

**NIRA Report**

**Reforming Japan's Government Bond-financed Social Security System  
by Overcoming "Silver Democracy"**

**Executive Summary**

Japan's social security system is entirely supported by the annual issuance of government bonds, and the scale of these bond issues is expected to increase continuously in the future. The social security funds which should provide a reserve against the peak of the aging of Japan's population in the first half of the 2040s have already begun to be accessed, and there is a possibility that they could be depleted in around 20 years. Following the depletion of these funds, it will be necessary to depend on additional issuance of government bonds for the same amount as had previously been withdrawn from the funds each year. The recognition of this possibility has the potential to undermine confidence in Japanese government bonds.

In order to avoid this situation and ensure that social security funds are maintained until 2050, beyond the peak period of the aging of the nation's population, it will be essential to reduce current pension benefits. This will undoubtedly be difficult in a "silver democracy," in which elderly citizens possess considerable political power. However, if those elderly citizens were to be made sufficiently aware of the high degree of risk inherent in a pension structure in which benefits are dependent on the issuing of government bonds, it would not be impossible to reach a consensus regarding the stabilization of the pension system by reducing benefits. Conscientious efforts to ensure that the public is thoroughly aware of the risk in the current pension system will be an absolute precondition for the realization of such a consensus. To this end, it will be necessary to establish an independent organization to conduct accounting audits of public pension insurance, following the example of the U.S. Financial Management Service which publishes the annual Statement of Social Insurance.

**1. The Risks inherent in a Deficit Bond-financed Social Security System**

**Depletion of Public Pension Reserves**

Against the background of the rapid aging of the population and long-term economic stagnation, the scale of social security benefits payments is continuing to increase far

beyond the scale of the insurance premiums being contributed by working generations. The difference is made up by the annual issuance of government bonds, and the scale of this bond issuance is expected to increase still further in future with the aging of the baby boom generation to 75 and above.

This continuous increase in the scale of benefits payments is not something that can be resolved by increasing Japan's rate of consumption tax from 5% to 10%. The current situation, in which deficit bonds are being continuously issued and the burden is being passed on to later generations, cannot be sustained for the medium- to long-term, and it is possible that this might represent a major factor in undermining confidence in the Japanese government bond market that has financed the Public Pension scheme.

The Ministry of Health, Labour and Welfare (MHLW) has appealed to the concept of public pensions which are "secure for a century," referring to the maintenance of pension reserves until around 2100. However, contrary to initial forecasts, the social security funds which should provide a reserve against the peak of Japan's aging have been depleted by almost 20% in the past five years.

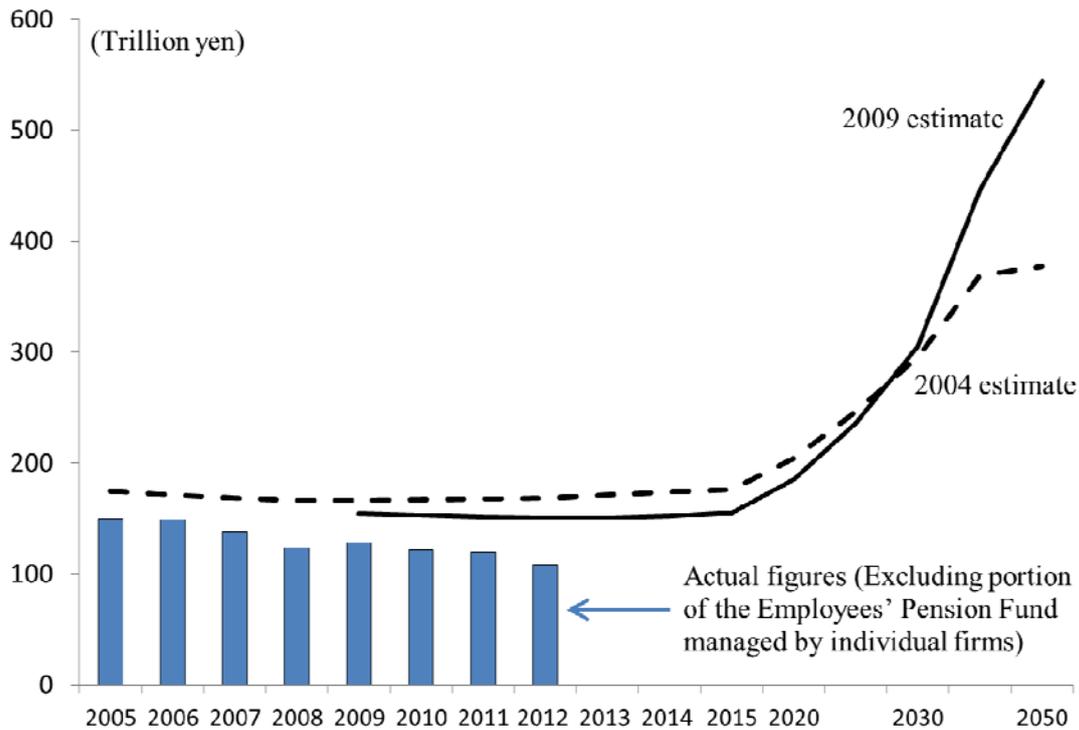
### **Projected Figures which diverge from Reality**

A major reason for the current unanticipated situation with regard to Japan's pension fund is the fact that long-term estimates of the level of the fund were based on assumptions which diverged significantly from economic reality. Because of this, essential reforms in the social security system which should have been conducted have been put off for the future. The 2004 Actuarial Valuation of the Public Pension Plans published by the MHLW was based on the optimistic assumption that a rate of investment return of 3.2% for the pension fund and a wage increase rate of 2.1% (both nominal values) would be maintained over the long term. Following this, in the 2009 Actuarial Valuation of the Public Pension Plans, which should have taken into consideration the fact that these figures diverged from actual values, the indicators were increased still further, to a rate of investment return of 4.1% and a wage increase rate of 2.5%. This further increased the discrepancy between these figures and the actual figures for the rate of investment return and wage increase rate for the pension fund managed independently by the Government Pension Investment Fund (GPIF)<sup>1</sup>.

Assuming hypothetically that no pension reforms are initiated and the pension reserves are depleted, government bonds to a value equivalent to the amount previously withdrawn annually from the fund (an average of approximately 10 trillion yen) would then need to be continuously issued, and this amount would be added to the average annual amount issued over the past ten years (approximately 35 trillion yen). This must necessarily have a significant impact on the bond market. Because of this, there is a possibility that confidence risk among investors in Japanese government bonds will become higher the lower the pension reserve becomes. Assuming that a new bond issue proved difficult, it would be impossible to avoid a significant reduction in pension

benefits and other social security expenses, in order to bring them within the scope of revenue from social insurance premium revenues (around 60% of the current value of benefits). This is the “hard landing” scenario.

**Figure 1 Outlook for pension funds (Total of employees’ and public pensions)**



(Note) The actual figure for 2012 is the figure at the end of the second quarter.

(Source) Review of Operations in Fiscal 2011 and the 2009 Actuarial Valuation of the Public Pension Plan Ministry of Health, Labour and Welfare

## 2. Scenario enabling Maintenance of a Public Pension System

### Avoiding the Hard Landing Scenario

In order to avoid a hard landing of this type, the desirable scenario would be to realize a pension system that is secure for at least 40 years, taking us past the peak of Japan’s aging process to around 2050, on the basis of more realistic economic indicators. An attempt to adjust burdens and benefits within the system would represent an essential factor in realizing this soft landing scenario.

In Case 1), in which the actual value for the rate of investment return for the pension fund, recorded from 2001 to 2011 by the GPIF, was substituted for the figure used in the case producing a pension system which would be “secure for 100 years” in the 2009

Actuarial Valuation of the Public Pension Plan, the depletion of the fund occurs earlier than the Actuarial Valuation case, in 2060. Cases 2) and 3) employ the same rate of investment return, but reduce the nominal wage increase rate to 1% and 0% respectively. In both of these cases the depletion of the fund occurs still earlier, in 2038 in Case 2 and in 2032 in Case 3.

### No Alternative but to reduce Benefits

In order to maintain the pension fund until 2050 under these new economic assumptions, we might first consider significantly increasing pension premiums, above the currently scheduled increases<sup>2</sup>. For example, in Case 3) it would be necessary to set the upper limit at 1.8 times the currently scheduled level (18.3%), using a 0.598%-point annual increase from 2013 to reach 33.26% in 2040<sup>3</sup>.

**Figure 2 Scenarios for Pension Reform**

		2009 Actuarial Valuation the Public Pension Plan		Alternative calculations		
		Base line case	Mechanical calculations <sup>1)</sup>	Case 1	Case 2	Case 3
Assumptions	Rate of return	4.1%	1.5%	1.4% <sup>2)</sup>	1.4% <sup>2)</sup>	1.4% <sup>2)</sup>
	Wage increase rate	2.5%	▲0.7%	2.5%	1.0%	0%
Period for depletion of pension reserve funds		Not depleted <sup>3)</sup>	Year 2032 <sup>3)</sup>	Year 2060	Year 2038	Year 2032
 Application of measures to prevent depletion of reserve funds before 2050						
			Mechanical calculations	Case1	Case2	Case3
Alternative proposal 1) :		Increase in insurance	35.85%	—	24.51%	33.26%
Alternative proposal 2):		Reduction of benefits <sup>5)</sup>	42% reduction	—	21% reduction	39% reduction

(Note)

1 Mechanical calculation 4) on Page 6 of materials related to the 2009 Actuarial Valuation of the Public Pension Plan (Published for the 15th Meeting of the Pension Subcommittee of the Social Security Council on May 26, 2009), Ministry of Health, Labour and Welfare.

2 Average value since GPIF commenced operation of fund (2001-2011).

3 Each figure is based on estimates by the Ministry of Health, Labour and Welfare.

4 Insurance premiums in 2040.

5 Uniform reductions in benefits from fiscal 2013.

Assuming that it is not possible to increase pension premiums above the currently fixed level, it will be impossible to avoid reducing pension benefits. Under the conditions of Case 2), this reduction would be 20%, and under the conditions of Case 3), a little less than 40%. It will be objected that reductions in pension benefits of this type will not be acceptable to pension recipients, but there is no alternative to these measures if we wish to avoid the hard landing scenario, which would result in even higher reductions in benefits.

### **Moving beyond “Silver Democracy”**

As Japan advances further along the path of “silver democracy,” as indicated above, a situation in which the elderly wield significant political influence, the realization of a reduction in pension benefits, including the benefits of current pension recipients, will be criticized as unrealistic. However, the current pension system, which is heavily reliant on loans from future generations, is not only an unfair system that passes the majority of the burden on to our children’s and grandchildren’s generations, but is also an unstable system based on economic assumptions which do not correspond to reality. Assuming that the current level of pension benefits is maintained throughout a recipient’s life, despite the fact that the benefits can be considered “high return” to the extent to which the burden is passed on to later generations, they are also “high-risk” assets, with the potential for a significant reduction in benefits to result from a collapse in the system.

If they were sufficiently aware of these facts, it is quite possible that the highly risk-averse elderly, the current pension recipients, would accept a partial reduction in their pension benefits in order to ensure that the benefits remained stable assets for the remainder of their lives. This possibility is supported by the behavior of elderly households in selecting financial assets. In the analysis conducted for this research, the rate of holding of risk assets such as stocks and bonds declined as the age of the head of the household increased, indicating the strength of risk aversion among the elderly.

From this perspective, it is possible that elderly generations would accept a reduction in pension benefits based on self-interest. This is to say that if pension benefits are considered government-guaranteed assets, as is presently the case, the elderly will strongly resist a one-sided imposition of reductions by the government. However, if it becomes clear that in effect these assets are being transformed into non-performing debts, a partial reduction in benefits, akin to a market operation to ensure the value of the remaining assets, would be more acceptable to the elderly as a rational choice.

However, comprehensive efforts to make the public aware of the systemic risk associated with public pensions will be a major precondition for the realization of this possibility. Under the current system, if the nation exits from a state of deflation and the

“consumer price indexation” mechanism goes into effect, a “macro-economic slide” mechanism will also go into effect to reduce the value of pension benefits in real terms, without the knowledge of their elderly recipients. However, the risk to the sustainability of the system can only increase to the extent that we remain committed to the idea of a pension system which will be secure for 100 years and fail to respond using a mechanism of this type.

### **Formulating a Schedule for Systemic Reforms**

By contrast with the uniform pension benefits received by beneficiaries aged 65 and above, medical and nursing benefits will not only increase in proportion with the aging of the baby boom generation, but the future state of finances of medical and nursing care insurance will become increasingly severe due to factors including increases in payments with advances in medical technologies. Rationalization of the health insurance and long-term care insurance expenses of the elderly and restriction of the burden on the public to within the scope of possible economic growth will be important factors in the realization of a sustainable system into the future. In order to enable this, a number of reforms will be necessary, including: 1) The realization of an appropriate allocation of roles for hospitals and clinics, for example through the introduction of a family physician care system; 2) The rationalization of nursing care insurance benefits; and 3) Clarification of the scope of coverage of health insurance.

The time is approaching when Japan’s current system, which transfers the burden of pension and health insurance and long-term care insurance costs to later generations by means of unlimited issuance of government bonds, will be controlled by market discipline. It is essential that we make the control of social security expenses to a level which can be borne by the working generations our fundamental guiding principle, and draw up a schedule towards the necessary systemic reforms as soon as possible.

#### Note

- 1) Average annual values from 2001 to 2011 are 1.4% for rate of investment return and -0.7% for wage increase rate.
- 2) A 0.354% point increase per year, with an upper limit of 18.3% in 2017.
- 3) If the amount of increase in medical and nursing care insurance is included, the burden significantly exceeds the limit that could be borne by users and the proprietors of businesses.

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The Japanese version of the full report: <http://www.nira.or.jp/pdf/1204report.pdf>

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