
Chapter 24

Reforming Social Security in Japan: Is NDC the Answer?

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JAPAN ALREADY HAS THE OLDEST POPULATION IN THE WORLD. It has built a generous social security pension program but, since 2002, the income statement of the principal pension program has turned into a deficit. Its balance sheet suffers from huge excess liabilities, and distrust of the government commitment on pensions is growing. The Japanese are increasingly concerned with the incentive-compatibility problem.

This chapter investigates whether and how NDC schemes would help Japan and whether they are politically feasible. Before going into discussion, the chapter gives a brief sketch of Japanese social security pension program and summarizes Japan's major pension problems, while pointing out anticipated demographic changes and several basic facts about pensions.

Brief Outline of Pension Provisions before the 2004 Reform

Since 1980, Japan has repeated piecemeal pension reforms every five years, mainly because of great stresses on financing social security caused by anticipated demographic and economic factors. Since then, too-generous pension benefits have been reduced step by step, along with an increase of the normal retirement age from 60 to 65. The pension contribution rate has been lifted gradually as well. Yet current pension provisions still remain generous, and the system faces serious financial difficulties in the future.

Japan now has a two-tier benefit system, providing all sectors of the population with the first-tier, flat-rate basic benefit. The second-tier, earnings-related benefit applies only to employees.¹ The system operates largely like a pay-as-you-go (PAYG) defined benefit program.

The flat-rate basic pension covers all residents aged 20 to 60. The full old-age pension is payable after 40 years of contributions, provided the contributions were made before 60 years of age. The maximum *monthly* pension of 66,200 yen at 2004 prices (with a maximum number of years of coverage) per person is payable from age 65.² The benefit is indexed automatically each fiscal year (from April 1) to reflect changes in the consumer price index (CPI) from the previous calendar year. The pension may be claimed at any age between 60

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and 70 years. It is subject to actuarial reduction if claimed before age 65, or actuarial increase if claimed after age 65.

Earnings-related benefits are given to all employees. The accrual rate for the earnings-related component of old-age benefits is 0.5481 percent per year, and 40 years of contributions will thus earn 28.5 percent of career-average monthly real earnings.³

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 earnings level. The full earnings-related pension is normally payable from age 65 to an employee who is fully retired.⁴ An earnings test is applied to those who are not fully retired. The current replacement rate (including basic benefits) for take-home pay or net income is about 60 percent for a "model" male retiree (with an average salary earned during 40 years of coverage) and his dependent wife. Its *monthly* benefit is about 230,000 yen.

Equal percentage contributions are required of employees and their employers. The contributions are based on the annual standard earnings including bonuses. The total percentage in effect before October 2004 was 13.58 percent for the principal program for private-sector employees (Kosei-Nenkin-Hoken, or KNH). Nonemployed persons between the ages of 20 and 60 years pay flat-rate individual contributions. The rate in effect before April 2005 was 13,300 yen per month. For those who cannot pay for financial reasons, exemptions are permitted. The flat-rate basic benefits for the period of exemption are one-third of the normal amount.

Under the current system, if the husband has the pension contribution for social security deducted from his salary, his dependent wife is automatically entitled to the flat-rate basic benefits, and she is not required to make any individual payments to the public pension system.

The government subsidizes one-third of the total cost of the flat-rate basic benefits. There is no subsidy for the earnings-related part. The government pays administrative expenses as well. The aggregate amount of social security pension benefits will be around 46 trillion yen in 2004, equivalent to about 9 percent of GDP.

Demography and Its Impact on Financing Social Security

In January 2002, the Japanese National Institute of Population and Social Security Research (NIPSSR) released its 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 percent of the current number by 2100.

The total fertility rate (TFR) was 1.29 in 2004. 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. The number of births, currently about 1.12 million in 2003, will continue to decrease to less than 1.0 million by 2014, falling further to 0.67 million in 2050.

Japan already has one of the oldest populations in the world, and the long life expectancy of Japanese people means that Japan is now experiencing a very rapid aging of its population. The number of elderly (age 65 and above) is 25.5 million in 2005. 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 20.0 percent in 2005 to 25.3 percent by 2014, rising further to more than 30 percent by 2033.

In Japan, 70 percent 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 2004, the Ministry of Health, Labor and Welfare, Japan, published the latest estimates of the cost of social security broadly defined—that is, including pension, health, and social welfare benefits—using the 2002 population projections of the NIPSSR. According to the latest estimates, the aggregate cost of social security is 17.2 percent of GDP in 2004. It will steadily increase to 24.3 percent by 2025 if the current provisions for benefits remain unchanged.

Of the various costs of social security, that of pensions predominates, amounting to 9 percent of GDP in 2004, with further increase to 11.6 percent by 2025. The cost for health care is 5.2 percent in 2004, but this will rapidly rise to 8.1 percent by 2025.

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.

Some Basic Facts about Pensions

Any pension reform proposal must take into account the basic facts about pensions. Among others, the following five facts are especially crucial.

Persistent Deficit in Income Statement

Since 2002, the KNH has been facing an income statement deficit. It recorded a deficit of 1.3 trillion yen in 2002, and the deficit was 5.1 trillion yen in 2004. It is estimated that the deficit will persist for a long time, unless radical changes are made in the KNH financing.

Huge Excess Liabilities in the Balance Sheet

The KNH balance sheet is shown in table 24.1. In calculating the balance sheet, we assumed that:

1. Annual increases in wages and CPI are 2.1 percent and 1.0 percent respectively in nominal terms, while the discount rate is 3.2 percent annually
2. The current contribution rate of the KNH, 13.58 percentage points, will remain unchanged in the future
3. The period up to year 2100 is taken into account.

Table 24.1 indicates that as of March 31, 2005, there will be excess liabilities of 550 trillion yen, which is a quarter of the total liabilities.⁵

Part One of table 24.1 shows assets and liabilities accrued from past contributions, and Part Two shows those accrued from future contributions. Table 24.1 implies that as far as the future is concerned, balance sheet of the KNH has been almost cleaned up. The funding sources of the current provisions will be sufficient to finance future benefits, and the only task left is to slim down future benefits by 4.5 percent.

But if we look at Part One of table 24.1, things appear quite different. The remaining pension liabilities are estimated to be 800 trillion yen, while pension assets are only 300 trillion yen (a funded reserve of 170 trillion yen plus transfers from general revenue of 130 trillion yen). The difference is quite large—about 500 trillion yen, which accounts for the major part of excess liabilities in the KNH.

Five hundred trillion yen is more than 60 percent of Part One liabilities, equivalent to about 100 percent of GDP of Japan in 2004. In the past, too many promises about pension benefits have been made, but sufficient funding sources have not been arranged. The Japanese have enjoyed a long history of social security pensions. However, contributions made in the past have been relatively small, resulting in a fairly small funded reserve. Consequently,

**Table 24.1. Balance Sheet of the KNH before Reform as of March 31, 2005
(yen, trillions)**

1. Part One	
Assets	
Financial reserves	170
Transfers from general revenue	130
Liabilities	
Pensions due to past contributions	800
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Excess liabilities	500
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2. Part Two	
Assets	
Contributions	920
Transfers from general revenue	130
Liabilities	
Pensions due to future contributions	1,100
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Excess liabilities	50
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Source: Author's calculations.

the locus of the true crisis in Japanese social security pensions is how to handle the excess liabilities of 500 trillion yen that were entitled from contributions made in the past.

Pension Contributions: Heavy Burdens Outstanding

One of the principal issues in Japanese public debates has been how to cut down personal and corporate income tax. But recently the situation has changed drastically. Social security contributions (for pensions, health care, unemployment, work injury, and long-term care) are 55.6 trillion yen (15.2 percent of national income) for fiscal 2003. This is apparently more than all tax revenues (43.9 trillion yen) of the central government for the same year. Since 1998, the central government has acquired more from social security contributions than from tax incomes. Looking at further detail, we find that revenue from personal income tax is 13.8 trillion yen and from corporate income tax is 9.1 trillion yen, while revenue from social security pension contributions stands out at 29.0 trillion yen. Needless to say, the last places a heavy burden on the public. The Japanese now feel that social security pension contributions are too heavy; they operate as the most significant factor in determining the take-home pay from the gross salary. On the other hand, corporate managers have begun to show serious concerns about any further increases in social security contributions.

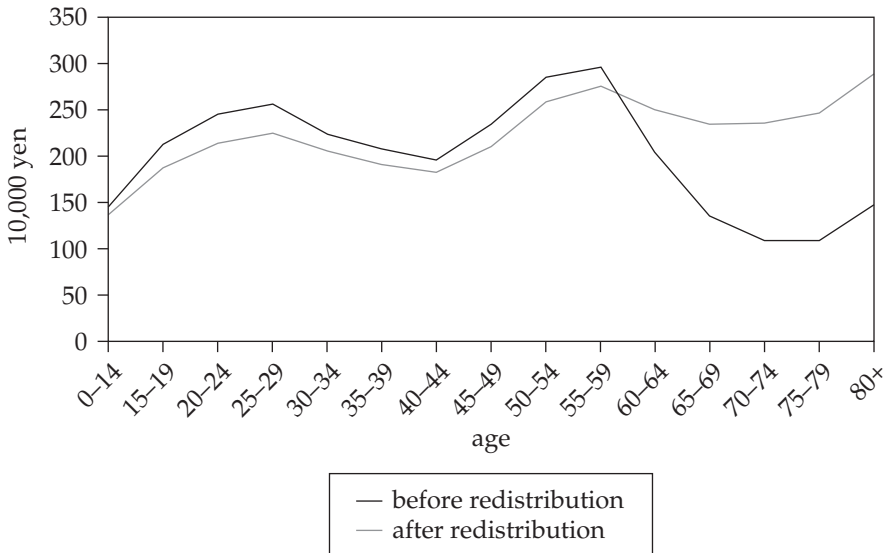
Overshooting in Income Transfer between Generations

It may seem amazing that today in Japan the elderly are better off than those aged 30 to 44 in terms of per capita income after redistribution (see figure 24.1). Undoubtedly there is room for reduction in benefits provided to the current retired population.

Increasing Drop Out Rate

In the past 20 years the Japanese government has made repeated changes to the pension program, increasing social security pension contributions and reducing benefits by raising the normal pensionable age while reducing the accrual rate. Further such piecemeal reforms will most likely follow in the future.

Figure 24.1. Per Capita Income by Age in Japan

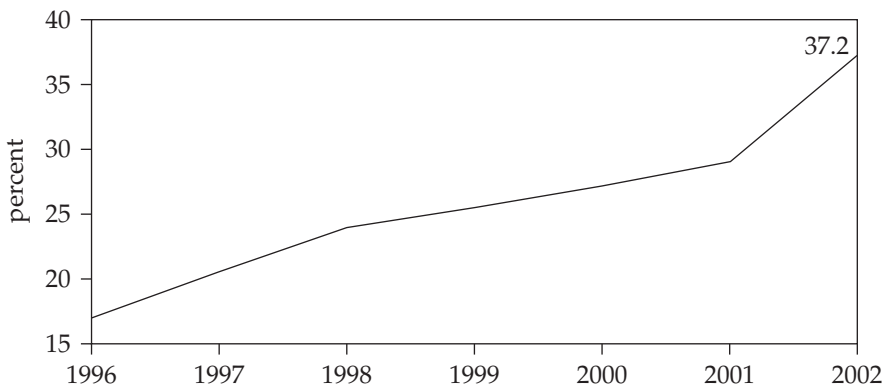


Source: Ministry of Health and Welfare, Japan (1996).

Many Japanese feel that the government is breaking its promise. As distrust about government commitment builds up, concern about a “credibility problem” is also growing.

In 2002, nearly 50 percent of nonsalaried workers and persons with no occupation dropped out from the basic level of old-age income protection, owing to exemption, delinquency in paying contributions, or nonapplication (figure 24.2 shows the increasing rate of delinquency).

Figure 24.2. Drop Out Rate from Social Security Pensions (nonemployees)^a



Source: Ministry of Health, Labor and Welfare, Japan (2003).

a. Delinquency in paying pension contributions.

Employers are also carefully trying to find ways to avoid paying social security pension contributions. Indeed, the aggregate amount of the KNH contributions has been decreasing since 1998, in spite of no change in the contribution rate.

Any further escalation in the social security contribution rate will surely induce a higher drop-out rate.⁶

The 2004 Pension Reform: Main Contents and Remaining Difficulties

In February 2004, Japanese government submitted a new pension reform bill that passed the Diet in June 2004. The main contents of it are:

- The KNH contribution rate is to rise by 0.354 percentage points every year from October 2004, reaching 18.30 percentage points by 2017. After 2017, it will be kept at 18.30 percentage points.
- Social security pension benefits will be further reduced by 0.9 percent in real terms every year for the next 20 years. Consequently, the replacement rate for the “model” male retiree and his dependant wife will decrease step by step from the current 60 percent to 50 percent by 2023. This is because of the introduction of a “demographic factor” that takes into account the decreasing rate of the total number of the actively working population and longer life expectancy.
- Transfers from general revenue are to be increased from one-third to one-half of the basic benefits by 2009.
- The earnings test is to be relaxed before age 65, while a new earnings test is introduced for those of age 70 and over.
- An earnings split between husband and his wife is to be introduced on divorce.
- More taxes are levied on pension benefits from 2005 on.
- There is no plan for any further increases in the normal pensionable age above 65.

The policy measures adopted in the 2004 pension reform bill will induce huge *excess assets* of 420 trillion yen in the Part Two balance sheet whereby offsetting excess liabilities of the same amount in Part One balance sheet, as shown in table 24.2. The huge excess assets of the Part Two balance sheet indicates that future generations will be forced to pay more than the anticipated benefits they will receive. Their benefits will be around 70 percent of their contributions and taxes, on the whole.

It seems as if we cut a paper not with scissors but with a saw. Younger generations are most likely to intensify their distrust of the 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.

Is the Swedish-Type NDC Applicable to Japan?

The Ministry of Health, Labor and Welfare, Japan, shows a great interest in switching the system to a Swedish-type NDC. It believes, however, that the switch can become realistic only after the KNH contribution rate reaches the peak level in 2017.

Switching to the Swedish-type NDC can be introduced in Japan very soon, however, if we *separate* the “legacy pension” problem from building a sustainable pension system for the future. The legacy pension problem of Japan looks like *sunk costs* in the economic perspective. This problem can be solved not by increasing the KNH contribution rate but by introducing a new 3 percent earmarked consumption tax and by an intensive interjection of the increased transfers from general revenue (see table 24.3). Needless to say, the current

**Table 24.2. Balance Sheet of the KNH after Reform as of March 31, 2005
(yen, trillions)**

1. Part One	
Assets	
Financial reserves	170
Transfers from general revenue	150
Liabilities	
Pensions due to past contributions	740
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Excess liabilities	420
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2. Part Two	
Assets	
Contributions	1,200
Transfers from general revenue	190
Liabilities	
Pensions due to future contributions	970
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Excess assets	420
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Source: Ministry of Health, Labor and Welfare, Japan (2004a).

generous benefits have to be reduced more or less by the same percentage as implemented in the 2004 pension reform bill.

For the Part Two balance sheet, which relates to future contributions and promised pension benefits entitled by future contributions, a switch to NDC is quite advisable. The KNH contribution rate would be kept unchanged at the current level of 13.58 percentage points. The notional rate of return should be endogenous, following a Swedish-type automatic balancing mechanism.

With the NDC plan, the incentive-compatibility problem can be avoided. Indeed, every penny counts in the NDC, and this would be the most important element when we switch to an NDC plan. It will be demonstrated to the public that everybody gets a pension equivalent to his/her own contribution payments.⁷

The NDC is expected to be rather neutral to the retirement decisions. The labor force participation rate for the elderly Japanese men remains at a considerably high level (71.2 percent of those aged 60 to 64 were working in 2003) compared with other developed countries, however. The shift to NDC can induce later retirement also in Japan, but its effect may not be so significant.

A move to NDC leads to lower replacement rates at age 65. This can be compensated for by working longer to age 67 or so, or by more voluntary saving. The Japanese government has decided to provide more tax incentives to the existing defined contribution plan from October 2004 onward.⁸

The supplementary benefit, the guaranteed pension, in Sweden was implemented as a provision for ensuring adequate income after retirement. It was also expected to work as a "shock-absorber" against social and economic risks. In Sweden, this benefit is solely dependent on pension income, and not on comprehensive income (including asset income, wages, and salaries), with no means-testing.

These Swedish arrangements for guaranteed pensions may be problematic in Japan, where income reporting to the tax bureau apparently differs among occupational groups. That is to say, income for wage-and-salary earners is usually fully reported, whereas

**Table 24.3. Balance Sheet of the KNH: An Alternative as of March 31, 2005
(yen, trillions)**

1 Part One	
Assets	
Financial reserves	170
Transfers from general revenue	290
Earmarked consumption tax	280
Liabilities	
Pensions due to past contributions	740
Excess liabilities	0
2 Part Two	
Assets	
Contributions	920
Transfers from general revenue	50
Liabilities	
Pensions due to future contributions	970
Excess liabilities	0

Source: Author's calculations.

income for self-employed persons is often underreported. Underreporting of income means less pension benefits from the NDC pillar, leading to more benefits in the guaranteed pension if Japan were to follow the Swedish system. This looks unfair to the eyes of salaried men. There should be special arrangements for nonemployed persons when a guaranteed pension is introduced in Japan.

Concluding Remarks

The Japanese are increasingly concerned with the "taste of the pie" rather than the "size of the pie" or the "distribution of the pie." When it comes to social security pensions, the most important question is whether or not they are worth buying at all.⁹ How big or how fair the pensions are has become a secondary concern. The basic design of the pension program should be incentive-compatible. Contributions should be much more directly linked with old-age pension benefits, while an element of social adequacy should be incorporated in a separate tier of pension benefits financed by sources other than contributions.

The author believes that a Swedish-type NDC arrangement will be the only way for Japan to overcome urgent difficulties in its current pension system. Of course, the switch to NDC schemes has to be accompanied by other proper measures for handling the legacy pension problems of Japan.

Notes

1. A detailed explanation of the Japanese social security pension system is given by Takayama (1998, 2003b).
2. 1,000 yen = US\$8.87 = euro 7.39 = UK£5.11 = SKr69.80 as of July 27, 2005.
3. A semi-annual bonus equivalent to 3.6 months salary is typically assumed.

4. The normal pensionable age of the Kosei-Nenkin-Hoken, or KNH, is 65, though Japan has special arrangements for a transition period between 2000 and 2025. See Takayama (2003b) for more details.

5. Excess liabilities of all social security pension programs in Japan as of the end of March 2005 amounted to around 650 trillion yen, which is equivalent to 1.3 times the 2004 GDP of Japan.

6. Contributions to social security pensions operate as “penalties on employment.” Further hikes in the contribution rate will drastically damage domestic companies, which have been facing megacompetition on a global scale, and thereby exert 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 also be sure to decrease take-home pay of actively working people in real terms, producing lower consumption and lower effective demand.

7. See Könberg (2002), Palmer (2003) and Settergren (2001) for more details.

8. See Takayama (2004) for more details.

9. See Takayama (2003a).

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