (230 trillion yen) can be financed through issuing consols (110 trillion yen) and increased consumption-based tax (120 trillion yen). However, the proposed cut-down of entitled benefits seems much too radical to be accepted by current aged and middle-aged population groups.

The Ministry of Health, Labor and Welfare (MHLW), Japan, is currently proposing to increase the contribution rate step by step from the current 13.58 percentage point to

about 20 percentage point by 2020[12], along with a further reduction in future benefits by introducing "macroeconomic" indexation which adjusts benefits just in line with changes in net aggregate amounts of wages and salaries. These measures will induce huge *excess assets* in Part 1 balance sheet whereby decreasing the large excess liabilities of Part 2 balance sheet. It seems as if we cut a wood not with a saw but with scissors. Younger generations are most likely to intensify their distrust against Government. The incentive- compatibility problem or the drop-out problem will become graver. The management (Nippon Keidanren) and trade unions (Rengo) both oppose any further increases of more than 15 percentage point in the KNH contribution rate. The MHLW shows a great interest in switching the system to a Swedish-type NDC, as well. It believes, however, that the switch can become realistic only after the KNH contribution rate reaches the peak level in 20 years.[13]

The Ministry of Finance, Japan, is making another proposal to reduce the excess liabilities in the balance sheet (Part 2). The proposal includes a reduction in benefits and an increase in consumption tax, as well. This benefit reduction is not only for the future pensioners but also includes the current pensioners with higher income by clawing back part of or all the benefits financed by transfers from general revenue. This kind of clawback has been already implemented in Canada. The Ministry of Finance seriously considers a switch to the NDC, as well, replacing the current DB system at the FY 2004 overhaul.

Partial Funding Shift to a Consumption-based Tax

Continued economic growth is definitely needed to maintain healthy pension finance, regardless of PAYG or funded. If the economy fails to expand when the share of senior citizens in the population increases, the real after-tax pay of workers would decrease. Younger people would despair of achieving a higher standard of living than their parents, and the present level of intergenerational transfers from workers to the

---

12 Contributions to social security pensions operate as "penalties on employment." Further hikes in the contribution rate will bitterly damage domestic companies which have been facing the mega-competition on a global scale, thereby exerting negative effects on the economy, inducing a higher unemployment rate, lower economic growth, lower saving rates and so on. Further increases in the contribution rate will be sure to decrease take-home pay of actively working people in real terms, producing lower consumption and lower effective demand.

13 The current MHLW proposal includes increases in transfer from general revenue from one-third to one half, relaxing the earnings test, an earnings-split between husband and his wife on divorce, extending coverage of the KNH to part-time employees who work no less than 20 hours per week, and more tax on pension benefits. No plan for any

retired would become hard to maintain.

In this light, we need to approach the funding question from the perspective of circumventing constraints on economic growth. We must ask which revenue sources will least slow down the growth. The answer is neither a wage tax nor an income tax, but a consumption-based tax. The consumption tax does not function as a direct levy on the saving and investment that powers the economy. In this respect, social security contributions (wage tax) are highly problematic. It makes sense to fund part of the increased costs of Japan's greying society by raising the rate of consumption-based tax. Through this reform, pension burdens will be spread more evenly over the whole life cycle of each person.[14]

Any introduction of a consumption-based tax or further increase in the rate of the existing consumption tax will face strong political resistances, however. Earmarking may be required for a majority of people to accept increases in consumption-based taxes. An earmarked consumption-based tax can be used to finance pensions with an element of social adequacy. Income-testing or means-testing for these pensions will have to be taken into consideration, as is the case in Australia, Canada, Sweden and the UK (see Bateman-Piggott, 2003; Battle, 2003; Palmer, 2003; Ball, 2001 and Blake, 2003).

Reducing Benefits

It may be rather amazing that currently in Japan the elderly are better-off than those aged 30 to 44 in terms of per-capita income after redistribution as is depicted in Figure 9 (see Takayama, (1998a) for the economic status of the elderly in current Japan).

(Figure 9 about here)

There can be several measures for reducing benefits of social security pensions.

First, deflation-indexing is inevitable. The Japanese economy currently suffers from long-lasting deflation. Wages and salaries fell down in nominal terms and the unemployment rate is increasing. Yet, the nominal amount of each social security pension benefit has been frozen since 2000. This freeze was decided mainly for political reasons, but younger people and management circles have growing doubts against this

---

further increase in the normal pensionable age above 65.

[14] The generalized social contribution (the so-called "CSG") introduced in France can be viewed as the same line of this argument.

decision. The Japanese must be accustomed with deflation. Deflation-indexing of pension benefits is unavoidable.

Second, a specific indicator for indexation has to be invented as long as the current DB plan is maintained. One candidate will be the change in the aggregate amount of wages and salaries or the change in the aggregate consumption expenditure. The former implies changes in the ability to pay of the actively working generation, while the latter indicates a change in economic supporting powers of the total population. The new device for indexation is required because of the decline of population. Incidentally, inflation due to an increase in the rate of consumption-based tax in order to finance increased benefits of social security pensions should not be reflected on indexing pension benefits.

Third, extending the normal contribution period from current 40 to 45 years will virtually reduce the amount of pension benefits, in particular for those with longer schooling experience (the University graduates and MA/PhD holders).

Fourth, the take-home benefit can be reduced if generous tax treatments of social security pension benefits are removed by further taxing of benefits, or if the automatic deduction of pensioners' contributions from pension benefits is newly introduced in the social security health care system.

Earnings-split between Husband and Wife

The survivor's benefits are currently unfair between dependent wives and wives of dual-income couples. Both can receive three-fourth of earnings-related old-age benefits of the husband. However, the level of wages and salaries for men with his dependent wife is by and large higher than the level for husbands of dual-income couples. Consequently it is often a case that survivor's benefits are less for wives of dual-income couples, provided the level of their combined earnings is the same.

One can tackle this problem by changing the survivor's benefit to equal three-fourth of earnings-related old-age benefits *of the couple combined* (and not of the husband). The change will be regarded as an application of an earnings-split principle to the survivor's benefit.

This principle has to be applied, too, to old-age benefits of the couple upon divorce.

Shift to Income-related Contributions for Non-employees

The current flat-rate contributions by non-employees are most regressive; they are virtually a poll tax. From April 2002, 50% discounted flat-rate contributions for non-employees were introduced. Their basic benefit will be two-thirds of the full amount. Note that one third of the full benefit is currently financed by transfers from general revenue.

With a further change into the multiple discount system of, say, 20%, 40%, 60% and 80% flat-rate contributions, we will virtually have a scheme of income-related pension contributions by non-employees.

Extending Coverage to Part-time Employees

The current KNH system does not directly apply to those who work fewer than 30 hours (or three-fourths of the normal working hours) per week. These part-timers are treated like full-time homemakers. But if their annual pay exceeds 1.3 million yen, they lose the right to be treated as dependent spouse. They then become obligated to directly participate in the system, paying the flat-rate pension contributions like non-employee persons.

Extending the KNH coverage to part-time workers is currently under consideration. The higher annual earnings limit of 1.3 million yen will be reduced to 0.65 million yen, and the higher limit of working hours per week will be also reduced to one half of the normal working hours.

If these reforms are made, employers will lower the rate of wages (their demand price) to compensate for the increased non-wage costs. Consequently, part-timers will be have to work longer hours or accept current lower take-home pay, in exchange for higher pension benefits of their own after retirement.

Strengthening Private Initiatives

The majority of people in Japan are reluctant to accept further increases in taxes and/or social security contributions. Under such circumstances, people must be much more encouraged to become self-reliant after retirement. A new defined-contribution plan was established in 2001, and from April 2002 a hybrid similar to U.S. cash balance plans came into being. With stronger tax incentives, private initiatives will grow in due course. If this occurs, the future picture of distribution of old-age income in Japan may

be quite different. [15]

Obviously the funded DC scheme has some advantages such as understandability (or transparency) and flexible response to increasing diversity of the life-course (increasing heterogeneity, increasing freedom to choose a working place, working hours, and working periods, widening choices of no-kids, divorce, and remarriage, etc.). It also encourages people to be responsible and self-reliant, denying irresponsible behavior that imposes cost on others, especially on future generations who have no political influence today.

The funded DC plan will have several difficulties, however. First, the market rate of return is quite volatile in the short-term, as is known as "the NIKKEI effect." Its differentials are quite large. The rate of return from the financial market will decline with the ongoing population aging, and with ample supply of funded money. It is not inflation-proof.

Consequently insured people will face investment risk. The income disparity after retirement will be widened, and the increasing proportion of the elderly will suffer from low income. Some of the current retirees, namely asset-holders, will also be damaged from a possible decline in the market rate of return on their assets.

Second, we must have relevant regulations on the funded scheme. We can learn from experiences of the Anglo-Saxon countries, but so far our knowledge about them remains insufficient. Missing are institutions against investment risks.

Third, there exists an administrative cost problem. This problem will be quite serious especially for the low-income earners. They will be forced to have a relatively low rate of return.[16]

For Japan, increased costs are still required to prevent poverty and securing stable income after retirement. We have no painless solutions for the future, no reforms without tears.

Voluntary prefunding seems inevitable. Missing are better instruments to minimize

---

[15] "Bear it small and nurture it big" was the basic stance of the Japanese people when they introduced the new DC plan. The shift to DC plans currently seems slow, but huge magma has already begun to build up underneath the ground. Sooner or later, this will become apparent in the form of Big Bang in occupational retirement benefits of Japan.

[16] See Bravo, J. (2001) for more details.

risks involved in the funded system.[17] Missing as well are better understandings of the induced individual behaviors, the macro economic impacts,[18] and the distributional outcomes from increased prefunding.

In the end, life is still risky. We have to realize that we cannot eliminate all the risks in our long life completely. What we can do is to make greater efforts to control these risks at a minimum level.[19]

6 Concluding Remarks

Japan drastically reformed her social security and occupational pensions at the turn of the century. The pension system in Japan is under a never-ending process of revisions. Considerable efforts to slim down the social security and DB occupational pension benefits, together with the replacement of them with a private DC plan will still be expected to continue. All these measures are to mitigate the difficulties arising from declining populations and the downturn of the Japanese economy. There will be

---

[17] In a funded public system, the so-called "political risks" in managing the funded reserve will be inevitable. Politicians and bureaucrats often misuse the reserve, with quite an inefficient allocation of the funded money. A typical example is given by the recent performance of the Japanese fiscal investment and loan program. More prefunding, therefore, should be done not in the public, but in the private scheme.

[18] Strengthening private initiative will virtually induce little increases in the saving rate in Japan, since it will lead to massive substitution among private savings. Increased savings for retirement would be almost entirely netted out by decreased savings for other purposes (education, housing, etc.), though it remains to be verified by empirical studies.

[19] What we want to have is not a society with few cradles and many graves. We are moving to a society of compassion with a harder edge. Time is now not to deliver generous benefits, but rather to manage to share the increased costs. Who shares them and when? How are they shared? These are the imminent questions before us. More specifically, are the costs to be shared by increasing social security contributions? By increasing taxes? By increased individual savings? By later retirement? Or by reducing benefits? Who is to bear basic living costs arising from longer life expectancy? Are there any differences in responding to this question when longer life expectancy is expected in well advance to take place and when unexpected? How much increased freedom to choose should there be according to the principle of self-reliance in old age? How much is the exchange of income resources between generations allowed through a public program? Is there any room for a universal or differential cut of social security benefits for the elderly? Can it be accepted at once or gradually? What devices (other than cutting benefits) can we use in making part of increased costs shared by current pensioners? What economic differences will come from all of the alternative solutions? The answers will be different individual by individual.

a political conclusion, sooner or later, as to whether the contributions are to be increased in the social security pension arena or in the private-sector initiative.

References

Asher, M.G. & Karunarathne, W. (2001), "Social Security Arrangements in Singapore: An Assessment," DP-9, Project on Intergenerational Equity, Institute of Economic Research, Hitotsubashi University.

Asher, M.G. (2002), "The Role of Global Economy in Financing Old Age: The Case of Singapore," DP-79, Project on Intergenerational Equity, Institute of Economic Research, Hitotsubashi University.

Ball, J. (2001), "Development in British Pensions," DP-13, Project on Intergenerational Equity, Institute of Economic Research, Hitotsubashi University.

Barr, N.A. (1979), "Myths My Grandpa Taught Me," *Three Banks Review*, 124, December, pp.27-55.

--- (2002), "Reforming Pensions: Myths, Truths, and Policy Choices," *International Social Security Review*, 55(2), pp.3-35.

Bateman, H. & Piggott, J. (2003), "The Australian Approach to Retirement Income Provision," in Takayama (2003a).

Battle, K. (2003), "Sustaining Public Pensions in Canada," in Takayama (2003a).

Beattie, R. & McGillivray, W. (1995), "A Risky Strategy: Reflections on the World Bank Report *Averting the Old Age Crisis*," *International Social Security Review*, 48(3/4), pp.5-22.

---& ---(1996), "Rejoinder," *International Social Security Review*, 49(3), pp. 17-20.

Blake, D. (2003), "The United Kingdom Pension System: Key Issues," in Takayama (2003a).

Bravo, J.H. (2001), "The Chilean Pension System: a Review of Some Remaining Difficulties after 20 Years of Reform," DP-7, Project on Intergenerational Equity, Institute of Economic Research, Hitotsubashi University.

Brooks, R. (2000), "What will Happen to Financial Markets When the Baby Boomers Retire?" IMF Working Paper, 00/18.

Brown, R.L. (1997), "In Defence of Pay-as-you-go Financing of Social Security," *North American Actuarial Journal*, 1(4), pp.1-20.

Burtless, G. (2000), "Social Security Privatization and Financial Market Risk: Lessons from US Financial History," Center on Social and Economic Dynamics, Working Paper, 10, Brookings Institution.

Callund, D. (1999), "Chile: Controversy, Difficult and Solutions," *The Geneva papers on Risk and Insurance: Issues and Practice*, 24, pp.528-33.

Campbell, J.Y. & Feldstein, M. eds. (2001), *Risk Aspects of Investment-Based Social*

Security Reform, University of Chicago Press.

Cichon, M. (1999), "Notional Defined-Contribution Schemes: Old Wine in New Bottles?" *International Social Security review*, 52(4), pp.87-105.

Diamond, P. (1996a), "Social Security Reform in Chile: An Economist's Perspective," in Diamond, P. et al. eds., *Social Security: What Role for the Future?*, National Academy of Social Insurance.

---(1996b), "Proposals to Restructure Social Security," *Journal of Economic Perspectives*, 10(3), pp.67-88.

---(1998), "The Economics of Social Security Reform," in Arnold, D. et al. eds., *Framing the Social Security Debate: Values, Politics and Economics*, Brookings Institution.

---(2001), "Social Security Reform with a Focus on Sweden," mimeo.

Disney, R. (2000), "Crises in Public Pension Programmes in OECD Countries: What Are the Reform Options?" *Economic Journal*, 100 (February), pp.F1-F23.

Feldstein, M. & Liebman, J. eds.(2002), *Distributional Aspects of Social Security and Social Security Reform*, University of Chicago Press.

Feldstein, M. & Samwick, A. (2001), "Potential Paths of Social Security Reform," NBER, WP-8592.

Feldstein, M. ed. (1998), *Privatizing Social Security*, University of Chicago Press.

Feldstein, M.S. (1996), "The Missing Piece in Policy Analysis: Social Security Reform," *American Economic Review*, 86, May, pp.1-14.

Franco, D. (2003), "Italy: the Search for a Sustainable PAYG Pension System," in Takayama (2003a).

Fultz, E. ed. (2002), *Pension Reform in Central and Eastern Europe*, Vol.1, ILO.

Geanakopolos, J., Mitchell, O.S., & Zeldes, S.P. (1998), "Would a Privatized Social Security System Really Pay a Higher Rate of Return," in Arnold, D. et al. eds., op cit.

Gruber, J. & Wise, D. A. eds. (1998), *Social Security and Retirement around the World*, University of Chicago Press.

Heller, P.S. (1998), "Rethinking Public Pension Reform Initiatives," IMF Working Paper 98/61.

Holzmann, R. & Stiglitz, J.E. eds.(2001), *New Ideas about Old-Age Security*, Washington, DC: World Bank.

Holzmann, R. (2000), "The World Bank Approach to Pension Reform," *International Social Security Review*, 53(1), pp.11-31.

Hoskins, D.D. et al. eds. (2001), *Social Security at the Dawn of the 21st Century*, ISSA.

International Labour Office (2000), *Income Security and Social Protection in a Changing World*, ILO.

--- (2001), *Social Security: A New Consensus*, ILO.

James, E. (1996), "Providing Better Protection and Promoting Growth: A Defence of *Averting the Old Age Crisis*," *International Social Security Review*, 49(3), pp.3-17.

Könberg, B. (2002), "The Swedish Pension Reform: Some Lessons," DP-46, Project on Intergenerational Equity, Institute of Economic Research, Hitotsubashi University.

McGillivray, W. (2000), "Pension Reform: Where Are We Now?" *International Social Security Review*, 53(1), pp. 3-10.

Mueller, K. (1999), *The Political Economy of Pension Reform in Central-Eastern Europe*, Cheltenham: Edward Elgar.

Myers, R.J. (1992), "Chile's Social Security Reform after Ten Years," *Benefits Quarterly*, 8(3), pp.41-55.

--- (1996), "Privatization of Social Security: A Good Idea??" *Journal of the American Society of CLU & ChFC*, July.

OECD (1996), *Aging in OECD Countries: A Critical Policy Challenge*, OECD.

OECD (1998), *Maintaining Prosperity in an Aging Society*, Paris: OECD.

Orszag, P.R. & Stiglitz, J.E. (2001), "Rethinking Pension Reform: Ten Myths about Social Security Systems," in Holzmann-Stiglitz eds., op. cit.

Palmer, E. (2003), "The New Swedish Pension System," in Takayama (2003a).

Queisser, M. (2000), "Pension Reform and International Organizations: From Conflict to Convergence," *International Social Security Review*, 53(2), pp.31-45.

Settergren, O. (2001), "The Automatic Balance Mechanism of the Swedish Pension System," Wirtschaftspolitische Blätter, No.4, available on (www.rfv.se).

Shoven, J.B. ed. (2001), *Administrative Aspects of Investment-Based Social Security Reform*, University of Chicago Press.

Takayama, N. (1992), *The Greying of Japan: An Economic Perspective on Public Pensions*, Oxford: Oxford University Press.

--- (1996a), "Possible Effects of Ageing on the Equilibrium of Public Pension System in Japan," *European Economy: Reports and Studies*, No. 3.

--- (1996b), "Gradual Retirement in Japan: Macro Issues and Policies," in Delsen, L. and Reday-Mulvey, G. eds., *Gradual Retirement in the OECD Countries*, Dartmouth Publishing Co. Ltd.

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

--- (1998b), "Financial Balancing between Work and Retirement in Aging Populations: The Japan Case," a paper presented at the INED conference commemorating Sauvy's 100-year anniversary, Paris, mimeo.

--- (2001a), "Reform of Public and Private Pensions in Japan," the keynote address presented at the 9th annual colloquium of superannuation researchers on reform of superannuation and pensions, the Univ. of New South Wales, Sydney, Australia, July.

--- (2001b), “Pension Reform in Japan at the Turn of the Century,” *Geneva Papers on Risk and Insurance*, 26(4), October.

--- (2002), “Taste of Pie: What Matters in Japanese Public Pensions?” a paper submitted at the Global Horizons Seminar on Pensions and Lifetime Savings, held at House Ways and Means Committee Room, Capitol Hill, Washington, DC, 24 May. (available on the website (http://www.ier.hit-u.ac.jp/~takayama/).

--- ed., (2003a), *Taste of Pie: Searching for Better Pension Provisions in Developed Countries,* Tokyo: Maruzen, Ltd.

--- (2003b), “Pension Arrangements in the Oldest Country: The Japanese Case,” in Takayama (2003a).

Takayama, N. and Kitamura, Y. (1999), “Lessons from Generational Accounting in Japan,” *American Economic Review*, May.

Thompson, L. (1998), *Older and Wiser: the Economics of Public Pensions*, Washington, DC: Urban Institute Press.

World Bank (1994), *Averting the Old Age Crisis*, New York: Oxford University Press.