

Some lessons from Japanese Social Security Pension Plans for 50 years

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Abstract

Japanese social security pension plans started for government officers or militaries in 1880s, and for general workers 1942(Workers Pension Plan), and in 1961 realized “ National universal pension plan”, in which all the people living in Japan were covered by at least one of social security pension plans.

“ National universal pension plan” celebrated 50th anniversary in 2011.

Japanese government is integrally trying to review social security systems at “ National Committee on Social Security Reform” at present.

This paper will review the history of Japanese social security pension plans developments for fifty years and discuss financial issues including,

- 1.(Premium) Japanese social security pension plans adopted “Scaled premium method”,
- 2.(Financing) Japanese pension plans started on funding method and gradually changed to partial funding method, and in 2004 changed from infinite equilibrium method to finite method,
3. (Pensionable age) Though pensionable age had gradually increased with life expectancy increased, it was usually very difficult and took much time to do it,
- 4.(Benefit level) In Japan benefit level had gradually raised in accordance with high economic growth since mid-1960s, and cost-of living adjustment was introduced in 1973, and reduced the level afterwards by slowdown of economic growth, and
- 5.(Pension system) Japanese pension system is multi-pillar composed of social security, corporate and private pensions and savings, and fiscal adjustment has been done among employee pension plans. Pension Plans for employees have been integrated into

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Employees' Pension Plan since 1980s for keeping stability..

Social security pension plans developments in a country are thought to be highly path dependent on their social, economic, or financial situations. However economic and informational globalization has developed recently. Authors hope that lessons from Japanese Social Security Pension Plans for 50 years would be beneficial to other countries, particularly those and actuaries discussing the introduction or development of social security pension plans.

1. Introduction

Japanese Social Security Pension System is characterized as (1) Social insurance systems, (2) Intergenerational support, and (3) National universal pension system in which all people living in Japan are covered by at least one of social security pension plans.

“ National universal pension system” celebrated 50th anniversary in 2011.

This paper will review the history of Japanese social security pension plans development for fifty years as the following order with reference to “ Annual Health, Labour and Welfare Report 2010-2011”.

1. Social Security Pension Plans before Universal Pension system (-1950s)
2. Establishment of Universal Pension System (1960s-Oil shock)
3. Institutional Reconstruction Period (1975-1988)
4. Response to an Aging Society with Declining Birth Rate(1990s)
5. Economic Structural Reform and Social Security Pension Plans, and Change in Government and Social Security Pension Plans

After that, the paper will discuss financial issues including,

1. Premium, particularly Scaled premium method,
2. Finance, particularly funding vs pay-as-you-go and infinite equilibrium method vs finite method,
3. Pensionable age
4. Benefit level, and
5. Pension System, integration of employees pension plans.

Authors hope that lessons from Japanese Social Security Pension Plans for 50 years would be beneficial to other countries, particularly those and actuaries discussing the introduction or development of social security pension plans.

2. Social Security Pension Plans before Universal Pension system(-1950s)

Some people say the origin of the Social security Pension Plan was Masayuki Hoshina's administration³ in Aizu area in the early 17th century in Japan. But it is common that the origin of social security pension plans was pension plans for militaries or government officers⁴, which integrated to "Pension law for government officers and militaries" in 1923, together with plans for teachers or polices. In addition to this, mutual association systems were also founded for civil servants for civil services.

Under the World War II, pension benefits were required for disabled soldiers or their survivors, and "Sailors Insurance" was established to ensure sailors in 1939. Sailors insurance was comprehensive insurance plan which included medical treatment, inability benefit, old-age pension, disabled pension, disability benefit and withdrawal allowance. Among which, old-age pension and disabled pension were the first social insurance pensions in Japan.

Workers Pension Insurance Law was promulgated for male workers at factories in 1941 because also to ensure workers producing goods for the war. It benefited old-age pension (Eligibility age of 55 in 20 qualification years), disabled pension, disability benefit, survivors pension and withdrawal allowance.

Then, its coverage expanded to female workers and clerical staffs and its name was changed to "Employees' Pension Plan".

Just after WWII, the values of core benefits of survivor pensions or disabled pensions decreased due to hyper inflation. Moreover workers lives became poor and became difficult to pay pension premiums, and the pension reserve lost its economic value. Pension systems were completely reviewed and Employees' Pension Plan amendment

³ Feudal lord Masayuki Hoshina said "Give daily 900ml of rice to all the people over 90 years of age" in Aizu area in the early 17th century. Some people think it the origin of Japanese pension plan.

⁴ "Disabled and Survivors allowances for the army"(1875) and "Retired allowances for the navy"(1884) were enacted and developed to "Pension plan for militaries" and "Pension plan for government officers"(1890).

was enacted, which included (1) introduction of a combination of fixed and salary-related portion (2) an increase in a pensionable age to the 60 from 55. In finance, (3) financing method was changed to partial-funding method, (4) scaled premium method and (5) actuarial review in five years were introduced. (6) State contribution was also introduced at the moment.

3. Establishment of Universal Pension System (1960s-Oil shock)

In the year 1954 when the Employees' Pension Law enacted, its old-age pension benefit was only 100 yen per month. Therefore some occupational groups were separated or independent one after another, Private school teachers mutual-aid association (1954), Public enterprises mutual-aid association (1956), and Agriculture, Forestry and Fisheries mutual-aid association (1959). Municipal Mutual Aid association (1955), Central government officers Mutual Aid association (1959), and Local government officers Mutual Aid association (1962) were also started. These employees pension plans above did not cover farmers or self-employed, so that the Government started being covered by the National Pension Plan, and it enacted in 1957. The National Pension Plan covered all the Japanese people of age 20-60 who were not covered by Employees' Pension Plan or Mutual-aid associations (farmers, fisheries and self-employed). Non-contributory pension benefits started in 1960 and they started to collect premiums for contributory National Pension Plan (1961).

Then, "National Universal Pension System" was realized, which covers all Japanese people⁵ by at least one of social security pension plans. "Universal health insurance system" had been realized due to the enactment of National Health Insurance Law in 1958. Therefore "National Universal Pension System" realized 3 years behind.

Non-contributory welfare pensions were welcomed and contributed to spread "Pension concept". It was told that the old people were on the queue in front of post offices to whose accounts benefits paid.

But some people strongly opposed, including the people that wondered whether pension reserve would invest to military industries or majors who claimed that National Pension Plan was too early to introduce from viewpoint of administrations, because local governments must administrate National Health Insurance in 1958.

⁵ The National Pension Plan covers all the people staying in Japan at present.

The Kishi Cabinet intended to revive the US-Japan Security Treaty, and Japanese society abuzzed then. US-Japan Security Treaty revived after the National Pension Plan bill passed the Diet. We think that the Pension Bill could not pass the Diet if it proposed after the US-Japan Security Treaty revision.

Pension benefit level had been improved in accordance with Japan economy growth, and reached “10,000yen pension “ (1965) and “20,000yen pension “ (1969) in Employees’ Pension Plan. National Pension Plan benefit also reached “10,000 yen pension “ (1966) and “20,000yen pension “ (1969) in couple. In 1973, Cost-of-living adjustment system and revaluation of emuneration were introduced and “50,000 yen pension” was realized in Employees’ Pension Plan. National Pension Plan also realized “50,000yen pension” in couple.

The 1973 was a special year in Japanese social security history and called “ first welfare year” because great benefit improvements were done including health insurance and pension area.

The CPI increased 11.5% and 23.2% in 1973 and 74 respectively and called “ frenzy prices years”. Pension benefits might greatly depreciate, but they fortunately could maintain their purchase values because cost-of living adjustment system had already introduced.

4. Institutional Reconstruction Period(1975-1988)

In autumn in 1973, the first oil shock was occurred and Japan economy ended high economic growth and transmitted to steady economic growth. Social security pension plans were also reviewed and reformed to integration.

In 1985, social security pension plans were reformed into basic pension plan (first tier) plus salary-related pension plans(second tier) from those separated in 7 plans of three kinds.

In addition, benefit level was reduced towards the future, and resulted 176,200yen per month (69%of average enumeration) in 40 years of contributory services from 173,100yen(68% of average enumeration) in 32 years of contributory services in 1986.

Japanese social security pension systems differently directed towards integration and benefit reductions from disparities of plans and benefit improvements.

5. Response to an Aging Society with Declining Birth Rate(1990s)

Some plans must have some difficulties in pension financing under the seven plans of three kinds. Japanese pension systems were reconstructed by integration of employees pension plans into Employees' Pension Plan. Sailors Insurance (pension area outside of occupational field)(1986)), Japan Railway mutual-aid association(1997), Japan Tobacco mutual-aid association(2002), Japan telephone and telegram mutual-aid association(2002), and Farmers ,Forestry and Fishermen mutual-aid association(2002).

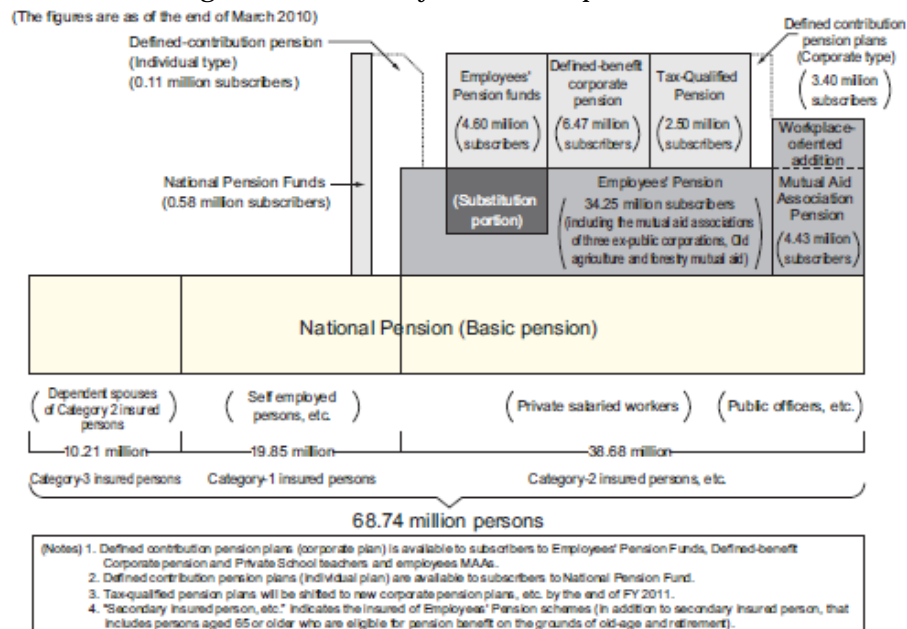
In 1994, Old-age pensionable age was decided to increase from 60 to 65 by one year every three years (5years delayed for females).Old-age pension for working early 60s changed to the system in which total of pension and salary increase in accordance with salary increase.

6. Economic Structural Reform and Social Security Pension Plans, and Change in Government and Social Security Pension Plans

The government changed by the general election held in August 2009 to coalition government of several parties where Japan Democratic Party centered from coalition government of Liberal Democratic Party and Komeito. One of reasons of government change was "Disappeared pension records", by which some people can not receive pension benefits. Intensive efforts have been made to recover pension records as national project in 2010 and 2011, and 17 million records have been integrated into Basic Pension Numbers as of March, 2013. Moreover, the Pension Support Act was enacted addressing no-pension or low-pension issues (temporary measures for 3 years).

Figure1. Pension Systems in Japan

The Japanese social security pensions system is "National Universal



Pension System”, in which all people staying in Japan are covered by at least one of social security pension plans. It is composed of Basic Pension Plan which is flat-rate plan covering all people (first tier) and Employees Pension Plans including Employees’ Pension Plan or Mutual-Aid Associations which are salary-related pension plans covering government officers and private teachers. And they pay life annuities after retirements.

The pension benefit model (basic pension(first tier)+employee’s pension(second tier)) for worker’s couple is about 60% of active workers’ income, where the basic pension corresponds to basic expenditure in their old lives.

Table1.Social Security Pension Plans in Japan

Pension Plan	Old-age pension beneficiaries(million)	Old-age pension Benefits (thousand yen)
National Pension Plan	276.5million	54
Employees’Pension Plan	138.5	157
Mutual-aid associations	2.61	171
計	44.11	-

Social security old-age pension amounts count for 70% of income for the aged households, more than 60% of them completely rely on pension benefits, and a quarter of people get pensions. Pension benefits become core and inevitable source of people’s old age incomes.

An interview survey⁶ reported that the 71.0% of old age Japanese people of over 55 years answered "Not in trouble" and only 28.3% " Trouble" to the question “ How do you think on your daily life economically?”

7. Developments of Social Security Pension Plans in Japan

We have reviewed the developments of Social Security Pension Plans in Japan so far since the establishment of Universal Pension System in 1961. We will discuss it from the following actuarial points of view.

(1) Premiums-Particularly scaled premium method

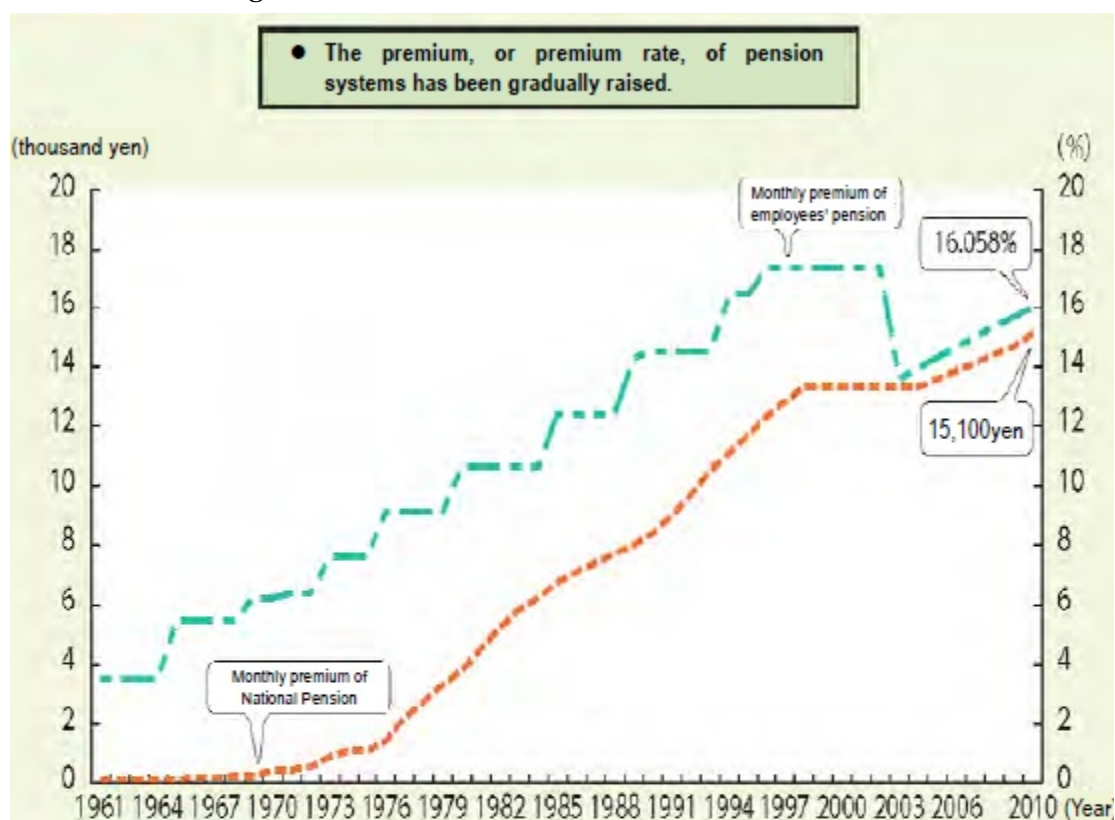
The Japanese Social Security Pension Plans started on funding methods, but scaled

⁶ “ Interview survey on economic daily lives in old people”, Cabinet Office, October 2011

premium method was introduced into the Employees' Pension Plan at 1954 Pension reform. The scaled premium method is the method where it started from the payable low premium at the low development stage of economy and gradually increase it in accordance with economical developments. Therefore, its initial premium is not so high as it on funding method and its increasing speed is not so rapid as pay-as-you-go. The ILO recommended to adopt the scaled premium method to developing countries when they newly start social security pension plans. The scaled premium method is somewhere between funding method and pay-as-you go method.

To function well the scaled premium method, it needs some economic growth. The high economic growth in 1960s provided the foundation of scaled premium in Japan.

Figure2. Increases in Pension Premiums



Source: 'Annual Report' of the former Social Insurance Agency and materials prepared by the Pension Bureau, MHLW

- Note: 1. The same rate as insurance premium rates of a employees' pension is being applied to bonuses, as well as monthly salaries, following the introduction of the total remuneration system in April 2003.
2. The premium rate of the employees' pension is of insured persons (men); with the monthly premium of the National Pension in FY 1961-69 being for persons aged 20-34.
3. The premium rate of the employees' pension and the monthly premium of the National Pension figures are after any applicable increase.

(2) Finance; particularly funding vs pay-as-you-go and infinite equilibrium method vs finite method,

The Employees' Pension Plan started on the funding method to manage the Plan in 1940s, and changed to partial funding method in 1954, because it should adopt less premium than level premium rate. It introduced scaled premium at the moment ⁷.

After when the cost-of living adjustment introduced, it became difficult to finance social security pension plans by funding method. People recognize well the pay-as-you-go system applied to social security pension plans.

The premium setting changed from "Keeping benefit levels method" to "Premium level fixed method" in 2004 pension reform⁸. The premium level had been set by valuation done in five years until then (Keeping benefit levels method). It could keep the benefit level, but the contribution level indefinitely could increase. The premium level fixed method would fix contribution level, particularly the upper limit, and would pay benefits within it. Therefore, people could see the future contributions. People could not see the future benefit level instead.

The finite equilibrium method was introduced in replace of infinite equilibrium method, where finance was balanced in about future 100years. The OASDI also used finite equilibrium method in 75years for long balance and 10 years for short-term balance in the USA. In case of Japan, financial situation is reviewed only in 100years. Authors think Japanese social security pension plans should also evaluate short-term balance (for example, 10 years). Some technical issues should be discussed, for example, how to consistently set assumptions in long-term and short-term when short-term valuation is done, whether to respond to request of annual reviews, or how to evaluate the financial situation after long-term review period (after 100 years).

(3) Pensionable age, particularly increase to 55, 60, and 65 years of age and over
If we could increase pensionable age, it would increase revenues (premium amounts)

⁷ In Japan, some people strongly recommend at present that the Employees' Pension Plan should return to complete funding method. Authors think it unreasonable discussion without any consideration on Japanese pension plans developments.

⁸ This means the change from the Benefit-oriented to Contribution-oriented in pension plan management. The older staffs supported "Keeping benefit levels method" and the younger staffs did "Premium level fixed method" at the moment in Japan.

and decrease expenditures (benefit amounts), and it could contribute much the financing. But it should be prudent to increase pensionable age because it is a critical issue for new pension beneficiaries to decide when to retire and move to pension lives. Coalliance of working and pension policies is very important here.

From Japanese experiences, increase of pensionable ages always has been opposite attitudes of people, and has been very difficult to pass its bill at the Diet. And the Japanese people are now on the process of increasing pensionable age from 60 to 65 introduced in 1994 and 2000. But it should be discussed soon or later to increase it from 65 to 67 or 68 because of considering the bad financial situation in Japanese social security pension plans.⁹

(4) Pension benefit level

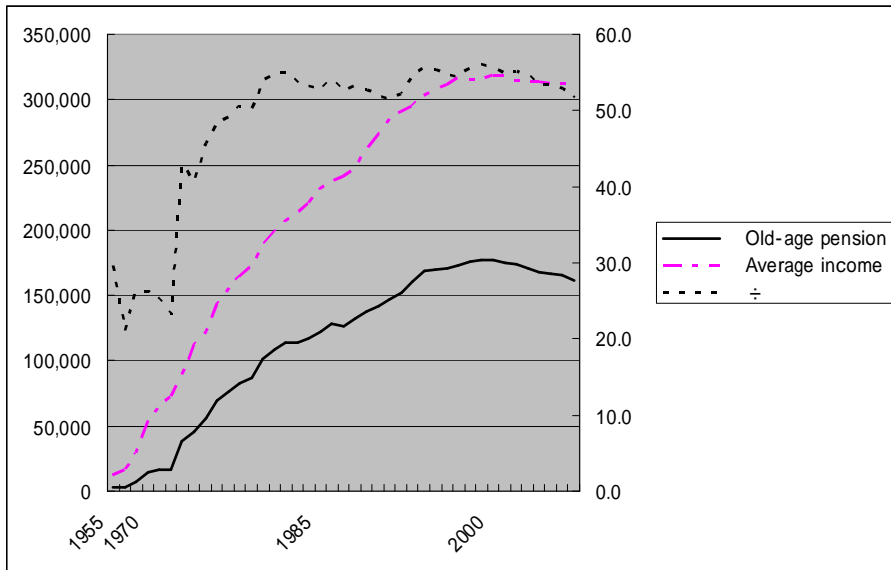
There are two points on pension benefit level discussion. They are pensionable age when people start being paid benefits and level maintenance after it. As for the former issue, standard is 60% of working peoples' incomes. As for the latter, traditional standard was to maintain benefit values by cost-of living adjustment (CPI slide).

But, "macro economic slide" introduced in 2004 reduces decrease rate of insured from CPI rate, so that benefit value of beneficiaries decrease little by little. Governments also introduced measures of decreasing of benefit value of beneficiaries in Germany (sustainability factor) and Sweden(automatic balancing rules). But Japanese "macro economic slide" does not apply when increase rates of wage and CPI are minus and keeps nominal benefit amounts, so that it has not applied for a decade under Japan deflation economy¹⁰.

Figure3. Old-age pension benefit in Employees' Pension Plan

⁹ Some countries are increasing or will increase pensionable ages in developed countries, including, USA : 65 67 (2027) UK : 65 68 (2046) Germany : 65 67 (2029) .

¹⁰ Japan economy has showed deflation so far, but it might show inflation due to recent "Abenomics" and Kuroda's measures in Bank of Japan saying 2% inflation.



(5) Pension Systems

The Japanese social security pension plans had been established and developed separately and independently. They counted 7 plans of 3 kinds in 1980s. These separated pension plans can not correspond well to changes of industrial or occupational structure. In fact, pension plans with weak financial powers had been integrated into the Employees' pension plan since 1980s.

It is clear that the general pension plan covering all the nation is financially more stable than pension plans separately managed in separate occupational areas. Therefore, it is recommended that social security pension plans should direct to the integrated plan of centering general plan though they started separately at the beginning.

Tab2. Integration to Employees' Pension Plan

Pension Plan	Integration
Sailors Insurance(pension area outside of occupational field)	Integrated to EPP(1986)
Japan Railway mutual-aid association	Integrated to EPP(1997)
Japan Tabaco mutual-aid association	Integrated to EPP(2002)
Japan telephone and telegram mutual-aid association	"
Farmers ,Forestry and Fishermen mutual-aid	"

7. Concluding remarks

This paper has discussed issues of Japanese social security pension plans focusing financial issues for 50 years since “ National Universal Pension System “ in 1961. Some Japanese pension systems can be worldclass boasted including “ Universal Pension System “ and “ Basic pension system” which covers all the people in Japan.

We would like to evaluate Japanese pension measures which have inacted for 50 years here(Marks indicate author’s opinion, =highly supportive, = supportive, = to be discussed, X = not supportive.).

- (1) () Introduction of Scaled premiums method: Scaled premiums method is an excellent method to start Social Security Pension Plans in developing countries. Authors think that the scaled premium method worked well due to the high economic growth age in 1960s in Japan.
- (2) () National Universal Pension System: Authors think that Japan can worldclass boast “National Universal Pension System“ which covers all the people in Japan by at least one of social security pension plans, and pays benefits when they reach pensionable ages. disaled or survived. It is one of social infrastructures and contributes to the stability of Japanese society.
- (3) () Basic pension plan for all people: The Basic Pension Plan covers all the people and pays core benefits of old-age lives under the National Universal Pension System. Authors also think it worldclass boasted.
- (4) () Change from funding method to partial funding: It was unavoidable and good choice. Some people say Japanese social security pension plan financing should return to funding method in terms of generational equity. Authors think it ridiculous discussion without any consideration on Japanese history.
- (5) (X) Change from “Keeping benefit level” to “Premium level fixed“ :It is also the change from “Benefit-oriented” to “Contribution –oriented” in the benefit and contribution setting, or “ benefit adequacy” or “ plan sustainability”, or “DB” or “ DC”. It is a big issue.
- (6) () Change from “ infinite equilibirium method” to “finite equilibirium“ :The “finite equilibirium was recently introduced in Japanese social security pension plans. It has some issues to be solved including how to consistently set assumptions in long-term and short-term when short-term valuation is done, and how to integrate situations after valuation period(after 100years). Actuaries should give answers to

these issues and serve good valuation to the plan.

- (7) () Increase pensionable age: Japanese social security Pension Plans are financed through “ macro economic slide” in the near future. In the long run , they should be financed on the long term outlook including cooperation of employment and pension benefit.
- (8) () Integration of employees pension plans: The pension reform bill passed the Diet last year will integrate mutual-aid associations pension plans to Employees’ Pension Plan. It means to keep financial stability in all Japan to changes in the industrial and employment structure. But authors think we can accept the differences among different industries or employments because peoples working styles are not the same. This is acceptable in the corporate pension plans.

“ National Committee on Social Security Systems Reform ” submitted their final report to Prime Minister Abe on August 6, 2013. The Committee was established on the basis of “ Social Security Systems Reform Act” proposed by the LDP, Komei and Democratic Party in November 2012. It discussed the Social Security Systems Reform at 20 meetings in 9 months. The report proposed ideas on overall Social Security Systems Reform and Reform Ideas on Social Security Four Areas, namely Low fertility, Health, Lon-term Care and Pension. The report is wondering the System bankruptcy if the current system will continue to be maintained without any reform and active duty burden will become too heavy to bear. Therefore they are proposing to change from “ 1970s model” when the major parts of current systems were formed with the young population and high economic growth to “ 2025 model” when the all the baby-boomers will become over age of 75 with population aged and low economic growth. They are proposing “ Different Burdens by age model ”which means the active contributes and the old benefits to “Different Burdens by capacity model ”which means all generations are supporting each other.

They evaluated that financial reforms so far completed to keep the balance between benefits and contributions and proposed the following measures.

- (1) Benefits should be adjusted by macro economic slide as planned
- (2) Continue to enhance coverage to ad-hoc workers
- (3) Discuss the increase of pensionable age in the mid- term and long-term issue
- (4) Discuss intra-generational redistribution including benefit adjustments in high income beneficialies

It should be noted that the report introduced OECD report¹¹ and stated that pensions

¹¹ The OECD report “ Pensions at a glance 2011” and Nichoras Barr’s lecture at the

reform should be done on the basis of international pension discussions.

Socio-economic situation become complex in recent decades. Pension plans also become complex. Expectations to actuaries increase to give professional advices on pension plans including their design and financing. Actuaries should study experiences of pension plans developments in countries outside of them, and give good advices to governments or other clients . it is our pleasure if Japanese experience reported here would contribute to actuaries, particularly those in developing countries.

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Appendix Chronological Table (Excerpt of pension-related measures)

Year	Background to the Era	Pension Measures
-1938	1938 Establishment of MHW	
	1941 World War (Pacific War)	1941 Workers Pension Insurance Law
-1945	1945 End of War	1944 Employees' Pension Insurance Law
	1946 Promulgation of Japanese Constitution	

IMF Tokyo Conference were introduced at the 12th Meeting on May 17.

	1947-49 First baby boom	
	1950 Korean War(Special procurement boom)	
	1952 Peace Treaty	
-1955	"Jinmu" economic boom	1954Employees' Pension Insurance amendment(Introduction of a fixed portion and an increase in a pension-able age to the 60)
	"Iwato" economic boom	1959National Pension Law(pension coverage for Whole Population)
	1960 Income doubling plan	
	1964 Tokyo Olympics	
-1965	1965"Izanagi" economic boom	1965 Employees' Pension Insurance amendment(¥10,000 pension, Employees' Pension Fund)
	1970 Aging rate exceeds 7%	1969 Employees' Pension Insurance amendment(¥20,000 pension)
	1971 Dollar shock	
	1971 Second baby boom	
	1972 Sapporo olympics	
	1973 First year of welfare	1973 Pension system reform(
-1975	1973 Oil shock	¥50,000 pension, cost of living adjustment)
	1980 Second provisional Administrative Reform(financial	

	reconstruction)	
-1985	Appreciation of Yen Bubble economy	1985 Pension system reform (Introduction of Basic Pension)
-1989	1989 TFR marks 1.57	1989 Pension system reform (completely automatic cost of living adjustment)
-1993	1994 Aging rate exceeds 14% 1995 Get Hanshin/Awaji Earthquake Social Security Reform Currency crises in Asia	1994 Pension system reform(review of the Old-age Employees' Pension for people in their early 60s)
-1998	1998 Nagano olympics	
	2001 Inaugulation of Ministry of Health, Labour and Welfare	2000 Pension system reform (adjustment of total benefit amount growth, etc.) 2001 DB Corporate Pension Law and DC Pension Law)
-2003	2003 Iraq War	2004 Pension system reform of fixing upper limit of premiums and of automatic adjustment of benefit levels; establishment of the PRFAIA)
-2005		2007 Japan Pension Organization Act
-2006		2007 Law to partially amend the National Pension Act to improve operations)
-2007		2007 Act on Special Provisions for the

	Employees' Pension Insurance
-2008	
-2009	2009 Law concerning addition to benefits for delayed payment
-2010	2009 Act for partial revision of the Act, etc. (the basic pension national treasury imposition shall be 1/2)