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1 Introduction

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

This paper first explains main contents of the 2002 population projections (Section 2). Section 3 provides cost estimates of social security for future Japan. Sections 4 and 5 deal with pension and health care problems respectively. Section 6 gives concluding remarks.

2 The 2002 Population Projections

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

The total fertility rate (TFR) was 1.36 in 2000. There is still little sign that the TFR will stabilize or return to a higher level. Yet, the 2002 medium projections assume that the TFR will record the historical bottom of 1.31 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 1.2 million in 2001, will continuously decrease to less than 1.0 million by 2014, falling further to 0.67 million in 2050.

Owing to the longest life expectancy, Japan is now experiencing a very rapid aging of its population. The number of the elderly (65 years and above) is currently 23.6 million in 2002. 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 percent in 2002 to 25.3 percent by 2014, rising further to more than 30 percent by 2033. Japan has already had one of the oldest populations in the world (see Figure 3).

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

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

3 Increasing Difficulties in Financing Social Security

In Japan, nearly 70 percent of social security benefits are currently distributed to the elderly. 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 percent in 2002. It will steadily increase to 32.5 percent by 2025, if the current provisions for benefits remain unchanged.

Among other costs, the cost for pensions is quite predominant, amounting to 12 percent of national income in 2002, with further increase to 16 percent by 2025. The cost for health care is 7 percent in 2002, but will show a rapid hike to 11 percent by 2025. The cost for long term care is currently very small, about 1 percent of national income. It will increase to 3.5 percent by 2025.

Further increases in the cost of social security is intensified by updating population projections. Take pensions for example. The contribution rate for the principal program for the private sector employees is currently 17.35 percentage point of covered earnings in 2002. It should be raised up to 31.9 percentage point by 2025. Note that the required rate would be 27.8 percentage point in 2025 with the 1997 population projections. The 2002 update of population projections implies about 15 percent increases in the peak rate of social security contributions for pensions.

The Japanese economy is still reeling from the effects of the bubble burst, and its declining 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.
Next year the current account of major social security programs including pensions, health care and unemployment will all turn into a deficit, if no reform is done.

4 Pensions

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

The 2002 release of population projections has changed the future picture of social security pensions, in spite of its 1999/2000 reform. Further reductions of pension benefits will be forced in the future, since one may say that the elderly in Japan are currently better off than the young or the middle aged in terms of living conditions (see Figure 4). Major part of their income consisted of social security pensions, as is depicted in Figure 5.

Incentive-Compatible?

The social security contributions (payroll taxes) have become the No.1 income source for the central government (see Figure 6). Yet, latest estimates show that the current 17.35 percentage point contribution rate is to be hiked to around 32 percentage point by 2025 to finance currently legislated pension benefits.

Further increases in payroll taxes will be sure to do even more harms to the Japanese economy, while making younger generations more inclined to think
that their participation in the social security pension system does not pay.

Indeed, in 1999 nearly 50 percent of independent workers, the self-employed and persons with no occupations dropped out from the basic level of old-age income protection, due to exemption, delinquency in paying contributions or non-application. Employers also are seriously considering how to avoid social security pension contributions.

*Taste of Pie*

Growing concerns are now observed in Japan on the “taste of pie” and not on the “size of pie”. The basic design of the pension program should be incentive-compatible. Contributions should be much more directly linked with old-age pension benefits, while elements of social adequacy be incorporated in a separate tier of pension benefits financed by other sources including a consumption-based tax.

Shifting to a new regime mentioned above will cause considerable reductions in social security pension benefits in the future. Current older generations still enjoy too generous pension benefits at the cost of their children and/or grandchildren (i.e., actively working generations) who are currently suffering from reductions in their nominal amount of salaries/bonuses and from increased unemployment, as well.

Next year, the current account for the principal pension scheme of social security in Japan will turn into a deficit, making its structural reform inevitable.

*Strengthening Private Initiatives*
Majority of people in Japan are quite reluctant to accept further increases in taxes and/or social security contributions. Under such circumstances, people are to be much more encouraged to go on self-reliance after retirement. A new defined-contribution plan was established last year and from April 2002, a hybrid similar to U.S. cash balance plans started. With stronger tax incentives, private initiatives will grow in due course. The future picture on distribution of old-age income in Japan can be quite different.

5 Health Care

Brief Outline of the Program

The Japanese program for social security health care is universal. It is roughly composed of three systems by different sectors of the population. The first one is the scheme for employees in large firms (Kumiai) and for civil servants (Kyosai). It is financed on each employer basis. The second one is the scheme for all other employees not covered by the first one. Employees in small- and medium-size firms are usually covered with the second scheme, which is managed by the central government (Seikan). The third scheme is for independent workers, self-employed people and retired workers. The third one is operated on each municipal basis (Kokuho). Dependents are covered with either of the three schemes above mentioned.

There are several unique features in the Japanese program. First, at retirement, employees are usually forced to move from the system formally covered under the first or the second to the third one.

Second, a cost-sharing scheme (Roken) has been established since 1983
for those aged 70 and over. The elderly of 70 years and above pay a lower share of medical costs. The major part of their medical costs are financed by transfers from social insurance contributions of the three programs mentioned above and from general revenue of both central and local governments.

Third, the social security coverage of medical care service and its reimbursement to providers are the same regardless of the programs. The social insurance coverage of medical care service (including co-insurance payments) was estimated to be 93 percent in terms of the aggregate cost in 1997. Reimbursement to health care providers is principally based on a free-for-service schedule that is uniform across different regions. The schedule is revised every other year by the central government. Each patient in Japan enjoys free access to any medical service providers at any time, purchasing most of available medical treatments at the publicly determined price through social insurance programs for health care.

Fourth, contrary to the benefit side, each program for health care adopts a different financing method. Generally speaking, the principal source of income is the contribution from enrollees (and their employers in the first and the second programs). Transfers from general revenue of the central and/or local governments are given to the second and the third programs to compensate for the relatively low income of these groups.

Financing Medical Costs for the Elderly

The medical cost varies among different age groups, on average. In 1999, its annual cost per person was 84,000 yen for those less than 15 years old,
68,800 yen for those between 15 and 44, 189,900 yen for those between 45-64, and 572,800 yen for those 65 and above in Japan. The elderly are heavy users of medical care service and their medical cost per person per annum is about 8.3 times the cost of those between 15 and 44 years old. Consequently 51 percent of the aggregate medical expenses were disbursed by the elderly of 65 and above whose share of the total population was 17 percent in 1999. Social security programs for health care are becoming very similar to those for pensions in that the basic feature of the program is income redistribution from younger and middle-aged to older people.

Annual health care expenditure of Japan was 7.1 percent of her GDP in 1997, which was relatively low in OECD countries. Owing to the rapidly aging population, it will increase very sharply, however. There is a broad consensus in the economists’ circle of Japan that it will grow by around 40 percent in 30 years in real terms.  

Financing problems of social security health care are getting more and more serious in Japan, especially in financing the medical cost for the elderly. Increasing costs for the Roken currently account for 90 percent of annual increases in aggregate costs for health care. There has been growing dissatisfaction within the first and the second groups (Kumiai, Kyosai and Seikan) to transfer their money to the Roken.

The story is as follows. The Roken is a mere cost-sharing scheme. The elderly, including retired workers are usually the enrollees of the third program (Kokuho), paying their contributions to the Kokuho, while they receive medical benefits from the Roken. The Roken itself does not directly collect
contributions from the elderly. The medical cost of the elderly are mainly financed by transfers from the three programs and by general revenue from central and local governments. Co-insurance payments by the elderly are currently less than 10 percent of the total cost for the Roken. 70 percent of the remaining cost are financed by transfers from the three programs. The amount of transfers paid by each program depend on the average ratio of the elderly to the total number of insured persons. Insurers with a higher ratio of the elderly persons (typically the Kokuho) receive transfers from those with lower ratio of the elderly persons (Kyosai, Kumiai and Seikan). 

Before setting up the Roken in 1983, the medical cost of the elderly was mainly financed by the Kokuho, the lowest income group with substantial transfers from general revenue. The Roken has changed the main financial source for the elderly health care from transfers from general revenue to transfers (contributions) from respective health care programs. The medical cost for the elderly has been supported by all the programs.

Substantially increased transfers, especially from the Kumiai and Kyosai, forced their current account to repeatedly turn into a deficit, causing steady increases in their contribution rate for health care. Their complaints against subsidizing the Roken are becoming extreme, while the current account of the Seikan is anticipated to turn into a deficit from 2003.

The 2002 Reform Bill

After heated debates among stakeholders, the government submitted a reform bill to the parliament in March 2002. Main contents of the bill are as
follows:

1) The eligible age for the *Roken* will be raised step by step from 70 to 75 by 2007.

2) 10 percent co-insurance rate is to be applied to those age 70 and above. 20 percent co-insurance rate will be exceptionally applied to them if they have high income.

3) Instead of the current 30 percent, 50 percent of medical expenses for the *Roken* are to be covered by transfers from general revenue of central and local governments.

4) The co-insurance rate for employees in the first and second programs (*Kumiai*, *Kyosai* and *Seikan*) will be hiked from 20 to 30 percent, while that rate for infants less than 3 years old is to be reduced from 30 percent to 20 percent.

5) The ceiling on co-insurance is to be increased from 63,600 yen per month to 72,300 yen for the employees’ group, while it is to be lifted to 12,000 yen for the elderly outpatients and to 40,200 yen for the elderly inpatients, generally.

6) The contribution base for the first and the second programs will be expanded to include semi-annual bonuses, whereas its rate for the *Seikan* is to be increased from 7.5 to 8.2 percentage point.

A cap system that keeps growth of total medical costs within economic growth, which has been advocated by the Ministry of Finance, was not included in the 2002 Bill. The system was fiercely opposed, especially by medical doctors. The drastic overhaul of the *Roken* is to be postponed until 2004.
**Future Options**

The social security health care in Japan is by and large on a command-and-control model operated by the central government. There is a growing concern for Japan to introduce a contracting model. An agency relationship, which is formed whenever a principal delegates the decision-making authority to another party (the agent), should be built up between patients and service providers, and between insurers and insured persons. Each player is to be equal in making contacts. Contracts should include incentive schemes for efficient supply of good quality medical services. In this sense, an insurer should play more active roles than in the traditional indemnity policy. The insurer should be permitted not only to do the *ex post* review of medical practice, but also to make a contract directly with medical service providers, applying a different payment schedule from that determined by the central government. \(^1\) \(^2\)

In reforming the payment schedule, a prospective payment system (PPS) will be quite advisable. Insurers can evaluate the quality of providers, giving them strong incentives through the reward which is based on outcome, and not on input.

The PPS was first introduced into the inpatient fee of the elderly in 1990. It was not mandatory, but it induced lower service input. The area of medical treatments that the PPS covers will be widened.

There should be more competition among providers and among insurers. Many people propose that the *Seikan* should be divided on each prefectural basis.
In addition, many people advocate to introduce gate-keepers, which put some restrictions on free access to any service providers. It is mainly for efficient use of medical resources.

6 Concluding Remarks

The January 2002 release of population projections for future Japan made social security financing more serious. The majority of Japanese people have recognized the gravity of the given problem. Japanese can forgive and forget. They will be sure to drastically change all of the existing programs of social security.

Socio-economic conditions will change very rapidly. Their changes will often take place beyond our previous prospects. Never-ending reforms of social security are inevitable in Japan where fine-tunings to changing circumstances are only acceptable in the political arena.

Endnotes:

1 Professor of Economics, Institute of Economic Research, Hitotsubashi University, Tokyo, Japan. His e-mail address is (takayama@ier.hit-u.ac.jp).
1 In 2000, life expectancy at birth was 77.64 years for males and 84.67 years for females. It is projected to increase to 80.95 years (males) and 89.22 years (females) by 2050 in Japan.
1 The estimates assume that national income will grow annually at 1.0 percent in real terms until 2025.
1 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 increase to 14 percent by 2025, if the current provisions for benefits remain unchanged.
1 Takayama(1998) gives a detailed explanation of pension programs in Japan.
1 Takayama(1999,2001) explains the latest pension reforms in 2000 and 2001 including those for private pensions. They are available on the website (http://www.ier.hit-u.ac.jp/~takayama/).
8 Since 1984, another cost sharing scheme has been set up for retirees of age less than
70. Those with very low income are exempt from participating in any of the social insurance programs for health care, and their medical costs are wholly covered by public assistance.

9 See Tokita, T. et al. (1997), for example.

10 See Tanaka (2000) for more details.

11 See Ogata (2001) for more details.

References


Figure 1  Actual and Projected Populations of Japan

Figure 2  Trend in the Total Fertility Rate of Japan

Figure 3  Proportion of the Elderly(+65) in Japan

Year 2002
18.5% (Japan)
17.5% (Sweden)

Figure 4  Per-capita Income by Age in Japan

Figure 5  SS pension benefits are the major source of retirement income

Source: The 1989 NSFIE (elderly couples: median income group)
Figure 6  Main Income Sources of Japan's Central Government
(Fiscal Year 1999)

(trillion yen)

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<th>Tax Type</th>
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