

## Financing Retirement in Aging Societies: The Japanese Case

### 1 Which Matters More, Japan's Increasing Elderly Population or Declining Birthrate?

The total fertility rate (TFR, births per family) of Japan is currently 1.39 in 1997 and there is still little sign that the TFR will stabilize or return to a higher level. The 1997 official projections (medium projections) assume that the TFR would record the historical bottom of 1.38 in 2000 and will return to 1.61 in 2025, increasing further to 2.07 in 2150 (see Figure 1).

Following the medium projections, the total labor force of Japan fall sharply in the 21st century as is depicted in Figure 2. Its probable consequence is a sharp decline in young labor, a decrease in the savings rate, and a decrease in capital formation. All these factors will contribute to the shrinking of the Japanese economy.

Japan will probably manage to contain the increasing social security costs (see Section 2 below), but it is still quite uncertain whether Japan can manage to succeed in lifting her TFR. There is a need for setting different priorities in policy issues. Missing is a shift in priorities of social support from the elderly to child-bearing and child-raising. Alternatively Japan's immigration policy should be changed drastically.

### 2 Can Japan Manage to Contain the Increasing Cost of Social Security Pensions?

This section will propose a set of policy options to freeze the contribution rate of social security pensions at the current 17.35 percentage point or below its level.

#### 2.1 A Partial Funding Shift from Wage-Based Contributions to an Ear-Marked Consumption-Based Tax

The first-tier, flat-rate basic benefit is currently financed partly by general revenue. The share of general revenue is currently one third. The remaining two-thirds are financed by contributions.

For self-employed and jobless persons together with those of no-occupation, the flat-rate contributions are levied for basic pensions. They are virtually poll taxes. The current drop-out rate is nearly 40 percent and a cherished dream for a universal pension is getting far- and far-reaching. For employed persons, 17.35 percentage contributions are currently levied for basic and earnings-related pensions. They are virtually wage taxes, doing harms to employees as well as their employers.

A universal pension can be attained by financing basic pensions not through contributions but through taxes. One alternative is an ear-marked consumption-based tax. Ear-marking will be required for a majority of people to accept its introduction as plausible. A consumption-based tax is less harmful than a wage tax, with spreading pension burdens to entire life stages. In the short-term, the funding shift will enable the contribution rate to decrease. It can be pulled down by 4.0 percentage point in 1998, with an introduction of the ear-marked consumption-based tax (its tax rate: 3.3 percentage point). The monthly flat-rate contributions (13,300 yen per person) for non-employees are entirely replaced by the above consumption-based tax. Through this change, almost all enrollees will lessen their pension burdens in net terms, while pensioners are forced to begin to bear some part of pension burdens.

The rate of consumption-based tax for basic pensions is estimated to be 6.1 percentage point in 2025. It substantially decreases the contributions.

## 2.2 Containing Aggregate Costs for Social Security Pensions

### A. Changing Benefit Increases from Wage-Indexation to CPI-Indexation

Social security pension benefits, once received, are currently wage-indexed in net terms in Japan. They can be CPI-indexed, however. Benefit indexation is quite crucial for public pensions, but if wage-indexation is found to be too expensive and harmful to actively working generations, CPI-indexation will be an alternative. The UK, the US, France and many other countries are currently adopting CPI-indexation. Germany and Japan are major countries with wage-indexation.

Changing benefit increases from wage-indexation to CPI-indexation will be estimated to decrease aggregate pension costs for social security by 11 percent by 2025.

### B. Introducing an Earnings-Test for Those Aged 65-69

Currently, the earnings-test is applied for those employees aged 60-64, but workers aged 65-69 enjoy full social security pension benefits even if they earn considerably high income. Another earnings-test can be applied to these workers aged 65-69.

### C. Extending the Contribution Period for Full Benefits from 40 to 45 Years

In the current legislation, the normal contribution period for full benefits is assumed to be 40 years. It can be extended to 45 years.

According to the latest population projections, the life expectancy at age 65 will get longer. In 1995, it was 16.48 years for men, and 20.94 years for women. In 2025, it is estimated to be 18.21 years for men, and 23.15 years for women. A little more than 10 percent increases will be expected. Consequently, the period for receiving pension benefits would get longer in the future.

One can say that the contribution period should be extended proportionately for the pension system to be sustainable. The idea is that the contribution period for full pensions has to be changed step by step from 40 to 45 years. Note that this change will virtually pull down the benefit level in real terms for late comers into the labor market, while preserving the normal pensionable age. This change can save the aggregate pension costs by about 10 percent in 2025.

Combined with a funding shift to a consumption based-tax, together with other measures listed above, this can decrease the contribution rate of social security pensions to 17.35 percentage point in 2025. Through these measures, we can freeze any further increases in the contribution rate (see Figure 3).

### 3 Promoting Private Initiatives : A Proposal of 4% PRA

Overly generous public pension benefits should be further reduced, while the contribution rate can be frozen forever at the current level or be reduced through a partial shift of funding to a consumption-based tax. At the same time, we should encourage private initiatives including a private, personal saving account for retirement, through the use of powerful tax-incentives. Recently, discussions on a Japanese version of the 401k are in fever. It will become effective from 2000.

By creating personal retirement accounts (PRA) in which each individual would

deposit 4 percent of monthly earnings from 2000, the combined benefits with a slightly slimmed-down social security pensions will enable the standard of living after retirement to stabilize at or even increase from the current level (see Table 1 and Figure 4).

### References

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

Takayama, N. (1998), "Financial Balancing between Work and Retirement in Aging Populations," a paper presented at the INED conference at Paris commemorating the Sauvy's 100-Year Anniversary.

Figure 1 Changes in the Total Fertility Rate

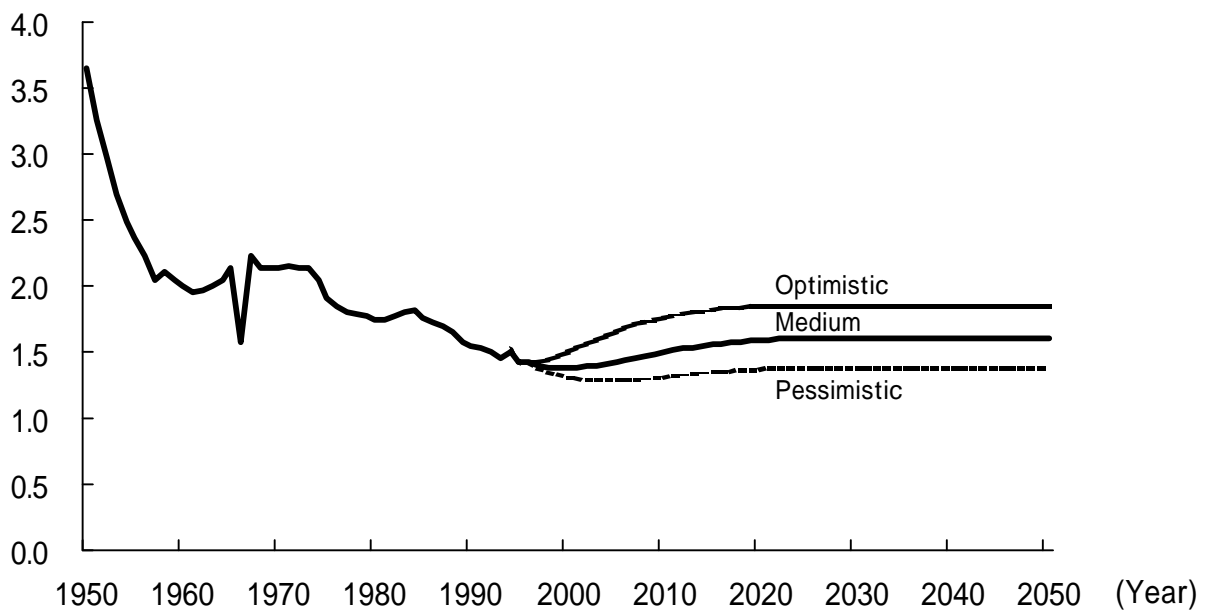


Figure 2 The Total Number of the Labor Force in Japan (The Medium Projection)

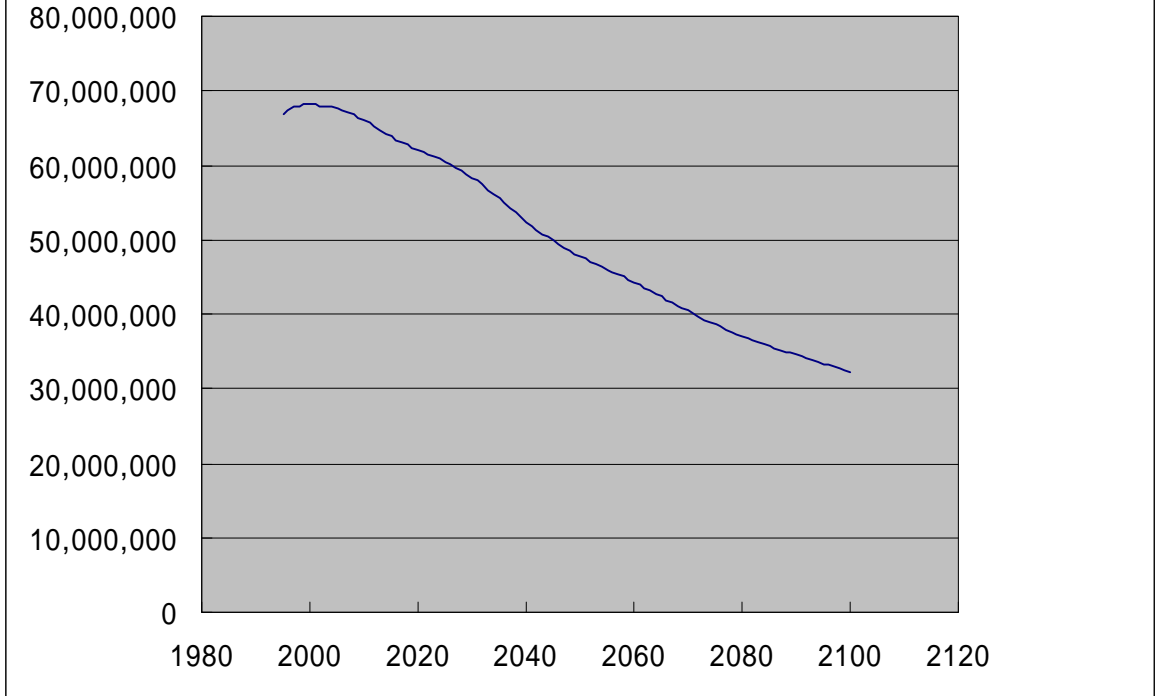


Figure 3 Future Contribution Rates by Alternative Policy Options

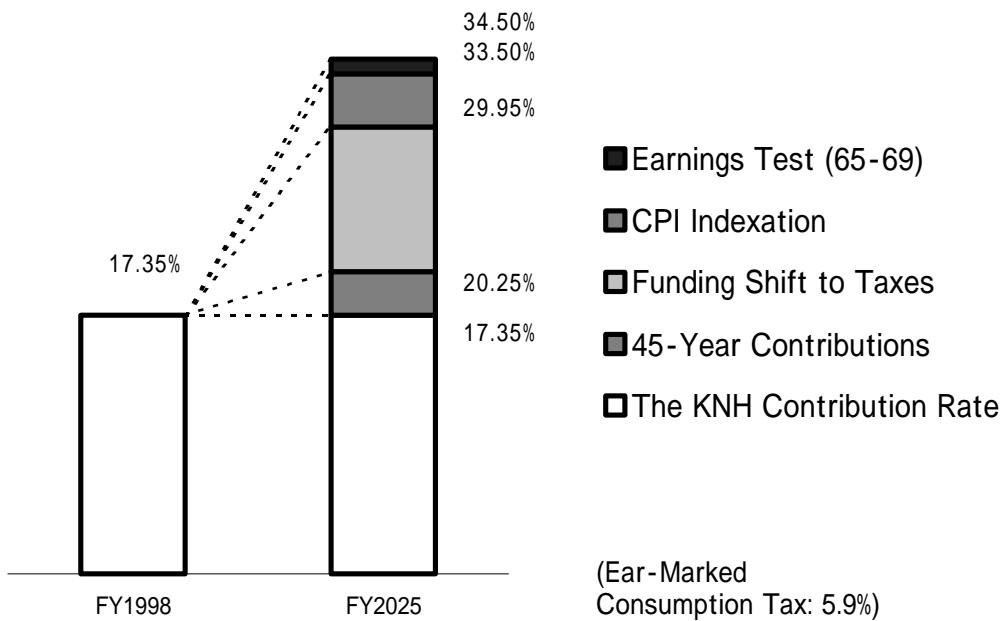


Figure 4 Replacement Rates Combined by Cohorts

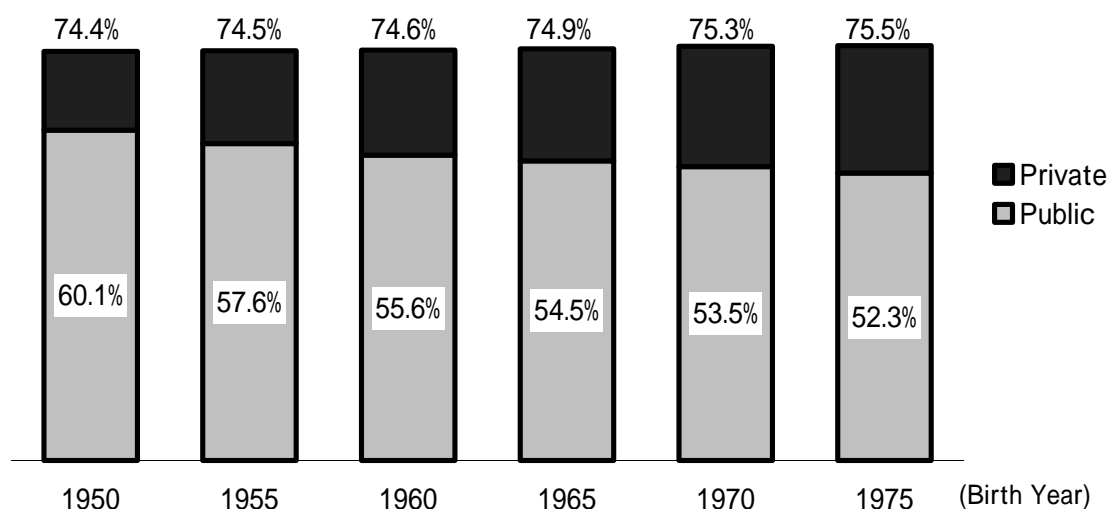


Table 1 Combined Monthly Benefits for Middle-Income Males

Birth Year	Entry Age (PRA)	Year at Age 65	Accumulated Fund (PRA) at Age 65 (million yen)	Monthly Benefits (PRA) (1,000 yen)	SS Pension Benefits (1,000 yen)	(in nominal terms)
						Combined Benefits (1,000 yen)
1950	50	2015	4.49	28.9	317.6	346.4(277.1, 74.4)
1955	45	2020	7.01	45.1	348.0	393.1(291.8, 74.5)
1960	40	2025	10.04	64.6	379.1	443.7(305.8, 74.6)
1965	35	2030	13.60	87.5	416.6	504.1(322.5, 74.9)
1970	30	2035	17.68	113.8	456.5	570.2(338.6, 75.3)
1975	25	2040	22.24	143.1	503.1	646.2(356.2, 75.5)

Notes:

1) The annual rate of return from PRA investment is assumed to be 4.0% in nominal terms, 1.0% of which are disbursed for administrative expenses.

2) The figures in ( ) are monthly benefits at FY2000 prices, and the replacement rates (%), respectively.