Is the Benefit from Public Pension Adequate for Retired Workers in Japan?

Munekazu Kawachi Chief Manager Group Life & Pension Actuarial Office Nippon Life Insurance Company

Abstract

All opinions in this report are stated as individual opinions.

The benefit from public pension occupies a very large place in the income of retired people in Japan as well as other countries.

By the 2004 reform of social security pension law, an automatically balancing mechanism was introduced. This framework is that the contribution schedule is fixed at first and then the benefit level is automatically adjusted to restore financial equilibrium.

As the result, the contribution of Employees' Pension Insurance increases to 18.3% in 2017 and the "replacement rate", which means the index of the benefit level, is projected to gradually decrease from 62.3% in 2009 to 50.1% in 2038. This indicates that the benefit will be cut by about 20%.

In this report, the future benefit of the public pension is anticipated at first and it is discussed how much benefit is cut and whether the benefit is enough or not for monthly expenditure of aged couples.

Key findings are as follows.

- Aged couples expend ¥237,000 per a month in 2007.
- It is anticipated that the monthly benefit would be ¥674,000 in 2059 under the automatically balancing scheme, if the wage increase rate were 2.5% per a year. But it has to be discounted by the consumer price increase rate to verify whether the benefit is enough or not. In the case of 1.0%, it is enough but in the case of 2.5% it is not.

Consequently, the Government should adopt two policies as follows

- The various saving instruments should be given to compensate for the income reduction. And the contribution paid to those instruments should be tax-deducted.
- The employment opportunities should be given to aged people so that they can get income until the start of the public pension.

Chapter 1 Introduction

The income protection for retired workers in Japan is composed of 3 layers. The first one is managed by the Government. The second one is provided by employers. The third one is personal savings and investment.

The public pension schemes occupy the large part of the income protection managed by the Government. They are composed of three schemes, the Basic Pension, the Employees' Pension Insurance scheme and the Mutual Aid Pension.

Many employers have founded defined benefit pension plans (DB) in Japan. They are the protection provided by employers. But many employers have changed the part of the retirement lump sum schemes to DB plans. So the amount of the retirement lump sum is important to discuss the income protection for retired workers in Japan.

The personal savings and investment mean deposits, stocks, bonds, annuity and etc. Annuity is provided by the life insurance companies.

The longevity of Japanese people has improved and the birth rate has been declining. To respond to a declining birth rate and improved longevity, various efforts have been done. And the automatically balancing scheme was introduced on 2004 pension reform.

The characteristics of the 2004 pension reform are as follows

- 1 The contribution schedule is fixed and it is stipulated in law.
- 2 The benefit level is automatically adjusted to restore financial equilibrium.
- 3 The replacement rate as the minimum benefit level is stipulated in law to monitor the benefit level.

According to the Financial Report on the Public Pension System FY2009 which was announced publicly by Ministry of Health, Labour and Welfare on 23 Feb, 2009, the "replacement rate" is 62.3% in 2009 and it will decrease gradually and be 50.1% in 2038. This means that 20% of the benefit will be cut when the adjustment of the automatically balancing scheme is finished in 2038.

The replacement rate is the ratio of the total annual amount of the old-age benefit which the couple is to receive at age 65 to the amount of average annual disposable income of active workers at the time the couple receives the benefit. And it is used to measure the level of public pension benefit in Japan.

In this report, the pension benefit that is provided to private company workers is discussed. They will receive the fixed amount from the Basic Pension and the

remuneration-related amount from the Employees' Pension Insurance scheme after retirement. And the effect of the reduction of the public pension benefit is considered through the analyses of the income and expenditure of aged households.

The follow steps are taken to consider this topic.

- 1 Analyses of the income and expenditure of aged households
- 2 An anticipation of the future public pension benefit that is reduced by the automatically balancing scheme
- 3 The reduced benefit is enough for expenditure?

Chapter 2 Monthly Income and Expenditure of Aged Households

According to "The Economic Situation of Aged Households: Income, Expenditure and Assets" (Nissay Research of Institute, Oct 2008), monthly income and expenditures of aged households are shown on Table 1-1,1-2,1-3.

This report is based from "Annual Report on the Family Income and Expenditure Survey <Income and Expenditure> 2007" by Statistics Bureau, Ministry of Internal Affairs and Communications of Japan.

Monthly income of aged households is \$223,459, this includes public pension benefit, \$207,574 and it is 92.9% of monthly income. And non-consumption expenditure which includes direct taxes and social security premiums is \$32,206. This is equal to 14.4% of monthly income. So disposable income is about \$191,000 and it is equal to 85.6% of income.

On the other hand, table 1-3 shows that the monthly consumption expenditure is \$237,475. This level is called "average level" in Chapter 4, and the monthly disposable income is lower than monthly consumption expenditure by about \$46,000. So, aged households must withdraw their savings and investment.

Moreover, this report analyzes the consumption expenditure of aged households. And the report says that aged households can save \(\frac{1}{2}\)27,000 per a month, because not so important expenditure is included, this level is called "saving level" in Chapter 4. In this case, aged households must withdraw \(\frac{1}{2}\)19,000 every month from their savings and investment.

And another characteristic point is that 89.5% of aged households have their own houses.

 $\label{thm:control_control_control} Table 1-1: Monthly \ Receipts \ for \ Aged \ Couple \ with \ No-occupation \ and \ Active \ Worker \\ Family^i \ (\ 2007\)$

		Amount (¥/ a month)		Percentage (%)		
			Aged	Active worker	Aged	Active worker
			couple	family	couple	family
Inc	come		223,459	531,509	100.0	100.0
	Cur	rent income	217,631	522,436	97.4	98.3
		Wages and salaries	2,678	517,192	1.2	97.3
		Income from self-employment & piecework	3,483	544	1.6	0.1
		Property income	3,337	114	1.5	0.0
		Social security benefits	207,574	4,130	92.9	0.8
		Pension benefits	206,567	46	92.4	0.0
		Other	1,006	4,082	0.5	0.8
		Remittance	560	455	0.3	0.1
	Non	-current income	5,828	9,073	2.6	1.7

 $Table 1-2: Monthly\ Non-consumption\ Expenditures\ for\ Aged\ Couple\ with\ No-occupation$ and Active Worker Family (2007)

		Amount (¥/a month)	Percentage (%)		
			Aged	Active worker	Aged	Active worker
			couple	family	couple	family
Inc	ome		223,459	531,509	100.0	100.0
	No	n-consumption expenditures	32,206	88,643	14.4	16.7
		Direct taxes	15,121	40,592	6.8	7.6
		Social insurance premium	17,048	47,934	7.6	9.0
		Pension premium	368	29,193	0.2	5.5
		Medical insurance premium	11,505	15,222	5.1	2.9
		Nurse care premium	5,173	1,142	2.3	0.2
		Other	2	2,377	0.0	0.4
		Other	36	116	0.0	0.0
Other Rate of owned dwellings (%)		89.5	65.8	-	-	

Table 1-3: Monthly Consumption Expenditures for Aged Couple with No-occupation and Active Worker Family (2007)

		Amount (∉/a month)	Percentage (%)	
		Aged couple	Active worker family	Aged couple	Active worker family
С	onsumption expenditures	237,475	315,453	100.0	100.0
	Food	58,092	69,456	24.5	22.0
	Housing	15,342	19,664	6.5	6.2
	Fuel,light & water charges	18,681	20,901	7.9	6.6
	Furniture & household utensils	8,674	9,547	3.7	3.0
	Clothing & footwear	7,916	15,384	3.3	4.9
	Medical care	16,396	11,538	6.9	3.7
	Transportation & communication	22,256	43,762	9.4	13.9
	Education	2	32,451	0.0	10.3
	Culture & recreation	27,524	38,217	11.6	12.1
	Other	62,593	54,533	26.4	17.3

From :Tatsuya Ishikawa and Kouichi Haji "The Economic Situation of Aged Households : Income, Expenditures and Assets" (Nissay Research of Institute, Oct, 2008)

Chapter 3 The Anticipation of Public Pension Benefit in the Future

How much public pension benefit will workers receive in the future? This is the main theme of Chapter 3.

In Japan, the level of public pension benefit has been reduced and the pensionable age has been raised to 65. So, it is anticipated that the benefit which active workers will receive after their retirement is lower than the benefit which old-aged people receive now.

1 The Outline of Public Pension Scheme of Japan

The benefit which workers will receive in the future is composed of two parts, Basic Pension scheme and Employees' Pension Insurance scheme.

1-1 The Outline of Basic Pension Scheme

Insured persons: In principle all persons living in Japan(including foreigners) shall be covered. And the insured persons are divided into three categories. Category insured persons are the persons living in

Japan aged 20 and over but under 60 and are neither the persons covered by Employees' Pension Insurance and Mutual Aid Pensions nor the spouses of Category insured persons. Category insured persons are covered by Employees' Pension Insurance or Mutual Aid Pensions. Category insured persons are the dependent spouses of Category insured persons and are aged 20 and over but under 60.

Minimum qualifying period:

At least 25 years are needed

Pensionable age 65 years of age

Yearly amount of pension benefit : $\$792,100 \times A/(B \times 12)$

A: periods of contribution(based on month)

B: insurable years

And \$792,100 is applied to the insured persons who will begin to receive benefit in 2009. This amount is revised every year to reflect wage increase rate or consumption price rate.

In this report, the pension benefit for retired workers is discussed. So the benefit for category insured persons and their spouses who are Category is considered.

1-2 The Outline of Employees' Pension Insurance Scheme

Insured person : A person under 70 shall be an insured person if he/she is employed at private companies.

Qualifying conditions:

He/she must be insured person of Employees' Pension Insurance and total insurance period must be at least 25 years.

Yearly amount of remuneration-related pension benefit: (a)+(b)

- (a) $A \times 7.125/1000 \times B$ (up to April 2003) $\times C$
- (b) $A' \times 5.481/1000 \times B$ (after April 2003) $\times C$
 - A: Average Monthly Standard Remuneration
 - A': Average Standard Remuneration
 - **B**: Number of insured months

C: Indexation Rate

2 The Model of Standard Worker's Household

In Japan, the model of standard worker's household is defined. And this model is used, when various topics about public pension schemes are discussed.

The model is as follows

- Husband will work for 40 years. And he is insured by Employees' Pension Insurance Scheme. His wage is ¥429,000 per a month. This is the average wage of insured workers under Employees' Pension Insurance scheme.
- · His wife does not work.
- The wage will increase by 2.5% per a year. And the consumer price will increase by 1.0% per a year.

So, the pension benefit which husband and wife will receive in the future is composed of the husband's Basic Pension, the wife's Basic Pension and the husband's remuneration-related pension from Employees' Pension Insurance scheme.

3 The Anticipation of Yearly Income of Workers

The benefit from Employees' Pension Insurance scheme is related to worker's remuneration. So, if total remuneration which workers will earn until retirement age (60 years old) can be anticipated, the benefit in the future could be anticipated.

In this report, workers' yearly income by age is anticipated at first, second the total remuneration is anticipated by accumulating those incomes.

Workers' yearly income includes monthly salary and bonuses which are usually paid twice a year in Japan. Ordinarily, workers graduate from high school or university and they get job and earn. The total remuneration means the sum of their earnings while they work until retirement age.

To anticipate a worker's yearly income,

1st step: To calculate workers average income by age and to plot the "income curve".

2nd step: To apply the wage increase rate 2.5% on the "income curve" and to be anticipated future income.

Basic Survey on Wage Structure 2007 which was published by Ministry of Health, Labour and Welfare, reported worker's monthly salary and yearly bonus by age, industry, scale of the company and educational background.

Table2 shows anticipated workers' yearly income by age and educational background.

For example, the yearly income of 18 years old workers who graduate from high school is \$2,496,000. That is the point A on the "income curve" (Figure 1). When they become 37, their yearly income is \$4,946,000. That is the point B. But this "income curve" does not consider the wage increase rate. Actually their yearly income will be $\$4,946,000 \times (1.025)^{19}$ by the effect of wage increase rate 2.5%.

Under the wage system which many Japanese companies introduce, workers' wage is often decided by their age, number of years in the industry and evaluation. So, this "income curve" method is seen reasonable in Japan.

Some characteristics can be pointed out about the "income curve".

- · Yearly income increases until nearly 40 years old. But after 40 years old, it is flat.
- Yearly income decreases sharply after age 55. This is because many companies adopt
 the system that workers are retired from an administrative post after they reach
 specific age.
- There is clear difference by educational background. This is related to the percentage
 of students who go on a higher stage of education. But it is anticipated that the
 difference would be small as workers who graduate from university or graduate
 school increase.
- It is said that there are differences by industry and by the scale of the company.

Generally speaking, workers' life style in Japan is as follows,

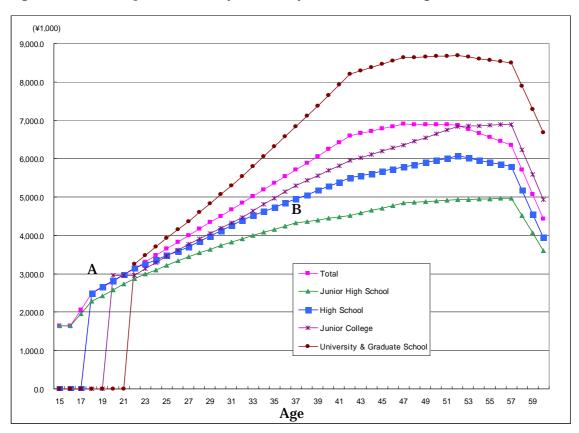
Getting job age: Workers who graduate from high school and get job in their 18 years old. If they graduate from university and get job, they are 22 years old.

Active age: For example, a worker is married when he is 25 years old. A son or daughter is born when he is 30 years old. He has to pay educational cost for his son or daughter. And he buys a house on loan when he is 40 years old. He has to pay an interest for the home mortgage and save money for his and his wife's after-retirement life.

Table 2 The Anticipation of Yearly Income by Educational Background (Male)

Age	Total (Unit:¥1000)	Junior high school	High school	Junior college	University & Graduate school
~ 17	1,636.8	1,636.8	0.0	0.0	0.0
18 ~ 19	2,487.9	2,276.5	2,496.8	0.0	0.0
20 ~ 24	3,137.1	2,875.9	3,142.0	2,967.9	3,252.7
25 ~ 29	3,996.2	3,448.2	3,696.2	3,780.2	4,368.5
30 ~ 34	4,846.9	3,920.0	4,404.0	4,473.1	5,530.2
35 ~ 39	5,710.5	4,320.9	4,946.2	5,300.8	6,835.3
40 ~ 44	6,598.8	4,524.5	5,502.6	5,948.8	8,197.0
45 ~ 49	6,901.3	4,838.1	5,780.4	6,356.1	8,628.9
50 ~ 54	6,878.5	4,926.6	6,072.3	6,838.0	8,688.1
55 ~ 59	6,344.7	4,971.1	5,793.4	6,891.5	8,492.3
60 ~ 64	4,426.8	3,607.0	3,938.4	4,931.0	6,676.7
65 ~	3,746.7	2,887.4	3,295.8	3,909.3	6,628.0

Figure 1: The Anticipation of Yearly Income by Educational Background (Male)



Retirement Age :Many companies have decided retirement age as 60. But 2004 reform of law requires companies to raise retirement age or employ aged people who want to work continuously after retirement age.

Pensionable Age: 65 years old

Under the wage system which many Japanese companies adopt, workers' wage increases as they become older. This system is reasonable, because the increase in expenditure for education or home mortgage is covered by the increase in income.

4 The Anticipation of Workers' Total Remuneration and Their Pension Benefit

To anticipate workers' total remuneration, it is supposed that workers' yearly income will increase or decrease along the "income curve" from their getting job age to their retirement age.

If the total remuneration were anticipated, the pension benefit of the Employees' Insurance scheme could be anticipated. However, this anticipated remuneration is the average of workers. So, some workers' remuneration is above the average and some workers' is below.

According to the Financial Report on the Public Pension System FY2009, it is supposed that the wage increase rate is 2.5% per a year and the consumer price increase rate (CPI) is 1.0% as the basic case ii. And the automatically balancing scheme was introduced by 2004 reform of laws. The application of the scheme to the Employees' Pension scheme starts from 2009 and will continue until 2019. And the application to the Basic Pension scheme will continue until 2038.

In this report, it is supposed that workers are 15 years old in 2009, they graduate from high school or university, work until 60 years old and receive pension benefit after 65 years old. If they graduate from high school at 18 years old, they get job and they work until 60 years old, the insurance period of the Employees' Insurance scheme is 42 years. If they graduate from university at 22 years old and get job and work until 60, the insurance period is 38 years. And it is supposed that the automatically balancing rate is 0.9% per a year.

The Table 3 shows the total remuneration and pension benefit of the household in the future if husband is the head of household.

Table 3 The Anticipation of the Total Remuneration and Pension Benefit (Male)

(Unit : ¥1000)	Total	Junior high school	High school	Junior college	University & Graduate school
Total remuneration	446,675	342,306	394,068	427,480	539,971
Insured months	504	540	504	480	456
Benefit rate	0.005481	0.005481	0.005481	0.005481	0.005481
Pension start year	FY2059	FY2059	FY2059	FY2059	FY2059
With adjustment by the automat	ically balancing	scheme			
Total revalued remuneration	707,448	557,787	627,824	663,448	823,384
Remuneration-related	3,878	3,057	3,441	3,636	4,513
Basic pension	2,108	2,108	2,108	2,108	2,003
Basic pension For couple = x 2	4,216	4,216	4,216	4,216	4,005
Yearly amount +	8,093	7,273	7,657	7,852	8,518
Monthly amount	674	606	638	654	710
Without adjustment by the autor	natically baland	cing scheme			
Total revalued remuneration	772,673	609,214	685,708	724,616	899,299
Remuneration-related	4,235	3,339	3,758	3,972	4,929
Basic pension	2,722	2,722	2,722	2,722	2,586
Basic pension For couple = × 2	5,444	5,444	5,444	5,444	5,172
Yearly amount +	9,679	8,784	9,203	9,416	10,101
Monthly amount	807	732	767	785	842

For example, if workers graduate from high school and get job, their total remuneration is \$394M. The benefit from the Employees' Pension Insurance scheme will be \$3,441,000 per a year. Their benefit from the Basic pension scheme will be \$2,108,000 per a year. And their spouse will receive the same benefit (\$2,108,000) from the Basic Pension scheme. Their total benefit will be \$7,657,000 per a year and it will start from 2059. It is \$638,000 per a month.

If workers graduate from university, the benefit that they and their spouse will receive from the public pension scheme will be \$8,518,000 per a year (\$710,000 per a month).

The future benefit which workers who are 15 years old in 2009 will receive after retirement is anticipated in Chapter 3.

In this chapter, the present value of the future benefit discussed in Chapter 3, will be shown at first and it will be compared with the expenditure of aged households that is shown in Chapter 1 second. The effect of the automatically balancing scheme will be considered at last.

1 The Anticipation of the Present Value of the Pension Benefit in the Future

The future pension benefit anticipated in Chapter 3 will be paid from 2059 when the workers become 65 years old. To calculate the present value of the future pension benefit, it has to be discounted for 50 years. To discount the benefit, 3 rates (1.0%, 2.0%, 2.5%) are used. Table4-1,4-2,4-3 show the conclusions.

Table 4-1: The Anticipation of the Present Value of Pension Benefit: CPI = 1.0%)

(Unit:¥1000)	Total	Junior high school	High school	Junior college	University & Graduate school		
Pension start year	FY2059	FY2059	FY2059	FY2059	FY2059		
Discount period	50years	50years	50years	50years	50years		
With adjustment by the	e automatically ba	alancing scheme					
Yearly amount	4,921	4,422	4,656	4,774	5,179		
Monthly amount	410	369	388	398	432		
Without adjustment by	Without adjustment by the automatically balancing scheme						
Yearly amount	5,886	5,341	5,596	5,725	6,142		
Monthly amount	491	445	466	477	512		
Reduction -	81	76	78	79	80		

In the basic scenario of the Financial Report on the Public Pension System FY2009, the CPI rate is 1.0% and the wage increase rate is 2.5%. If the CPI rate is equal to the wage increase rate (2.5%), the effect of the wage increase will be canceled.

Table 4-2: The Anticipation of the Present Value of Pension Benefit: CPI = 2.0%)

(Unit:¥1000)	Total	Junior high school	High school	Junior college	University & Graduate school		
Pension start year	FY2059	FY2059	FY2059	FY2059	FY2059		
Discount period	50years	50years	50years	50years	50years		
With adjustment by the	automatically ba	alancing scheme					
Yearly amount	3,007	2,702	2,845	2,917	3,165		
Monthly amount	251	225	237	243	264		
Without adjustment by the automatically balancing scheme							
Yearly amount	3,596	3,263	3,419	3,498	3,753		
Monthly amount	300	272	285	292	313		
Reduction -	49	47	48	49	49		

Table 4-3: The Anticipation of the Present Value of Pension Benefit: CPI = 2.5%)

(Unit:¥1000)	Total	Junior high school	High school	Junior college	University & Graduate school			
Pension start year	FY2059	FY2059	FY2059	FY2059	FY2059			
Discount period	50years	50years	50years	50years	50years			
With adjustment by the	automatically ba	alancing scheme						
Yearly amount	2,355	2,116	2,228	2,285	2,478			
Monthly amount	196	176	186	190	207			
Without adjustment by	Without adjustment by the automatically balancing scheme							
Yearly amount	2,816	2,556	2,678	2,740	2,939			
Monthly amount	235	213	223	228	245			
Reduction -	39	37	37	38	38			

2 The Future Pension Benefit Cover the Expenditure of Aged Households?

The monthly expenditure of aged households in Chapter 2 will be compared to the present value of the future pension benefit of the "Total" in this section.

Table 5-1 shows the case of CPI 1.0%. The center row of this table shows the case that the future pension benefit will be reduced by the automatically balancing scheme. And the right row of this table shows the case without the adjustment by the automatically balancing scheme.

Table 5-1 shows that if the wage increase rate is higher than CPI by 1.5%, the monthly disposable income (\(\pm\)353,000) will be higher than the monthly expenditure (\(\pm\)237,000). So retired workers would enjoy their happy life.

Table 5-1: The Anticipation of Monthly Income and Expenditure for Aged Household

CPI: 1.0%	With adjustment	Without adjustment
	by the automatically	by the automatically
(Unit:¥1000)	balancing scheme	balancing scheme
Income (pension benefit)	410	491
Disposable income(86%)	353	422
【Average level】 Expenditure	237	237
Balance -	116	185
[Saving level] Expenditure	210	210
Balance -	143	212

On the other hand, if the difference between the wage increase rate and CPI is 0.5%, Table 5-2 shows that in the case of the "average level" \$21,000 has to be withdrawn from savings every month. In the case of the "saving level", \$6,000 can be saved every month and the monthly disposable income is almost equal to the monthly expenditure.

Table 5-2: The Anticipation of Monthly Income and Expenditure for Aged Household

CPI: 2.0%	With adjustment	Without adjustment
	by the automatically	by the automatically
(Unit:¥1000)	balancing scheme	balancing scheme
Income (pension benefit)	251	300
Disposable income(86%)	216	258
【Average level】 Expenditure	237	237
Balance -	21	21
[Saving level] Expenditure	210	210
Balance -	6	48

Moreover if the wage increase rate is equal to CPI, Table 5-3 shows that in the case of the "average level" ¥68,000 has to be withdrawn from savings every month and in the case of the "saving level" ¥41,000 has to be withdrawn.

Table 5-3: The Anticipation of Monthly Income and Expenditure for Aged Household

CPI: 2.5%	With adjustment	Without adjustment
	by the automatically	by the automatically
(Unit:¥1000)	balancing scheme	balancing scheme
Income (pension benefit)	196	235
Disposable income(86%)	169	202
【Average level】 Expenditure	237	237
Balance -	68	35
[Saving level] Expenditure	210	210
Balance -	41	8

Table 5-2 shows that the monthly mean disposable income is almost equal to the monthly mean expenditure. This means that in the case that the difference between the wage increase rate and CPI is lower than 0.5%, many aged households are obliged to withdraw their savings. Whether aged households will receive pension benefit enough for their monthly expenditures after retirement depends on to what extent the wage increase rate will be higher than CPI.

3 The Effect of the Automatically Balancing Scheme to Aged Households

The future pension benefit will be reduced by the automatically balancing scheme.

The present value of the benefit which couples will receive while they are alive is considered in this section. And the reduction of the present value by the effect of the scheme is calculated.

At first the pension benefit reduction is converted to lump sum to measure the effect. And the present value of the lump sum is calculated.

The benefit reduction is shown in table 5-1, 5-2, 5-3. According to the 20th life table of Japan, life expectancy of male 65 years old is 18.13 years and that of female 65 years old is 23.19 yearsⁱⁱⁱ.

It is supposed that the wage increase rate is 2.5% every year, so in the case of CPI 1.0% the present value of pension reduction is the biggest. But in the case of CPI 2.5%, the effect of the wage increase rate is canceled by CPI and the present value of the pension reduction is about ¥9M.

Table6: The Anticipation of Income Reduction by the Automatically Balancing Scheme

СРІ	Total (Unit:¥1000)	Junior high school	High school	Junior college	University & Graduate school
1.0%	20,043	19,043	19,511	19,749	20,052
2.0%	12,247	11,635	11,921	12,067	12,252
2.5%	9,590	9,112	9,336	9,450	9,595

For example of the case: CPI: 1.0% Pension start year: FY2059

The benefit with adjustment by the automatically balancing scheme (Table 3)

Husband is alive Remuneration-related: 3,878 Basic: 4,216
After death Remuneration-related: 2,908 Basic: 2,108

Remuneration-related benefit will become 3/4 after husband is dead.

The benefit which couples will receive while they are alive: 170,759

 $(3,878 + 4,216) \times 18 + (2,908 + 2,108) \times 5$ 170,759

The benefit without adjustment (Table 3)

The benefit which couples will receive while they are alive: 203,722

The present value of the reduced benefit $: (203,722 - 170,759) / (1.01)^{50} 20,043$

Chapter5 What Policies should be Adopted by the Government?

Two effects caused by the automatically balancing scheme can be pointed out as discussed in Chapter 4.

- 1 The public pension benefit is not enough for many aged households, if the wage increasing rate is not higher than CPI.
- 2 The present value of the reduction of the benefit is almost equal to \(\frac{1}{2}\)20M (the CPI 1.0% case of Table 6)

In this section, it is discussed whether the aged households' income could be increased at first and what polices should be taken by the Government. The aged households' income is composed of three parts, the public pension benefit, retirement lump sum and personal savings.

1 The Possibility of the Raise of the Public Pension Benefit

The possibility of the raise of the benefit from the public pension schemes is considered. This idea is difficult politically, because the reduction of the benefit was caused by 2004 reform of laws and the object of the reform was to set upper limits to the contribution of the pension by adjusting the benefit through the automatically balancing scheme.

If the automatically balancing scheme were abandoned and the benefit were kept, the financial resources should be discussed. There are three choices to solve the problem, to raise the contribution, to raise the pensionable age and to increase the Government liability. They are very difficult.

2 The Possibility of the Raise of the Retirement Lump Sum

There are many defined benefit pension plans (DB) managed by employers in Japan. But many employers have changed from the retirement lump sum schemes to DB plans. So, the possibility of the raise of the retirement lump sum is considered in this section.

To raise the amount means the raise of personal expenses and post retirement liability for companies. So even if the company's performance were much better, it might not raise amount, because it has various options to compensate employees. For example, if an employer raised bonus, it would be good news for employees. So, the possibility to raise the retirement lump sum is low.

3 Personal Savings and Investment

If the public pension benefit and the retirement lump sum weren't raised, personal savings and investment would be important. On the case of an active worker family shown in Chapter 2, the monthly income is \$531,509, the monthly non-consumption expenditure is \$88,643 and the monthly consumption expenditure is \$315,453. So the family can save \$127,413 per a month (Table 1-1, 1-2, 1-3).

And if there were saving instruments which active workers could not withdraw their money from until retirement, such instruments would be suitable for income protection after retirement. And if the contribution which active workers paid to the saving instruments were tax-deducted, such instruments would be popular.

Concretely, annuity that is provided by life insurance companies and "matching contribution" of Defined Contribution scheme (DC) of Japan will be important as such instruments.

In Japan, the contribution of DC plan for employees is paid by the employer. But the Government plans to revise Defined Contribution Law in 2009 and after the reform employees are approved to pay their money as DC contribution to the plan. And the contribution is tax-deducted. This scheme is called "matching contribution".

Participants of DC plan can't withdraw their account until 60 years old. So, "matching contribution" is suitable. But the sum of the contribution which is paid by an employee and the employer should be lower than the upper limit of DC contribution. And the

contribution paid by an employee should be lower than the contribution paid by the employer. So, some people think that these restrictions are too severe.

4 The Employment for Over 60 Years Old

It is supposed that a retired worker and his spouse have no income from retirement age 60 to pensionable age 65 in this report. So the couple has to withdraw their savings during the five years. It is about $\$13 \sim 14M$ ($\$237,475 \times 60$). If the couple had regular income after 60, the couple would not withdraw savings.

The labor law concerning the employment stabilization of aged people was reformed on 2004 to accelerate the employment of aged people. And the law requires as follows.

- When an employer decides the retirement age of the worker to employ, the age should not be less than 60 years old. (Article 8 Clause1)
- An employer that decides the retirement age less than 65 has three options, to raise the retirement age, to continue to employ the aged people after retirement age if they want to work, or to abolish the retirement age. (Article 9 Clause2)
- The age that is mentioned 65 years old above is gradually raised. The age is 62 until March 31,2007, 63 until March 31,2010, and 64 until March 31,2012. (Additional Clause Article 4)

By this reform, the employment continuation until 65 years old is supported legally and the opportunities for aged people to earn after 60 years old until pensionable age 65 years old are widely opened.

5 Conclusions

Consequently, the Government should adopt two policies as follows to compensate for the income reduction caused by the automatically balancing scheme.

- The various saving instruments should be given to compensate for the income reduction. And the contribution paid to those instruments should be tax-deducted.
- The employment opportunities should be given to aged people so that they can get income until the start of the public pension.

The reasons why these polices are needed are explained as follows.

If the difference between the wage increase rate and CPI were not so large, there would be many aged households whose income would be approximately equal to the

expenditure or lower than the expenditure as shown in Table 5-2 and table 5-3 in Chapter 4.

And if the benefit from the public pension and retirement lump sum did not increase as discussed in section 1 and 2 in this chapter, the personal savings and investment would be important.

In particular, in the large package of tax revisions of 2009 which was announced publicly by the ruling party, the "matching contribution" scheme of DC was recognized. Further expansion of this scheme will be necessary. Though the scheme that employees who are employed by the companies without DC plan can participate in the personal-type DC plan was "discussed continuously" in the package, this scheme should be introduced as soon as possible. And the more expansion of tax breaks for annuity which is provided by life insurance companies should be realized.

On the other hand, if the pension benefit which aged households will receive is not so high, it is thought that their yearly income before retirement is not so high because the pension benefit is remuneration-related. So, they don't have enough savings at the retirement age (60). The employment opportunities are important for them.

On the aged people employment, though the continuation employment to 65 years old was legislated, it is reported that the income which employees over 60 receive falls down sharply after 60 and that it is around 70% on the case of continuous working and 60% on the case of changing job. It is necessary to improve the labor conditions for aged people.

Chapter 6 The Future Prospects on the Aged Households

- 1 It is pointed out that the medical cost and the nurse care cost will increase in the future. But the possibility is not considered in this report. Those will be further burden for aged households and oblige aged households to withdraw much more savings.
- 2 In this report, the "income curve" is used to anticipate future pension benefit. Due to the influence of the global recession triggered by the sub-prime loan, however, it is reported that some major companies in Japan temporarily stop regular income raise.

 The regular income raise is very important because it is incorporated into the

The regular income raise is very important because it is incorporated into the general life cycle of workers in Japan. If it were abandoned, the influence would be extremely big.

References

- 1.Tatsuya Ishikawa and Kouichi Haji "The Economic Situation of Aged Households: Income, Expenditures and Assets" Nissay Research of Institute, Oct, 2008
- 2. Tatsuya Ishikawa "The Economic Situation of Single Households after Retirement" Nissay Research of Institute, Feb, 2009
- 3. Kunio Nakashima "The Present Situation and Topics on the Public Pension Scheme of Japan" Nissay Research of Institute,Oct,2008
- 4. Tamie Matsuura "The Present Situation and Topics on the Employment of Aged People in Japan" Nissay Research of Institute,Oct,2008
- 5. Junichi Sakamoto "Roles of the Social Security Pension Schemes and the Minimum Benefit Level under the Automatic Balancing Mechanism (NRI Papers No.125)" Nomura Research Institute, Feb 1st,2008
- 6. Statistics Bureau, Ministry of Internal Affairs and Communications, "Annual Report on the Family Income and Expenditure Survey <Income and Expenditure>" 2007
- 7. Ministry of Health, Labour and Welfare "Basic Survey on Wage Structure 2007"
- 8. Ministry of Health, Labour and Welfare "Basic Survey on the Life of Japanese People 2007"
- 9. Ministry of Health, Labour and Welfare "Financial Report on the Public Pension System FY2009", Feb 23 th, 2009
- 10. Ministry of Health, Labour and Welfare http://www.mhlw.go.jp/houdou/2009/01/h0119-1.html
- 11. Ministry of Health, Labour and Welfare "The 20th Life Tables of Japan" http://www.mhlw.go.jp/toukei/saikin/hw/life/20th/index.html
- 12. Social Insurance Agency http://www.sia.go.jp/seido/nenkin/kyufu/01.html

Endnotes:

- ¹ In this report, an active worker family means a model family with couple and two children.
- ii The assumptions in the basic case of the Financial Report on the Public Pension System FY2009 are as follows:

The total fertility rate(the average number of children a woman gives birth to during her lifetime : 1.26

Consumer price increase rate: 1.0% Nominal wage increase rate: 2.5%

iii In Japan the complete life table is announced publicly by the Ministry of Health, Labour and Welfare every five years. "The 20th Life Tables of Japan" was announced on July 18th, 2007.