

Pension Reform: Global Solutions and Japanese Experiences*

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*the original manuscripts for its Chinese version

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Author's Preface

The present author made his first visit to China in 1995 to present a paper on Japanese social security systems at The Economic Forum jointly organized by the Chinese Academy of Social Sciences and the University of Tokyo held in Beijing. Since then, he has come to China nearly 20 times. The major aim of his visits was to report papers on pensions at respective conferences/seminars/workshops, along with making interviews to, and having meetings with pension experts there. At the same time, he went around art galleries and museums, and took exciting trips from place to place. Needless to say, every time he fully enjoyed both wafting rich and sweet smells from flowers/trees/fruits, and absolute heaven of Chinese food.

China is currently under a rapid population aging, and faces serious challenges in designing her social security pension systems, and also in implementing them neatly. A wider coverage of them is still desperately required, as well. Japan and other several developed countries have taken a lead in experiencing the population aging, however. These countries have struggled hard to get over all the difficulties associated with pension operations in societies of a longer life expectancy with lower birthrates. There are examples of various pathbreaking successes and many painful failures already shown in these countries, which China can learn. Chinese people will be able to grasp the gravity of the lessons only if they examine them carefully with an open mind.

So far, the present author tried hard to deliver the lessons, above mentioned, to Chinese researchers as simply as possible, and as accurately as possible concurrently. Each time, he was inspired by the uplifting spiritual thought of 德不孤、必有鄰 (孔子), and of 邪不压正 (唐·韦洵《刘宾客嘉话录》). It was his sincere hope for China not to repeat the similar failure experienced in other countries. Obviously, any failures imply an extremely serious tragedy for China, the enormously huge country.

This Chinese monograph is the second book of the present author, published in China. It is composed of a collection of papers mainly presented in China and others printed in Japanese academic journals/publications.

This monograph has no paper on reforming pensions of China written by the present author. Indeed, the Chinese participants who attended at the meetings above mentioned, often asked him why not make any policy proposals for revising ongoing Chinese pension programs.

The reasons are so many. Among others, he is an established professional of Japanese pensions; a distinguished key player responsible for his own words of proposals on pension reform in Japan. His proposals have been fully backed with his profound knowledge on Japanese mentality, their unique behaviors, and their specific way how to decide things. The present author's mastery of realities and truths in current China still remains quite poor, however. He is not in any way familiar with their way of thinking, or any key persons of policy-making in the field of Chinese pensions, or how to practically make things accomplished. Furthermore, as an outsider from Japan, he is not able to take the blame for possible resulting failures of his policy proposal on Chinese pensions. The present author thinks that he has to be completely careful in confining his jobs in China, not behaving unsophisticatedly like an

irresponsible idiot.

As Chapter 6 (Section 6.11) of this monograph will state, challenges sooner or later make a person become well qualified to solve them. The present author firmly believes that China will proudly have an outstanding and selfless Chinese expert of deep insight, working out pension reform plans with foresight.

Let the present author take his opportunity to express his heartfelt appreciation to all Chinese experts of pensions who joined in the meetings held in China, and to those who gave insightful comments to his presentations. Among others, he would like to express his deepest and sincere gratitude to Mr. Song Xiaowu, Liu Keguo, Jin Weigang, Jiang Chunli, Niu Ming, Ms. Cui Shaomin, Professors Li Shi, He Wenjiong and Zhou Hong. He is particularly grateful to Dr. Wang Xinmei who not only did all translation service of this book into Chinese, but also arranged a lot of pension meetings in China with inviting him as a keynote speaker. She also acted as the leader of the Chinese team (which included Xu Jing, Zhao Qing, Zhan Peng, and Cheng Jie, as immensely promising members) in the 2017-2019 China-Japan joint research project on pensions. The author is also grateful for reaserch grants from the JSPS KAKENHI (19H01496). Special thanks are due to Ms. 富岡亜希子 for her excellent secretarial assistance with all the details involved in his research, as well as in the preparation of this volume.

Finally, the present author would like to say the following words to young Chinese students/researchers: the purpose of studying pensions is not to acquire a set of ready-made answers to pension questions, but to learn how to avoid being deceived by pension specialists.

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Part I General Issues: Global Solutions?

Chapter 1

How to Make Pension Systems Financially Sustainable?

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1.1 Introduction¹

This chapter gives an overview on how to make social security pension systems financially sustainable. Ample experiences in developed countries are to be illustrated.

Pensions have to meet another requirement of “adequacy,” but its discussions are beyond the scope of this presentation.

Before taking up the main subject, fundamental characteristics of social security pensions and a need for periodic actuarial evaluations are explained.

1.2 Major Requirements of Social Security Pensions

Social security pensions have two major requirements for satisfying the sincere desire of the public. One is financial sustainability, and the other is adequacy of benefits.² As a population aging went on, financial sustainability got more and more serious in almost all countries, and then a long list of policy options to ensure financial sustainability have been demonstrated in the world. They are usually painstaking with tears, quite unpopular to the public. Nevertheless, many developed countries have already managed to implement these policy measures.

The other requirement, adequacy, is desired for the elderly to maintain a decent living standard after retirement. If any pension system fails in meeting this requirement, it will turn to be *politically* unsustainable. Financial sustainability often violates the adequacy requirement, however. Both requirements will not always be compatible with each other.

Sophisticated balances between them are necessary for pension policy making.

1.3 Fundamental Characteristics of Social Security Pensions

There are four major characteristics in social security pensions;

¹ This chapter was presented at the 6th China-Japan Joint Workshop on Pensions, Zhejiang University, Hangzhou, 20-21 April 2019.

² Some persons refer to these two requirements as “objectives,” but the genuine objective would rather be to attain a stable standard of living after retirement.

- a system of dividing the value-added of the national economy among different generations
- pay-as-you-go vs funded: output is central
- defined benefit plans vs defined contribution ones
- lifetime annuities vs fixed-term annuities

A brief discussion of each is presented below.

Social security pension benefits for the elderly are mainly financed by contributions from their children and grandchildren. It is a socialized system of income transfers between parents and their children. It is also a system of dividing the value-added of the national economy (an economic pie) between retired persons and actively working ones. In Japan, for example, 66 million working persons financially supported life of her 127 million whole population (1.9 persons per worker) in 2015. In 2050, 46 million working generations will be estimated to do so for the total of 100 million persons (2.2 persons per worker). Actively working persons there will be forced to bear relatively a little bit heavier burdens during the next 35 years under a declining and aging population. Social security pensions thus have to flexibly adapt to the changing size of the national economy, together with the changing distribution of the population.

In a macroeconomic context, social security pensions stand indifferent as to their choice of the financing method, pay-as-you-go or funded. It is known as an *equivalence proposition* (see Geanakoplos-Mitchell-Zeldes 1998). Namely, pay-as-you-go pension benefits depend on growth of the future economy, while funded pensions pay their benefits by returns from the funded reserve and/or its decumulation. Under an aging population with a slower growth rate of the economy, the rate of return from investment or the selling price of the funded assets will consequently decline. The end results will be indifferent, regardless of pay-as-you-go or funded pensions.

Someone might say that more prefunding of social security pensions will contribute to strengthening their financial sustainability under a population aging. This assertion is a “complete lie,” quite contrary to the equivalence proposition (above stated) which is currently shared as a common understanding among pension professionals in the world.

In essence, output is central for pensions in the future. Higher productivity and later retirement are both crucial. Longer working years corresponding to longer life expectancy are immensely required. Pension policies have to go hand in hand with employment policies.

Within the pension system, encouraging later retirement and/or eliminating the work-disincentives are needed. In a microeconomic context, pension entitlements to each individual vary between defined benefit and defined contribution plans. Defined benefit plans first prescribe pension benefits, while defined contribution plans do contributions and adjust their benefits after. Benefits in defined benefit plans often change in the course of time, however. Eventually adjustments in benefits are inevitable in both plans.

Finally, social security pension benefits are lifetime annuities. Their payment continues until the death of each pensioner. This makes a sharp contrast to private pensions whose benefits are usually fixed-term annuities or even lump-sum ones. In this sense, social

security pensions can only serve as the indispensable basic floor of income security in old age for all persons.

1.4 Need for Periodic Actuarial Evaluations

Social security pensions are fundamentally financed on a pay-as-you-go basis. They involve each individual for a long time, say, usually for 60 years or even nearly 100 years at the longest. The future is quite uncertain, and precise predictions are beyond human knowledge and skill. There is no single ideal form for pensions, and their system has thus to be reformed continually with no finish to flexibly adapt the changing demographic and economic circumstances.

Developed countries generally publish the periodic actuarial evaluation to make the public know whether or not the current pension systems are financially sustainable, and what outcome will take place if selective reform measures are adopted. In evaluating the long-term financial performance, the public actuary's office places basic assumptions at first on future changes in fertility, mortality, labor force participation, CPI, wage index, and investment return from the funded reserve. And then it projects long-term changes in the each number of contributors and beneficiaries, annual revenues, expenditures, surplus/deficit, and balance of the funded reserve. The special concern is whether or not the funded reserve will be used up in the future, and when it will run out, provided that the current provisions remain unchanged. The actuary's office usually assumes three cases (optimistic, medium, and pessimistic), at least.

Regarding the projection term, it is 75 years in the US, Canada, and Sweden. It is 65 years in the UK, 50 years in France, and 100 years in Japan. Actuarial evaluations are to be done every year in the US and Sweden, while they are done at least every five years in the UK, France, and Japan. In the meantime, actual and assumed conditions will more or less diverge, even when every effort is made, using the best available data. With the passage of time, fresh data become available, and periodic updates of the financial projections are to be done using revised assumptions. In this sense, actuarial evaluations are more like "projections (投影)" into the future of pension finances based on currently available demographic and economic data, rather than future "forecasts (予測)."

The authoritative actuary office has ideally to be independent of pension administrations. This is for ensuring neutrality, making its evaluation trustworthy. This is the case in the UK and Canada.

1.5 Major Policy Options for Ensuring Financial Sustainability

There are four major options, as Barr-Diamond (2010) points out.

- Reducing the Level of Benefits
- Raising the Normal Pension Age
- Hiking the Contribution Rate
- Increasing National Output

Each option is explained below in order.

Reducing the Level of Benefits

There are several ways to reduce the level of pension benefits, such as changes in the reference indicator for benefit indexation and for the update of past wages, a delay in the onset of benefit indexation, a reduction of the accrual rate (and/or the unit price of the flat-rate benefit) and a cut of the nominal amount of too generous benefits.

In the past the automatic indexation of benefits to wages and the automatic update of past wages for new beneficiaries were applied in many developed countries. But, today, they have changed the reference indicator for these indexation and update in order to contain the increasing cost for paying the aggregate amount of benefits.

The Iron Lady, Margaret Thatcher executed the representative example, changing the automatic indexation of benefits to wages into the indexation only to CPI in the UK. Wages got upward higher than CPI there, and the level of pension benefits began to deteriorate in real terms as time went on.

Japan recently faced wage increases lower than CPI increases (or wage decreases more than CPI decreases). The government decided to use the lower indicator of them for benefit indexation for the time being from 2021 on.

Furthermore, in 2004, Germany and Japan introduced so-called “demographic factors” to additionally adjust the level of pension benefits for the time being. Japan then started to take into account the annual decline in the number of insured persons and the annual increase in life expectancy, as well, to reduce the benefit level for all existing pensioners in real terms every year. Germany virtually adopted the similar tool as Japan did. Spain followed suit from 2014, establishing a new revaluation formula.

Spain also began to apply “the sustainability factor” (life expectancy) to calculate starting benefits of social security defined benefit pensions from 2019 (see Ramos 2014). Since life expectancy tends to rise over time, this application will indicate that future retirees will automatically have a lower monthly amount of starting benefits than current retirees with the same employment record, while the total amount received as pensions over their lifetime would remain unchanged on average cohort by cohort, thereby enhancing intergenerationally more equitable redistributions of retirement income. This is an adjustment quite similar to that structurally built in the defined contribution or notional (or non-financial) defined contribution pensions (see Settergren 2001 for Sweden and the cases in Italy, Latvia, Norway, and Poland).

As for a delay in the date of benefit indexation, France, for example, moved the date from April to October, i.e. six month later from 2014. The Slovak Republic limited the benefit increase by fixed amounts for years from 2013 to 2017, while Austria, Greece, Portugal and Slovenia temporarily froze automatic benefit indexation for all but the lowest group.

Regarding the update of past wages in line with wage increases in fixing the benefit amount for new pensioners, Germany and Japan changed the indicator from wages *before* deducting tax and social insurance contributions, to the take-home pay (wages *after* tax and social insurance contributions deducted). The former got higher than the latter in the aging process. Japan further introduced the demographic factors mentioned above in updating past wages as an additional adjustment.

A reduction of the accrual rate for the earnings-related component is the most orthodox means for reducing the level of pension benefits. If the average service (contribution) years get longer in the future, say, from the current 30 years to 40 years, then, the accrual rate can be reduced gradually from, say, 1.0% per year to 0.75% per year cohort by cohort, keeping the average replacement rate unchanged. This was done in Japan in the 1985 reform. If the average service years no longer get extended in the future, a new and lower accrual rate can be introduced for all insurers including the existing beneficiaries, provided that the current nominal amount of benefits is fully guaranteed for existing pensioners to receive (従前額保証) for the time being until the newly determined amount exceeds the predetermined amount. In the meantime, the benefit indexation is to be suspended. This kind of special treatments enables a smoother transition. This took place in Japan when a drastic reform was done in 1986 for civil servants, and in Greece when unification of all social security pension systems was legislated in 2016.

As for a cut of the nominal amount of too generous benefits, it is politically most difficult. Even if it is accepted by the public, its improving effect on pension financing might remain much limited. Rather it can help the system to become more equitable.

Followings are a few examples in Japan. A maximum 10% cut of the nominal amount of pension benefits was forced to retired employees in National Railway Company when they began to receive the supportive grant from civil servants in Central Government in 1985. At that time, the funded reserve of the pension system for employees in National Railway Company ran out. Another maximum 10% cut of the nominal amount of pension benefits for retired civil servants was executed in 2013 who were receiving a total of old-age benefits more than JPY 2.3 million per year. The pension systems for civil servants were keeping their financing healthy, yet this cut was taken to cool down the intensified jealousy against civil servants. A 10% cut is just an easy option for Japanese to make the first compromise, whereas it ensures the pensioners concerned to keep their living standard little unchanged, thus being regarded not contrary to public order and morals.

Taxing more on too generous pension benefits is an alternative option.

Raising the Normal Pensionable Age

Raising the normal pensionable age³ is fairly difficult, since it is easy for people concerned to promptly know that things are of their own. They hurriedly think themselves as the “losers,” and are likely to violently protest its raising (see the latest case under the Putin Administration, for example. The Guardian 2018). This policy option is politically most unpopular.

It takes much time for a majority of the public to understand why this option is necessary for the pension system to keep its financing healthy and to remain intergenerationally equitable under the lengthening life expectancy.

³ The normal pensionable age is not always the same as the mandatory retirement age or the retirement age in practice. The normal pensionable age is defined as the starting age for receiving old-age pension benefits with no reduction nor increment. The mandatory retirement age means the age when workers with indefinite-term employment are forced to retire.

Polite, patient, and repeated explanations are required before its proposal is made, as to why this policy measure is appropriate, and what will happen in the future without adopting this option.

In implementing this policy, due lead time has to be build up, say, 10 or 15 years. During this preparatory period, the government needs to complementarily create or improve working conditions for seniors, by subsidizing elderly workers who receive better training for higher productivity (upgraded skills and better job quality), and by giving subsidies to employers who hire seniors more.

These orthodox approaches might end in vain, however. Rather, persistent deficits in current account of the pension system and/or depletion of the funded reserve often trigger an enforcement of this option, in a much hastier and ruder way (the 2010/2012 reform in Greece, and the 2011 reform in Italy, for example. See OECD 2013 and Segreti-Dinmore 2011).

The less difficult option will be to attain gender equality, by converging the lower normal pensionable age for women to the same level for men. This is often the case in many countries. Incidentally, women live longer than men on average.

To cope with rising longevity, some countries (the UK, France, and Sweden) adopt a “trisection” rule of one’s grown-up life stages, thereby regarding the third stage as the period of pensioners while placing the first and second stages as the contribution period. Their recent idea of increasing the normal pensionable age (or extending contribution years for receiving a full or non-reducing amount of benefits) is based on this rule. Following this rule, the normal pensionable age is to be increased to 68 by 2046 in the UK.

Other countries such as Denmark, the Netherlands, and Italy have adopted an automatic indexation of the normal pensionable age to longevity. Belgium, Finland, Greece, Hungary, Korea, Portugal, the Slovak Republic, and Turkey follow suit. Once a one-shot reform for the government to enforce this rule is done, then the rule automatically applies thereafter, without any further legislation. Thus, this is regarded as a wise method to avoid the *political risk* (see European Commission 2009).

Overall, many developed countries have already increased the normal pensionable age to 67 or even higher, although they underwent great hardships before enacting their own legislation. The estimated normal pensionable age of Denmark will reach 74 in the future, presenting an extreme case.

An advance payment of actuarially reduced benefits is usually admitted from age 60 or 62. The UK is an exception, having no such provisions. Some countries such as Japan and Spain set up a temporary bridge to the increased normal pensionable age, by devising a “partial pension” for those working part time close to the normal pensionable age.

An alternative option is to extend the contribution years for receiving the full amount of benefits. France, for instance, once *decreased* the normal pensionable age from 65 to 60 in 1982. This decision was made to enable employment conditions for young persons to get much better, by encouraging elderly workers to retire earlier. Since then, increasing the normal pensionable age has been particularly difficult in France. The French government has been forced to muddle through pension-sustainability issues, struggling to work out by

devising an extension of contribution years for receiving the full amount of benefits. It was extended step by step from 37.5 years in 1994 to 43 years in 2035.

Hiking the Contribution Rate

As the population aging proceeded, many countries hiked the contribution rate for pensions, little by little. Some countries with a relatively lower rate of contributions can still further increase its rate. Its increase might do damages to companies' economic activity, however. A majority of developed countries have little room for adopting this policy, today. These countries are seeking for alternative policy options to raise revenues. See Section 1.6 below.

Increasing National Output

Increasing national output is very crucial, as the present author already discussed it above in Section 1.3. This is the policy option outside the pension system. Policy makers for this purpose are there in the cabinet office other than the pension ministry.

1.6 Other Options for Ensuring Financial Sustainability

In addition to four major options, there are following five other options more.

- Increasing Transfers from General Revenue
- Expanding the Contribution Base
- Coverage Expansion
- Broadening the Social Pool
- System Integration/Unification

Each option is illustrated below in order.

Increasing Transfers from General Revenue

Transfers from general revenue can be increased when the economy is steadily growing with accompanying increased tax revenues. This was done to realize a jump-up of the benefit level for Japan's Kosei-Nenkin-Hoken (KNH) in 1965, for example.

Governments can concentrate the transfer from general revenue to make it more equitable, by subsidizing a flat-rate portion of benefits only, stopping help to finance the earnings-related portion any more. This was done in Japan when the "common" basic benefit was introduced in 1986.

Transfers from general revenue are sometimes used to make up for a financial loss in some pension systems. There is a natural limit for this selective use, however.

Increases in transfers from general revenue will probably be feasible when a new tax is introduced. In France, Contribution Sociale Généralisée (CSG) has been used to newly finance part of social security pension benefits since 1991. In Japan, an earmarked consumption tax was introduced in 2014 to lift transfers from general revenue from one third to one half for financing the basic benefit. Both taxes can be regarded as variants of the value-added tax, imposing them on not only actively working persons but also retired ones. They are more equitable between generations than contributions for pensions.

Expanding the Contribution Base

Contributions were imposed initially on regular wages and salaries. Their base can be expanded to include bonuses and every kind of allowances, for the pension system to have a possible increase in revenues. This expansion also contributes to attaining more equitable burdens among different kinds of employees.

Sweden removed the wage cap (ceiling) for *employers'* contributions, while keeping the wage cap unchanged in calculating the amount of pension benefits.

Strengthening measures to collect contributions is another option for increased revenues. Some countries changed its collection authorities from the social insurance agency to the tax office. The latter usually have superiority in collection capacity.

Coverage Expansion

An increase in the number of contributors is another policy option. There may be persons who meet the eligibility requirements for the program participation, yet are not covered. These persons have to be encouraged to participate in the pension program. Relaxing the eligibility requirements is the other policy tool. For instance, atypical employees such as part-time employees, temporary staff, contract workers and dispatched employees, can be included in the pension program for employees.

Eligibility requirements can be eased further by applying the program to employees who are working at smaller business establishments with less than 5 members or even only one member.

Eligibility requirements may also be relaxed to mandate older employees to pay contributions after they reach the normal pensionable age and above when they continue working. This is the case in Germany and Japan.

Broadening the Social Pool

Some population groups with a declining number of contributors and/or a lower level of monthly salaries face financial difficulties earlier than others in the pay-as-you-go system. Broadening the social pool of pension contributions beyond the boundary of respective programs (財政調整) can make their programs financially more sustainable.

It also enables an equal treatment for all pensioners to receive the same amount of monthly benefits when they have paid the same amount of contributions during their active life, as far as the same cohort is concerned. Or given the same benefit formula, it enables a smaller gap of contribution rates among different programs. Germany, France and Japan have such broadened social pool in pension financing (see Takayama 2019 for the Japanese case). These countries have segmented pension programs separated by different sectors of the population.

System Integration/Unification

The ultimate goal for pay-as-you-go pension system will be to integrate or unify all the systems. Germany enacted a law of integrating two major programs for blue- and white-

collar workers in 2004. Japan took a step-by-step approach for integrating pension programs for employees, and has unified all of them since 2015 (see Takayama 2018).

Broadening the social pool or integration can save some time before fully fledged policy measures are implemented.

1.7 Concluding Remarks

Policy measures for ensuring the financial sustainability of pensions mostly take pains and tears. The later pension reforms come, the more painful they are.

If any country has lacked the political will to tackle the problem, letting things run their course, the outcome would be to excite outrage and despair among the elderly, together with roaring distrust against the country leaders among the young who would be most deprived by their extremely high unemployment rate.

Greece serves a typical example of what not to be (反面教師). Pensions in Greece were once known to be among the most generous in the EU, while Greece suffered from high public debt and deficit. The financial crisis took place there in 2008. The European Central Bank and other lenders imposed radical austerity packages on Greek people. Drastic pension reforms and cuts in its benefits were a precondition for the loans granted to Greece. More than 10 pension cuts were implemented from 2010 (see Nakou 2018). In 2010, Greece was forced to do an outright rise in the normal pensionable age, extend the contribution period, and impose an emergency benefit freeze. In 2012, they abolished holiday bonuses (the 13th and 14th pensions), and executed additional cuts to the highest benefits. The cumulative cuts ranged from 14% for the lowest-paid pensioners to over 40% for the top 2% of pensioners whose monthly benefits were above EURO 2,000. In 2016, they unified all the pension systems, abolishing all special arrangements. Existing benefits had to be recalculated by the new method and be frozen at current levels until their value becomes equal to the value of the respective new pensions.

In concluding this chapter, the present author would like to emphasize that any success or failure in pension reforms will depend on whether or not smoother transitions from the existing system to a new one can be implemented.

Any reform involves both winners and losers. Winners usually have no voice or keep silent, while losers are most likely to be against the reform, sometimes with loud voices and radical actions.

Losers have to be limited to those who are financially better-off, enjoying privileged benefits. It takes some time for them to correctly understand what reform is urgent, and why the reform will save the cost imposed on their children and grand-children, or why the reform will make the system more equitable. It is political leaders that have to persuade them to accept some concessions. Their vested interests have to be preserved to the utmost limit, while their expected rights can be shaken down slowly over time. Pensions should not make a steep turn.

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Chapter 2

Adequacy Issues on Social Security Pensions

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2.1 Introduction

Pension adequacy is one of two major requirements for social security pensions to satisfy ultimate desires of the public. This chapter demonstrates the basic contents of pension adequacy from an economic perspective.

Section 2.2 defines the concept of pension adequacy with the simplest way. It is the widely-used traditional one, different from the 3-dimensional complex concept proposed by a holistic document; *the 2018 Pension Adequacy Report* of EU. Section 2.3 discusses major factors governing pension adequacy other than the level of income. Section 2.4 explains a wide variety of relationships to poverty alleviation. Section 2.5 refers to challenges ahead for inventing new indicators of pension adequacy on the macro basis.

2.2 Defining Pension Adequacy

In this chapter, the present author adopts the traditional definition of pension adequacy, which has long been used in the pension academia.

Pension adequacy is identified with an adequate level of pension *benefits* for each individual (and/or couple) on the *micro* basis,^{4,5} which ensures the decent standard of living in dignity as old-age pensioners. In other words, pension adequacy can be referred to as

⁴ Some others include *cost* elements, as well, in discussing pension adequacy by taking financial sustainability into account. This approach may complicate its discussions; it requires considerations both on the micro- and macro-basis, arguments of different objectives with different policy instruments, and handlings of trade-off problems (二律背反問題: see Section 2 of Takayama (2019)). Thus, it may induce a hard-to-understand explanation for a majority of non-experts in pensions. The present author rather separate pension adequacy from financial sustainability, setting the respective chapters.

⁵ Following *the 2018 Pension Adequacy Report* by EC, Zhao et al. (2019) wrote an excellent paper and examined three indicators of pension adequacy, reflecting poverty prevention, consumption smoothing, and financial sustainability. My understanding is that poverty prevention or financial sustainability can be measured appropriately to a greater extent by the more direct indicators such as the poverty line, the headcount ratio of poor people, their poverty gap ratio, and the present value of pension benefits divided by the present value of future contributions and tax revenues plus accumulated reserves, shown in the balance sheet of social security pensions of the society as a whole, taking the future 75 or even 100 years into account. Thus, in a narrow sense, only consumption smoothing seems to be the right objective for measuring pension adequacy.

consumption smoothing before and after retirement.

The conventional index to measure pension adequacy is the replacement ratio, i.e., the level of pension benefits (in cash) compared to the income from work before retirement (excluding income in kind). In the strict sense, benefits are confined only to social security pensions, but in a much broader sense, benefits from non-mandatory occupational and/or personal pensions can be also included. The denominator is usually specified by lifetime *average* wages and salaries (converted to their present value), while those amounts immediately before retirement are optionally used.⁶

An appropriate value of pension adequacy is given uniformly throughout the nation, ignoring regional differences.⁷ This makes a sharp contrast with measures of poverty relief (public assistance). Incidentally, poverty relief requires immediate policy responses, whereas pension adequacy is a problem of prolonged administration.

Lower incomes yield higher reference standards of pension adequacy. This is because the propensity to consume in old age decreases as the income level of wages and salaries in the past went higher.

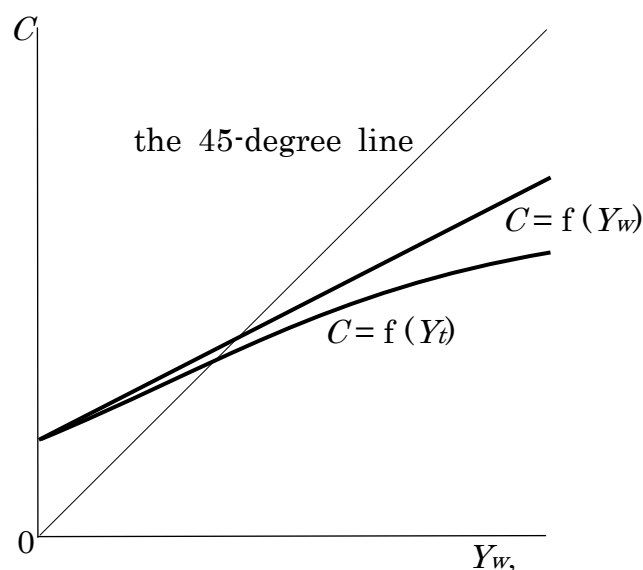
Furthermore, for the existing old-age pensioners, the higher the level of their income in the past is, they can have much greater availabilities of other income sources than social security pension benefits, such as wages and salaries, non-mandatory occupational and/or personal pensions, asset income (rent, interest, dividend, parking charges, etc.) and asset withdrawals. Then, the standard value of pension adequacy declines still more for the middle and higher income-classes who have other income sources than wages and salaries.

Figure 2.1 depicts varying values of pension adequacy. If the amount of consumption expenses is above the 45-degree line, then the standard value of pension adequacy indicates 100% or more, while if it is below the 45-degree line, the reference value lies down under 100%.

⁶ As for non-salaried persons (farmers, merchants, craftworkers, professional free-lancers, etc.), remunerations or earnings after deduction of expenses are used as the denominator.

⁷ China might be an exceptional huge nation in the world. Each Province in mainland China might be equivalent to each nation in other major countries.

Figure 2.1 Consumption Function and Degrees of Pension Adequacy



Note: C , Y_w , and Y_t denote the monthly reference standard (amount) of consumption expenses in old age, the monthly amount of lifetime-average wages and salaries, and the monthly amount of lifetime-average wages and salaries combined with income from other sources, respectively. It is assumed that the numerator of the reference standard of pension adequacy is given by the amount of consumption expenses.

In principle, the targeted replacement ratio as pension adequacy lies within 100% for the middle- and higher-income group. If someone of them with a peculiar privilege actually enjoys the replacement ratio of more than 100%, then it implies that he/she receives too generous pension benefits.

The most popular standard of pension adequacy is demonstrated by focusing on individuals with the median or average amount of wages and salaries.^{8,9} Their modal amount has rarely been used, though it may present one of typical examples.

International Labor Organization once recommended three degrees of 40%, 45% and 55% as the reference standard of pension adequacy for typical workers at the point of their retirement (see ILO (1952) (1967a) (1967b)). The ILO standards were often referred to in the past to measure the degree to which the consumption is smoothed.

There are several major factors other than income levels, which govern the standard degree of pension adequacy. Their examples are: balance of length between working years and retired years, net or gross income, early or later stages after retirement, individual or married couple unit, different components of consumption expenses between pension contributors and beneficiaries, and balance between solidarity and self-reliance. The next section describes these factors, respectively.

⁸ For example, *Pension Adequacy Report 2018* of European Union, uses the median amount before tax and social security contributions deducted (in gross terms), while Japan currently adopts the average amount in gross terms, both as the numerator.

⁹ Regarding economic variables, the median is higher than the mode, while it is lower than the average, in general. Consequently, the standard value of pension adequacy using the median will be a little bit higher than that obtained by the average.

2.3 Other Factors Governing Pension Adequacy

Balance of Length between Working Years and Retired Years

The value of the reference standard for pension adequacy is higher, if a person works as an employee for longer years and receives pension benefits for shorter years. For example, let's assume that he/she works for 40 years and retires to receive pension benefits for 20 years. Then the required monthly amount of pension benefits will be two-thirds (66.7%) of monthly amount of wages and salaries for him/her to attain consumption smoothing throughout his/her lifetime. In a polar case where he/she works for a much shorter period of 30 years and receives pension benefits for 30 years, then the standard value of pension adequacy will be 50%, which is much lower than 66.7% in the former case.

Thus, the year of entrance to and exit from the labor market does matter. The normal pensionable age is also decisive.

Needless to say, the examples shown above are simplified ones. They assume no wage increases, no tax and social security contributions, no benefits indexation, nor any family formation. If these factors are taken into account, the reference standard for pension adequacy has to be accordingly adjusted.

Net vs Gross

Usually, income tax and social security contributions are imposed on wages and salaries, while the amounts of their payment from pension benefits are much smaller, or even just about nil in many cases. Consequently, pension adequacy in net terms is, more or less, higher than that in gross terms.

Early or Later Stages after Retirement

Consumption activities require physical energy which diminishes little by little over time in old age.

This fact will justify an implementation of CPI indexation of pension benefits, which is seen in many countries. The wage escalation rate is often higher than the increase of CPI. In these circumstances, the value of the standard for pension adequacy will decline gradually after retirement.

It should be borne in mind that in later stages after retirement, some special consumption expenditures on healthcare, long-term care, transportation, housing, heating, etc. may become huge, instead. But these expenses are better paid in kind by respective programs. As stated above in Section 2.2 of this chapter, pension adequacy is traditionally measured by income in cash (and not by income including in-kind benefits).

Individual or Married Couple Unit

There is a household scale of economy in consumption expenditures. The value of reference standards for pension adequacy then varies depending on whether the individual unit or the married couple unit is applied. The equivalized income is normally used for individualization, which is influenced by living habits and policy arrangements of life-related

programs in each country. Take old-age Japanese pensioners, for example. On average, their monthly amount of basic consumption expenditures for a married couple is estimated to be equal to 1.4 or 1.5 times larger than that for an individual, and not be twice.

Different Components of Consumption Expenses

For actively working generations, consumption expenses generally contain raising and educational costs of their children, repayments of land and housing loans, necessary costs for daily works and commuting, all of which old-age pensioners can dispense with.

Balance between Solidarity and Self-reliance

In designing social security pensions, some redistributive elements are incorporated to mitigate the gap in past work income within generations. A universal flat-rate portion of benefits is the typical example. Other examples are guaranteed minimum pensions, supplementary pensions, progressive pension formulas, credits for family care periods, non-contributory social pensions, contributions based on upper earnings limits, and reduced or exempted contributions.¹⁰ Means-testing or income-testing or even pension-benefits (of earned entitlements)-testing are introduced in some cases.

Each country has its own perceptions on income inequality in old age. The strength of solidarity among the members of a society varies from country to country, and levels and categories of income redistribution in social security pensions are consequently different, mainly due to the history, culture, and geographical conditions of the country.

2.4 Relationship to Poverty Alleviation

Consumption smoothing throughout a long lifetime requires young- and middle-aged persons to do forced savings. Social security pensions are invented to work as the major system to achieve this goal.

No funded reserves are not necessary for the social security pension program to perform this mission well. Indeed, almost all developed countries basically manage the program in the pay-as-you-go financing, and not by a funded scheme.

The longer a person contributes, the more his/her monthly amount of benefits gets promised to be paid. Together with the tax advantages, these secrets operate as strong incentives to forced savings.

Successful achievements in consumption smoothing eventually meet with poverty prevention. However, not a few persons fail to enjoy consumption smoothing. Examples are low-wage earners, females with longer family-care periods, immigrants, and those persons in unemployment or in poor health. They are forced to receive other benefits such as non-contributory minimum and/or social pensions, special pension credits, or even public assistance, as well, after retirement. These pension benefits/credits and public assistance are regarded as policy tools for poverty relief.

¹⁰ Levying personal income tax on pension benefits, can be another example, though this belongs in tax policy tools, beyond the framework of pensions.

Regarding old-age pensioners, poverty prevention requires additional policy instruments from youth. More generous educational policies with grants and scholarships, effective employment machines, and health promotion measures, are also essential. Forced savings are not the exclusive means.

Poverty relief has to be provided to poor individuals and households, regardless of age. So many causes trigger the poverty problems. The harshness of nature, a large family with many children, marriage at a too young age, unexpected death of a father at his/her young age, incompetent parents, famine, malnutrition, ill health, injury, disease, low educational standards, economic slump, unemployment, old-age etc. are the typical causes. Each case should be treated with its relevant policy tool of a wide variety. It includes not only uniform benefits in cash through the nation, but also benefits in kind and area-specific or age-specific services. These benefits and services are financed by transfers from general revenue, with a means-test¹¹ in almost all cases.

The main policy-tool for poverty relief is public assistance, with which a sense of stigma is often associated. More or less, young- or middle-aged persons have opportunities after a period of time for getting away from receiving public assistance, whereas old-age pensioners have few opportunities for doing it. Due and valid reasons are there for many countries to have additional and complementary schemes for poverty relief *within* their pension program for old-age persons. They often set up top-ups of a minimum guaranteed pension, non-contributory supplementary pensions, and social pensions (allowances). In some cases, these pension benefits become eligible for them to receive from a higher age of 75 or 80.

As for the index of poverty, the poverty line and the poverty gap are commonly used. Needless to say, the poverty line is a level of income, and a person with income below the line is considered as poor. The poverty gap of any individual is defined to be the difference between the poverty line and his/her income. In addition, there are three more indices of poverty on the *macro* basis; the head-count ratio, the poverty-gap ratio, and the Gini coefficient of income distribution among the poor. The head-count ratio is the percentage of people below the poverty line. The poverty-gap ratio is the *per-person* aggregate short-fall of income of all the poor taken together from the poverty line.

These three indices are all insensitive mutually to the others, however. In order to avoid these shortcomings, Takayama (1979) derived his measure of poverty from an ordinalist axiomatic approach. That is, the Gini coefficient of the censored income distribution truncated from above by the poverty line (貧困線で切られた打ち切り所得分布), which includes three indices mentioned above as its indispensable components.

2.5 Challenges Ahead

The indicator of pension adequacy is currently given only on the *micro* basis by the reference standard of the replacement ratio. No indices of consumption smoothing on the *macro* basis have yet been invented.

¹¹ Means testing may have disincentive effects on savings for retirement before the normal pensionable age and/or on working longer.

A similar way of thinking in deriving the new measure of poverty on the *macro* basis, mentioned above, could be a great help to propose a new index of inadequacy (for consumption smoothing) on the *macro* basis.

【Acknowledgements】

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Chapter 3

Several Questions on Basic Ideas of the 1994 World Bank Report *Averting the Old Age Crisis*

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3.1 Introduction¹²

It is more than 20 years after China made a drastic pension reform. It is said that the main reference to this reform is the 1994 World Bank (WB) report *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth*. (hereafter, *Averting*)

It is now a good time to review this report, taking into account both economic theory and experiences all over the world for the past 20 years. The review may help China restructure her pension scheme to ensure more adequate and sustainable benefits.

The lead author of *Averting* is Professor Estelle James.

3.2 Core Proposals in the 1994 World Bank Report

Averting demonstrates that existing public pension (PAYG DB) systems often encourage early retirement, pay more generous benefits to the rich than to the poor, and frequently redefine their benefits downwards. It also presents that the existing systems are not financially sustainable under population aging.

To avert the old age crisis, the report strongly recommends a mandatory FDC as a significant portion, along with proposing multi-tier pension schemes. It envisages a replacement of on-going public earnings-related PAYG DB plans into a privatized FDC plan. *Averting* claims that a FDC plan is able to withstand population aging.

3.3 Several Questions

Q1: Is a Mandatory FDC able to Withstand Population Aging?

Under a PAYG plan, pension benefits are directly transferred through taxes and/or contributions paid by active workers. Under a funded plan, pensioners liquidate accumulated assets by selling to active workers. In both cases, workers' disposable income is reduced by the amount of resources transferred to the retired in a macroeconomic sense.

Thus, the choice between PAYG and funded plans under demographic changes can be relevant only if funded plans induce higher output growth.

¹² This is a slightly revised version of the report presented at the IPLE-CASS conference on Worldwide and China's Pension Reform, Guobin Hotel, Beijing, 15 October 2017.

But this is not often the case. Take an economy with excess saving, for example. A forced saving through a mandatory FDC will be offset by personal saving elsewhere (or increase government borrowing), thereby may not increase aggregate national saving, and accordingly national output, either (→ the fallacy of composition).

An economy with a shortage of saving is necessary for funded plans to produce increased output. Isn't China an economy with excess saving, today?

If output does not grow enough, the rate of return on the FDC accumulated pension assets will decline, or there will be a decline in the FDC asset values, as a result of population aging (Barr-Diamond 2010). The outcome will be not so different between PAYG and funded plans. If a PAYG plan is not able to withstand population aging, then a funded plan cannot do it either. (→ Output growth matters.)

Holzmann (2013) wrote that "the call for funding was at times motivated by *incorrect* arguments that funding by itself would be able to address population aging and the *incorrect* assumption that the then high funded rate of return would continue in the future." This is a very important message. The present author entirely agrees with his statement.

Q2: What Policy Instrument Does Best Fit to Promote Output Growth?

Averting tries to achieve too many targets through a virtually single policy instrument of pensions. The standard theory of policy assignment suggests that each objective can be best attained only if it is matched with each different policy instrument of comparative advantage.

The major objective of the pension system is old-age income security, and not promoting economic growth. Pensions have a comparative advantage, therefore, when they are assigned to attain old-age income security.

It is true that more saving through a mandatory FDC plan might induce higher economic growth in a limited case, but what economic theory tells us is that working longer with higher productivity is the most decisive solution to promoting growth under population aging (Ogawa-Takayama 2005).

At the same time, smoother international movements of capital, goods and services, and labor, can moderate any adverse economic effects of population aging.

Q3: Is a Mandatory FDC Intergenerationally Equitable?

Economic growth enables workers in future generations to be much better off than workers today. Imposing extra contributions on today's relatively poor workers through a mandatory FDC may induce income redistribution to relatively rich workers in the future with paying higher pension benefits. Is this redistribution equitable?

Rather, dividend from economic growth has to be redistributed to today's relatively poor generations by paying adequate pension benefits and/or imposing lower contributions on them through mandatory pension schemes.

Q4: Isn't there Any Alternative Other than a Mandatory FDC Plan as the 2nd-tier Earnings-related Component?

Averting makes no mentions on it. But, in Sweden, a path-breaking NDC plan was under discussion from the early 1990s. It was in 1994 that the major political parties there jointly agreed to introduce a NDC plan.

A NDC plan can rectify design deficiencies and inequities in existing PAYG DB plans. It introduces incentive-compatible pensions without any considerable transition costs. Moreover, it is transparent. It can give much greater incentives to program participation, if the notional rate of return is set to equal the growth rate of the economy (Takayama 2002a; Holzmann-Palmer-Robalino 2013).¹³

Q5: Isn't a PAYG Pension Plan able to Withstand Population Aging?

In the past (before 2000), financial sustainability of mandatory PAYG DB plans was the major concern in almost all developed countries (except the UK) under population aging.

Its difficulty came mainly from a political risk. There were two time-lags; a recognition lag and a decision-making lag. These lags were likely to bring a "too-late, too-little" problem.

Today, however, pension experts have already invented a wise method for avoiding the political risk above mentioned; an "automatic" balance mechanism and/or an "automatic" indexation of the normal pensionable age to longevity. With this instrument, any mandatory PAYG plans are able to withstand population aging.

For those countries which have already implemented this policy device in their social security provisions, long-term financial sustainability becomes a problem of secondary concern.

Note that no developed country has substituted her major PAYG public pensions entirely for funded ones by following the proposal of *Averting*.

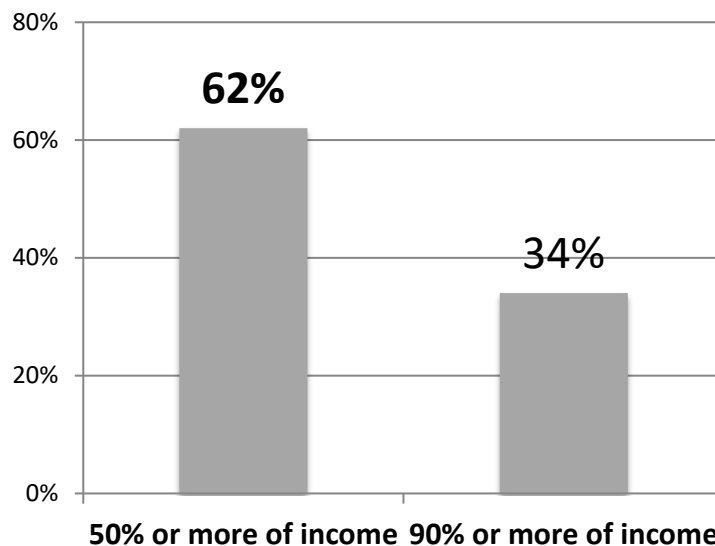
¹³ In 2002, the present author made an intensive study on Chinese pensions and wrote one paper. Takayama (2002a) pointed out that China can escape from the transition problem or the "empty box" problem, if China adopts an NDC plan, instead of the FDC plan. It also pointed out that China can give much greater incentives to program participation, if the notional rate of return is set to equal the growth rate of the Chinese economy. It was only 5 years after the drastic pension reform in China that Takayama (2002a) pointed out these two things, when the empty box problem became quite serious. Takayama (2002a) would be the first that suggested a NDC plan as a promising alternative option for China.

Q6: Which is More Important, Public or Private Pensions?

Adverting conveys the policy message that public (social security) pension systems should be restricted to the 1st-tier modest flat-rate benefits with a means-test or an income-test, and that the bulk of the 2nd-tier earnings-related portion be provided through privatized mandatory FDC plans.

Let's look at current situations in the US and Japan. Regarding the share of public pension benefits over household total income, it was a little over 60% in the US, and around 80% in Japan (see Figure 3.1 and Figure 3.2). For the elderly in the US and Japan, PAYG DB public pension benefits are the major income source after retirement, especially for low- and middle-income groups. Situations are more or less similar for almost all developed countries. Exceptions might be Chile, Singapore, and Australia.¹⁴

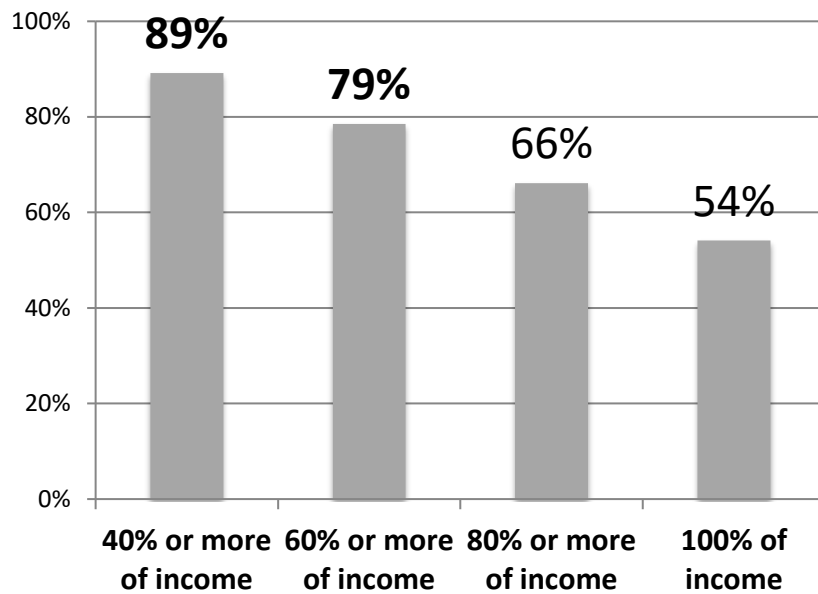
Figure 3.1 Percent of Aged Receiving Social Security Benefits, by Importance Relative to Income in the US



Source: U.S. Social Security Administration, *Fast Facts and Figures about Social Security*, 2017

¹⁴ According to Jing Xu calculations from the 2013 weighted CHIPs, for 47% of the Chinese elderly, public pension benefits accounted for 10% or more of their household total income. To put it the other way around, for a majority of the elderly in China, public pension benefits consist of less than 10% of their household total income. Incidentally, around 70% of the Chinese elderly received monthly benefits of no more than USD 10 equivalent from public pensions. USD 10 is fairly lower than USD 38 (the international extreme poverty line).

Figure 3.2 Percent of Aged Receiving Social Security Benefits, by Importance Relative to Income in Japan

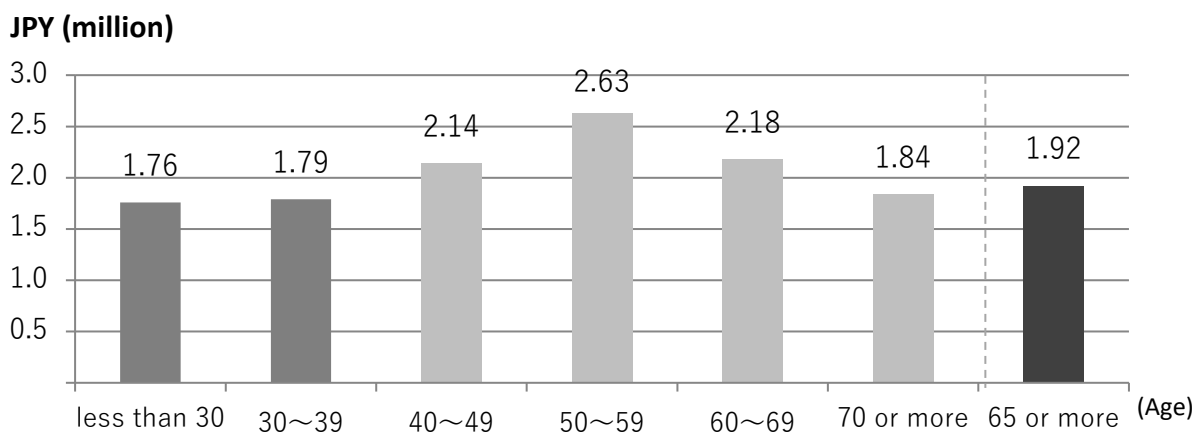


Note: The aged households are defined as those consisting of only aged person(s) of age 65 or over and unmarried children) less than age 18, if any.

Source: The Ministry of Health, Labour and Welfare, Japan, *The 2016 Comprehensive Survey of Living Conditions*.

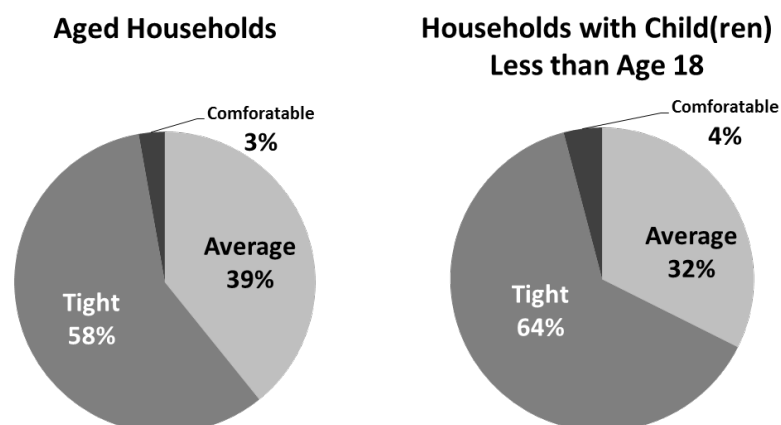
In reality elderly households are better off than young ones, and their self assessment of household financial conditions is better than that of young generations (see Figure 3.3 and Figure 3.4).

Figure 3.3 Average Household Annual Income per Capita by Age in Japan



Source: The Ministry of Health, Labour and Welfare, Japan, *The 2015 Comprehensive Survey of Living Conditions*.

Figure 3.4 Average Household Annual Income per Capita by Age in Japan



Source: The Ministry of Health, Labour and Welfare, Japan, *The 2015 Comprehensive Survey of Living Conditions*.

Moreover, the PAYG DB public pensions in Japan have been actually withstanding economic crises (the Lehman shock, etc.), devastating Tsunamis, and repeated huge earthquakes. Can the FDC pension plans withstand these crises and disasters?

Q7: Is Income Transfer by Public Pension Benefits Regressive among the Elderly?

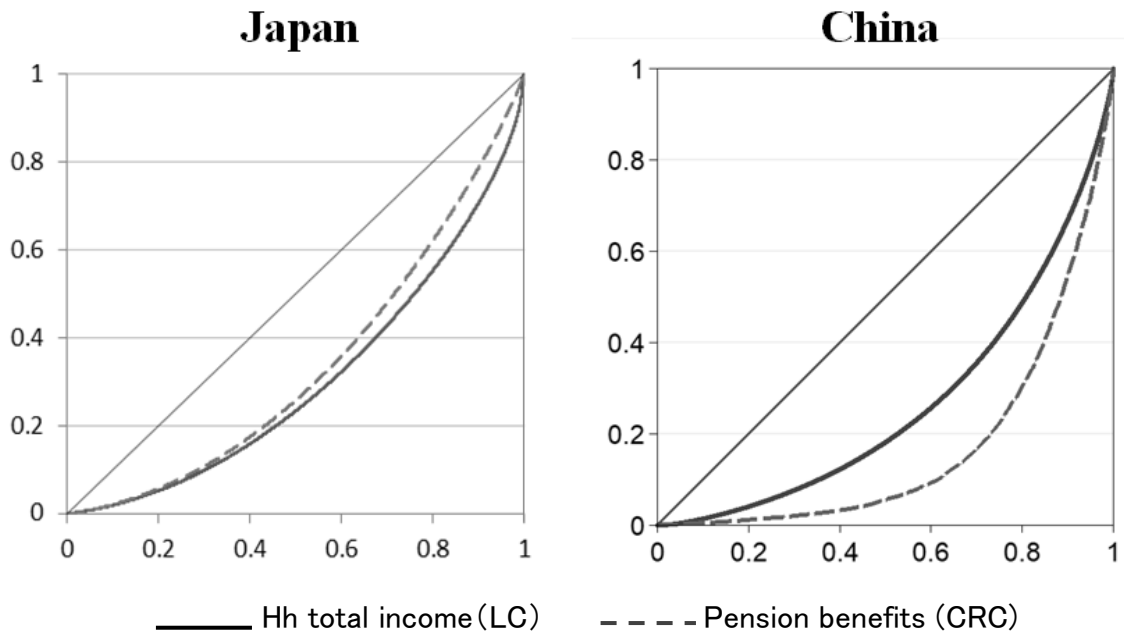
Averting claims that public pension systems redistribute income regressively among the aged households. But those countries which have a flat-rate basic benefit (or a benefit of similar substance, such as decreasing accrual rates with plural bend points in the US) as the 1st-tier component often work out progressive transfers through public pensions in practice. This is shown by Gini coefficient and Lorenz curve in Table 3.1 and Figure 3.5 (see the case in Japan).

Table 3.1 Gini Coefficient

Country	Pension Benefits	Hh Total Income
China	0.8198	0.4707
Japan	0.3339	0.3978

Source: Jing Xu calculations from the 2013 weighted CHIPs and the Ministry of Health, Labour and Welfare, Japan, *The 2007 Comprehensive Survey of Living Conditions*.

Figure 3.5 Lorenz Curve (LC) & Concentration Rate Curve (CRC)



The current situation in China makes a sharp contrast with that in Japan; namely the share of public pension benefits over total income is much smaller for the elderly with lower income, and thus public pension benefits are distributed much less equally than total income among the elderly households.

3.4 Concluding Remarks

There remain many other questions on a FDC plan such as investment risk (unstable financial markets), expensive handling costs, tremendous costs for transition, inflation risk, perverse income distribution within each generation, institutional capacity constraint, and so on (Barr-Diamond 2010; Beattie-McGillibray 1995; Takayama 2002b, 2004, 2016).

Here the present author would like to skip these questions, and go straight to conclude this chapter. *Adverting* entirely ignored the experiences of many developed countries where thoughtful and never-ending efforts have been done in search of better pension design and implementation. Provisions in PAYG DB plans need to flexibly adapt to a changing and unpredictable world.

In the end, the 1994 World Bank proposals are quite doubtful if they will bring adequate and acceptable pension benefits in developing countries where low quality of governance and embryonic financial markets are persistent.

Indeed, those countries which followed the 1994 World Bank approach (with its technical and financial assistance) to reforming pensions often faced a serious mess. Many of them were forced to partly or wholly give up their FDC plans and to return to a PAYG plan.

Adverting was not based on robust scientific evidences. It turned out rather to be a dogmatic manifesto from a market-fundamentalist point of view.

Missing is a far greater commitment to empirical research based on scientific evidences.

The followings are the final words:

Don't entrench yourself in actual battles, carrying only a toy gun with you. (Joseph A. Schumpeter)

God, grant me the serenity of mind to accept the things which cannot be changed, the courage to change the things that should be changed, and the wisdom to distinguish the one from the other. (Reinhold Niebuhr)¹⁵

【Acknowledgements】

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¹⁵ The present author is quite sure that decision-makers of China in charge of pensions are wise enough to distinguish these two things.

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Chapter 4

Recent Pension Debates and World-wide Pension Trends

最近の年金論争と世界の年金動向

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4.1 はじめに

1970年代の後半以降、先進工業国では人口構造の高齢化が進む一方、経済成長率も低下した。そうした中で公的年金は財政的困難に直面し、各国で年金改革が断続的に進められてきた。既存の給付建て制度を賦課方式で運営するという基本的フレームは変えないものの、年金負担の引き上げおよび給付増の抑制を図る。これが各国に共通した年金改革の進め方であった。

World Bank (1994) は上述のような年金改革の進め方を批判し、その代わりに新たなシステムへの切りかえを提案した。新しいシステムは既存の所得比例年金を掛金建ての制度に切りかえ、積立方式に基づいて財政運営するというものである。加えて制度の管理・運営を政府から民間に移すことを求めており、そのためには民間の年金制度への強制加入が望ましいとした。なお World Bank (1994) が新しいシステムを提案するさいに参照したのはチリ・シンガポール・オーストラリアの年金制度であった。

年金制度の設計や運営という点において世界を主導してきたのは、それまで ILO や ISSA (International Social Security Association) であった。また IMF や OECD 等の国際機関も独自の年金改革構想を有していた。これらの国際機関が World Bank (1994) の提案に強い拒否反応を示したことから、1995年以降、年金論争が活発に展開されることになった。論争に参加したのは上記の国際機関の関係者だけではない。年金論争は NBER、CATO Institute、National Academy of Social Insurance、Brookings Institution 等々をはじめとする幾多のシンク・タンクに参集する研究者、年金数理の専門家、各国の年金専門家を巻き込む形で大きな広がりを見せたのである。

またチリ・シンガポール・オーストラリアの年金についても、その後に関係者の理解が一段と深くなり、World Bank (1994) が想定していた内容とは明らかに異なる側面がいくつか明らかにされた。

World Bank は周知のように開発途上国や移行経済国に資金を援助している。その援助は経

済改革と引きかえになされるのが常である。その経済改革パッケージの中に盛り込まれるべき年金改革プログラムを想定して **World Bank (1994)** は発表された。当然のことながら開発途上国や移行経済国では **World Bank (1994)** の内容に衝撃が走った。これらの国々では、年金制度の設計 (**design**) をどうするかだけでなく、年金制度を首尾よく管理・運営するのに必要となる周辺環境をどのように整備していくかという問題 (**implementation**)、あるいは年金制度の適用をどのように国民全体へ広げていくかという問題 (**coverage**) についても、あわせて問題になっていた。

先進工業国は **World Bank** から資金援助を受けていない。そのため実際の制度設計という点で **World Bank (1994)** のインパクトはほとんどなかった。ただし知的インパクトはそれなりに大きく、各国で激しい論争を呼ぶことになった。ただ、この間の論争を通じて当事者の間に共通の理解が進んだ点もいくつかある。とくに経済的側面における認識が深められたことは特筆に値する。意見の相違の大半は経済的有利・不利よりもむしろ将来にかかわる事実判断や政治判断の相違に基づくことが明らかになったのである。

さらにスウェーデンやイタリア等では **World Bank (1994)** が想定していなかった別モデルが開発され、実施に移された。それは「見なし掛金建て方式」(**Notional Defined Contribution, NDC**) と呼ばれるものである。このモデルへの関心は先進工業国で最近、とみに高まりつつある。

World Bank もごく最近になって、この見なし掛金建て方式への関心を強め、それが開発途上国や移行経済国にも適用可能であることを盛んに主張するようになってきている。その背景には **World Bank** の副総裁であった **J. Stiglitz** 教授が副総裁時代に **World Bank (1994)** の内容を厳しく批判したこと (**Orszag-Stiglitz(2001)**参照)、年金問題の担当責任者が **E. James** 女史から **R. Holzmann** 博士に交代したこと、激しい年金論争を通じて **World Bank (1994)** の基本内容に再検討が加えられたこと、などがある。ちなみに最近の資金援助にさいして **World Bank** が推奨している年金改革プログラムは硬直的な **World Bank (1994)** の内容とは随分異なる、弾力性に富んだものとなっている。

本稿では、**World Bank (1994)** の報告が発端となって展開されてきた年金論争の基本的内容およびその主要な到達点を次節 (2 節) で整理する。第 3 節では、チリやシンガポールあるいはオーストラリアの年金制度に着目し、**World Bank (1994)** の想定との異同をいくつか明らかにする。第 4 節では、開発途上国や移行経済国で何が年金として問題になっているかを論じる。第 5 節ではスウェーデン等で導入された「見なし掛金建て方式」の内容を紹介し、既存の給付建てとの異同等について議論する。以上の考察を踏まえ、最後に第 6 節で日本の年金制度について今後の課題を述べる¹⁶。

4.2 年金論争の基本的内容と主要な到達点

World Bank (1994) による問題提起

World Bank (1994) はマドリードで 1994 年に開催された **World Bank** の年次総会で報告された。開発途上国や移行経済国は大きな財政赤字を抱えており、その主要部分が公的年金給

¹⁶ 本稿の基礎となった研究に対して文部科学省科学研究費補助金 (特定領域研究「世代間利害調整」: 課題番号 12123202 および 12123204 から研究助成を受けた。また本稿を作成する段階で世代間利害調整プロジェクト全体集会 (2002 年 4 月 4 日。於一橋大学佐野書院) のさいに鈴木興太郎教授をはじめとする参加者から有益なコメントと助言をいくつか頂戴した。あわせて謝意を表したい。

付の支払いから生まれている国も少なくない。公的年金の財政を中長期的に健全なものにする必要性はきわめて高く、また長期投資の財源を年金制度を通じて調達し金融市場の発展を促すことも重要な課題となっていた。さらに、これらの国においては特権階級のみが手厚い年金給付を約束されている一方、その他の者は低額の年金給付に甘んじているか年金給付を全く受けていないかのいずれかとなっている。その他の者は主要な財政収入源となっている高率の間接税を負担しており、かなり逆進的な所得再分配が年金制度や財政制度を通じて行われる結果となっていた。

上記のような事実認識を踏まえ、**World Bank (1994)** は3本柱の年金制度 (**three-pillar system**) を提案した。1つ目の柱は、貧困克服ないし再分配を目的とした年金制度であり、賦課方式で財政運営される。財源は保険料でも税でもよい。ただ、給付は定額 (ミーンズテストやインカムテストが付く場合もある) ないし最低保障額に限定される。

2つ目の柱は、民間で管理・運営されている掛金建ての年金制度であり、それへの強制加入が求められる。財政は積立方式で運営される。政府が、この2つ目の柱から手を引くことが主要な提案となっており、報告発表後に大きな争点となったのは、この2つ目の柱である。

3つ目の柱は任意の私的貯蓄である。これは従前の制度と変わりがない。

3つの柱が合わさることにより諸々のリスクは分散される。また、第2の柱により経済全体として貯蓄が増強され経済成長率も高くなる。早期引退効果も軽微なものとなり、逆進的な所得再分配も消失する。第2の柱が積立制度に変わることにより、人口高齢化の影響を受けずに年金財政が運営できるようになり、財源調達のコストをその分、低く抑えることも可能となる。これらが **World Bank (1994)** 提案の狙いであった (**James (1996)**参照)。

なお、この報告の執筆責任者は **E. James** 女史であった。

Beattie-McGillivray (1995) の批判

ILOの **R. Beattie** と ISSAの **W. McGillivray** は個人的見解と断りながらも **World Bank (1994)** を「危険な戦略」として激しく攻撃した。すなわち掛金建て積立制度への切りかえは年金制度を投資リスクにさらすことになり、「市場の暴力」の支配下に老後所得を置くことになる。市場利回りは変動 (**volatility**) が激しく、年金給付開始時にたまたま市場利回りが低くなったり、年金受給時に市場利回りが低下したりすると、老後の年金給付は事前に予想していた金額を下回ってしまう。また高い市場利回りに恵まれた世代は結果的に過剰積立をしてしまったことになる。いずれにせよ年金財政は安定するかもしれないものの、その代わりに「老後所得の安定」という目標は常にリスクにさらされる。リスクの中身が変わる一方、リスクの軽減にはつながらないというのである。

第2に、賦課方式から積立方式への切りかえは、いわゆる「二重の負担」問題を発生させる。移行時の現役世代は従前の制度で約束された給付費用を負担しつつけるのに加えて、自分の老後に備えた積立もしなければならぬからである。通常の場合、移行期における中年世代の負担は賦課方式を維持するときよりも重くなる。そのような負担増を中年世代に引き受けさせることは政治的にきわめて困難となろう。

第3に、積立方式は人口変動から中立的だとは必ずしも言えない。高齢化が進むと市場利回りは低下するおそれが大きいからにはほかならない。

第4に、積立方式に切りかえたからといって貯蓄率が全体として上昇するかどうかは不明である。また、仮に貯蓄率が上昇したとしても経済成長率が高くなるかどうかは必ずしも判然としていない。これらの点は実証分析で確認する必要があるものの、**World Bank (1994)**

の主張とは明らかに異なる結果がいくつか実証的に示されている。

第5に、掛金建ての制度はハンドリング費用が相対的に高い。その結果、低所得の階層ほどハンドリング費用控除後の運用利回りが低くなる。

その他、掛金建ての制度では障害年金や遺族年金を扱いにくいこと、私的年金への加入を強制しても投資規制をはじめとする各種の分野で政府の役割が残ること、運用失敗のツケは政府に回されがちとなり新たな財政支出を発生させやすいこと等々。

経済的側面

World Bank (1994)に対する Beattie-McGillivray (1995)の批判と James (1996)の反論等を契機にして年金論争は一気に火がついたような様相を呈するに到った。とくに経済的側面をめぐって幾多のやりとりが行われた¹⁷。

そこで、ここでは論争を通じて当事者間で共通の理解が得られるに到った経済的側面について主要ポイントを整理する。

(1) Samuelson-Aaron paradox

現行の給付建て賦課方式年金に対する批判は通例、Samuelson-Aaron paradox に基づいて行われる。ただ、Samuelson-Aaron paradox はもともと賦課方式年金の有利可能性を指摘するためのものであった (Samuelson (1958), Aaron (1966)参照)。

ここでは、その内容を2期間モデルを用いて紹介しておく¹⁸。

まず社会の構成員を2世代に分け、第1の世代は現在働いている一方、第2の世代は1期前には働いていたが現在は引退して年金生活を送っていると想定する。さらに単純化のため第1世代はすべて同一額の所得(賃金)を得ていると考えよう。第2世代が受給する年金額は第1世代の所得の一定割合 $100a\%$ と仮定する(給付建ての仮定)。なお賃金と人口は前期比でそれぞれ $100g\%$ 、 $100n\%$ ずつ増大すると想定している。

積立方式の場合、各人は2期間にわたって生活し、第1期(のはじめ)に賃金 Y_1 を稼ぎ、第2期は年金受給者として生活する。年金負担率を賃金の $100c\%$ 、運用利回りを $100r\%$ と表すと、年金積立額は第2期(のはじめ)には $c(1+r)Y_1$ となっている。他方、年金受給額は次の世代の勤労所得 $(1+g)Y_1$ の $100a\%$ に決められているので、 $a(1+g)Y_1$ となる。この年金受給額が年金積立額に等しければ収支は均等する。すなわち

$$c = a(1+g)/(1+r) \quad (1)$$

つぎに賦課方式の場合、年金受給額は上記と同様 $a(1+g)Y_1$ で与えられる。賦課方式下の年金負担率を $100t\%$ とすると、人口が $100n\%$ で成長しているので、年金受給者(第2世代)1人あたり $t(1+n)(1+g)Y_1$ に相当する金額が年金財源として徴収されることになる。このとき

$$t = a/(1+n) \quad (2)$$

という関係が成立すれば年金財政の健全な運営が可能となる。

(1)と(2)を比較すると

¹⁷ 年金論争に関する文献はきわめて膨大な数にのぼっている。そのうち国際機関以外の文献で主要なものを列挙すると、Burtless (2000), Callund (1999), Campbell-Feldstein (2001), Diamond (1996b, 1998), Disney (2000), Felstein (1998), Feldstein-Samwick (2001), Feldstein-Liebman (2002), Gruber-Wise (1998), Shoven (2001), Thompson (1998) 等がある。

¹⁸ Samuelson (1958) はもともと“paper contract”について論じたものであり、3期間モデルの含意の方がはるかに重要である。ただ、ここでは賦課方式の有利可能性を示すことだけに目的を限定したいため、敢えて単純な2期間モデルを用いることにした。

$$c \geq t \Rightarrow n+g \geq r$$

という関係が導かれる ($n \cdot g$ はほぼゼロに等しいとみなした)。すなわち人口成長率と所得増加率の和が利回りよりも大きい場合、賦課方式下の年金負担率は積立方式下のそれを下回る。

賦課方式下の年金は賃金上昇率と人口増加率の和（経済成長率）に見あった収益率で資金運用する場合と完全に同一の結果をもたらすことが、上記の2期間モデルから明らかになった。通常、積立金を一切もたない賦課方式を採用すれば保険数理的にみて不健全だという危惧が表明されがちである。ただ、積立金をもたない賦課方式の方が積立方式よりも負担が低くなる可能性がある。この点を Samuelson-Aaron は“paradox”だと主張したのである。

高度成長期にはこの paradox が十分成立していたといえるが、その後、先進工業国に関するかぎり事態は一変した。低成長経済への移行および人口高齢化（ないし少子化）の2つが事態を変えてしまい、paradox はもはや成立しなくなったのである。Feldstein(1996)をはじめとする賦課方式年金への批判には、いくつかのポイントがあるが、上記のポイントはその有力な根拠として必ず指摘された。

(2) 合成の誤謬

年金論争では上記の議論のうちまず、運用利回り (r) が経済成長率 ($n+g$) から独立に決まるという仮定が問題となった。積立方式は人口高齢化や低成長経済の影響を受けないという主張の是非をめぐるものである。

確かに賦課方式の場合、人口高齢化や少子化が進行すると年金財政の運営は容易でなくなる。給付減や負担増（あるいはその双方）が必要となりがちであるからにはほかならない。

それでは積立方式の場合はどうか。単純化のため $g=0$ の閉鎖経済 (closed economy) を想定する。年金資産の運用は全額、国内株式でなされるとしよう。また、少子化が進行し、第2期に現役労働者数が半減すると仮定する。このとき第2期における株式買いも半減してしまう。他方、第2期の年金受給者は少子化進行前の人達であり、その数は不変にとどまる。かれらは株式を売って生活資金に変える。その株式売りは数量的には第1期と変わりがない。その結果、株価は下落し（半減する）、年金受給者1人ひとりの消費水準は実質半分になる。このような結末は賦課方式下で負担増をいっさいしなかった場合と全く同一となる¹⁹。

上述のように人口高齢化や少子化が進むと結果的に運用利回り (r) は下落する。社会全体としての年金積立は個人の年金貯蓄とは結果が異なるのであり、運用利回り不変の仮定は「合成の誤謬」を犯していることになる。この点は Barr (1979, 2002), Brown(1997), Thompson (1998), Heller (1998)などによって理論的に明らかにされた。

なお Brooks (2000)は人口高齢化を考慮した年金モデルの将来シミュレーションにおいて運用利回りの低下を導出している。また昨今における投資収益率の低迷により、日本では積立方式に基づく厚生年金基金の大半が財政的困難に直面している状況も無視してはならないだろう。積立方式に切りかえたからといって、それで問題の解決にはつながらないのである。

いずれにせよ年金積立金を現金に変えようとするとき、年金受給者は手持ちの年金資産を売却しなければならない。その買い手は通常、現役世代であり、資産を購入した分だけ現役

¹⁹ 本文の結論は単純モデルを想定して得られたものであり、留保をいくつか置く必要がある。とくに開放経済 (open economy) を想定し、年金積立金を国外への株式投資等で運用する場合には結論が変わる可能性がある。たとえば小国の仮定が成立し、かつ為替リスクからも自由な投資が利用可能となれば、話は違ってくる。ただ、日本や米国の場合、小国の仮定が成立するかどうかは改めて実証的に検討する必要がある。

世代の消費支出は減少する。積立方式下であっても現役世代がつくりだした生産物の一部が年金受給世代にトランスファーされることは賦課方式下と変わりがない。人口高齢化あるいは少子化に伴う年金問題（負担増ないし給付カット）は、したがって財政方式を切りかえても解決することができない。むしろ生産物の数量をどれだけ増大させることができるかという問題の方がはるかに重要である。それが一定レベルで可能となれば現役世代の負担増を回避することができる。

(3) 同等定理 (equivalence proposition)

次に、賦課方式から積立方式への切りかえが、いわゆる「二重の負担」を移行期に発生させるという問題はどうか考えたらよいのだろうか。運用利回りの方が経済成長率より仮に高いとしても、移行費用を考慮すると賦課方式であれ積立方式であれ、双方とも年金負担の点では無差別同等 (equivalent) になる。これが年金論争を経て得られた結果にほかならない。

表 4.1 2 期間モデル

(単位：100 万円)

期間	世代		
	A	B	C
1	+1 0	-1 0	-1 0
2		+1 0	(- 、
3			+1 1

以下、この点を単純なモデルで説明しておく。表 4.1 は 2 期間モデル（人びとは 2 期間だけ生きると想定するモデル）において第 1 期に賦課方式の公的年金が導入されたと仮定している。すなわち第 1 期の年金受給世代 A が年金を 1,000 万円受給し、その財源を第 1 期の現役世代 B が全額負担する。簡単化のため、人口成長率 n も賃金上昇率 g もゼロだと仮定すると、賦課方式が維持されるかぎり第 2 期の年金受給世代 B も年金を 1,000 万円受給し、その財源を第 2 期の現役世代 C が全額負担することになる。第 3 期においても同様なことが繰り返される。このとき世代 B や世代 C にとって公的年金制度の内部収益率はゼロとなる。

さて積立方式への切りかえを第 2 期に試みる。第 2 期の現役世代 C は 1,000 万円を年金負担として拠出し、第 3 期に利回りつきで年金給付を受けることになる。利回りを 10% と仮定すると年金給付は 1,100 万円になる。積立方式下で世代 C の内部収益率はこの場合 10% となり、賦課方式下の内部収益率ゼロより明らかに高い。

ただ、上述の収益率 10% は移行費用を無視して計算されている。第 2 期の年金受給世代 B に従来から約束されていた年金 1,000 万円は誰が負担するのだろうか。仮に、それを全額国債発行で賄い、その国債利子を第 2 期の期末（ないし第 3 期の期首）に世代 C が負担すると想定すれば、世代 C に移行費用が 100 万円（1,000 万円×10%）だけ別途、発生することに

なる。移行費用込みの内部収益率 (net return) は、世代 C にとってゼロとなる。それは賦課方式下の収益率と変わらない。

賦課方式で公的年金を発足させると第 1 期に世代 A が 1,000 万円のギフトを受けることになる²⁰。このギフトに伴う費用はその後のいずれかの世代が負担する形となる。世代 A を含めて考えると、公的年金の負担は全体としてゼロサムである。賦課方式であろうと積立方式であろうと、このゼロサムゲームという構造に変わりはない。Geanakoplos-Mitchell-Zeldes(1998) はこれを”equivalence proposition”と命名した。

ただ時間経路 (time-path) をながめると、財政方式が違えば、それぞれの時点における年金負担 (ないし内部収益率) は異なりうる。積立方式への切りかえは移行費用を誰に、いつ、どのように負担させるかという問題に対する回答を正面から求める形となる。

いわゆる二重の負担は、移行時における中年世代に移行費用を集中的に負担させるときに発生する。これを政治的に実現させることはきわめて困難であろう。他方、賦課方式の場合、世代 A へのギフト費用は将来世代に次々と先送りされがちであり、制度改革時における中年世代の年金負担を集中的に増加させるという事態は生じにくい。政治的困難を避けようとするれば、そうなりがちである。

いずれにせよ、上記の「合成の誤謬」や「同等定理」は年金論争を経て年金関係者が共通に理解するところとなった。年金負担という経済的側面に関するかぎり年金論者の間で違いはほとんどない。意見の相違はむしろ将来にかかわる事実判断や政治判断に基づくところが大きい。

4.3 チリ・シンガポール・オーストラリアの年金制度

World Bank (1994)が各国への推奨例として想定していたのはチリ・シンガポール・オーストラリアの年金制度である。そこで、この 4.3 節では上記 3ヶ国における年金制度の概要を説明し、推奨に値する制度であるか否かを検討する。

チリの年金制度

戒厳令を布告したピノチェト軍事政権は 1981 年に公的年金制度の構造改革を断行した。従来の制度は賦課方式に基づく給付建ての制度であったが、それを廃止し、代わりに個人勘定つきの掛金建て年金制度を導入する。そして、それは、すべて民間で管理・運営する完全積立型年金への強制加入の形をとる、としたのである (ただし自営業者は任意加入にとどまり、軍人は非加入とした)。政府は公的年金の管理・運営から基本的に手を引き、民間年金に対する最小限の規制と監視を主な任務とすることになった。あわせて、強制加入の民間年金によって得られる給付が仮に最低保証額に達しなかった場合、その差額を政府が補てんするとしたのである。

掛金はすべて従業員本人が拠出する。掛金率は給付の 10%である。ただし障害年金・遺族年金用に別途、3%の拠出をする。事業主が従来、負担していた拠出はなくなるものの、その代わりに給与を 17% (10%が年金分、7%は医療保険分) 引き上げる。結果的に従業員の手取り賃金は不変にとどまる、とした。

²⁰ 本文の議論は、公的年金制度発足前に世代 A が親世代を私的に扶養していた点を全く無視している。世代 A の受けとる年金をギフトとしてのみ認識することには問題がある。

年金の受給開始年齢は男性が 65 歳、女性が 60 歳である。受給開始年齢に到達した時点で生命保険会社と契約して終身年金を購入するか、それまで利用していた年金資産管理会社から有期年金を受けとるかを選択する。年金給付水準が従前給与の 50%以上になるほどに年金資産が積み上がった場合には上記の受給開始年齢より早く受給を開始してもよい。また拠出期間が 20 年以上の者には、最低水準の年金給付が政府保証によって支払われる。

制度切りかえ時点で年金受給開始年齢に達していなかった中年層や若年層には、旧制度下の拠出分に伴う年金受給権が年金国債 (recognition bond) の形であたえられた。各自の年金国債は給付乗率 80%で計算された年金給付の現在価値相当額とされた。年金国債は各自が保有する年金個人勘定に置かれる。年金国債の実質利回りは年 4%に決められた。

チリの年金は 2000 年時点で同国 GDP の半分に相当する資産額をすでに有している。年金の管理・運用のための民間金融市場はチリ国内において、この 20 年間でかなりの発展をみたといえる。運用利回りは 1981 年以降の 20 年平均で 10.9% (各目値) を記録し、それなりの成果を挙げたと考えてよい。ただ、いくつか問題が新たに発生している。それを主として Bravo (2001) を参考にしながら整理しておこう²¹。

大きな問題点が 4 つある。第 1 の問題点は制度切りかえに伴う財政負担の急増である。制度切りかえで表面に出てきた未積立の年金債務は 1981 年時点で GDP の約 130%に達していた。この年金債務を最低でも 40 年間かけて償却していかなければならなくなったのであり、実際には年間で GDP の 3.5%から 7%に相当する移行費用が 1981 年以降、財政負担として年々、発生したのである。このように重い財政負担は、たまたまチリ経済が 1997 年まで高度成長を享受し、巨額の財政黒字を出しつつけるほどに財政規律が厳しかったため賄うことができた。チリ経済が享受した好環境は他の国では、なかなか手に入らない類のものであった。

ただし 1998 年以降、チリ経済は変調し、その将来は予断をゆるさないものになってきた。くわえて年金の最低水準を政府が保証していることに伴う財政負担を懸念する声も少なくない。とくに 20 年間拠出すれば最低額の年金が保証されるため、自らの賃金を意図的に低く申告して 20 年間拠出し、最低保証額を手に入れようとするインセンティブが強く働く余地が残されたままとなっている。

第 2 の問題点は強制加入としているのにもかかわらず、加入率が最近むしろ低下していることである。旧制度下では労働力人口の 80%が年金制度の適用を受けていた。ところが 2000 年時点では年金加入率は 46%にまで落ちこんでいる。給与所得者のほぼ 7 割は年金制度の適用を受けているものの、自由業や自営業を営む者で年金制度に加入している者の割合は 4%にすぎない。非正規の給与所得者も年金制度に加入していない例が圧倒的に多い。非加入者の増大は年金制度が本来の目的を首尾よく達成することができなくなっていることを示している。

第 3 の問題点はハンドリング費用がかなり高いことである。ハンドリング費用は平均で 1990 年時点において給与の 3.15%となっていた。掛金率は 10%であるので、ハンドリング費用は平均で掛金の 30%以上にもなっていた。その後、ハンドリング費用は低下ぎみに推移してきたものの、1998 年時点において掛金総額の 27%を記録している。旧制度下のハンドリング費用は掛金総額の 5%程度であったので、新制度においてはハンドリング費用の高さ

²¹ チリの年金については Bravo (2017)、Bravo (2001) 以外に Myers (1992, 1996)、Diamond (1996) が詳しい。

がきわだっている状況である。

ただ、掛金建て個人勘定の年金はチリ以外の国でも実施されている。そのハンドリング費用はチリのように高くない。ちなみにチリのハンドリング費用はメキシコの場合とくらべると約2倍、オーストラリアの4倍以上となっている。つまり掛金建ての年金制度であっても、ハンドリング費用を低く抑えるために工夫する余地が残されている。

第4の問題点は年金積立金の運用利回りにかかわるものである。周知のように市場利回りは年々変動が激しい。チリの年金は1995年にはじめてマイナスの運用利回り（-2.5%）を記録した。その後も利回りは総じて低迷をつづけている。前述したように1981年以降の20年平均でみると運用利回りは年10.9%（各目値）となっていた。

ただ、上記の運用利回りはハンドリング費用を考慮していない。ハンドリング費用を考慮したネットの運用利回りは約5%弱（各目値、20年平均）にすぎない。とくに低所得者や加入期間の短い者のネット利回りはさらに低くなる（ハンドリング費用には固定費用があり、年金資産の少ない者ほど割高となるからである）。1990年代に加入した者のネット利回りはいずれもマイナスに転落している。

なお年金制度の切りかえでチリ経済の貯蓄率はかえって低下した。年金貯蓄は確かに増大したが、他方で移行費用を負担するため政府貯蓄が大幅に減少したからである。過去20年間の平均で貯蓄率の低下分（ネット）はGDPの3%程度と推測されている。

チリにおける年金改革の背景にあったのは政府の腐敗であり、国民の政治不信であった。年金をそのような政治リスクから切りはなした点でチリの年金改革にはそれなりの評価が与えられるべきだろう。しかし上述したように新たに発生した問題点もいくつかある。とくに高いハンドリング費用や変動幅の大きい運用利回りは老後所得の安定という側面からみると無視することができない。制度の切りかえで問題解決とは必ずしもならなかったのである。

シンガポールの年金制度

シンガポールがWorld Bankから注目されたのは、セントラル・プロビデント・ファンド（CPF）という独自の制度を設立し、それを通じて社会保障制度の実現を図ったからにはほかならない。CPFは強制加入の貯蓄制度であり、政府によって管理・運営される掛金建ての制度である。勤め先が変わっても持ち運び可能な個人勘定に拠出分と運用益が記録されている。ただ、チリの年金制度と異なり、民間が管理・運営する形となっていない。また加入者個人に拠出資産の運用先を指図する権利もいっさい付与していない。

CPFは1955年に創設された。掛金率は労使折半で当初10%（労使込み）であった。1968年になって住宅形成のための貯蓄がCPFの中に盛りこまれることになり、掛金率は1980年代の中頃には労使込みで50%に達した。その後は掛金率を引き下げたり引き上げたりしており、2001年時点で36%（本人20%、事業主16%）となっている。標準的には労使折半で合計40%を基本に置いているようである。

World Bank (1994) はシンガポールのCPFが老後所得を準備するための器だと想定していた。しかし実態は全く別のもののようである。Asher-Karunaratne (2001), Asher (2002)によると、掛金の半分以上が住宅形成のためのものであり、積立金の大半が退職以前に取りくずされている。ちなみに1987年から1999年にかけて掛金総額の約70%に相当する資金が退職前に取りくずされていた。退職時に残された拠出資産（運用利回り込み）は全体として給与の10ヶ月分程度にすぎず、過去10年間、そのオーダーはほとんど変わっていない（むしろ若干の低下傾向を示している）。

CPF の中核は住宅形成のための貯蓄であり、医療費や教育費を賄うためにも使われる。年金目的の掛金は労使込みで4%にすぎず、全体の10分の1程度を占めるだけである。

退職時点で残された積立金は1時金・有期年金・終身年金のいずれかで受けとることができる。終身年金を選ぶ者は1999年時点において10%未満であった。いずれにせよ退職時に残された金額で老後を賄うことは到底できない。制度発足後40年以上の年月が経過したにもかかわらず、シンガポールの高齢者は子や孫の私的扶養を依然として頼りとしている。これがシンガポールの現状である。

シンガポールのCPFは、さらに別の問題もかかえている。その積立金の運用利回りは1983年から1999年にかけて年平均で実質2%であった。1997年から1999年の3年間に限定すると、その利回りは実質で年0.88%にすぎなかった。このような低利回りは、CPFの積立金に付利される運用利子が国債の利回りと同じに設定されたからである。CPFの積立金にはその少なからぬ部分がシンガポールの株式市場や外国投資に向けられていたと推定されている。政府はCPFを通じて支払分よりかなり高い運用益を手にしてきたことになる。CPF加入者にとっては暗然のうちにCPFを通じて政府に税金を支払った形である(implicit tax)。この税金はきわめて逆進性の強い性格を有していた(低所得者は非住宅資産をCPF資産以外にはほとんど有していないからである)。

CPFで約束されている運用利回りは政府によって市場利回りより低く設定されている。CPFは表向きでは掛金建ての制度となっているが、実態はむしろ「見なし掛金建て」に近い。あるいは、運用利回りがあらかじめ決められているという意味では、むしろ「見なし給付建て(defined-benefit plan)」の制度と特徴づけることも可能である(Asher (2002) 参照)。

さらにCPFは表向きでは積立制度ということになっているものの、その積立金が国債購入に充当されているかぎり別の様相を呈することになる。すなわち国債は将来世代が返済する形をとるので、CPFへの預託に伴う年金債務は将来世代が負担していることと実質的に変わりがない。結局、賦課方式による財源調達と同じことになる。

つまりシンガポールのCPFは「積立に基づく掛金建ての制度」ということに表看板はなっているものの、実態は「賦課方式に基づく見なし給付建て制度」と変わるところがほとんどないのである。このような実態はWorld Bank (1994) が想定していた内容とは随分、異なる。

なおシンガポールにはWorld Bank (1994) が提案した1つ目の柱が全く用意されていない。この点でも、なぜWorld Bank (1994) がシンガポールに注目し、シンガポール方式を他国に推奨しようとしたか、疑問が残る。

オーストラリアの年金制度²²

オーストラリアには従来、公的年金としては定額の基礎年金(Age Pension)しかなかった。その制度の発足は1909年まで遡ることができる。定額の基礎年金は税方式で賄われ、賦課方式で運営されている。受給開始年齢は原則65歳であるものの、女性の場合は2001年時点では61.5歳となっていた。女性の受給開始年齢は段階的に引き上げられ、2014年には65歳になる。

オーストラリアの基礎年金にはミーンズテストがついている。ただし自宅(持家)はミーンズテストの対象にはなっていない(1912年以降。²³)。70歳以上の者についてはミーンズ

²² オーストラリアの年金を詳細に論じた論文に Bateman-Pigott (2001) がある。

²³ オーストラリアの年金受給者は持家保有率が高く、現在、その持家率は約85%となっている。

テストが 1975 年にいったん廃止されたが、1978 年に復活した。そして 1980 年代の中葉以降、インカムテストとアセットテストの双方（あわせてミーンズテストと通称されている）が適用されている。すなわち年金受給開始年齢到達後に、ある一定額以上の収入があったり自宅（持家）以外の資産を保有したりしていると基礎年金給付は減額される。さらに、それぞれの上限額を超えると基礎年金をまったく受給することができなくなる。

2000 年時点において高齢者の 20%はミーンズテストにより基礎年金を受給していなかった。また高齢者の 27%は減額付きの基礎年金を受給していた。したがって基礎年金を減額なしで満額受給していたのは高齢者の 53%にとどまっている。

オーストラリアでは企業を退職する場合、退職一時金を受給するのが一般的であった。退職一時金制度はそれなりに普及していたが、それを全企業に強制適用し、有期年金や終身年金の選択を認めるとしたのは 1992 年からである。企業に強制された退職給付制度は **Superannuation Guarantee** と呼ばれている（SG）。この SG は掛金建ての制度であり、掛金（9%）は全額を事業主が負担する。SG の受給開始年齢は現在、55 歳（2025 年段階では 60 歳）であり、それ以前の資産取りくずしはいっさい認めていない。また完全積立型となっており、従業員本人の個人勘定が設定されている。運用規制はほとんどないものの、従業員が運用指図をする形にはなっておらず、事業主が運用専門家と相談しながら一括運用する。なお掛金率は 1992 年時点では 4%（小企業は 3%）に設定されたが、その後に段階的に引き上げられ、2002 年 7 月には 9%となった。

SG の掛金率を上回る拠出を事業主が任意にしたり、従業員本人が任意に掛金を拠出したりすることも多い。1999 年時点で企業年金や個人年金のうち任意拠出分は強制拠出分（SG）込みの拠出総額の 60%を占めていた。従業員の 43%が任意拠出をしており、その平均拠出額は給与の 6%に相当していた。任意拠出の企業年金は通例、給付建てである。

SG の運用利回りは 1990 年代におけるオーストラリア経済の好調に支えられ、1999 年時点でみるかぎり、かなりの高成績を達成している。ちなみに過去 3 年平均の利回りは 8.3%、過去 5 年平均では 6.9%となっていた（この利回りはハンドリング費用を含んでいない）。なお SG の運用利回りが将来どうなるかについては今後とも注視していく必要がある。

SG のハンドリング費用はチリと比べると、かなり低く、年金積立金の 1%以下（大規模の企業年金）、または 0.41~1.81%（小口の年金資産）となっている。年金資産の規模によりハンドリング費用にはかなりのバラツキが認められる。チリに比べてハンドリング費用が低い主な理由は、事業主の一括拠出・一括運用となっているため一人ひとりの従業員にセールスプロモーションをかける必要がないことにあると考えてよいだろう。

オーストラリアにおいて老後所得の中核をなすのは SG である。それは政治リスクからは自由であるものの、一時金による取得が認められている。オーストラリアには「退職一時金メンタリティー」とも呼ぶべき慣行があるので、終身年金化は容易に進まないだろう。ただ、一時金では長生きのリスクやインフレリスクに備えることが容易にはできない。

なお終身年金化は民間の自由に委ねるだけでは容易にできない。いわゆる逆選択問題があるからである。むしろ受給開始年齢到達後は SG の年金資産をいったん政府の手元にプール（一元管理）し、その運用を金融機関に委ねる一方、平均余命が予想外に伸びたり運用環境が悪化したりした場合には国の一般財源を特別に投入するか、あるいは予定利率を市場連動型とするか等々（死亡率の定期的見直しを含む）が求められるだろう。

4.4 開発途上国および移行経済国の年金問題

World Bank (1994) はもともと開発途上国や移行経済国を念頭において提案されたものである。開発途上国で公的年金が適用されているのは軍人や公務員あるいは国営企業の従業員および準公務員・教師や都市在住の一部民間給与所得者に限定されているケースが圧倒的に多い。農林水産業や鉱工業に従事している人びとは公的年金の適用をほとんど受けておらず、私的な親族扶養が依然として重要な柱となっている。このような状況下では公的年金の適用範囲をどのように拡大していくのが最大の年金問題となっているといっても大過ないだろう。

また開発途上国では政治家や役人に対する国民の信頼は総じて低い。清潔で正直な政府(透明度の高い政府)や有能な官僚の存在は公的年金の適切な運営・実施 (implementation) には不可欠であるものの、この基本的条件を欠いている開発途上国が少なくない。

仮に World Bank (1994) の提案に従おうとすれば、発達した金融市場(信頼のおける資金決済システムおよび債券・株式市場)が国内に整備され、長期投資の物件にふさわしい金融商品がいつでも誰にも利用できるようになっていく必要がある。ところが開発途上国内部の金融市場は整備が進んでおらず、適切な長期投資用金融商品もほとんど用意されていない。有力な貯蓄物件が金をはじめとする貴金属や米国の国債・米国ドル紙幣に限られている国が多い。これが通例である。また年金積立金の管理・運用を民間に委ねる場合においてもガイドラインを作成し監視や規制をする仕事が政府に残される。この場合、高度に発達し複雑な内容をもつにいたった金融に関する知識を有する専門家や会計あるいは年金数理に精通した専門家が政府部内にいないと話がうまく進まない。ところが、そのような有能な専門家は民間でビジネスに励むことが多く、政府部内にはほとんどいない。さらに政治や政府に対する不信感が強いと、国民や企業が賃金を正直に申告し年金保険料や税金を法律どおりに納めるということも期待できない。このような状況では、年金制度の基本設計 (design) をいくら変えても、制度の実施面で深刻な問題がいくつか生じてしまう。World Bank (1994) は、これらの点を軽視していたように思われる。

他方、旧ソ連邦や東欧等の移行経済国では旧体制下で公的年金制度は広く普及していた。この点で開発途上国とは大きく異なる。ただ、旧ソ連邦崩壊後に政治権力や政府に対する不満と不信感が一挙に噴出した。とくに若者や新規創業組企業の政府不信は極端に強い。納税回避や保険料納付の拒否・サボタージュが広範に行われている。そうした中で、どの国でも旧来の年金制度は財政的に行きづまってしまった感が強い。極端な政治不信がうずまく中で年金制度への拠出を個人や事業主に求めるのは決して容易でない。

こうした中でラトビアやポーランドではスウェーデンに範をとった「見なし掛金建て方式」への切りかえを実験中である。実験の中で「掛金は年金給付の形で必ず本人のところへ返ってくる」と説明し、公的年金に対する国民の理解を得ることに懸命になっている。

年金制度適用以外の制度実施にかかわる基本的諸条件の整備については移行経済国も開発途上国とほぼ同様の問題をかかえている。市場経済を発展させる一方、クリーンでかつ透明度が高く有能でもある政府を構築する作業は今後の重要な課題である²⁴。

²⁴ 東欧や旧ソ連邦の年金問題については Fultz (2002)、Mueller (1999) が参考になる。また一橋大学経済研究所「世代間利害調整」プロジェクトの DP シリーズに含まれている Zaman-Vasile (2001)、吉野 (2001)、上垣 (2002)、Simonovitz (2002)、Vylitova (2002)、Tafrađjiyski (2002)、Ohtsu (2002) および田畑・久保庭 (2002) も参照されたい。

この間の年金論争を経て World Bank は 1994 年報告に強いこだわりを最近、示さなくなった。むしろ制度設計 (design) だけでなく制度の適用範囲 (coverage) 拡大問題および制度実施 (implementation) にかかわる条件整備についても重大な関心を示す一方、スウェーデン型「見なし掛金建て方式」の導入を推奨する例がふえている^{25, 26}。

4.5 スウェーデンにおける最近の年金改革

1990 年代にスウェーデンで開発・導入された「見なし掛金建て方式」は World Bank (1994) の中で議論されなかった、全く別のモデルである。このモデルにおける基本的考え方を 1996 年の年金改革でイタリアが受け入れることになり、さらに、その後ポーランド・ラトビアもそれをあいついで受け入れることを決めた。そのためスウェーデン方式に対する注目は世界における年金関係者の間で最近とみに高まっている。

そこで、この第 5 節ではスウェーデンにおける最近の年金改革に着目し、その概要を説明した上で、見なし掛金建て方式が従来の方式とどのように異なるかを議論する²⁷。

1999 年改革の背景と改革プロセス

スウェーデンは 20 世紀最後の 40 年間に於いて人口高齢化が最も進んだ国であったにもかかわらず、高福祉を実現した国として世界から称賛されてきた。高福祉を支えたのが好調なスウェーデン経済であったことは言うまでもない。

そのスウェーデン経済が 1991 年から 3 年間、連続してマイナス成長を記録した。現役労働者の賃金は実質的に下落し、失業率も 1993 年には 8.3% まで上昇した。そうした中で高齢者が受給している年金は物価スライド制の下で実質額が維持されたが、それは年金財政を悪化させる一方、現役労働者の不満の種となってしまった。現役労働者が手にする賃金の伸びは物価上昇率より低かったからである²⁸。なお年金財政の悪化は年金保険料の引き上げを招きがちである。この点にも若者はプラスチックを募らせていた。かれらの制度加入意欲をどうやって高めるかという問題も次第に大きくなりつつあったのである。

年金制度に対する不満は物価スライドや保険料の引き上げだけにとどまらなかった。とくに、年金額の算出ベースが生涯賃金ではなく「賃金の高かった 15 年間の賃金」のみに置かれていた (いわゆる 15 年ルール) ため、年齢別賃金カーブの傾きが急な者ほどトクになっていたこと、満額年金の受給要件が 30 年拠出となっていた (30 年ルール) ため、30 年を超えて年金保険料を拠出しても老齢年金額が増えない仕組みになっていたこと、の 2 つに対する不満が強かった。拠出が給付に直接結びつかない制度を改めることは国民多数派の声となっていたのである。

1991 年 9 月の総選挙で、それまで長期間にわたって政権を維持してきた社会民主党が敗北し、代わりに保守中道 4 党による連立政権が成立した。保守中道政権は年金改革を主要な政治課題の 1 つに位置づけ、社会保険担当大臣 (Bo Könberg 氏) みずからその改革にきわ

²⁵ World Bank の最近の考え方は Holzmann (2000)、World Bank (2001) に示されている。

²⁶ ILO 等の最近の考え方は ILO (2000, 2001), Queisser (2000), Hoskins et al. (2001), OECD (1998) を参照されたい。

²⁷ スウェーデンの年金改革は Palmer (2001)、Könberg (2002)、高山 (1998)、井上 (2000)、世代間利害調整プロジェクト (2002) が詳しく解説している。

²⁸ 物価スライド制はスウェーデンでは政治的介入に結びつきがちであった。賃金上昇率が物価上昇率を上回ると年金受給者は欲求不満となる一方、逆のケースでは現役労働者が不満を募らせた。それらの不満に対応するためスライド率を調整すべきだという政治圧力が強く作用したからである。

めて精力的に取りくんだ。すなわち与野党7党の代表だけを構成メンバーとする「年金ワーキンググループ」(WG)が1991年11月に設置され、大臣みずからがその座長となった。利害が直接関係する労使の代表や年金受給者・女性等の代表をメンバーからすべてはずし、きわめて少人数の政治家だけでメンバーを構成した点に、このWGグループの特徴がある。

WGは翌年8月に年金改革に向けた骨子案を発表し、その後に関係者との調整を踏まえて1994年1月には改革原案に関する5党合意をとりまとめた。5党の中には最大野党の社会民主党も含まれていたため、国会における議席で85%を占める関係者の合意が形成されたことになる。同年6月には「年金改革のためのガイドライン」が国会で議決され、その後には改革案の細部を具体的につめる作業に入った。同年9月の総選挙で社会民主党が勝利し、政権に復帰した。社会民主党は上記ガイドラインに沿って年金改革を進める方針を示した。ただ、党内調整に手まどり改革スケジュールが若干延期されたものの、1998年には年金改革法案が国会で可決され成立するにいたった。新法は1999年から実施されている。

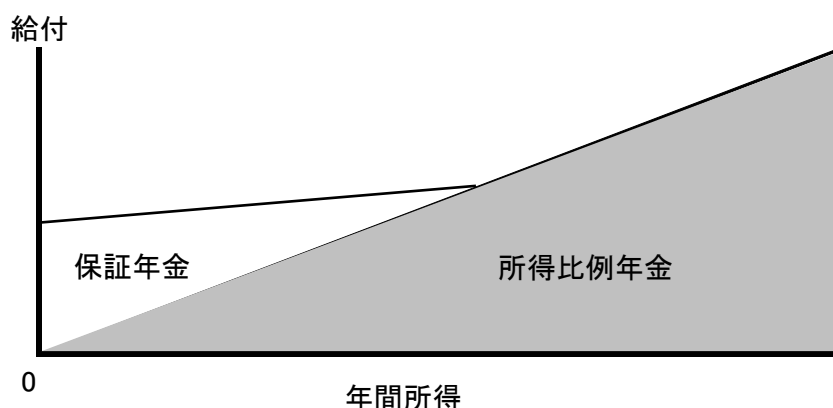
1999年改革の概要

①公的年金制度の抜本的再編

スウェーデンの公的年金は従来から給付建ての制度であり、賦課方式に基づいて運営されていた。また給付は日本の制度と同様に2階建てとなっており、1階部分が定額の基礎年金、2階部分が所得比例年金となっていた。なお基礎年金の財源はすべて税金で賄っていた。

この基本的仕組みを新法では抜本的に改めることになった。給付建ての制度を掛金建ての制度に全面的に切りかえる。そして2階建ての給付は所得比例年金をベースにしたヨーロッパ大陸型に切りかえる一方、基礎年金は低年金者向けの制度に改める。すなわち所得比例年金だけでは政府保証の年金額に満たない者に対して、その差額を補てんする制度に改めるとした(図4.1参照)。ただ、財政運営にあたり賦課方式は従来と同様に基本的に維持していく。新制度への移行は20年かけて実施し、毎年旧法の20分の1を新法に置きかえて新規受給者が実際に受給する給付額を算出する。すなわち新法導入後のはじめの20年間に老齢年金の新規裁定を受ける者は旧法年金と新法年金をそれぞれ部分的に受給する形となる。

図 4.1 スウェーデン型公的年金給付体系



掛金建ての制度では、年々の拠出が1対1対応で給付に直接、結びつく。15年ルールや30年ルールの問題点を克服する一方、若者の保険料拠出意欲を高めるには、給付建ての制度を掛金建てに切りかえるしかない。この点に関する多数派の合意は比較的容易に形成された。問題は、それを積立方式への切りかえで進めようとする「二重の負担」問題に直面してしまうことにある。国家財政が危機的状況に置かれている中では、チリで実施されたような「二重の負担」問題への対応策をスウェーデンでは採用できない。スウェーデンでは賦課方式の年金を基本的に維持していかざるを得ない状況にあった。

掛金建ての制度と所得比例年金は、いわばワンセットである。この仕組みと賦課方式をどのように結びつけるのか。従来、その2つを結びつけることは困難だと思われていたからである²⁹。その接点を開発した点にスウェーデンの新機軸（innovation）があった。それは「みなし運用利回り」（notional rate of return）の考案にほかならない。

各人の拠出保険料は賦課方式の下では拠出した本人の手元には残らない。それは同時点における年金受給者の給付を賄うために拠出時に使われてしまう。みなし掛金建て方式も、この点に関するかぎり全く変わりはない。ただ、従来の給付建てと異なるのは、①各人の保険料拠出実績が個人別の年金勘定に毎年、記録されること、②拠出された保険料があたかも市場で運用されたように見なされ、運用収益相当分が毎年、個人別の年金勘定に保険料拠出分と並んで記載されること、③老齢年金は受給開始時点における拠出保険料プラスみなし運用利回りの合計額（みなし年金資産）に基づいて算定されること、④そのさい平均余命を考慮してみなし年金資産は分割され、年々の給付が決まること、等々の点である。各加入者への年金権賦与の仕方は普通の掛金建て制度と変わらない。異なるのは「みなし運用利回り」であり、この考案によって賦課方式との接点が見つけられたのである。

上述のように、拠出と給付の1対1対応はスウェーデンにおける1999年改革の中核部分にほかならない。ただ、例外もいくつか設けられた。例外の第1は、基礎年金制度を抜本的に改組し、政府が保証した一定水準額に所得比例年金が達しない場合の差額補てん制度にそ

²⁹ 1990年代の後半における年金論争を通じて明らかになったのは、年金改革を提案する人びとの間にさえも「掛金建て」と「積立方式」を混同する例が少なくなかったことである。掛金建ては「個々の当事者に年金受給権をどのように与えるか」というミクロの問題である。他方、積立方式は「年金給付を制度全体としてどのように賄うか」という財源調達問題をマクロの視点から論じるときの用語である。スウェーデン方式の核心は掛金建ての制度を賦課方式で賄う点にあり、上記の誤解や混同を正す上でその開発のはたした役割は大きい。高山（1999、2000）参照。

れを切りかえたことである。差額補てん分は全額が税金で賄われる。第2に、年金給付算定対象の賃金には上限があるものの、事業主負担の年金保険料が徴収される支払賃金には上限がない。上限を超える賃金に賦課される年金保険料は、この意味で給付と全く結びついていない。第3に、育児・高等教育・兵役期間は保険料納付が免除されているものの、その間も保険料をあたかも拠出していたように見なして年金給付を算出している。保険料免除により減少した保険料相当額は国庫が別途負担する（年金給付のうち国庫が税金で負担すべき部分は第1の措置とならんで狭く限定され、将来的には国庫負担は徐々に減っていく見通しである。税金は保険料とは全く異なる目的のために充当され、保険料使用目的の純化が図られた）。第4に、平均余命は女性の方が男性より総じて長いものの、給付算定にあたって男女差を設けない。純粋な掛金建て年金の場合、拠出総額が同じであれば月々の年金額は女性の方が男性より低くなるはずであるが、そのようにはしなかったのである。

②年金保険料の長期固定化

新法で年金保険料は**18.5%**に定められ、将来にわたって長期固定することになった。年金保険料の引き上げは今後、いっさい予定されていない。スウェーデン経済への悪影響を未然に避けるためである。

新制度では賦課方式分が**16.0%**（1994年の構想段階では**16.5%**であったが最終的に修正された）、積立方式分が**2.5%**、合計で**18.5%**と設定された。積立方式分は実際に市場で資金運用される部分である。この部分も掛金建てであり、原則として民間の年金制度への強制加入の形をとっている。なお保険料は従来、全額事業主負担であったが、**1995**年から本人**1%**負担を導入し、その分だけ事業主負担分を引き下げている。本人負担割合は今後とも段階的に引き上げていく予定であり、将来的には労使折半負担となる。

③受給開始年齢問題からの解放

給付建ての制度では財政的苦難に直面するたびに受給開始年齢の引き上げが問題となる。掛金建て制度への切りかえは、拠出と給付の直接リンクや保険料の長期固定化が表看板であるものの、受給開始年齢の引き上げという政治的難題からの解放を結果的にもたらすことになる。スウェーデンの場合、各加入者は**61**歳以上**70**歳までの間であれば何歳からでもフレキシブルに老齢年金を受給できるようにした。

その基準年齢は一応、**65**歳とされている。**65**歳受給開始時の年金給付額を**100**とすると、**61**歳受給開始の場合の給付額は**70**であり、日本の場合と変わらない（1歳あたり**6%**の減額）。また**70**歳受給開始の場合、給付額は**162**である。繰下げ増額率は、昭和**16**年**4**月**2**日以降に生まれた者に適用される日本の増額率（**70**歳受給開始の場合**142**）より大きい。

この難問からの解放は、政治的には「選択の自由」の最大尊重という表現となった。選択の自由は受給開始年齢だけでなく、夫婦間の年金分割（**1954**年以降に生まれた者のみ）、あるいは積立方式分の年金選択（**5**年ないし**10**年の有期年金または終身年金）にも認められることになった。

④賃金スライドへの切りかえ

新法における給付のスライド指標は結果論として各目賃金の上昇率に改められることになった。ただ、実際における年々の年金スライドは物価スライドのままであり、ここでもスウェーデン独特の工夫が施されている。

すなわち年々の賃金を実質で 1.6%ずつ上昇していくことをあらかじめ見込んで新規裁定時の年金給付額を決める。この場合、生涯の給付総額に変わりはないので単純な賃金スライド下の新規裁定年金額は物価スライドのみの場合の新規裁定年金額を大幅に下回ってしまう。そこで激変緩和のため、および従来への慣行に配慮し、年々の給付改定は物価スライドに従うこととする一方、実質賃金の伸びが 1.6%を上回ったり下回ったりした場合には、その分だけスライド率を上下に調整するとしたのである。

⑤年金財政における自動安定装置の導入

前述の「見なし運用利回り」を実際にはどうやって決めるのか。当初は年々の賃金総額の伸びに等しく設定する案が有力視されていたが、最終的には労働者 1 人あたり賃金の伸び率と等しくすることに決められた³⁰。

少子化が進むと労働力市場はタイトになり、1 人ひとりの賃金は上昇する可能性がある一方、現役で働く者の数が減る結果、賃金総額は社会全体としてほとんど伸びないということがありうる。この場合、見なし運用利回りを 1 人あたり賃金の伸び率で設定してしまうと、年金財政は徐々に悪化していく。

この悪化を未然に防止するため、スウェーデンでは「年金財政の自動安定装置」を新たに組み入れることになった。この装置は 1994 年のガイドラインに含まれていなかったが、その後における議論の過程で導入することが決められた。自動安定装置は 2003 年から発動される。

自動安定装置は見なし運用利回りおよび年金給付のスライド率を法律改定なしに自動調整するためのものである。そのために政府は公的年金に関するバランスシートを毎年計算し公表する。そしてバランスシート上、年金積立金（賦課方式分の見なし年金資産込み）が年金債務残高を下回る場合には、その年の「見なし運用利回り」やスライド率を下方にその分だけ調整する。他方、逆のケースでは上方に調整するというのである。ベースラインとして想定された経済成長率は年 2%（実質）、積立金の運用利回りは年 3.5%（実質）であった。なお出生率や平均余命についてもそれぞれベースラインが与えられており、それらが事前予想と異なる動きを示して上記バランスシートの内容を変えた場合にも自動安定装置は発動される。

⑥公的年金給付費の抑制

スウェーデンの公的年金給付はすでに賃金総額の 30%を占めている。制度改革の結果、その割合は 2010 年には 27.6%まで下がると見込まれており、年金受給者の平均年金額は対賃金比で徐々に低下することになる。ちなみに 40 年加入のモデル年金の場合、賃金に対する年金給付の割合（replacement rate）は旧制度下の 58%から 2010 年には 53%まで下がる。

掛金率を長期固定するので、上記のような給付水準の実質ダウンは止むをえない。ただ積立方式分の運用成績が予想以上に良好であったり賃金上昇率が実質 1.6%を超えたりすれば、給付水準は現状とそれほど変わらない可能性もある。

³⁰ 見なし運用利回りはラトビアでは年々の賃金総額の伸びに等しく設定されたので、ラトビアにはスウェーデン型の自動安定装置は不要となっている。なおイタリアでは見なし運用利回りは GDP の成長率に等しく設定され（新規裁定時まで）、裁定後の年金は物価でスライドすることにした。Franco (2001) 参照。

⑦その他

従来、障害年金は公的年金制度の一環であったが、今後は老齢年金制度から切りはなされ、傷病手当制度と統合される方向である。

遺族年金は 1990 年の時点で事実上、廃止してしまった。共働きがスウェーデンでは一般的となったからにはほかならない。

なお年金受給開始をフレキシブルにしたので、従来の部分年金制度は廃止されることになった。また従来、非課税であった 1 階の定額部分（基礎年金）は 2 階の所得比例部分と同様、全額が課税扱いとなった。

給付建て賦課方式との異同

従来、給付建て賦課方式に基づく年金制度はいくつかの厳しい批判を浴びてきた。①人口高齢化に首尾よく対応できないこと、②貯蓄率を低下させ経済成長を停滞させてしまうこと、③早期引退促進効果があること、④富裕な高齢者をいっそう豊かにしてしまうこと、⑤若者の年金制度への加入意欲を低下させること（**incentive compatibility**）、等々である。

スウェーデンの見なし掛金建て方式は賦課方式を基本としているのにもかかわらず、上述の批判のうち③④⑤を回避することができる。とくに「拠出と給付の直接リンク」により、年金制度に対する若者の根強い不信感を取りのぞくことに成功した点は特筆に値しよう。また上述の批判①は、すでに本稿の第 2 節で論じたように積立方式に財政方式を切りかえても批判を免れることができない。

要するに批判①③④⑤は賦課方式に向けられたものであったが、その批判は賦課方式に固有のものではなく、むしろ給付建ての制度の問題であること、あるいは積立方式に切りかえても同様の批判が免れないこと、が明らかになった。賦課方式は、これまで、いわば「いわれなき批判」を受けていたことになる。

なお上述の批判②については実証面でさらに研究する余地が残されており、専門家の間に意見の一致は今のところない。

次にスウェーデン方式への注目が高まるにつれ、「見なし掛金建て」と給付建ての制度がどう異なるかについても研究が進みつつある。Cichon (1999) は、その点をまず年金数理の点から明らかにしようとした。

給付建ての制度にとって定額部分を含むか否かは政策問題であり、制度に固有のものではない。ちなみにヨーロッパ大陸系諸国の年金給付は原則として所得比例型であり、それを給付建てで設計している。さらに給付建ての制度においても長期固定の保険料を設定することは可能であり、段階保険料方式が給付建てに固有であるとは必ずしも言えない。ちなみに米国やカナダでは年金保険料を長期間固定して給付建ての制度を運営してきたり、今後において運営しようとしたりしている³¹。

給付建ての制度において保険料率は一定、かつ給付は所得比例型であると仮定する。そして年金給付は、賃金上昇率で再評価された賃金の生涯平均額に基づいて算出されると想定する。さらに年金受給の繰り下げや繰り上げに伴う給付の増減は保険数理的にみて中立的に行われると仮定する。くわえて年金給付は賃金スライドされると想定する。他方、見なし掛金建て方式において、見なし運用利回りは賃金の上昇率に等しく設定される一方、年金給付は賃金スライドされると仮定する。このとき保険料が同一であれば、年金受給開始時点の年金

³¹ カナダの年金制度については Brown (1997)、Battle (2002)、高山 (2002c) を参照せよ。

額は双方で全く変わらない。つまり年金数理的にみるかぎり見なし掛金建て方式の年金は給付建ての制度でも全く同じように設計することができるというのである（詳細は Cichon (1999) の Mathematical Annex 参照）。

Cichon (1999) は、この点をとらえて次のように主張した。すなわち見なし掛金建て方式は一見すると新しい制度のように見えるものの、その中身は従来の給付建て制度の特殊例にすぎない、と³²。

年金保険料引き上げについて拒否対応が強くなり、年金保険料を長期間固定せざるを得なくなった給付建ての公的年金は、上述の意味において事実上「見なし掛金建て方式」と大差がない。ただ、給付建てにこだわるかぎり人口の高齢化や少子化あるいは経済の低迷に伴って給付水準を切り下げたり、受給開始年齢をさらに引き上げたり、給付スライド率を圧縮したりする必要性が残る。いずれも政治的な難題を将来にわたって引きずっていくことになる。

他方、見なし掛金建て方式に切りかえると、長寿化に伴い年金水準は自動的に引き下げられる。年金受給開始年齢の引き上げ問題からも解放される。また出生率や賃金上昇率が予想外に低下しても、スウェーデン流の自動安定装置を導入しておけば年金財政は安定的に維持される。年金給付の下方調整は自動的になされ、いずれも政治家の仕事ではなくなってしまう。政治家はその責任を追及されなくなる一方、「すべては社会や経済が悪いからだ」と抗弁することができるようになるだろう。

なお段階保険料主義を採用してきた国では見なし掛金建て方式への切りかえは、総じて容易ではない。低率の保険料で稼ぎだすことのできる年金給付は低額にとどまり、旧制度下の給付額と接続させることが容易でないからである。また見なし運用利回りは実際の市場利回りより低くなるおそれ大きい。その場合、制度加入者の不満を抑えつつけることができるかどうか疑問が残る。

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³² フランスの労使が協約に基づいて従来から実施している給付建て企業年金は実態としてスウェーデンの見なし掛金建て方式年金とほとんど変わらないことが最近、明らかにされている。

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Part II Japanese Experiences

Chapter 5

Major Changes in Japanese Public Pension System: Their Backgrounds and Underlying Philosophies

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5.1 Introduction³³

This chapter presents major changes in the public pension system in Japan, with highlighting their backgrounds and underlying philosophies. Before going into detailed discussions of them (Section 5.7 and Section 5.8), Section 5.2 explains the current role of public pensions in old age, and Section 5.3 focuses several characteristics of the Japanese way of thinking, while Section 5.4 clarifies the guiding principles in the design of Japanese pensions. Section 5.5 provides a brief outline of each set-up of respective public pension systems and their coverage expansion. Section 5.6 documents long-term demographic and economic changes in Japan. Section 5.9 deals with current financial situations of each pension system. Section 5.10 takes up challenges ahead. Section 5.11 concludes this chapter.

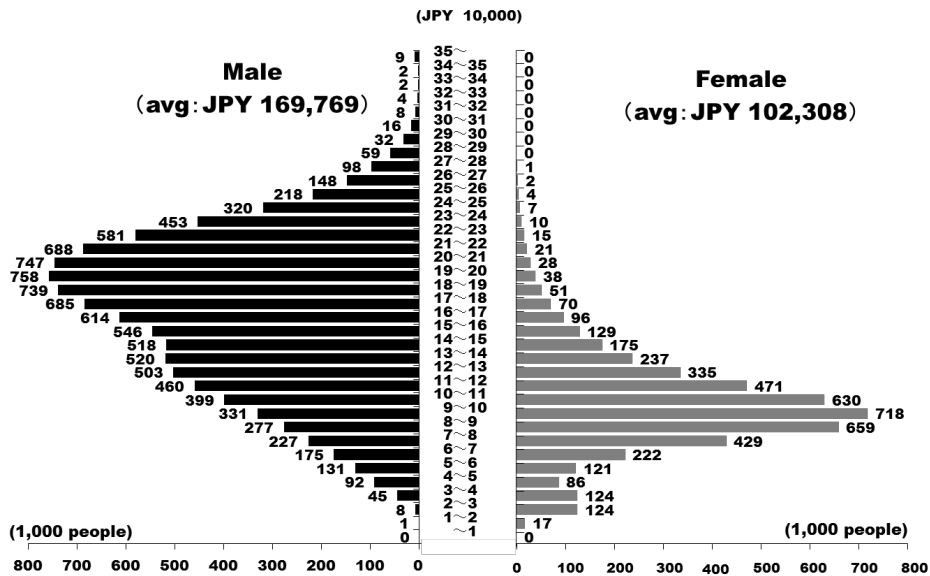
5.2 Current Role of Public Pensions in Old Age

Distribution of Monthly Old-Age Benefits

The distribution of the monthly amount of old-age public pension (PP) benefits for retired workers in the private sector is shown in Figure 5.1. It is given on an individual basis. Its average amount in March 2013 was about JPY 170,000 (RMB 9,900) for males and JPY 100,000 (RMB 5,900) for females, respectively.

³³ This chapter is a revised version of my report presented at the China-Japan joint workshop on pensions, the Institute of Population and Labor Economics, Chinese Academy of Social Sciences, Beijing, 8-9 December 2017.

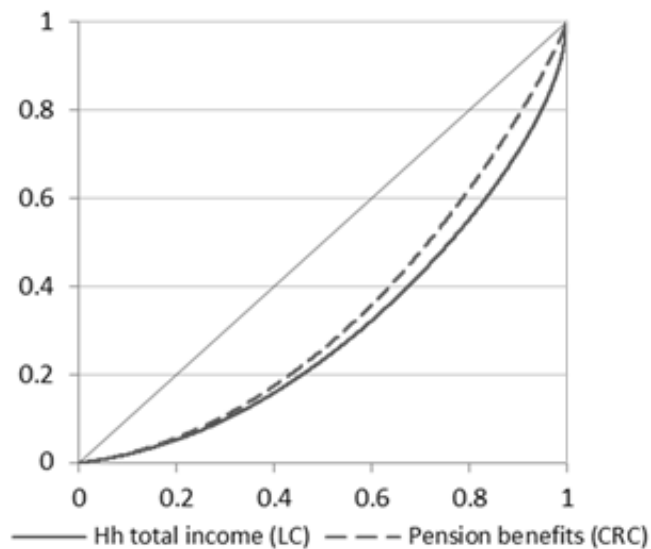
Figure 5.1 Monthly Amount of Old Age Benefits



Source: The Ministry of Health, Labour and Welfare, Japan (MHLW), *The FY 2012 Annual Report of the KNH Operation*

Although a persistent gender gap remained, PP benefits were distributed more equally than household (Hh) total income, as depicted in Figure 5.2. Incidentally, in 2007 Gini coefficient of PP benefits was 0.3339, while that of Hh total income was 0.3978.

Figure 5.2 Lorenz Curve & Concentration Rate Curve



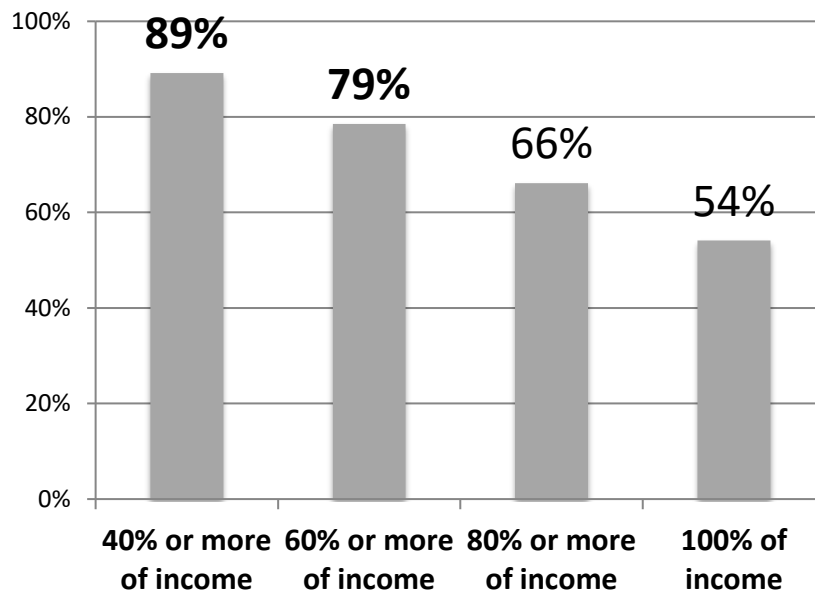
Source: MHLW, *The 2007 Comprehensive Survey of Living Conditions*

Share of PP Benefits over Hh Total Income

The PP benefits are the major income source in old age, especially for low- and middle-income groups in Japan (see Figure 5.3). For around 80% of the elderly households whose head was 65 years old or over, the PP benefits accounted for 50% or more of their household total income in 2016.

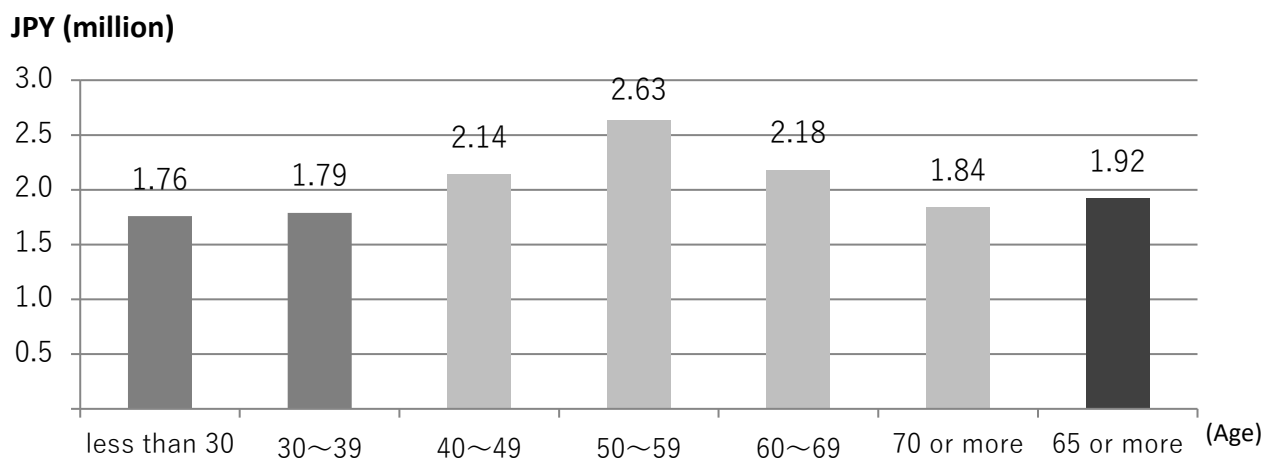
Moreover, Japanese elderly households are better off than young ones (see Figure 5.4).

Figure 5.3 Percent of Aged Receiving Social Security Benefits, by Importance Relative to Income in Japan



Source: MHLW, *The 2016 Comprehensive Survey of Living Conditions*

Figure 5.4 Average Hh Annual Income per Capita by Age in Japan



Source: MHLW, *The 2015 Comprehensive Survey of Living Conditions*

The majority of Japanese pensioners regard their PP benefits as a blessing, and receive them with deep thanks. Incidentally, on the payday of PP benefits, many beneficiaries feel happy to give their grandchild(ren) an allowance, and/or enjoy a special meal with a premium Japanese wine.

In 2015, beneficiaries of PP were near 40 million in number, accounting for 31% of the total population. The current PP system is working as one of the established social infrastructures in Japan, very robust and stable.

The road to this situation was very long and was not always smooth.

The most important person in charge of pension policy-making in Japan has been not the political leader of the ruling party (nor Minister of Health, Labour and Welfare) but Director-General of the pension bureau of Ministry of HLW, at least, for the past 40 years.

The successive Director-Generals were the best and brightest, being proved good at planning ahead, wise enough in almost all cases (but sometimes not so) in executing their jobs to flexibly adapt the pension system to a changing and unpredictable world.

5.3 Several Characteristics of the Japanese Way of Thinking

Pensions reflect the history, culture and philosophies of people living in respective countries. Japan is no exception.

Japanese have several characteristics in their mentality, way of thinking, and behavior. Among others, the following 7 features are notable.

First, Japanese traditionally have a side-by-side mentality; a desire to stay in line with others. Tall trees catch much wind. People in Japan are very sensitive to any differences, even small, and to try to eliminate them. People there have a strong perception for equality and impartial treatments.

Second, Japanese take it for granted that those who can support themselves should not behave irresponsibly. They are not allowed to impose costs on others.

Third, Japanese are usually very pragmatic, placing great significance on higher feasibility. It is true that some people in Japan prefer an idealistic approach, but they remain as always minor in number.

Fourth, vested interests and earned entitlements are seldom broken up, while expected rights by and large become an adjustment target. Any reform usually has a long transition process, moving ahead step by step. This way complicates things, however, by legislating the transition cohort by cohort. The details vary by different dates of birth, and people find them difficult to understand.

Fifth, Japanese have a weakness in dealing with the long-term problem. If some person of foresight points out that Japanese are approaching a “wall,” he/she is regarded as a heretic, and no changes take place for some time. Eventually, the wall is growing taller, and at last a majority of people are forced to realize that the wall stands very close to them.

Sixth, on the other hand, Japanese have great flexibility, responding promptly once they understand the gravity of the problem. Then, they think, “Let’s forgive and forget. It’s water under the bridge.” Incidentally, political compromises are often made by combining two different things and dividing by two.

Seventh, any system cannot be maintained without exact understanding of its validity and sincere acceptance by the majority of people. Accountability is primarily in the policy-makers, and intensive open discussions along with polite explanations are required before any legislation.

5.4 Guiding Principles in Japanese Pension Design

Currently there are 3 guiding principles.

A: There should be no public pension benefits without any contributions made.

B: The amount of pension benefits should be proportional to the length of the period of contributions actually made.

C: As far as the same cohort is concerned, those who have paid the same amount of contributions in the past should receive the same monthly amount of pension benefits.

Principle A operates as built-in incentives for persons to participate in the pension system. It premises self-reliant efforts during the working age for preventing poverty after retirement.³⁴ Public pensions are fundamentally different from public assistance (with a means-test) whose objective is poverty relief, financed by taxes. It is alright for both systems to coexist in old age.

Principle B is set to encourage people to contribute to public pensions as long as possible.³⁵

Principle C holds good irrespective of who has paid contributions; male or female, an employee or the self-employed, an employee in the private sector or a civil servant, an employee in a declining company or in a growing company. This principle reflects the Japanese strong perception for impartial treatments.

Assuming a mandatory PAYG DB pension program together with the changing demographic and economic circumstances in past Japan, Principle C resulted in income transfers from salaried workers to the self-employed persons, from present growing companies to growing companies in the past, and from males to females.

5.5 System Set-up and Coverage Expansion

The earliest Japanese pension plan was established in 1875 for military servants,³⁶ shortly after the Meiji Restoration (the construction of a modern state) whose ultimate policy agenda is “increasing national prosperity and military power.” It required no individual contributions, and was totally financed by general revenue.

In 1884, the scheme was expanded to civil servants who have the right of executing administrative orders. From the outset, the old-age benefit for military and civil servants had

³⁴ There are several exceptions, however. First, those persons who have become disabled before age 20, are qualified to receive disability pension benefits from age 20. Second, the insured persons during maternity leave and/or parental leave are exempted from paying pension contributions, while they are treated in calculating pension benefits as if they would have continued to pay contributions during such leave. Third, a non-contributory old-age pension with an income test was enforced in 1959 as a transitory provision. Fourth, dependent spouses of regular employees, typically full-time housewives are automatically entitled to the flat-rate basic benefits, without being required to make any direct individual contributions. Fifth, students of age 20 or over who are qualified to postpone their payment of pension contributions until the time after their graduation, are entitled to receive disability benefits once they become disabled during their student age.

³⁵ Currently the maximum contribution years for the 1st-tier flat-rate basic benefit are 40.

³⁶ Pensions in the world date back to the Roman Empire more than 2,000 years ago. It was Emperor C. Augustus who first created a well-established pension plan for military personnel.

a nature of an extended salary (called “*Onkyu* (恩給)” in Japanese), based on the final salary. Its level was generous.

For employees in the public sector, mutual aid associations (MAA) were gradually set up starting in 1905. The MAA required individual contributions, and provided final-salary-based retirement pensions. The similar MAAs for employees in public corporations (National Railway, Japan Tobacco, and Nippon Telegraph & Telephone) followed from 1920.

Japan experienced widespread industrialization and urbanization around the turn of the 20th century. Traditional extended-families were declining in number. Poverty in urban areas became a serious social problem in the first half of the 20th century.

Against these backgrounds, some employer (*Kanebo*) in the private sector started to pay a lump-sum retirement benefit for his employees in 1905. The similar retirement benefit plans became popular gradually in large-size private companies, while small- and medium-size companies could not afford to introduce them.

In the meantime, wars came. Quite often transportation ships were attacked and sunk. In such cases, compensation was provided to the survivors of members in armed forces, but not to those of seamen. Few people then wanted to be seamen. To improve this situation, Government decided to introduce the mandatory Seamen’s Insurance including pensions in 1940. It was a contribution-based scheme.

The establishment of the Seamen’s Insurance led blue-collar ground workers in the private sector (called “industry warriors” at that time) to also demand the introduction of pension provisions. In 1942, Government set up a social insurance system for blue-collar male workers of private companies with 10 or more employees. This was the beginning of the current KNH (*Kosei-Nenkin-Hoken*; Employees Pension Insurance). Its set-up was also to reduce the rate of wartime inflation through mandatory deduction of pension contributions from wages. The coverage of KNH was expanded to office workers and female workers in 1944.

Immediately after World War II, the Japanese economy went through a period of upheaval with hyperinflation. KNH benefits became utterly inadequate since there was no provision for indexation at the time. In the face of these circumstances, private schools decided to depart from the coverage of KNH, and established a mandatory MAA for their employees in 1954. This move was also based on their demand for similar dealing with employees in national and public schools. This move then led employees of agricultural, fishery and forestry cooperatives to follow suit, establishing their own MAA in 1959. This set-up met similar treatments with civil servants in municipal governments, which were demanded by their employees.

Just after World War II, the German-type status discrimination between civil servants and public employees was abolished in Japan, and the independent respective pension schemes for them were soon unified into the MAA for civil servants in central governments in 1956. At the same time, the former pension plan (*Onkyu*) for civil servants was abolished.

Before 1947, there was no concept of local governments in Japan. After the enactment of the Local Autonomy Law, local governments individually introduced pension arrangements

for local government employees, and in 1962 these arrangements were eventually unified in the MAA for civil servants in local governments.

In the latter half of 1950s, there were moves to provide coverage for “all” in mandatory health insurance (皆保険), which resulted in similar demands for “all” in social security pensions (皆年金), as well. At that time, there remained people not covered by KNH nor MAAs, such as the self-employed, farmers, the unemployed, persons with no occupation, and employees working in small companies.

In 1961 the National Pension scheme (*Kokumin-Nenkin*, KN) was finally introduced for them. KN was one of social “insurance” programs, which incorporated a flat-rate contribution, and provided a flat-rate pension benefit from age 65 on an individual basis. Its set-up exceptionally reflected policy-makers’ spirit of romantic adventure, as well, demanding daily hard implementation works with expensive handling costs.³⁷

The idea of a social pension which was wholly financed by general revenue, was rejected by Government (both Ministry of Finance and Ministry of Health and Welfare) in order to encourage people to prepare for their own retirement during their working age. The policy makers thought that any social pension was not likely to ensure an adequate level of benefits under severe financial constraints.

The flat-rate contribution (initially JPY 100 per month per person) was introduced because it was not easy for the authorities to implement honest reporting of income from the self-employed nor farmers. For those who were not able to pay their contributions due to financial reasons, exemptions were permitted. The flat-rate benefit for the period of exemption was one-third (equal to the government subsidy) of the normal amount, then.

For persons of age 50 or over as at 1961, a non-contributory old-age pension was to be paid from age 70 with an income test. It was a *transitory and sunset* provision. Its monthly amount was JPY 1,000³⁸ which was wholly financed by general revenue.

In summary, Japanese public pension systems were set up by different sectors of the population, step by step, taking into account each pressing need and feasibility, with searching for impartial treatments among similar population groups.

5.6 Demographic and Economic Changes

The total number of the population in Japan had been increasing from about 35 million in 1872 to around 128 million in 2010 as Table 5.1 shows. It recorded a peak in 2008, and since then it has been decreasing. It will be 88 million in 2065, and 60 million in 2100. The share of the population of age 65 or over was about 7% of the total population in 1970 when Japanese became conscious of the population aging. Its share has been steadily increasing up to 27% in 2017 and is anticipated to reach around 38% in 2050. Urbanization was rapid during the postwar high-speed growth period, while downsizing in the number of households had taken place in the latter half of the 20th century. Life expectancy has been lengthening,

³⁷ KN required JPY 23.7 billion for collecting its contributions of JPY 1 trillion, while KNH required JPY 96 million for collecting KNH contributions of JPY 1 trillion in 2015. It was about 250 times the collecting cost of KNH contributions.

³⁸ JPY 1,000 was a very small amount, just equivalent to allowances to their grandchildren.

and Japanese will survive until age 90 on average sooner or later (see Table 5.2 and Figure 5.5). On the other hand, the total fertility rate had declined sharply from 4.54 in 1947 to 1.26 in 2005. It was around 1.4 recently (see Table 5.2). Figure 5.6 depicts the working status of Japanese labor force, indicating a massive shift to employees. Instead, the number of farmers has been decreasing enormously since 1955 (see Figure 5.7).

Table 5.1 Demographic Indicators for Japan

Year	Population			No. of persons per Hh
	Total (million)	65+ (%)	urban (%)	
1920	56	5.3	18	4.9
1930	64	4.8	24	5.1
1940	72	4.8	38	5.1
1950	83	4.9	37	5.1
1960	93	5.7	63	4.5
1970	104	7.1	72	3.7
1980	117	9.1	76	3.3
1990	124	12.1	77	3.0
2000	127	17.3	79	2.7
2010	128	23.0	91	2.5

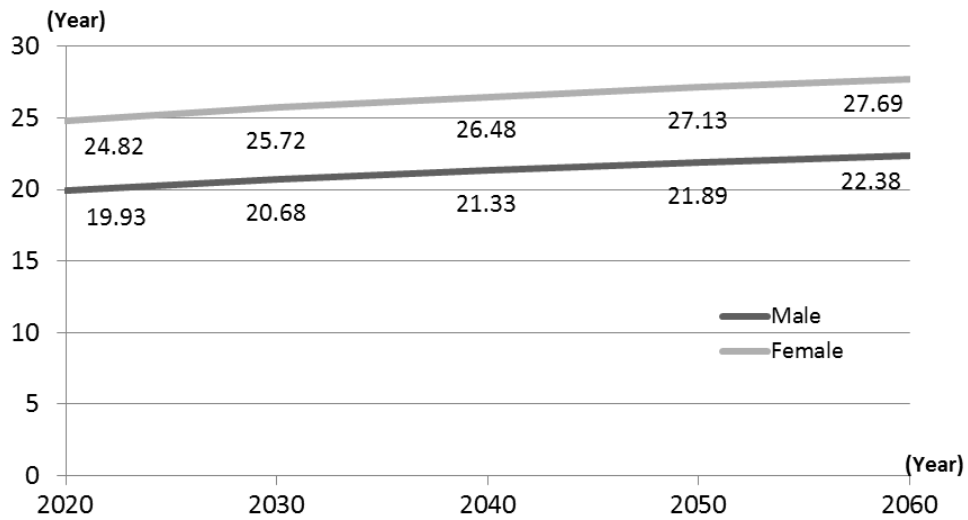
Source: *Population Census*

Table 5.2 Life Expectancy and TFR

Year	Life Expectancy (Year)				TFR
	at birth		at age 65		
	Male	Female	Male	Female	
1947	50.1	54.0	10.2	12.2	4.54
1960	65.3	70.2	11.6	14.1	2.00
1970	69.3	74.7	12.5	15.3	2.13
1980	73.4	78.8	14.6	17.7	1.75
1990	75.9	81.9	16.2	20.0	1.54
2000	77.7	84.6	17.5	22.4	1.36
2010	80.0	86.3	18.7	23.8	1.39

Source: National Institute of Population and Social Security Research (NIPSSR), *Demographic Statistics*

Figure 5.5 Life Expectancy at Age 65



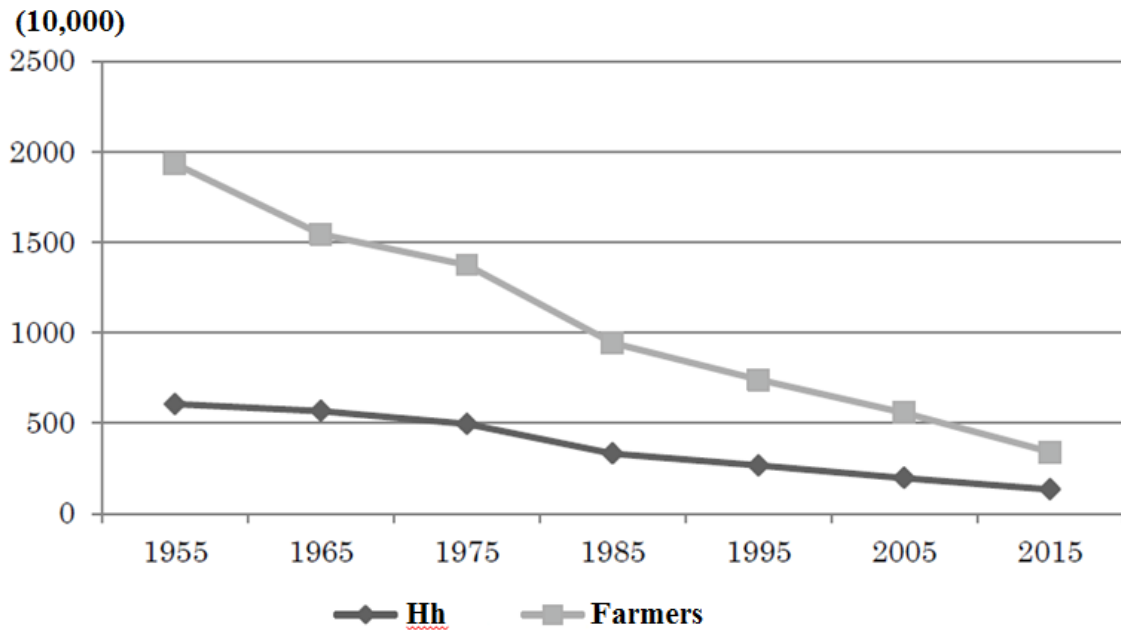
Source: NIPSSR, *The 2017 Population Projection for Japan*

Figure 5.6 Working Status



Source: *Population Census*

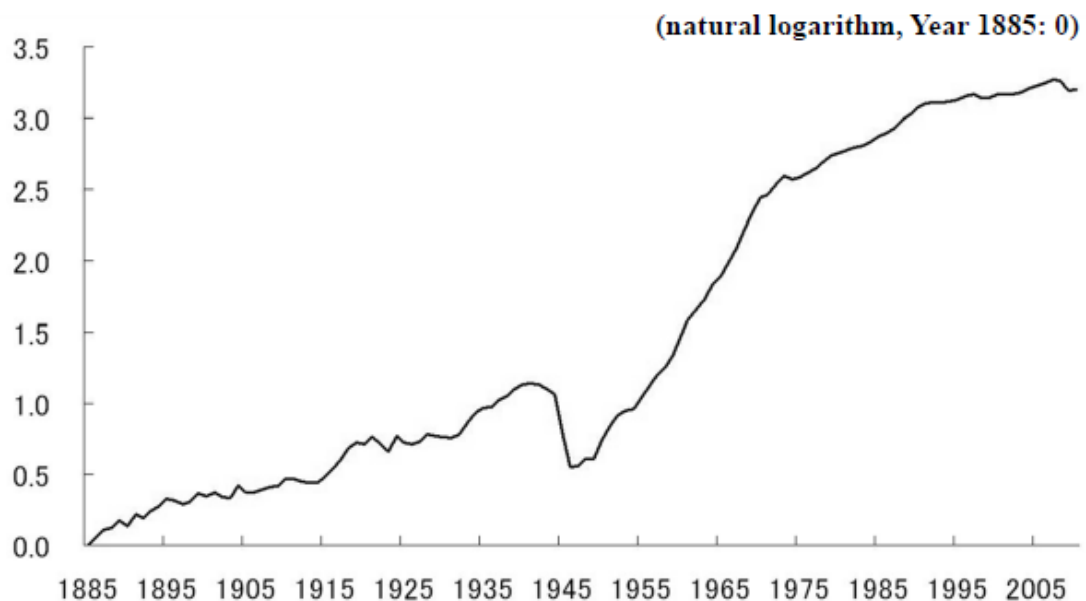
Figure 5.7 Number of Farmers' Hh and Farmers



Source: Ministry of Agriculture, *Census of Agriculture*

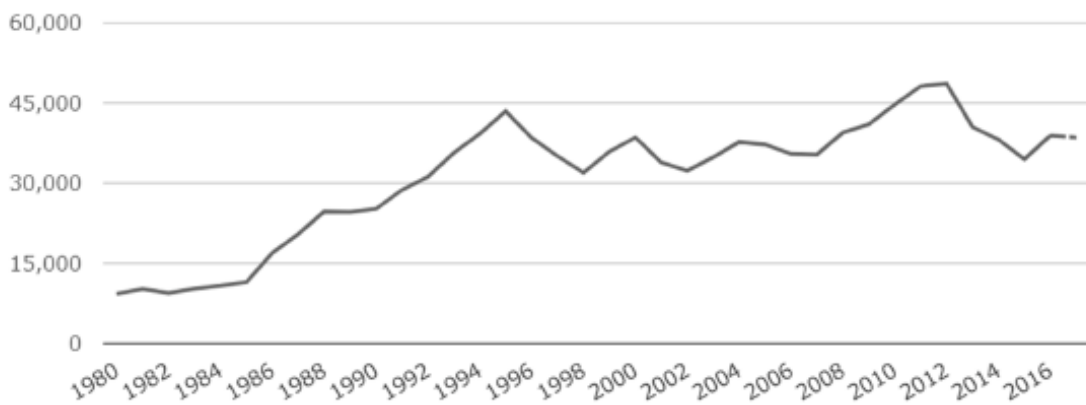
Figure 5.8 presents the long-term changes in real GDP per capita in Japan. It shows high-speed growth for 18 years between 1955 and 1973. During that period, the annual rate of its growth was more than 10% in real terms. Thereafter, the growth rate had been decreasing, and it recorded negative from 1998 to 2000, from 2008 to 2009, and in 2011 in real terms. Recently GDP per capita of Japan was around USD 40,000 in nominal terms (see Figure 5.9).

Figure 5.8 Real GDP per Capita



Source: Yasushi Iwamoto's estimates (https://blogs.yahoo.co.jp/iwamotoseminar/30832608.html?__ysp=77yR5Lq65b2T44Gf44KKR0RQ44Gu6ZW35pyf55qE5o6o56e7)

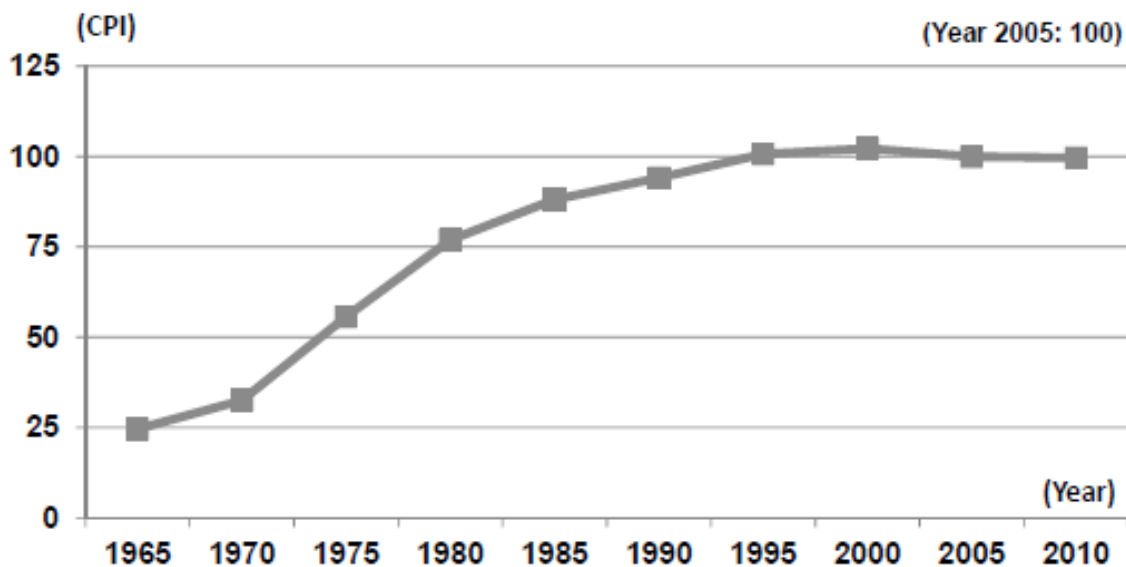
Figure 5.9 Nominal GDP per Capita (USD)



Source: *System of National Accounts*

Figure 5.10 draws changes in CPI. CPI jumped up annually by 23% in 1974, whereas its annual changes turned negative from 1999 to 2003, and from 2009 to 2012. Japan has been suffering from deflation since 1999 (see Figure 5.11). Negative changes in nominal wages were also observed from 1998 (see Figure 5.12). Annual increases in nominal wages were once more than 10% for 15 years from 1962, however. Most dramatic were ups and downs of stocks and shares prices. As is shown in Figure 5.13, they went up to JPY 38,916 on 29 December 1989, but fell down sharply under the bubble burst to JPY 7,608 on 28 April 2003, and further to JPY 7,163 just after the financial crisis on 27 October 2008.

Figure 5.10 CPI



Source: *Statistics on CPI*

Figure 5.11 Changes in CPI (Yearly Average)

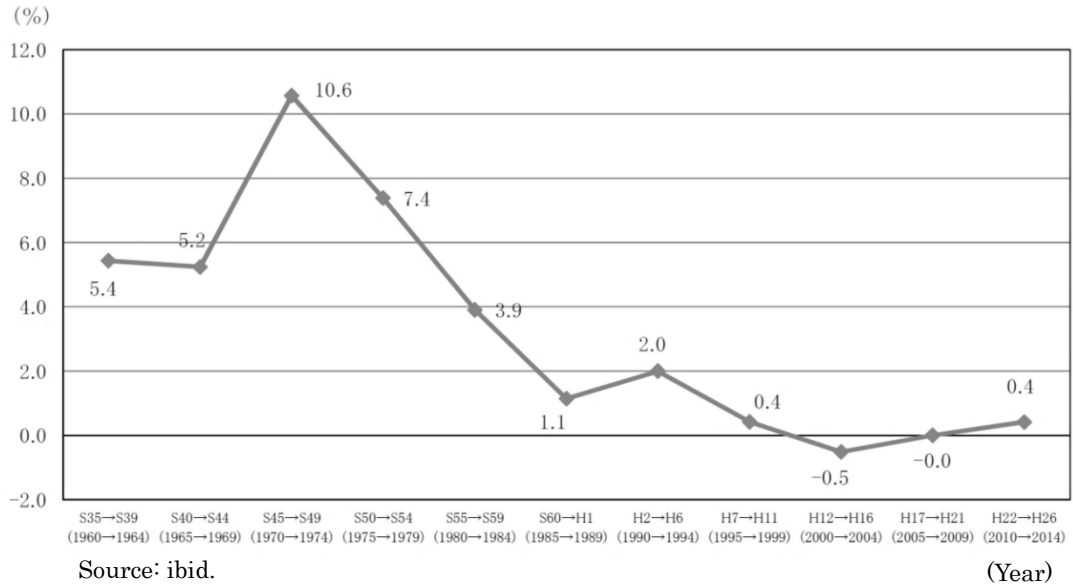


Figure 5.12 Nominal Changes in Monthly Cash Earnings (Yearly Average)

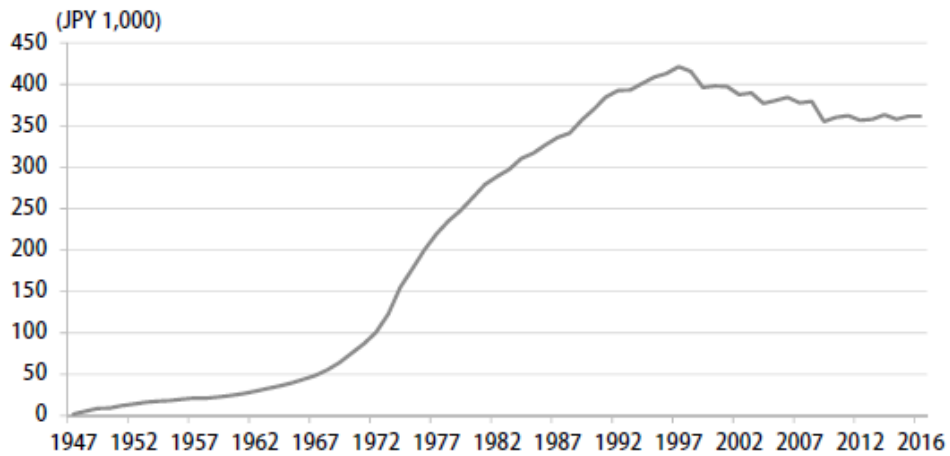


Figure 5.13 Changes in Stock Prices: Nikkei Stock Average 1949-2015 (JPY)



The nominal rate of interest from time deposits used to be long regulated at around 5.5% per year. But, just after its 1994 de-regulation, it went down rapidly to near 0% (see Table 5.3).

Table 5.3 Nominal Rate of Interest per Year

Year	Rate (%)	Year	Rate (%)
1950	2.90	1995	1.96
1960	4.50	2000	0.15
1970	5.00	2005	0.03
1980	7.00	2010	0.03
1990	4.90	2015	0.035

Note: 1-year time deposits for postal savings

Source: Bank of Japan, *Time Series Data*

5.7 Major Changes in KNH/KN

The 1948 KNH Reform

Just after World War II, a hyperinflation occurred in Japan. Namely, the CPI increased 100 times between October 1945 and April 1949. The hyperinflation turned the KNH funded reserve into heaps of worthless paper, and the earned pension entitlements of employees became a nil, since they were a contract in nominal terms.

Almost all Japanese were forced to manage to survive near a starvation level. Government reduced the KNH contribution rate from 11% to 3% in 1948.

The 1954 KNH Restructuring

Meanwhile, employers strongly asked to change KNH into a flat-rate benefit/ contribution system with no earnings-related part, to control their contributions as small as possible. Some academicians also advised to do the same thing to achieve a different objective of ensuring a minimum income, following the 1942 *Beverage Report* in the UK. But, government officials stuck to the ongoing earnings-related pension.

A compromise came in 1954 when the first old-age benefit of KNH was to be paid to retired coal miners who had specially-qualified shorter minimum covered years. The solution was two-tier benefits (the 1st-tier flat-rate portion and the 2nd-tier earnings-related one) and an earnings-related contribution. The amount of 1st-tier benefits was set to equal the amount of 2nd-tier ones for average male wage-earners. The perception for equality was thus embedded partly in KNH.

Government planned to increase the contribution rate and the upper limit of the contribution base, but employers were fiercely against this plan. The conclusion was that the

contribution rate was to remain unchanged at 3% for the next 5 years, and that the actuarial review at least every 5 years was legislated to change the contribution rate (together with the range of the contribution base³⁹ to adapt to changing demographic and economic circumstances.

Based on an increasing life expectancy, the normal pensionable age (NPA) for male employees was to increase from 55 to 60 step by step by 1973. But the NPA for females remained unchanged at 55. At that time, a majority of them retired upon their marriage, receiving the lump-sum withdrawal refund from KNH with their pension record of previous years entirely deleted.

The amount of KNH earnings-related benefits was proportional to the average of the lifetime annual wages. Through hyperinflation, some parts of past wages became a nil in real terms. Government then decided to newly set the KNH lower limit of monthly wages to JPY 3,000, and to regard the past wages less than this lower limit as being equal to JPY 3,000 in calculating benefits.

This caused a funding shortage, which induced transfers from general revenue to increase from 10% to 15% of the aggregate amount of KNH benefits. Note that transfers from general revenue were initially introduced as a pledge of government commitments to public pensions for the private-sector employees.

The High-speed Growth Period

In 1962, KNH began to pay old-age benefits to retired workers with 20 years coverage (the normal minimum requirement). Their level was about one third of old-age benefits for retired civil servants, and was not charming at all. This fact might induce further dropouts of some employee groups from KNH, establishing another MAA.

In order to prevent such a move, Government planned to substantially increase the level of KNH old-age benefits. A solution was to introduce “*Monthly Pension Benefits of JPY 10,000* (1 万円年金)” in 1965. The amount of JPY 10,000 indicated a replacement rate of 40% for average male wage-earners (lifetime average monthly wage: JPY 25,000) with 20 years coverage. The accrual rate for the earnings-related portion was lifted from 0.6% to 1.0%, and the unit price of the flat-rate portion was set to equal JPY 250.

At the same time, the KNH contribution rate was increased to 5.5% in 1965. The government proposal was a rise to 6.0%, but politicians finally cut part of its rise, and instead they decided to increase transfers from general revenue from 15% to 20%.

Government explained that the contribution rate would be around 9% in 40 years, assuming its finance on a (modified) funded basis. Mr. Kiyoshi Murakami (村上清), a pension expert of deep insight outside government, pointed out, however, that it would be 36%, assuming that its finance would be surely on a PAYG basis in the future. Mr. Murakami was the first to acutely explain that KNH has been basically financed on a PAYG basis since the

³⁹ Currently the upper limit of the contribution base is set to equal two times the average amount of monthly earnings of all insured employees covered by KNH.

1954 reform. Government officials hardly discarded their old thinking, and it took about 10 years for them to finally accept Mr. Murakami's opinion.

In 1966 the level of KN old-age benefits was significantly graded up to ensure the same monthly amount of JPY 10,000 for a self-employed couple with minimum 25 years of coverage. Namely, the unit price for the flat-rate benefit was increased to JPY 200. A strong political desire dominated this reform for attaining equality between employee households and self-employed ones, at the sacrifice of KN healthy financing in the future.

In the early 1970s, there were loud and intense voices for a further drastic increase in PP benefits for the elderly under long lasting high-speed economic growth. Retired persons were left behind, enjoying few dividends from economic growth. They were accordingly regarded as pitiful.

In 1972, labor unions pressed ahead with a strike on pensions as a single issue for the first time, while several agitators from the academic circle urged the general public a decumulation of funded pension reserves at a stroke, to immediately deliver generous benefits to retired persons.

Against a backdrop of these situations, pension policy-makers called 1973 as "*The Year of Pensions*" and implemented "*Monthly Pension Benefits of JPY 50,000 (5 万円年金)*." They introduced a new idea of a 60% replacement rate in setting KNH old-age benefits for the average male wage earners with 27 years⁴⁰ of coverage, by increasing the unit price of the flat-rate portion to JPY 1,000 together with legislating the update of past wages every five years at least in calculating the amount of benefits for each person.

The automatic benefit-indexation to CPI on an annual basis was also enforced.

Regarding KN old-age benefits, it was remarkably increased in 1973 in a similar way with KNH benefits; monthly benefits of JPY 50,000 (for couples with 25 years⁴¹ of coverage) came true. At the same time, the monthly amount of the non-contributory old-age pension (for those of age 70 or over, with an income-test) was lifted to JPY 5,000.

A rosy picture for the future became extreme, dominating all over Japan. Despite this roaring and crazy situation, Mr. Murakami, a man of cool head with foresight, exceptionally warned just before discussions on the pension reform bill in the Diet in early 1973, that the typical KNH replacement rate would reach around 80% in the future due to lengthening covered years up to 40, thereby proposing a new upper limit to the replacement rate. His warning was completely ignored at that time.

His message turned to be correct, however, and it was more than 10 years after that policy makers followed his advice, starting to reduce the level of KNH old-age benefits.



The Late Mr. Kiyoshi Murakami

⁴⁰ The newly qualified old-age male pensioners of KNH in 1973 had 27 years of coverage on average.

⁴¹ 25 years were the minimum covered years for receiving the KN old-age benefit.

Reforms with Pains and Tears

In October 1973, just after the proclamation of the pension reform act, the first oil crisis suddenly took place. The onset of slower economic growth along with a rapid population aging forced the future picture of Japan to get darker and darker. The colorful dreams that Japanese youth had placed in their economy were rapidly destroyed. The period of diminished expectations started. Policy makers began to take a different turn to reduce pension benefits. Their reform proposals became quite unpopular.

In 1976, Government gave up the existing idea of ensuring the same amount of pension benefits to the self-employed as the one to employees in the private sector. The normal KN old-age benefit for a couple was increased to JPY 75,000 per month, while the typical KNH benefit was lifted to about JPY 90,000.

In 1980, Ministry of Health and Welfare proposed an increase in the KNH normal pensionable age (NPA) for males from 60 to 65 in 20 years. It faced strong oppositions from both employers and trade unions, and from Ministry of Labour, as well. Government was forced not to include this proposal in the 1980 reform bill.

In 1983, current account of the KN turned into a deficit. As noted before, KN started with a very small contribution, which was politically difficult to increase thereafter. The KN benefit, on the other hand, became more and more generous. An enormous shift of the population from farmers to salaried-men during the rapid growth period obliged some cost-sharing scheme between KN and KNH/MAAs to be necessary. There was little room for MOF to increase transfers from general revenue to KN.

Under a superb and outstanding leadership by Mr. Shin-ichiro Yamaguchi (山口 新一郎), Director-General of the pension bureau of MHW, new legislation was enacted in 1985, introducing substantial changes in Japan's entire PP system.

The present system is based on this reform, which became effective in 1986. Under the new system, all sectors of the population receive a "common" KN flat-rate basic benefit. KNH and MAAs for employees provide a supplement on the top of the basic benefit, related to earnings.



The Late Mr. Shin-ichiro Yamaguchi

The 1st-tier flat-rate basic benefit of all the pension systems (entitled after fiscal 1961) has been financially integrated.⁴² Its aggregate annual cost is shared by all on a fully PAYG basis. This cost sharing by pension contributions is in proportion to the number of current insured persons of respective systems. Through this scheme, income is transferred from present employees to self-employed persons and farmers in the past.

⁴² The basic idea was that each amount of contributions made so far by insured persons of KNH and MAAs was more than the amount of contributions made by those of KN, and that the former amount of contributions could be regarded to partly include the latter amount. Namely KN was regarded as if it would have been also applied to participants of KNH and all MAAs since 1961. The flat-rate benefit of KN was renamed as the "common" basic benefit for all pension systems, then. Principle C stated above in Section 5.4 of this chapter underlay that integration.

Incidentally, a majority of children and grandchildren of past farmers are employees today. Those children wanted their contributions to first finance old-age benefits of their own parents and grandparents. Their sincere desire of this line justified the cost sharing scheme above mentioned.

The 1985 reform has changed some requirements of KN; the full old-age pension of JPY 50,000 per month per person became payable after 40 years of contributions, provided all the contributions were made before age 60. Special *transitional* provisions were introduced for those born after 1926 with at least 25 years of coverage. Namely, the unit price for the basic benefit was set to vary from JPY 1,250 to JPY 2,000 depending on different dates of birth. These people were able to receive the maximum pension even with fewer contribution years, provided they had been contributing without breaks since 1961.

After the 1985 reform, if a husband contributed to KNH/MAAs, his dependent wife also became automatically entitled in her own name to the flat-rate basic benefit, and she was not required to make any individual payments to the PP system. With this arrangement, the women's right for pensions has been comprehensively established.

Through the 1985 legislation, the accrual rate for the earnings-related component of KNH old-age benefits was to be reduced gradually from 1.0% per year to 0.75% cohort by cohort. The reductions corresponded to the longer average contribution years of the younger cohorts.

On average, each cohort was expected to receive 30% of his career average monthly real earnings as the earnings-related component. Consequently, the typical KNH old-age benefit for a male employee (with average monthly salary of JPY 254,000) and his dependent wife was JPY 176,000 per month, indicating a 69% replacement rate.

The NPA for KNH female employees was increased from 55 to 60 gradually by 2000, while the lump-sum withdrawal refund was abolished. In addition, the KNH coverage was expanded to companies with 5 or more employees, and the pensions-part of the Seamen's Insurance was absorbed in KNH.

In total, the expected KNH aggregate benefits were to be virtually reduced by 25% in the future through the 1985 reform.

Transfers from general revenue were changed to concentratedly finance one third of the aggregate amount of the common basic benefit. There were no subsidy for the earnings-related component, any longer.

Since 1980, the biggest political issue on pensions had been when to start benefit payments for employees. Government proposed to increase the NPA once again in 1989, but, the proposal was turned down by the Diet.

In summer 1993, the political scene changed dramatically. The Liberal Democratic Party, which had been ruling Japan ever since the end of the World War II, fell from power. It was replaced by a coalition of opposition parties (excluding the Japanese Communist Party). It was this coalition that prepared the 1994 legislation. The approved legislation guaranteed that earnings-related benefits for retired employees between 60 and 64 would be paid without any reduction. The basic benefits for this age group were to be phased out by stages

(from 2001 to 2013 for men, and from 2006 to 2018 for women). Eventually nobody under 65 would receive full basic benefits.

Up to October 1994, benefits were adjusted in line with the hikes in gross wages every 5 years, but from November 1994, the benefit indexation in net wages started.

Meanwhile the future picture got much darker. Owing to negative growth of the Japanese economy recorded in 1998, Government was forced to temporarily freeze increases in the KNH contribution rate from 1999. The purpose of the 2000 legislation was to control the KNH future contribution rate to be no more than 20% by reducing aggregate pension benefits by 20% by 2025.

Following 3 measures were adopted to attain this purpose. First, the earnings-related benefits were to be reduced by 5%; more specifically, the former annual accrual rate of 0.75% was to be decreased to 0.7125% from 2000. Second, both flat-rate basic benefits and earnings-related benefits once paid were to be CPI-indexed after age 65 from 2000. Third, the NPA for earnings-related old-age benefits was to be increased step by step from age 60 to 65 for men from 2013 to 2025, and for women from 2018 to 2030.

Since 1995, contributions have been deducted from bonuses. The initial rate was 1% of the bonuses, but these contributions were not used for benefit calculation purposes. The benefit/contribution base has been shifted from monthly standard earnings to annual earnings including semi-annual bonuses since 2003. The shift induced no changes in aggregate income from contributions in the starting year; the existing contribution rate of 17.35% over monthly standard earnings for the KNH was changed to 13.58% over annual earnings from 2003. At the same time, the new accrual rate of 0.5481% was applied. The special 1.0% contributions from semi-annual bonuses were abolished then and instead, the same 13.58% was levied on semi-annual bonuses.

In 1999 CPI recorded a negative change of -0.3%. This was the start of persistent deflation in Japan. The ruling parties were reluctant to cut the amount of PP benefits by applying the automatic indexation, and decided to temporarily freeze the nominal amount of benefits from 2000. A cut in the nominal amount of PP benefits eventually got underway from 2003.

In 2001, current account of the KNH fell into a deficit. Financial stresses were becoming ultra-severe.

In order to make another overhaul of the PP system, Government submitted its reform bill, which was enacted in 2004. The gist of the 2004 reform is as follows. First, the KNH contribution rate was to be raised every year from 2004 by 0.354 percentage points until 2017, after which it will remain fixed at 18.3%. The similar increases in KN monthly contributions were enforced until they plateau at JPY 16,900 in 2017 (at 2004 prices). Then the PP system virtually move to a PAYG "DC" plan after 2017.

Second, a new indexation formula that takes demographic factors (the decline in the number of insured persons and the increase in life expectancy) into account was introduced as an automatic balance mechanism. It was expected to bring a negative adjustment of about 0.9 % every year in real terms to pension benefits, thereafter.

Third, the subsidy from the national treasury for the basic pension was to be raised in stages from one third to one half by 2009. Increases in this subsidy were to be financed by the earmarked consumption tax.⁴³

The new indexation was expected to work as a trump card for ensuring the long-term financial sustainability of the PP system. It was designed in its legislation not to apply during deflation, however. Policy makers at that time assumed deflation as a temporary phenomenon, soon returning to inflation. The outcome was contrary to their assumption. The persistent deflation did not end before 2014, and the automatic balance mechanism had not been activated until then.

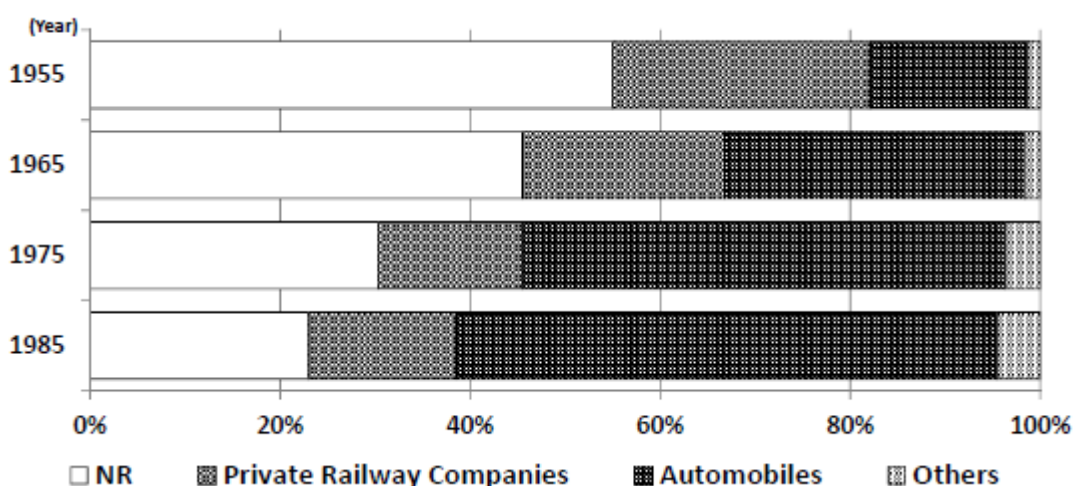
In the meantime many pension experts claimed that the new indexation formula should follow irrespective of inflation or deflation, while politicians were reluctant to change the existing rule. A compromise came in 2016; the legislated indexation be suspended during deflation, while unrealized parts of indexation during deflation be carried over for activation to times of inflation from 2018. Also, benefits are to be indexed, for the time being, to the lower value of changes in CPI or those in wages from 2021.

5.8 Major Changes in MAAs

MAA for National Railway (Japan Railway) Employees

In the rapid growth period, motor ways were intensely constructed throughout the country, and thereby main land transport-means shifted from railways to automobiles/lorries at warp speed (see Figure 5.14). National Railway (NR) Company came to have many redundancies, facing serious and persistent deficit operations. It was finally privatized into several Japan Railway (JR) companies in 1987.

**Figure 5.14 Development of Motorization:
Domestic Passengers Traffic (%)**



Source: Ministry of Transport, *Annual Statistical Report*

Note: in terms of man-kilometers

⁴³ The outline of the current PP system in Japan is given by Takayama (2005).

Meanwhile the number of NR/JR employees sharply decreased from 610,000 in 1947 to 196,000 in 1990. Current account of MAA for NR employees turned into a deficit in 1976. Painstaking reform measures had been introduced one after another since then.

In 1980, the NPA for them was to increase from 55 to 60 by stages. The contribution rate was rapidly lifted multiple times from 10.24% in 1980 up to 19.09% in 1991.

From 1985, automatic indexation of benefits for this group was exceptionally suspended for the following 5 years. At the same time civil servants in Central Government were forced to accept a special add-on contribution of 1.06% to provide a support to retired persons of NR/JR.

From 1990, cost-sharing among all MAAs and KNH temporarily started which covered KNH-equivalent old-age benefits entitled since 1961.

Final solutions came in 1997 when MAA for JR employees was absorbed in the KNH scheme together with MAAs for JT and NTT employees.⁴⁴ Incidentally a majority of children and grandchildren of NR retirees were then the participants in KNH. It took about 20 years for MAA of NR/JR employees to completely overcome its financial difficulties.

MAAs for Civil Servants

The mergers above mentioned were all triggered by the financial deterioration of each MAA due to changes in the industrial structure. Meanwhile, MAAs for civil servants were keeping their finance healthy. Nevertheless, they were forced to repeatedly reform their basic designs to neutralize acute jealousy from the general public.

The level of old-age benefits for civil servants used to be very generous; they were based on their final salary and their maximum replacement rate was 70% from the outset. In addition, their employment status has been most stable in Japan, with no risk of unemployment. These were main causes for jealousy. Jealousy against civil servants became intensified in the era of diminished expectations.

In 1980, the NPA for all MAAs was to increase from 55 to 60 step by step, irrespective of men or women. In 1982, due to financial difficulties in National Budget, Government suspended to activate nominal increases in annual salaries of civil servants. This decision was done in spite of recommendations made by National Personnel Authority which indicated a 4.58% lift-up, equivalent to the average increase in annual salaries of employees in the private sector.

In 1986, an overhaul of all MAAs was carried out just in line with the KNH drastic reform. First, all participants in MAAs became to receive a common KN flat-rate basic benefit. MAAs shifted to provide the 2nd-tier earnings-related component.

Second, all MAAs abandoned the final salary base and instead introduced a base of career average lifetime real earnings, which is the same as that for KNH. Each amount of old-age benefits paid to existing retirees from the public sector was newly re-calculated, and if the re-calculated amount was less than the amount calculated by the former formula, then

⁴⁴ MAA for employees of agricultural, fishery and forestry cooperatives was also absorbed in KNH in 2002.

no benefit indexation was to be applied as long as the situation remained unchanged. Consequently, some civil-servant retirees faced a real reduction of annual old-age benefits by 40% (from JPY 5.0 million to JPY 3.0 million, for example) in the long run, which they were forced to accept. Moreover, the accrual rate was to be reduced from 1.0% to 0.75% in 20 years ahead, as was seen also in KNH.

Third, MAAs (except MAA for NR employees) solely set up the 3rd-tier PP benefit which was equivalent ultimately to 20% of the 2nd-tier one. This part was called an occupational addition. The main reason for this increment was a smooth transition from the existing generous scheme. The accrual rate for 3rd-tier old-age benefits was to decline from 0.5% to 0.15% in 20 years. Another reason of the occupational addition for civil servants was to compensate economic losses attributable to the constraints imposed upon them; they are not allowed to commit strikes, and to trade stocks and shares, either. The 3rd-tier portion for civil servants induced long-lasting jealousy discussions, however.

The NPA of MAAs was to increase gradually to 65 from 2001 in the same timing of execution as that of KNH for men.

In 2004, KNH enforced another overhaul, searching for its long-term financial sustainability. MAAs for civil servants followed suit, introducing essentially the same reform contents.

In 2007 Government submitted a reform bill to the Diet to unify all the schemes for employees by extending the KNH coverage to civil servants. However, shortly afterwards the ruling parties lost majority in the Upper House, and eventually the bill was nullified.

In 2009 the ruling parties were replaced by the Democratic Party of Japan, which prepared the 2012 legislation. Its content was quite the same as that of the 2007 reform bill except its enforcement dates. Through the 2012 legislation, MAAs for civil servants was to be abolished in 2015, and they have become participants in KNH since then. The ultimate goal to have equal pension-treatments between civil servants and private-sector employees was achieved at last.

In the meantime, the unprecedented Great East Japan Earthquake and Tsunami suddenly broke out on 11 March 2011. Then the prime minister of Japan proposed to cut the amount of annual salaries of civil servants by 10% for partly financing required reconstruction expenses at the devastated area.⁴⁵ The conclusion was a cut of 7.8% for 2 years from 2012.

From 2013, the annual amount of sunset benefits of “*Onkyu* (恩給)” paid to surviving retired public officials was reduced at once by 27% in nominal terms. Those pensioners whose annual benefits partly included “*Onkyu* (恩給)” who were receiving a total of old-age benefits more than JPY 2.3 million, were forced to receive a reduced amount by a maximum 10%.

In 2015 the 3rd-tier PP benefit for civil servants was abolished. Alternatively in the same year, a new funded DC plan with a contribution rate of 1.5% was established as their non-public occupational pension.

⁴⁵ This proposal was made by following the famous Chinese words “Take an initiative to do things as what you said” (先從隗始 《戰国策》).

5.9 Current Financial Situations

Table 5.4 demonstrates the long-term changes in the number of insured persons for respective pension schemes. Its number for KNH has been increasing, while the number for MAAs of civil servants started to gradually decrease in 1990s.

Table 5.4 Number of Insured Persons (10,000)

FY	KNH	MAA (1)	MAA (2)	MAA (3)	MAA (4)	MAA (5)	KN
1965	1,867	76	35	111	229	14	2,002
1975	2,389	80	45	116	300	27	2,588
1985	2,723	62	49	116	330	35	2,534
1995	3,281	47	51	113	334	40	6,995
2005	3,302	—	—	108	307	45	6,988
2015	3,684	—	—	(106)	(283)	(53)	6,535

Notes: MAA→(1) public corporations, (2) agricultural cooperatives, (3) central government, (4) local governments, and (5) private schools. Shaded parts of KN denote figures under the new regime.

Source: Actuarial Subcommittee, MHLW (2017), *Annual Actuarial Report on the Public Pension Plans in Japan: FY2015*

The number of old-age pension beneficiaries from all programs has been rapidly increasing, as is shown in Table 5.5. Consequently, the support ratio of pensions for all systems has been steadily decreasing (see Table 5.6).

Table 5.5 Number of Old-age Pension Beneficiaries (10,000)

FY	KNH	MAA (1)	MAA (2)	MAA (3)	MAA (4)	MAA (5)	KN
1965	20	13	0.3	5	8	0.2	—
1975	107	21	4	20	37	0.6	273
1985	334	44	9	39	83	2	685
1995	659	46	13	57	127	5	1,687
2005	1,152	—	—	63	158	9	2,430
2015	1,568	—	—	69	205	13	3,096

Notes: the same as Table 5.4.

Source: *ibid.*

Table 5.6 Support Ratio

FY	KNH	MAA (1)	MAA (2)	MAA (3)	MAA (4)	MAA (5)	KN
1965	93.4	5.8	116.7	22.2	28.6	70.0	—
1975	22.3	3.8	11.3	5.8	8.1	45.0	9.5
1985	8.2	1.4	5.4	3.0	4.0	17.5	3.7
1995	5.0	1.0	3.9	2.0	2.6	8.0	4.1
2005	2.9	—	—	1.7	1.9	5.0	2.9
2015	2.4	—	—	1.5	1.4	4.0	2.1

Notes: the same as Table 5.4.

support ratio = (the number of insured persons)/(the number of old-age pension beneficiaries)

Source: *ibid.*

The contribution rates had been lifted up by stages (see Table 5.7). In December 2017, the rate of KNH contribution (combined for employees and their employers) was 18.3%, and has already been fixed forever at the current level. The KN contribution was JPY 16,490 per person per month.⁴⁶ It has been also fixed forever in real terms.

The transfer from general revenue amounted to JPY 11.78 trillion in 2017, which accounted for 12.1% of the national budget.

The aggregate amount of PP benefits was JPY 54.9 trillion in 2015, around 14.1% of GDP in Japan.

⁴⁶ JPY 16,490 was equivalent to JPY 16,900 at 2004 prices.

Table 5.7 Contribution Rate (%)

FY	KNH	MAA (1)	MAA (2)	MAA (3)	MAA (4)	MAA (5)
1956	3.0	7.16	—	—	—	—
1966	5.5	7.92	9.6	7.04	6.72	7.4
1976	9.1	8.92	9.8	7.44	7.52	8.0
1986	12.4	16.99	10.9	11.4	11.04	10.2
1996	17.35	20.09	18.54	18.39	16.56	12.8
2006	14.642	15.69	15.412	14.767	14.092	11.168
2015	17.828	—	—	17.278	17.278	14.354

Notes: the same as Table 5.4, except MAA (1) → National (Japan) Railway. The contribution base has been changed to include bonuses as well since FY 2003.

Source: *ibid.*

Table 5.8 Income Statement**(1) KNH (JPY trillion)**

FY	Income (Contr.)	Outgo	Balance
2012	33.32 (24.15)	36.81	△3.49
2013	35.78 (25.05)	37.63	△1.86
2014	40.49 (26.32)	38.71	1.78

(2) KN (JPY trillion)

FY	Income (Contr.)	Outgo	Balance
2012	3.86 (1.61)	4.31	△0.45
2013	3.92 (1.62)	4.10	△0.18
2014	3.84 (1.63)	3.74	0.10

Source: *ibid.*

Recently, income statement of both KNH and KN was in a deficit (see Table 5.8).⁴⁷ The total amount of PP funded reserves in 2015 was around JPY 200 trillion (see Table 5.9), which was equivalent to about 38% of GDP in Japan.

⁴⁷ KNH and KN enjoyed windfall gains from investment out of the funded reserves in 2014.

Table 5.9 Funded Reserves (as at the end of March 2015)

	FR (JPY trillion)	Reserve Ratio
KNH	136.7	4.1
KN	9.3	5.0
MAA (1)	7.8	5.1
MAA (2)	42.5	9.4
MAA (3)	4.2	8.9

Notes: MAA (1) → Central government, (2) local government, and (3) private schools.
Reserve Ratio denotes the amount of funded reserves over the aggregated annual amount of benefits.

Source: *ibid.*

5.10 Challenges Ahead

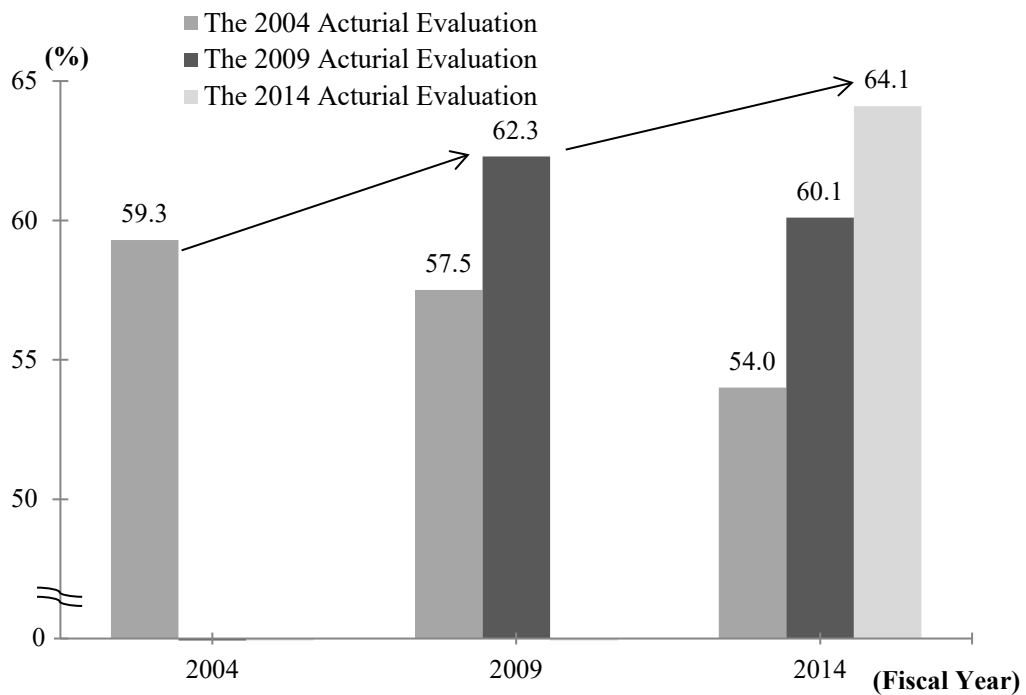
Unexpected Increases in the Replacement Rate

Japan has been suffering from deflation for nearly 2 decades. During deflation, the automatic balance mechanism was suspended to work. Instead, the benefit indexation to CPI has been in operation. Moreover, the level of take-home pay for actively working employees decreased more than the decrease in CPI in nominal terms during this period.

Consequently, the replacement rate for the KNH “model” male employee with his full-time housewife was increased from 59% in 2004 to 64% in 2014, as is depicted in Figure 5.15. This outcome is against the spirit of the 2004 reform.

The 2016 legislation on redesigned indexation rules is expected to slowly improve these situations.

Figure 5.15 Replacement Rate



Source: MHLW, *The 2014 Actuarial Report on Public Pensions*

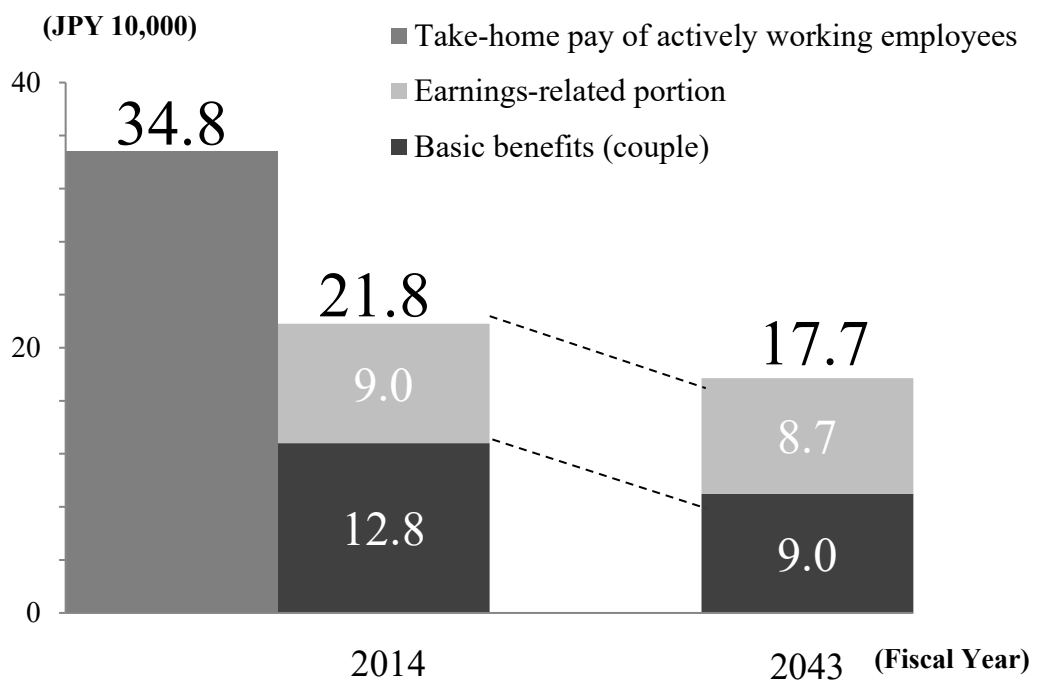
30% Cut of Basic Benefits?

The 2014 Actuarial Report on Public Pensions checked whether or not PP will maintain their adequacy for the next 100 years, and found that higher labor force participation rates for females and elderly males in the future would be a decisive factor for keeping their adequacy.

A healthy financing does not always promise an adequate level of pension benefits, however. The replacement rate of 50% is the minimum in the future which is guaranteed by law for the “model” employee couple who receive combined benefits of the basic pension (the first-tier) and the earnings-related portion (the second-tier). But, no minimum guarantee has yet been provided for the level of basic benefits solely.

According to the *2014 Actuarial Report*, the monthly amount of combined benefits for the “model” employee couple will reduce by 22% in thirty years from JPY 218,000 in 2014 to JPY 177,000 in 2043 in terms of the 2014 wages, whereas the monthly amount of basic benefits per person will reduce more drastically from JPY 64,000 in 2014 to JPY 45,000 in 2043, a 30% reduction in thirty years, as is demonstrated in Figure 5.16.

Figure 5.16 Level of Monthly Pension Benefits



Note: The amounts are in terms of the 2014 wages
Source: The author's own calculation

A long-term healthy financing of social security pensions is one of the most important factors for the sustainable system. The automatic balance mechanism introduced in 2004 was expected to be effective for PP to attain their financial sustainability. *The 2014 Actuarial Report* shows that it will be “too powerful” to do so, forcing an unexpected drastic reduction in the level of basic benefits.

This will cause another difficulty in maintaining an adequate amount of pension benefits for self-employed persons or atypical workers who are qualified to receive basic pensions only in their old age as earned entitlements based on their contributions. An additional minimum guarantee for the level of basic benefits might be required to avoid adverse side-effects of the Japan's automatic balance mechanism.

There are mainly following 3 policy options under consideration.

A: Extending maximum covered years from 40 to 45

B: Increasing the NPA to 67/68 or shifting to automatic indexation to longevity

C: Inclusion of atypical employees in KNH who work less than 30 hours per week

Candid discussions on these options will continue in the future, as well.

PP benefits for the aged parents are financed mainly by contributions of their children and grand-children. The retired parents are expected to maintain their dignity, while actively working children should be rewarded for their labors. The PP system should prescribe the rules for satisfying these two needs. Neat income-sharing between them still remains a challenge in Japan.

5.11 Lessons from Japanese Experiences

First, the future is hardly predictable. Around 1970, few Japanese were able to predict that within the next 50 years Japan would have an annual increase of CPI more than 20%, negative changes of wages in nominal terms, a sharp price-downfall of stocks/shares to one fifth from the peak, long-lasting 0% rate of interest, a decrease of the total fertility rate down to less than 1.3, or the declining population. Japanese poor ability to predict the future remained little unchanged for the past 50 years. Thus, few Japanese can accurately predict what will take place in Japan within the next 50 years from now on. Policy makers are steadily required to flexibly adapt pension systems to changing and unpredictable world. This is a never-ending task for them.

Second, challenges sooner or later make a person well qualified to solve them. Mr. Kiyoshi Murakami and Mr. Shin-ichiro Yamaguchi were typical examples.⁴⁸ Japanese are quite happy and should be proud to have such outstanding and selfless men of deep insight, working out pension reform plans with foresight. Be wise enough to distinguish such exceptional figures from not a few pretentious experts with no discerning eyes who often talk loudly for the sake of some specific group.

Third, policy makers are not almighty. They sometimes make mistakes. Such mistakes mainly come from their too strong obsessiveness with past commitments, too much political considerations, and arrogant policy formation with fast and loose enthusiasm. Once things turn out to be wrong, it is advisable not to hesitate to correct them.

Fourth, critical but insightful comments by pension researchers on the ongoing policy are often neglected or even induce groundless blames and/or evil-speaking. But if those comments are to the point, sooner or later they get accepted and are adopted in the policy making. Intensive scientific researches on pensions in academic circles are thus important.

Fifth, the full coverage of public pensions cannot be attained by contributions only. Rather, a subsidy from central and/or local governments is promising to encourage the remaining people to participate in the public pension programs. Incidentally, Japan introduced this subsidy as a pledge of government commitments to mandatory public pensions in order to finance a part of their benefits. The subsidy can be also justified to finance an income-tested non-contributory pension for aged persons who had no years or too short years to make pension contributions at the time of setup. The subsidy will be better fund-raised by an earmarked value-added-tax (or consumption-based tax), since it can be regarded as a second “contribution” to pensions made throughout one’s life.^{49, 50}

⁴⁸ Takayama (2009) briefly summarizes the remarkable work achieved by Mr. Kiyoshi Murakami. Prime Minister Yasuhiro Nakasone exceptionally attended the memorial service of the late Mr. Shin-ichiro Yamaguchi on 9 July 1984, deploring his loss with stating in the most respectful form that he was a mirror of all public officials.

⁴⁹ In France, Contribution Sociale Généralisée (CSG) has been used to partly finance public pension benefits since 1991. It is an income-based VAT.

⁵⁰ If children and their parents participate in different pension programs both of which are fundamentally financed on a PAYG basis, social pooling of contributions (partial cost-sharing) among them can be justified, since children want to let their parents to first receive their pension contributions.

My final words are: think deeply and behave cautiously with warm heart but cool head (博学之、审问之、慎思之、明辨之、笃行之 《礼记·中庸》).

【Acknowledgements】

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Chapter 6

Funded Pensions: The Japanese Experience and Its Lessons

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6.1 Introduction

This chapter was first presented at the IPLE seminar held at CASS, Beijing, on 13 September 2016, using PPT slides only. It is organized by the following sections. Section 6.2 gives several guiding indices of Japan. Section 6.3 points out some characteristics of Japan. Section 6.4 overviews retirement benefits in Japan. Section 6.5 and Section 6.6 describe the start-up phase of the Kosei-Nenkin-Hoken (KNH), and its shift from a funded scheme to a PAYG one. Section 6.7 lists up non-mandatory occupational and individual pensions in Japan. Section 6.8 explains a lump-sum retirement benefit, which has been the major non-mandatory pension provision in Japan. Section 6.9 discusses a unique contracted-out plan of Japan, the employee pension fund (EPF). Section 6.10 outlines tax-qualified pension plans (TQPP). Section 6.11 maps out new defined benefit plans introduced in 2002. Section 6.12 illustrates the national pension fund (NPF). Finally, Section 6.13 explicates defined contribution plans in Japan.

6.2 Japan at a Glance

- Population (in 2015) 126.9 million
- Population 65+ 33.4 million (26.3%)
- TFR (in 2015) 1.46
- GDP per capita (in 2014) USD 38,644
- SS Pension Benefits (in 2014) 10.9% of GDP
- No. of SS Pension Enrollees 65.8 million (53%)
- No. of SS Pension Beneficiaries 39.9 million (31%)
- The Normal Pensionable Age 65

6.3 Japan: Some Characteristics

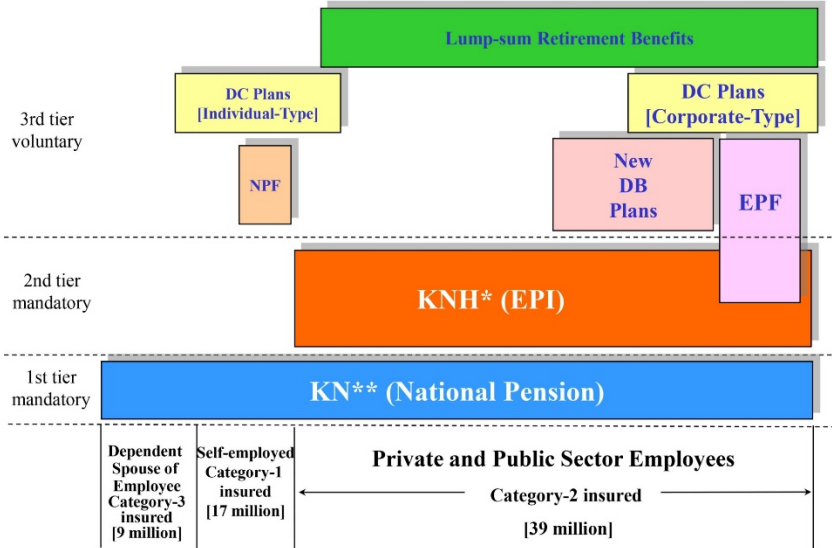
Pensions reflect the history, culture and philosophies of people living in respective countries.

- The Yamato Japanese ethnic group comprises 98.5% of the total population, which makes people there quite homogeneous.
- Japan is largely mountainous and forested, with only 11.6% of its area arable land. The population density is virtually quite high.
- Natural disasters (earthquakes, typhoons, tsunamis, flooding, and volcanic eruptions) often hit Japan even today.

- Japanese have island-nation mentality and their way of thinking dates back from the one formed in an old rice-producing society.
- Japanese are ordinarily good at making materials lighter and more compact. They specially stick to comfort, convenience and details, searching for continuous improvement.
- Japanese people take it for granted that political power, wealth and authority should be held separately by different persons, and that any person should not monopolize all the three (or two).
- As far as pension policy-making in Japan is concerned, the most important person is Director-General of the pension bureau of the Ministry of Health, Labour and Welfare.

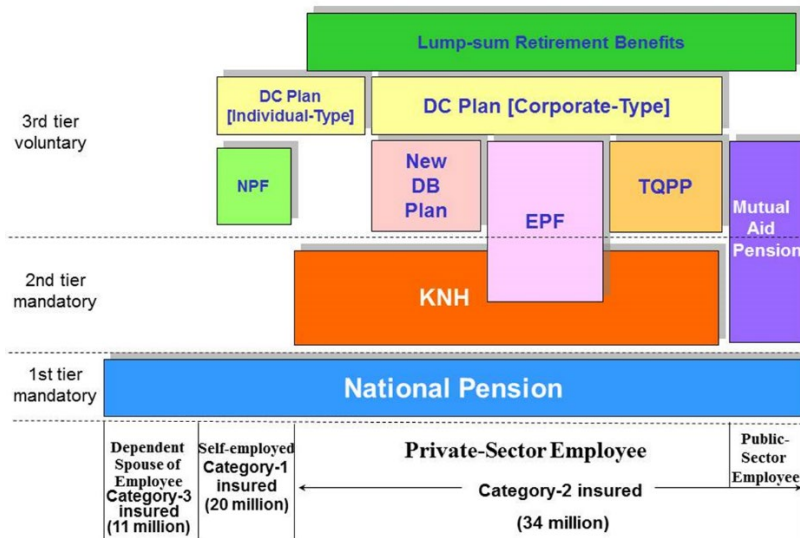
6.4 Retirement Benefits in Japan: An Overview

Figure 6.1 Retirement Benefits in Japan (as at September 2016)



* KNH: Kosei-Nenkin-Hoken (Employee Pension), ** KN: Kokumin-Nenkin

Figure 6.2 Retirement Benefits in Japan (as at March 2011)



6.5 The KNH: Its Start-up Phase

- Kosei Nenkin Hoken (KNH) has been the principal SS pension program for private sector employees (and for civil servants since October 2015). It was established during wartime days in 1942.
- Its initial design was based on a funded DB scheme that would build up reserves by not paying benefits in the early years.
- One of the main reasons for its set-up was to reduce the purchasing power of the Japanese people during World War II through mandatory reduction of contributions from their salary, thereby helping reduce the rate of inflation. The funded reserve was converted to partly finance the war expenses.
- The contribution rate (for employees and their employers combined) was initially set at 6.4% in 1942 and was hiked to 11% in 1944.
- Just after World War II, a hyperinflation occurred in Japan. Namely, the CPI increased 100 times between October 1945 and April 1949.
- The hyperinflation turned the KNH funded reserve into heaps of worthless paper, and the earned pension entitlements of employees became a nil, since they are a contract in nominal terms.
- Almost all Japanese were forced to manage to survive near a starvation level. The government reduced the KNH contribution rate to 3% in 1948.
- The KNH was rebuilt in 1954. In order to encourage employees to contribute, the government promised to pay a socially adequate level of pension benefits, regardless of the amount of contributions they have made. Thus, the KNH gradually shifted from a funded scheme to a pay-as-you-go one.
- Lesson 1: The funded pension program is very fragile under inflation (hyperinflation). Inflation does serious damages to the earned entitlements of funded pensions.

6.6 The KNH: No Return to a Funded Scheme

- There have been some proponents, though quite minor in number, who advocate a switch of the KNH from a pay-as-you-go scheme to a funded one.
- Its switch turns to be politically difficult, since it inevitably incurs a “double-burden” problem.
- The only thing Japan can do in the future will be that the generous KNH benefits be reduced gradually, while participation in funded pensions on a private basis has to be more encouraged, instead.

6.7 Non-mandatory Occupational and Individual Pensions

- Lump-sum Retirement Benefit (DB): financed through a book-reserve system
- Employee Pension Fund (EPF, DB)
- Tax Qualified Pension Plan (TQPP, DB)
- National Pension Fund (NPF, DB)
- New Defined Benefit Plan (DB)
- Defined Contribution Plan (DC)

Table 6.1 Latest Amounts of Funded Reserves

(JPY as at the end of March 2015)

EPF	28 trillion
New DB	58 trillion
DC	10 trillion
NPF	4 trillion
Sub Total	100 trillion
SS Pensions	200 trillion
Total	300 trillion

6.8 Lump-sum Retirement Benefit

The major non-mandatory pension provision in Japan has been a lump-sum retirement benefit. In 2013, 76% of employers provided this benefit. Especially for long-term regular employees it is a significant part of retirement income. For example, in 2011, the average private sector employee with service of 20 years or more received JPY25 million (USD250,000) from his or her employer. This amount was equivalent to 10-12 times the employee's *annual* pension benefit from the KNH.

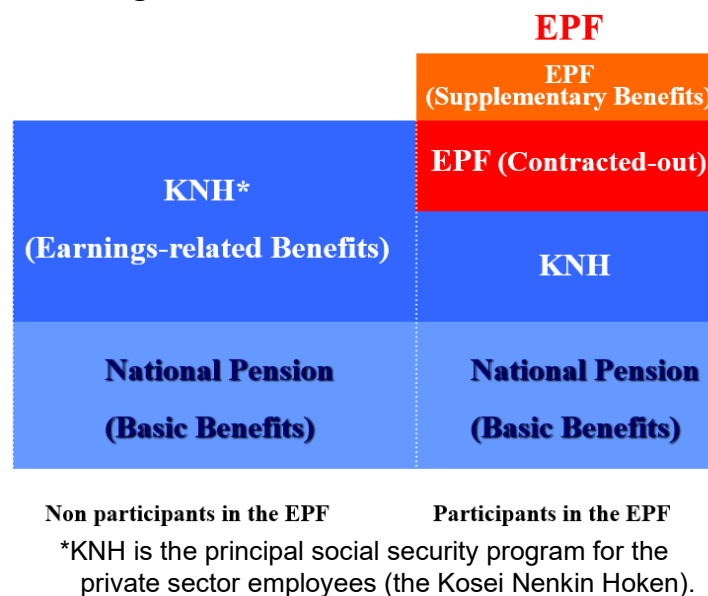
It is financed through a book-reserve system in which employers estimated the liability but do not set aside dedicated funds to pay the benefit. It is virtually managed on a pay-as-you-go basis within each employer.

6.9 Rise and Fall of the EPF

The unique contracted-out plan of Japan was established in 1966. It is called the Employee Pension Fund (EPF). The benefits of the EPF consist of two components: the equivalent benefit of the earnings-related portion of the KNH (excluding the benefit resulting from indexing), and the supplementary benefit.

In return for paying the earnings-related old-age pension on behalf of the government, an EPF receives a contribution rebate. The contribution rebate (the payroll tax rebate) is between 2.4 and 5.0 percent from social security pensions, depending on each EPF's average age of their participants. The entire system under an EPF is called the *Daiko* system.

Figure 6.4 Rise and Fall of the EPF

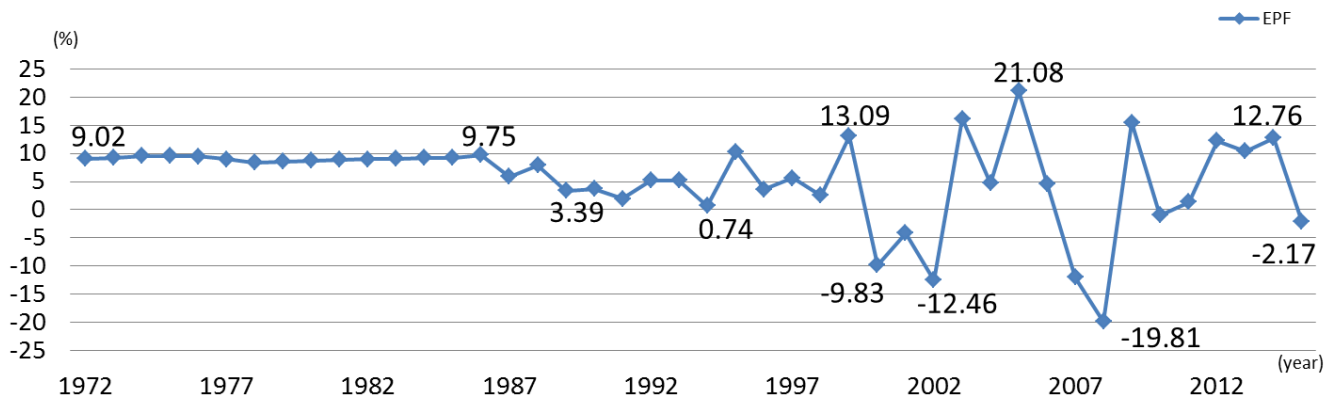


Why the EPF was set up? The reason is as follows: Namely, in the early 1960s, the pension bureau of Japanese government wanted to increase the level of KNH benefits, and accordingly its contribution rate, while employers were quite reluctant to accept this change, since they additionally had contributed a great deal to their own retirement programs on a private basis.

After long negotiations between the pension bureau and employers' group, there came a compromise. The hikes in both the level of benefits and the contribution rate were alright, but at the same time it was allowed for some employers to promise to pay the increased KNH benefits by adjusting their ongoing retirement programs to the new scheme.

The pension business industry welcomed this compromise, and the pension bureau were able to secure many plum jobs (such as the executive directors and the office managers in the EPF) for retiring officials.

Figure 6.4 Rise and Fall of the EPF



The contracted-out portion used to bring in extra profits to EPFs (see their annual rate of return in nominal terms, shown in Figure 6.4). Once the investment environment turned adverse, however, the contracted-out portion began to hurt EPF operation.

Employers must compensate for the investment loss derived from the contracted-out portion and recognize the estimated value of benefits for the contracted-out portion on their books.

Many employers and trade unions lobbied for legislation that relaxes the requirements for EPFs to return the contracted-out portion to the original social security regime. Since April 2002, it has been possible for EPFs to do so (*daiko henjo*).

The number of the EPF was 142 at the outset. It had once steadily increased up to 1,883 in 1996, but for the past 20 years it has been decreasing to 199 in August 2016, covering 2.1 million employees. The proportion of the participants in the EPFs over total number of the private sector employees was near 37% in 1996, but it fell down sharply to around 16% in 2004, falling further to 8.3% in 2015. The *daiko henjo* amounted to 1239 by August 2016.

The total amount of EPF asset holdings had steadily increased up to JPY 63 trillion (USD 630 billion) in March 2002. It fell down sharply to JPY 26.6 trillion (USD 266 billion) in March 2015.

Table 6.2 The Number of the EPF

Fiscal Year	Number	Fiscal Year	Number
1966	142	2000	1,801
1986	1,134	2004	799
1996	1,883	2016	199

•Lesson 2: Success and failure of funded pensions crucially depend on their investment performance. Funded pensions were promising under high economic growth periods, while they faced difficulties in an economic downturn. This was also true for a pay-as-you-go pension.

There have been several factors governing the EPF dissolution during the past 20 years. Among others, the market rate of return from investment turned quite miserable, falling

below the nominal rate of 5.5% per year. The annual rate of 5.5% return in nominal terms has been one of the basic assumptions for the EPFs. The assumption has been crucial in determining the contribution rebate. In the 1990s in Japan the 5.5% assumption seemed to force the EPFs to “walk on water.” Consequently, the majority of EPFs began to suffer from huge amounts of unfunded liabilities, giving a serious impact on the mother company’s rating in the capital market.

Many mother companies were forced to pay considerable additional money to compensate for the under-funded portion for the social security equivalent benefit, which in turn induced a considerable downsizing of their employment and curtailed new investments.

A downward change of the 5.5% assumption into, say, 3.0% will mitigate the future funding problem for EPFs, while their net pension liabilities accrued from contributions made in the past automatically jump up fairly.

In 2012, the scandal of AIJ Investment Advisors Co., Ltd. was brought to light. It was very similar to the Madoff case in the US. Its fairly good investment performance which was previously reported to 84 EPFs (AIJ customers) turned to be a fraud. The aggregate loss of their funds amounted to near JPY 200 billion (USD 2.0 billion).

In April 2013, the government submitted a pension reform bill in order to virtually abolish the EPF system in five years. The parliament passed the bill in June 2013. The EPF existing pensioners and its active contributors were forced at once not to receive the supplementary benefits any more upon its contracted-in to social security pension.

- Lesson 3: Even professionals of investment management can be cheated in funded pensions. There is no sweet deal in pension asset accumulation.
- Lesson 4: Thorough disclosure of information and full accountability are crucial to avoid cheating in funded pensions. They are required to insure the credible operation, as well.

Once a funded pension system has been established, it would be very difficult for the government to abolish it. There are two vested interest groups that hinder the abolition. One is the private financial companies operating these businesses. They will lose huge business opportunities. The other is the related retired government officials who still have strong political power. If some current officials in the government dared to oppose the EPF system, it meant disgracing upon their retired predecessors. In government organizations, those who could set up more EPFs that consequently offered more executive positions for the coming retirees to work in EPFs, would be promoted very quickly. In this way, they would be in important backbone positions in government agencies. Therefore, within the government, the staff usually will not propose to abolish this unreasonable system. If they do, he/she won’t be promoted or even be fired.

Yet, on one occasion, some outstanding but exceptional Director of Pension Bureau of the Ministry of Health and Welfare had a fierce conflict on this matter with his predecessors. Retired executives have threatened him, saying: if you dared to propose the abolishment of the system, you would have no future, and you would not get a promotion, and even you

would be fired. However, he did not give in. For the long-term interest of the public, he was willing to sacrifice his own and resolutely abolished the EPF system. As a result, in the personnel adjustment in June 2016, he failed to get promoted to be the vice minister of the Ministry of Health and Welfare (the highest position in the career of Japanese civil servants) which he had been supposed to be.

- Lesson 5: Once some pension scheme was established, it is very hard in Japan for the scheme to be abolished, even if it no longer has due reasons to survive. Usually there are some stakeholders who have been benefited from the scheme. They strongly oppose to its abolition.

A proposal of the contracted-out plan is like saying that one of three sons who have been sending money to support their parents would begin to save for his own, by partly stopping sending money to his parents. The two remaining sons will be adversely affected or the income level of their parents will be reduced accordingly.

The PAYG supporting is based on a principle of mutual help, but the funded schemes for a specific group are essentially for the participants' own interest. Their underlying philosophies are totally different, and thus the contracted-out does not seem simple when it comes to technical matters. Indeed, the current contracted-out plans in Japan are very much complicated and consequently very hard for most people to understand. Moreover, their handling costs are quite expensive.

- Lesson 6: No contracted-out plan is promising at all. Rather, an add-on pension plan is advisable to be implemented.
- Lesson 7: If the handling cost is quite expensive, then any pension scheme is hard to be maintained.

6.10 Tax-Qualified Pension Plans

The TQPP which was introduced in 1962, used to be one of the two major occupational pension schemes in Japan. It was an externally funded, tax-favored retirement benefit plan. It had to be approved by the tax agency. Because there was no minimum participation requirement, TQPPs were popular among small to medium-size companies.

The TQPP had 10.6 million participants (32% of the KNH enrollees) in March 1997. Its asset holdings amounted to JPY 22.7 trillion (USD 227 billion) in March 2002.

Policy makers eventually recognized that TQPP regulations were inadequate to protect employees' rights to receive benefits. As a result, employers were required to convert TQPPs to other types of pension plans by March 2012. Some TQPP sponsors switched to other types of pension plans; most simply terminated their TQPPs, leaving employees without any occupational pension plan.

- Lesson 8: The tax agency will not be a relevant entity in charge of pensions, since its most significant job is to collect taxes, and not to handle pension schemes properly.

6.11 New Defined Benefit Plans

Two kinds of New Defined Benefit Plans—the fund type and the agreement type—were introduced in April 2002, in order to unify regulations and enhance protection of vested benefits for participants. Yet, employers are quite reluctant to expand DB plans, since it is not financially easy for them to make up for the existing or possible excess liabilities.

In March 2015, there were 601 fund-type and 13,282 agreement-type defined benefit plans in Japan, together covering 7.8 million employees. The aggregate amount of accumulated assets was about JPY 58 trillion (USD 580 billion) for new defined benefit plans.

6.12 National Pension Fund

The National Pension Fund (NPF) was established in 1991. It is a voluntary DB pension for non-employed persons (self-employed, medical doctors, dentists, lawyers, licensed accountants, tax accountants, etc.) as a top-up on their social security pension.

The qualified persons can participate in the NPF from age 20 to 60, and they have to receive pension benefit from age 65.

Its participants can contribute up to JPY68,000 (USD 680) *per month* per person. Their contribution is qualified to be tax-exempt.

In March 2015, there were 47 prefecture-based NPFs and 25 NPFs for different professional groups. Its contributors were 450,000 in number, and its beneficiaries were 478,000, while the amount of the NPF funded reserve were JPY 4.19 trillion (USD 419 billion).

The assumed annual rate of return from investment which is required to fix the amount of contributions was initially set at 5.5% in nominal terms. It was reduced step by step to 1.5% in 2014, referring to the actual market rate of return. The assumed rate of return at the time of each new entrance has been maintained for participants, however. The NPF is basically a contract on a private base.

The NPF has long been faced to a problem of unfunded liabilities, since the actual rate of return from investment was often lower than the assumed rate of return in the past. For example, the percentage of funding shortage in the NPF for medical doctors was around 30% as at the end of March 2016. Yet, the NPF has no sponsors like employers in the EPF.

The current pensioners enjoy much more amounts of the benefit than those they have contributed, partly eating the funded reserve which have been accumulated by current younger and middle-aged generations. This will incur a probable conflict between generations.

Table 6.3 Assumed Rate of Return (A) vs Actual Rate of Return (M)

Fiscal Year	A (%)	M (%)	M-A	Fiscal Year	A (%)	M (%)	M-A
1991	5.50	4.41	-1.09	2004	1.75	5.51	3.76
1992	5.50	5.58	0.08	2005	1.75	21.99	20.24
1993	5.50	4.05	-1.45	2006	1.75	4.27	2.52
1994	5.50	0.93	-4.57	2007	1.75	-11.65	-13.40
1995	4.75	10.00	5.25	2008	1.75	-23.38	-25.13
1996	4.75	2.22	-2.53	2009	1.75	22.52	20.77
1997	4.75	5.59	0.84	2010	1.75	-1.32	-3.07
1998	4.75	1.82	-2.93	2011	1.75	2.99	1.24
1999	4.75	12.98	8.23	2012	1.75	12.19	10.44
2000	4.00	-11.23	-15.23	2013	1.75	9.26	7.51
2001	4.00	-4.75	-8.75	2014	1.50	13.70	12.20
2002	3.00	-13.35	-16.35	2015	1.50	-2.98	-4.48
2003	3.00	17.63	14.63	Average	3.21	3.56	0.35

Source: The Annual Report of the NPF for Medical Doctors

A reasonable solution will be to reduce the amount of benefits for current pensioners and the amount of earned entitlements of persons who entered in the NPF before 2000, as well. This is a very hard task, however, since it will be quite unpopular in a political sense.

The pension bureau in Japanese government has long been active in encouraging the self-employed to participate in the NPF, while it decided in June 2016 to integrate almost all NPFs into a single NPF by March 2019. This is a temporal remedy, delaying the inevitable.

- Lesson 9: Government should not do any business where the private sector can do better. In turn, Government can encourage people to enroll in privately-managed personal pension plans by giving tax advantages and/or subsidies, while monitoring them with inspection.

6.13 Defined Contribution Plans

The number of defined contribution plan documents approved by the government has constantly increased since the plans were first introduced in Japan in October 2001. Still, as of the end of May 2016, only 5,014 plans had been approved, covering about 23,000 employers. The numbers of participants were 5.8 million in corporate-type defined contribution plans and around 265,000 in individual-type defined contribution plans, amounting only to 8.8% of social security enrollees.

In March 2015, the aggregate amount of accumulated assets was only about JPY 10 trillion (USD 100 billion) for defined contribution plans.

Public officials have not been allowed to participate in any *individual-type* DC plan.⁵¹ It is

⁵¹ But, since January 2017, they have been allowed to participate in an individual-type DC plan (iDeCo). In any points of pension design, they no more have any

because they are regarded as possible insiders in the equity market. Insider trading in the stock market is severely prohibited in Japan, with ceaseless monitoring by authorities.

15 years have passed since defined contribution plans were introduced in Japan.

Why has the growth of defined contribution plans been so slow? One factor is the restriction of cash-out only after age 60. Most small and medium-size companies used to pay lump-sum retirement benefits to early leavers or employees reaching the mandatory retirement age from their occupational pension plans. The fact that defined contribution plans are not able to do so makes them far less attractive to workers and employers than the existing defined benefit plans, which have no such restrictions.

Another factor is the very low maximum imposed on contributions to defined contribution plans (existing defined benefit plans have no maximums). This limit has led potential service providers who might promote the arrangements to believe that defined contribution plans are not a profitable business.

A third factor is that reducing benefits of a defined benefit plan requires the consent of two-thirds of plan participants. When employers want to introduce a defined contribution plan by replacing part of their existing defined benefit plan, this requirement becomes a bottleneck, thereby discouraging them from switching.

A fourth and the most decisive factor is very low (or negative) returns observed in the domestic capital markets for the past 25 years. The rate of return from investment were quite volatile, as well.

A fifth factor is expensive handling costs for smaller-amount DC asset holders; handling costs include a fixed flat-rate portion for all participants and there are economies of scale in handling DC plans.

As of October 2011, about 60% of plan participants in Japan had incurred a loss of principal on their accumulated defined contribution assets. This is mainly due to the last two factors stated above.

- Lesson 10: Development of funded DC plans will likely depend on whether the design limitation evolve to get smaller or be deleted.
- Lesson 11: Owing to volatility in investment returns, some cohorts can be lucky in funded pensions, whereas others not.
- Lesson 12: One of bottlenecks in funded pensions is a possible expensive handling charge.

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Chapter 7

Pension Reform should Not Make a Sharp Turn

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Note by the Translator:

This chapter is a summary of answers of the present author to questions from the researchers of the Chinese Academy of Labour and Social Security at the panel discussion meeting on 22 April 2019. Its content comes from the recording by the translator.

7.1 Secrets for Successful Reforms

How to make social security (SS) pensions sustainable was the global core issue of pension reform in the past three decades. Now most developed countries have basically solved the problem of sustainability. In his paper titled “How to make SS pension sustainable” (Chapter 1 in this monograph), the present author has summarized in detail general principles, four major approaches (reducing benefits, raising normal pension ages, hiking contribution rates and increasing national output) and five other policy options (increasing transfers from general revenues, expanding the contribution base, closing coverage gap and broadening the social pool, system integration) adopted by developed countries up to date. In practice, each country should decide the appropriate ones from them according to its own situations, so the priority of each approach would be different across countries. Among all above options, there are no switching to a funded scheme. Because the funded approach or privatization is not feasible in both theory and practice, any funded scheme should be abolished and switched back to the pay as you go system; as for the SS pension reserve funds, having some funded reserves is better than nothing, but its role is limited.

This chapter focuses on Japanese experience of maintaining the sustainability of the SS pensions due to the population ageing based on extremely careful design and cautious implementation. The most important methods have been: Reducing the benefits by automatic adjustment mechanism, postponing the starting age to actually receive the old-age benefits, and promoting re-employment of the elderly, other than all kinds of financial methods, such as vigorously expanding funded occupational pensions and commercial pension insurance, and increasing SS pension reserve funds.

Japanese SS pension reform for dealing with the sustainability issue is gradual and parametric. Because the existing system has already been playing a significant role there,

managing to minimize social conflicts and to make a smooth transition to the new system is the most important thing for policy makers. Whether the transition can be completed without any troubles is the core factor for the success of the reform, and so pension reform should not make a sharp turn.

7.2 Automatic Adjustment Mechanism

Necessity

Since the 1990s, Japan has become the oldest country in the world. SS pension has been facing great pressure. So the most important reform in Japan is to introduce the automatic adjustment mechanism. One of its elements is that the levels of pension benefits automatically decline with the increase of life expectancy. The other is that the levels of pension benefits automatically decline with the decrease of the number of contributors. Japanese life expectancy was already very long, and it was expected to be even longer in the future. Japan's total population has been decreasing, and the number of working people has been also decreasing. It was expected that the number of people paying contributions would continue to decrease in the future.

The proposals of two kinds of automatic adjustment mechanisms according to the extension of life expectancy and the decrease of the number of contributors were submitted to the Congress in 2004. It was approved after a very painful and heated debates in Congress. The general principle had been established. Since then, the benefit cut no longer needs to go through legal procedures and it can be directly operated. Except some tiny improvements, Japan will not make any changes on this basic principle.

Would the Benefit Become Too Low in the Future?

SS pension systems need to meet two requirements: sustainability and adequacy. These two requirements sometimes face a trade off. Now Japan solved the sustainability problem, but in the future, the benefit level would be very likely to drop to a very poor level. SS pensions might turn out not to be a reliable one for the people. The UK was the first country ever encountered such a situation. At that time the British government had managed to increase the benefit. Sustainability was the most important problem for Japan, so Japan had first to get this issue settled down by introducing the automatic adjustment mechanism. However, in the future Japan might come to a point that the benefit level will not be adequate. Then Japan needs to start to discuss how to raise the level of pension benefits. One possible choice is to raise the pension age. With shortening of the number of years for receiving the benefit, the monthly amount of benefits will correspondingly rise, and thus the pension benefit can switch back to an adequate level again.

The benefit level is too high now, so the priority should be given to the sustainability issue by cutting benefits. When the benefits become inadequate in the future, Japan will propose to extend working years. The increases in the amount of contributions and the shortening of receiving years will follow, and the level of benefits will correspondingly rise.

Hiking Contribution Rates

Due to aging, Japan has gradually increased its contribution rates so far. In 2004, Japan decided that after 2017 the total contribution rate was to be 18.3%, split half and half between employers and employees, and that this contribution rate will remain unchanged until 2104 (nearly for the next 100 years). Therefore, Japan will not discuss the issue of further increasing her SS contribution rate of pensions in the foreseeable future any more.

7.3 Extremely Arduous Journey on Raising the NPA

The History of Raising the Normal Pension Age

For the sustainability issue, the most important approach in Japan is the automatic adjustment mechanism introduced in 2004. Before 2004, the major reform approach was raising the normal pension age (NPA), which was implemented three times in 1954 (from 55 to 60 for men), 1985 (from 55 to 60 for women) and 1994 (from 60 to 65 for both men and women).

When the Japanese government launched the SS pension system during the world war II, the pension age was set as 55 for both men and women. In 1954, the government raised the pension age for men from 55 to 60 in a phased in manner over 15 years, leaving the pension age for women unchanged at 55 years old. In the 1950s and 1960s, the working environment for Japanese women was totally different from that of today. After they got married or had children, most Japanese women would resign to be full time housewives. Usually, they would take all the entitled pension rights at a lump-sum basis when they quit the job. Therefore, at that time the issue of raising women's pension age was not worth considering.

In 1973, the oil shock broke out and Japan's high economic growth ended. Japanese soon realized that the life expectancy would become longer than expected. If her economic growth slowed down, the aging of population would exert pressure on the sustainability in the future. At that time, the first thought for policy makers was that if people live longer and longer, the pension age of 60 years old would be too young. However, this idea has been strongly opposed by trade unions and all citizens, and the whole country was in a state that even if the Ministry of Health, Labor and Welfare (MHLW) proposed it, no one would approve of it. In 1980 the MHLW proposed a plan to raise the normal pension age from 60 to 65 for the first time.

However, it was impossible to get approved. Japan has a serious discussion on pension reform for every five years, and this proposal was finally passed in 1994.

When it came to 1985, Japan's labor market had changed greatly. The economic growth rate had decreased since the 1973 oil shock. If a family still only depended on men's income, it would have some difficulties for making a living. Japan has entered an era that a large number of women have entered the labor market and continue to work even if they get married and have children. The ideology of equality between men and women has become the common sense of society, and the five-year difference between men and women in the pension age violated this basic principle. While cutting the pension age of men from 60 to 55 is against the trend of the times. Therefore, in the 1985 reform, it was approved to raise the women's pension age from 55 to 60. The pension age would increase one year in every three years and the whole process would be completed in 15 years.

The issue of raising men's pension age was not specifically discussed in the 1985 reform. But a reform direction was pointed forward in the text of the relevant law: men's pension age should be raised to 65. This was just a proposal without any detailed plans about how to raise, and in its subsidiary clause of the law it was mentioned that the men's current pension age of 60 would remain unchanged for the time being.

After the World War II, 自民党 had always been in power, but in 1993, the political regime changed, and the opposition party became the ruling party and organized a new government. This change of regime provided an opportunity to raise the pension age. The socialist party, which had been firmly opposing the reform in the past, became the new ruling party, politically responsible for the country's future. It had to solve the problem of sustainability. Then it began to change their mind and argued that since the life expectancy would rise in the future, it was unreasonable to keep the pension age at 60, and that Japan really needed to raise it to 65.

Therefore, after becoming the ruling party, the socialist party became a supporter of this reform. The supporters of the socialist party were the trade union, which shifted from the strong opponents in the past to the proponents. The supporters of 自民党 were the entrepreneur alliance, which already shifted to become the proponents on increasing the pension age. Thus, in 1994, the ruling party and the opposition party finally reached a consensus, and both of them agreed to raise the pension age to 65.

The implementation of the reform would start in 2000, leaving a six-year adjustment period in advance. Since 2000, the pension age has been lifted one year for every three years. In addition, 1994's reform also decided to raise women's pension age to 65, but the implementation time was later than that for men. Finally, by 2030, the pension age for both men and women will be exactly the same. The transition is gradual. Currently Japan is still in the transition period.

In a word, raising the pension age had experienced extremely strong resistance. It takes 50 years from the proposal of the MHLW in 1980 to its final completion in 2030.

Elaborate Explanations and Cautious Implementations

Raising the pension age is the most fiercely opposed by the public amid all kinds of reform approaches. In order to bring this reform into true, the Japanese government ever made the proposal again and again, and repeatedly explained why it was necessary. It was really an arduous journey to finally make the public understand the reason and finally accept this reform. Moreover, when it comes to the implementation, it must be carried out step by step like walking on a thin ice, carefully and cautiously. In other words, in order to achieve the success of a reform, a smooth transition from the current system to the new one is very important. Otherwise, the reform would not have been successful.

For policy makers, what they see was that in order to maintain the sustainability of SS pensions, raising the pension age was imperative, and other countries in the world had already implemented such reform. Japan had the longest life expectancy in the world, so there was no reason not to implement it. If Japan doesn't do this, Japan would need to constantly increase the contribution rate of our children. Isn't that too harsh for our children? In Japan, the explanation like this was going on and on all the time.

In 1985, there was no resistance to the reform of raising women's pension age. This reform was based on the ideology of equality between men and women. At that time, gender equality was an important concept widely accepted in the world. But in Japan, there was still inequality between men and women regarding the pension age, so the government proposed to raise the women's pension age from 55 to 60. Because trade unions attached great importance to the issue of gender equality, and the realization of gender equality was also one of their ideas, they did not oppose this reform proposal, and this reform did not encounter too much resistance.

Regarding an increase of NPA from 60 to 65: if the compulsory retirement age was kept at age 60 and only to raise the pension age to 65, the trade union would absolutely disagree. The entrepreneur alliance argued that Japan would have to increase the NPA to 65. While the trade union's response was that if the pension age had to be raised, the compulsory retirement age must also be raised concurrently. However, the entrepreneur alliance strongly refused to increase the compulsory retirement age. As a result, the two parties failed to reach a consensus.

How did Japan manage to get the reform succeeded in the end? As mentioned above, it was because there happened a change of political regime. In 1993, the socialist party, which represents the interests of trade unions, became the ruling party and the new ruling party was

intensively questioned by the previous ruling party: if the pension age was fixed at 60, how do you make Japan's SS pension system sustainable in the future? As the new ruling party had only opposed the reform emotionally in the past and could not give a reasonable answer, so when they had to face the sustainability issue, they had to agree with the proposal of the previous ruling party, and proposed to postpone the start-up of the reform and give the public sufficient time to get well prepared for the new system. For the previous ruling party, the Liberal Democratic Party, they kept their original reform idea unchanged when they became the opposition party. Finally, the reform legislation to raise the pension age was passed.

Raising the pension age is the most unpopular policy. If China wants to raise the NPA, its reform must be carefully planned and cautiously implemented. Because this policy is difficult for people to accept, the government has to persuade people repeatedly and explain the reform contents diligently, in order to help the people understand the reasons behind the policy.

Raising the pension age needs to be in a phased-in manner for meeting the extent of the people's ability of adjustment. Sufficient buffer time should be given. In addition, in Japan the employment subsidies and other supporting policies have been playing significant roles helping the smooth transition to the new system.

As an oldest country with the longest life expectancy in the world, Japan's old age dependency ratio is the highest. In the future, the majority of Japanese will have to actually begin to receive SS pension benefits from age 67, 68, 70 or even 75.

Careful Policy Design

Japan's mandatory retirement age was 55 at the beginning, and now it is 60. Japan usually raises the pension age first and then several years later begin to raise the compulsory retirement age. At present, the compulsory retirement age of enterprise employees is 60 years old in almost all cases, but the pension age is 65 years old. There is a five-year gap between the two. Why does not Japan raise the compulsory retirement age to 65 concurrently?

In order to raise the compulsory retirement age from 60 to 65, Japan needs to get the consensus of the relevant interest groups. Because no consensus had been reached, this reform was not implemented. The strongest opponents are the entrepreneur alliance, because the compulsory retirement system has offered the only chance for them to get rid of employees with poor performance, without any troubles. In Japan, it is very difficult to fire employees, even if their performance is very poor. The compulsory retirement system means that "the entrepreneurs finally can fire those employees with poor performance", so the entrepreneurs have strongly opposed to losing this chance. It's uneasy for entrepreneurs to take care of the employees with poor performance until their mandatory retirement age. They firmly refused to take care of them for further five years. This is the reason why entrepreneurs oppose to raising

the compulsory retirement age.

7.4 Retirees' Reemployment, Earnings-test, and Taxing Benefits

Retirees' Reemployment

Compulsory retirement means that when employees reach the age 60, they must go through retirement procedures. After the normal pension age was raised to 65, the vast majority of the elderly still choose to continue to work until the age 65. However, the employment pattern of most of them has changed from full-time to part-time, and their wage has also decreased correspondingly. For excellent employees, generally the employers will let them immediately start the reemployment procedures in their own enterprises. Work hours for them will often change to 6 hours instead of 8 hours per day, or 8 hours a day but three days per week. In short, the employment pattern will change. At the same time, the total amount of wages will be reduced to half or 60% of the past. There are also many retirees who will find jobs in other enterprises. In addition, Japan has an "employment subsidy" system. If an employer employs a person over 60 years old, he/she can receive government subsidies. Therefore, part of the elderly's salary comes from the government, which can reduce the real wage burden of the employer.

In the period that the normal pension age was 60, the labor participation rate of the elderly in Japan had been declining over time. However, since the normal pension age started to rise in 2000, the labor participation rate of the elderly has been gradually increasing over years. People's physical fitness has been improving. Their health condition has been much better than that in the past, also benefiting from the progress and improvement of medical care. Therefore, the vast majority of people have been able to continue to work even after age 60.

It should be noted that Japan is one of the countries with the highest employment rates of the elderly in the world. About 20% of them continue to work full-time. The proportion of men exiting the labor market at the age 60 is about 20% - 30%, because their health conditions are not good enough, or they are very rich and do not need work income, and the third reason is that they need to take care of their family members. Once the elderly exit labor markets, it would be extremely difficult to re-enter the labor market. Usually, people would immediately start reemployment at age 60 without any break.

Pension Contributions During Re-employment

Japan's rules for employees to pay SS pension contributions are as follows: those with work contract for one year or more need to pay them as long as they work more than 30 hours per week; If the labor contract is less than one year or the working hours are less than 30

hours per week, no need to pay.

Most of the reemployed elderly are engaged in part-time work, and they no longer pay SS pension contributions, but those who continue to be a full-time worker will continue to pay them.

The contributions are split half and half between the employer and the employee. Employers usually tend to save the labor cost and in general do not want to shoulder the pension contributions for the reemployed elderly. This is why the old-age re-employees usually are part-time workers with the working hours less than 30 hours per week.

Earnings-test

For those aged 60+ but less than 65, if the total amount of monthly wage (including bonus) and their pension benefit exceeds 280,000 JP Yen, the additional amount of pension benefits will be halved. For people aged 65+, the upper limit of 280,000 JP Yen is lifted to 470,000 JP Yen.

As a result, many employers will deliberately lower the reemployed elderly's wages in order to make their total amount of wage and pension benefit less than 280,000 JP Yen, and these re-employees usually have to accept the arrangement. On the other hand, some employees may give up their jobs because they are dissatisfied with low wages, even though they have a work will, or they may deliberately shorten their working hours to less than 30 hours for avoiding paying pension contributions.

The present author suggests that the upper limit should be raised to 470,000 JP Yen for the people aged 60+ but less than 65, and the earnings-test should be abolished for the people aged 65+. Japan should build a society that help maintain the work will even when the age increases. This may cause some dissatisfaction among currently young people, but this policy can also be enjoyed in the future when young people become old. It is fair. Many OECD countries do not cut their SS pension benefits for the elderly of age 65 and over even they have wage income.

Taxing Pension Benefits

In principle, all income should be subject to individual income tax system, no matter it is a pension benefit or work income. For the work income, there applies a special deduction system. Analogous to it, there is also a special deduction system for SS pension benefits.

When the tax system on pension benefits was first launched, there was a very strong political opposition. Even today, the 自民党 is generally reluctant to tax. However, pension experts point out that there are many very rich people among the elderly, and they advocate that pension benefits should be taxed, and more taxes should be levied on. That is to say, it

may be more reasonable for the elderly to pay regular taxes in order to ensure the sustainability of SS pensions than to increase the contribution rate. On this point, young people hold their hands in favor. This actually is related to the issue of intergenerational equity.

Now some old people pay taxes on the part of pension benefits after the deduction, but from the perspective of young people, the proportion of old people paying taxes is still too small. Compared with young people, the tax burden of old people is still too light in Japan. People with a higher amount of pension benefits should pay more personal income tax.

7.5 Cutting Benefits and Government's Contributions as an Employer of Civil Servants

Cutting SS Pension Benefits

In the reform history of Japan's SS pensions, there happened many times cutting too generous benefits of certain groups. Sometimes we first calculate the benefit gaps between the old and the new, and then set a transition period to gradually switch to the new. The length of the transition period varies from person to person due to the different benefit gaps.

The most typical example is the benefit cut for middle and senior civil servants in 1985. At that time, the pension benefit for some senior high-ranking officials was about 5 million JP Yen per year. According to the new rule, it dropped to 3 million JP Yen, with a difference of 2 million JP Yen, a decrease of 40%. This is what had been done in Japan's pension reform in 1986. So, how could Japan manage to finish such a reform? If the benefit cut were finished dramatically one-off at once, it would definitely have caused very strong opposition, and the reform might fail.

At that time, both prices and wages were rising. Therefore, the government made a guarantee: Keeping the benefit of 5 million JP Yen unchanged in nominal terms, but suspending their pension indexation until their benefit level would be equal to the level based on the new rules, i.e., when the benefit of 3 million JP Yen would reach to 5 million JP Yen over time due to the indexation. The transition period was relatively short for those who have a relatively small gap between the old and the new systems, and they soon reached the level of the old system; while for those who have a relatively large gap, the transition period is relatively long, and it would take 30 years for some senior high-ranking officials.

Anyway, for a stable living standard of the elderly, the benefit from SS pensions is the core source, which is extremely important. Therefore, when cutting the pension benefits, Japan was very careful. The annual cutting rate should not be too large. After the financial crisis of 2008, Greece had ever experienced the similar scale of SS pension benefit cuts, but Greece has to complete it in a very short period.

Comparisons of Benefit Decline between Public and Private Pension Systems

In the past, Japan's SS pension benefit levels of both first and second tiers have been declining. The amount of benefits in private pensions and occupational pensions has also dropped a lot. Its rate of decline is larger than that of SS pension benefits.

The occupational pensions belong to private systems, and the benefit cut of occupational pensions can be implemented as long as a consensus is reached between the employer and its employees. No need to go through government legal procedures.

Now keeping an enterprise stay in business has become more and more difficult. The top priority has turned out to be the enterprises' survival and development. At this situation, enterprises face a trade-off between the interests of the current staff and the interests of their retirees. Thus, in order to give the priority to the interests of current employees, enterprises often have to reduce the pension benefits. As a result, the benefit level of occupational pensions has been declining significantly, far more than that of SS pensions.

There are two kinds of occupational pensions in Japan now: the new funded DC system and the traditional book-reserved system, an equivalence of PAYG. Of which, the largest, most common and most important one is the book-reserved systems paid on a lump-sum basis. In the past, 95% of enterprises had offered this system, but now it drops to 70%.

In the past, Japan had ever run occupational pensions with funded defined benefit systems, which were called “厚生年金基金” and “适格年金基金”. However, due to their poor investment performances for a long time, almost all of them had been abolished. Instead, new funded DC occupational pensions with some tax privilege have been established. However, because of the previous bitter experience of investment failure of the funded occupational pensions, enterprises are very cautious about the adoption of this new system. Only one third of the advantaged enterprises have introduced the new DC system up to date. Therefore, in total the scale of funded occupational pensions is much smaller than that of the book-reserved system in Japan. Furthermore, the benefit of traditional book-reserved occupational systems has been cut by about 50% or 60%, so the role of occupational pensions in Japan has been becoming smaller and smaller.

In a word, in Japan almost all citizens are covered by SS pensions, and the main income source for the elderly is SS pension benefits. Compared with the slow decline of SS pension benefits, the benefit of occupational pensions has declined more sharply, and the number of people covered is much less than SS pensions. Therefore, Japanese occupational pensions are not expected to cope with the aging problem.

Government's Contributions as an Employer of Civil Servants

The employer of civil servants is the government. It should pay the employer's contribution in pension setting. There is a kind of subsidy to the first tier pension (called 国民年金). All participants (enterprise employees, civil servants, self-employed, housewives, etc.) are benefited by this subsidy when they receive the first-tier pension benefit. It comes from general revenues, but its meaning is entirely different from the employer contributions for civil servants in the second-tier pension. Their accounting systems are independent.

Chapter 8

Cost Sharing Schemes in Japanese Social Security Pensions: A Short Note

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8.1 Introduction⁵²

Cost sharing among different regions and among different occupations in social security pensions of China is still halfway on its journey. It is necessary for people concerned to correctly understand why cost sharing is required, and to finally make a compromise with concessions, especially from those groups of vested interest.

Japan has ample experiences in executing cost sharing in her pensions. This chapter explains the essential contents of Japanese experiences. The present author hopes that their lessons can be helpful to policy makers and researchers of social security in China.

8.2 Cost Sharing among Segmented Social Security Pension Systems

Social security pensions in Japan have two-tier benefits; the flat-rate and the earnings-related portions. Both benefits are basically financed on a pay-as-you-go basis. Their systems used to be segmented by different sectors of the population. Under segmented systems of social security pensions, those with a small or declining number of their participants were most likely to be quite fragile in their healthy financing. Generally speaking, the more the number of participants is, the more sustainable the pension system is in the long run.

The First-tier Basic Pensions

In order to have a healthy financing of the first-tier flat-rate benefit, cost sharing among all the segmented pension systems has launched since 1986 (see Takayama 2018 for more details).

The guiding principle for this cost sharing is that those who have paid the same amount of contributions in the past should receive the same monthly amount of pension benefits, as far as the same cohort is concerned.

The benefits to be shared have been restricted to those of the lowest common multiple (最小公倍数) among all the segmented systems. They were (and are) the flat-rate benefits of the Kokumin-Nenkin (KN: 国民年金) for non-employed persons and farmers, which was established last in 1961 as the social security pension system in Japan. The benefits have been renamed as “basic benefits” since its cost-sharing scheme has been introduced.

⁵² This chapter is a revised and extended version of the first half report presented at the China-Japan joint workshop on pensions, CASS, Beijing, 27 July 2018.

The benefits from when to be shared? Each amount of contributions made so far from 1961 by all the other insured persons in the KNH (厚生年金保険) and the MAAs (共済組合年金) was more than the amount of contributions made by those of the KN. This enabled people to regard the KN as if it would have been also applied to the participants of the KNH and the MAAs since 1961.

In order to carry out this cost-sharing, the central government set up the special account of basic pensions, and decided to do its fiscal management on a *fully pay-as-you-go* basis. Namely, the aggregate *annual* amount of basic benefits was (and is) to be first estimated which have been entitled from contributions made since April 1961.⁵³ Then the corresponding aggregate amount of financial resources was (and is) given. Its financial resources comprise the supportive grants from each segmented system and the transfer from general revenue. The transfer from general revenue was initially set to equal one-third of the aggregate annual amount of basic benefits, and has been lifted to one-half of it since 2009. The remaining cost has been shared among all the segmented systems through their supportive grants whose main income source is contributions. The annual amount of their supportive grants has been in proportion to the head-count ratio of current insured persons of age 20 to 59 in respective systems (加入者頭割).^{54,55,56}

Through this nation-wide scheme, cost sharing has been fully accomplished among different occupations (civil servants, private-sector employees, self-employed, and farmers), among different regions, between men and women, and between growing and declining companies. It worked out to transfer income (contributions in a practical sense) from salaried workers to the self-employed persons, from present growing companies to major companies in the past, and from males to females.

The Second-tier Earnings-related Pensions

Regarding the second-tier earnings-related benefit, all the employment-based pension schemes have been unified since 2015. The ultimate goal to have nation-wide equal treatments of pensions between civil servants and private-sector employees was achieved, then.

Moreover, Japan has a unique scheme of cost sharing of pensions among different regions. The next section describes this scheme.

⁵³ April 1961 was the starting month of Kokumin-Nenkin.

⁵⁴ The insured persons include the dependent spouses of both private-sector employees and civil servants.

⁵⁵ Note that this cost-sharing is not based on the ability-to-pay (応能負担) principle. Honest income-reporting from the self-employed persons is not probable yet, which makes the ability-to-pay principle very hard to be introduced among the self-employed ones. Consequently, lower income groups are forced to bear heavier burdens in this cost-sharing.

⁵⁶ Ex post amounts of the cost-sharing more or less differ from ex ante amounts. The difference is fully adjusted annually after it has concluded.

8.3 Cost Sharing in Social Security Pensions among Local Government Officials

Background and Overview

Local governments in Japan currently have a two-tier structure: 1724 cities (市区町村) and 47 provinces (都道府県). Each city belongs to a respective province.

The comprehensive social security pension systems including all local government officials date back to 1962. They cover old-age, disability and survivors' benefits. The benefit formula for local government officials has been completely the same, regardless of their status or their cities/provinces.

In contrast, their rates of contribution varied among different financial units at the outset.

The social security pension systems for them had 16 separate financing units: 1) provincial officials, 2) teachers and employees in local public schools, 3) all police men including those in the central government, 4) officials in Tokyo metropolitan government, 5) ~ 14) officials in 10 big cities (Yokohama, Osaka, Kyoto, Nagoya, and others; each city has its own financial unit), 15) officials in special cities (Sendai and several cities in Hokkaido/Aichi provinces), and 16) officials in other cities. These fragmentations were mainly due to historic backgrounds.

The financial performance of each unit was different, depending on its head-count ratio of contributors over beneficiaries, age distribution of contributors, and the average level of monthly salaries.

Around the end of 1970s, the gap of contribution rates among different financial units was not regarded as equitable, since quite the same rule applied to any officials of local governments when they received pension benefits. Some cost sharing scheme was required to amend this situation.

Two schemes were mainly considered. One was complete unification of the separate financial units. This was quite similar to the social security pension system for central government officials in Japan. The other was a partial cost sharing scheme which allowed a discretionary decision within each financial unit on how to deal with varying levels of respective funded reserve.

The final conclusion came in May 1983, when a bill on establishing a partial cost sharing scheme was passed in the Parliament. Two financial units (teachers/employees in local public schools, and police men) were exempted from this cost sharing.

In April 1984, the pension fund association for local government officials (PAL: 地方公務員共済組合連合会) was set up to execute this cost sharing.

Since then, the PAL also has been doing investment management of its fund, together with integrative actuarial revaluation of the pension financing for the covered 14 units (mentioned above) every five years.

Cost Sharing among Different Regions

On 1st April 1984, each financial unit was mandated to transfer not only 30% of its existing funded reserve but also 30% of new increases in their reserve every year, thereafter, to the

PAL.⁵⁷ In return, any unit has been assured to receive the full amount of compensating money from the PAL pooling when its own funded reserve becomes exhausted.

At the same time, since 1984 the contribution rate of pensions for program participants in the 14 financial units (mentioned above) has been unified.

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⁵⁷ In China, since 2018 a new nation-wide cost-sharing scheme (中央調整基金) has been established to finance part of social security basic benefits through contributions among all the segmented systems for urban employees. The scheme is more or less similar to the Japanese PAL, although its details are different from the Japanese scheme.

Chapter 9

The Future of Social Security Pensions in Japan: A Review of the 2019 Government Actuarial Report

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9.1 Introduction⁵⁸

In August 2019, the Ministry of Health, Labour and Welfare, Japan, made open the *2019 Government Actuarial Report of Social Security Pensions*. The Actuarial Report is published every five years and the 2019 version was the latest one.

The aim of this short note is to describe the three major findings given by the 2019 report and then to reconsider the future picture of social security pensions in Japan.

9.2 Three Major Findings from the 2019 Actuarial Report

Unexpected Increases in Replacement Rate for the Past 15 Years

One of the drastic reforms in Japan's social security pensions was made in 2004. The core of the 2004 reform was that the contribution rate was to be fixed at a certain level in 2017 and thereafter the pension system would virtually move from a defined benefit one to a defined contribution one, and that an "automatic balance mechanism" was introduced for the pension system to have a long-term healthy financing. The automatic balance mechanism would call for a reduction of the replacement rate step by step from 60% to 50% for the "model" male employee with his full-time housewife. According to the 2004 Actuarial Report, the anticipated reduction in the level of pension benefits would be 0.9% every year in real terms from 2005 on. This percentage is to be decided by changes in demographic factors (the number of contributors and the life expectancy at age 65).

The reality for the past 15 years turned to be contrary to the 2004 anticipation. Japan had been suffering from deflation for more than a decade until 2013. During deflation, the automatic balance mechanism was suspended to work. Instead, the benefit indexation to CPI had been in operation. Moreover, the level of take-home pay for actively working employees decreased more than the decrease in the CPI in *nominal* terms for this period. Consequently, the replacement rate for the "model" male employee with his full-time housewife in the KNH

⁵⁸ This chapter is mainly based on Takayama (2020).

(the social security pension program for private sector employees) was increased from 59% in 2004 to 62% in 2019.⁵⁹

This outcome is against the spirit of the 2004 reform. If Japan still preserves the baseline of the 2004 pension reform, the automatic balance mechanism needs to be redesigned to apply also in times of deflation, with benefits falling faster than the price level.

Nearly 30% Cut of Basic Pension Benefits Required for Financial Sustainability

The 2019 Actuarial Report made several assumptions on simulation parameters in projecting the future long-term financial performance of social security pensions in Japan. First, it followed the demographic assumptions given by the 2017 population projections of National Institute of Population and Social Security Research: optimistic, medium, and pessimistic. Take the medium case for example. The total fertility rate will be 1.44 in 2065, while the life expectancy at birth in 2065 will be 84.95 years for men and 91.35 years for women. Second, it assumed two cases in the labor force participation rates (LFPR); a higher case in the future and the other case where they will remain unchanged as those of 2017. Take the former case for example. The LFPR for those males in their latter sixties will steadily hike to 72% in 2040, and the LFPR for those females in their latter sixties will go up to 54% by 2040. Third, the report assumed six cases in the annual rate of economic growth in *real* terms, ranging from -0.5% to 0.9%. The case III, for example, assumed 1.2% for the CPI increase, 2.3% for the wage increase, 4.0% for the rate of return from investment, and 1.6% for the rate of economic growth, all in *nominal* terms. Another case VI assumed 0.5% for the CPI increase, 0.9% for the wage increase, 1.3% for the rate of return from investment, and 0.0% for the rate of economic growth, all in nominal terms, too.

Using the assumptions stated above, the report checked whether or not social security pensions will maintain their healthy financing for the next 100 years, and also whether or not they will continue to pay pension benefits no less than 50% as the replacement rate for the “model” male employee at age 65 with his full-time dependent housewife, provided the current KNH system being kept unchanged. The result was that for the Case I to Case III with a higher LFPR, the system of social security pensions will meet two requirements above mentioned, while for the Case VI with the LFPR unchanged, it will not meet them. A higher LFPR for females and elderly males in the future were found to be a decisive factor in keeping a healthy financing of social security pensions.

A healthy financing does not always promise an adequate level of pension benefits, however. The replacement rate of 50% above mentioned is the minimum in the future which is guaranteed by law for the “model” employee couple who receive combined benefits of the basic pension (the first-tier) and the earnings-related portion (the second-tier). But, no minimum guarantee has yet been provided for the level of basic benefits solely. According to the 2019 report, the monthly amount of combined benefits for the “model” employee couple

⁵⁹ In 2014, the replacement rate was increased up to 63%, then turned to decrease through the automatic balance mechanism.

will reduce by 20% in twenty-eight years from JPY220,000 in 2019 to JPY177,000 in 2047 in terms of the 2019 wages, whereas the monthly amount of basic benefits per person will reduce more drastically from JPY65,000 in 2019 to JPY46,000 in 2047, a nearly 30% reduction in twenty-eight years, as is demonstrated in Table 9.1.⁶⁰

Table 9.1 Estimated Changes in the KNH Replacement Rate and Its Monthly Amount of Benefits at the 2019 Wages

Fiscal Year	The Replacement Rate (%)			The Monthly Amount of Benefits (JPY 1,000)	
	2019	2024	2047	2019	2047
Basic Benefits (2 Persons Combined)	36.4	35.6	26.2	130	91
Earnings-Related Benefits	25.3	24.6	24.6	90	85
Total	61.7	60.2	50.8	220	177

Notes) 1. The replacement rate is for the “model” retired couple at age 65.

2. The medium case is assumed for future demographic figures.

Source) The MHLW, Japan (2019), *The 2019 Government Actuarial Report*, Case III

A long-term healthy financing of social security pensions is one of the most important factor for the sustainable system. Japan used to face difficulties in attaining the financial sustainability of pensions under the rapid population aging with a fertility decline and the bubble burst of her economy. The automatic balance mechanism introduced in 2004 was expected to be effective for social security pensions in Japan to attain their financial sustainability. The 2019 Actuarial Report shows that it will be “too powerful” to do so, forcing an unexpected drastic reduction in the level of basic benefits. This will cause another difficulties in maintaining an adequate amount of pension benefits for self-employed persons or atypical workers who are qualified to receive basic pensions only in their old age as earned entitlements based on their contributions.

Note that JPY46,000 is a monthly amount of basic pensions per person *before* tax and social security contributions are deducted. It will reduce further after their deductions, falling to less than JPY40,000. This will be far short of the minimum standard of living for retired elderly persons in Japan. Incidentally, the mean of basic consumption expenditure on food, clothing and housing was around JPY52,000 per month for single retired persons in 2019.

An additional minimum guarantee for the level of basic benefits may be required to avoid adverse side-effects of the Japan’s automatic balance mechanism.

⁶⁰ JPY1,000 equals USD9.5 as at 12 October 2020.

Working Longer

The 2019 report further shows what policy options will have to be implemented for the current replacement rate (62%) at age 65 of the “model” retired couple to remain unchanged in the future. It takes up a couple of age 20 as at FY 2019, who began contributing to the KNH at age 20. It assumes that the qualified maximum contribution years for the basic benefit are to be extended from current 40 to 45, and that the KNH earnings test for those employees of age 65 and above is to be abolished. Then, required working years for this couple to enjoy the replacement rate of 62% turn out to be 45 years and 10 months in Case III, while they are 47 years and 3 months in Case V. Thus, if current younger generations work longer than current retirees (who participated in the KNH at age 20, working seamlessly for 40 years, and received the KNH pension benefits from age 65), both generations are entitled to receive the same monthly amount of pension benefits in real terms.

In Japan, life expectancy has been getting longer and longer since 1947, and will go still further in the future. Under these circumstances, the level of pension benefits for Japanese might run down in real terms, if no changes in contributing years nor in the rate of contributions could take place. Working longer is sure to balance the two competing goals for financial sustainability and for maintaining adequacy of pension benefits. It is the best policy option that the Japanese government currently recommends in the 2019 Actuarial Report.

9.3 Discussions on the Normal Pensionable Age

The 2019 Government Actuarial Report did not mention any further increases in the normal pensionable age (NPA) from current 65. Instead, the government took a basic stance that it is purely a choice problem by each individual when to begin receiving old-age benefits of social security pensions.

The backgrounds underlying this basic stance are mainly following three facts. First, it is politically quite difficult for the government to actually implement any increases in the NPA, which is extremely unpopular. Second, any increases in the NPA will bring little improvements in financial sustainability in the long run under a fixed rate of pension contributions with an automatic balance mechanism. Third, unfavorable effects of any increased NPA are seen only among current and future pension contributors, while current pension beneficiaries stay undamaged. This might exacerbate the conflicts between generations.

Today, Japanese people can choose the age when they begin to receive benefits of social security pensions at their own initiative between 60 to 70, with reductions or increments in the monthly amounts of benefits. From FY 2022, the upper limit of their choice is to be expanded to age 75.

If some employee continues to work until age 70, postponing his/her receipt of pension benefits by 5 years from age 65, then he/she becomes eligible for the increased monthly amount of benefits by 42% (the rate of increment is 0.7% for each month). Postponing by 10 years from age 65 promises an increase of 84% in the monthly amount of pension benefits.

All these increases of benefits are given, provided that the current earnings test is to be abolished for employees of age 65 or above.⁶¹

Japanese government seems to currently prefer giving such greater incentives for these postponements than to any further increases in the NPA, together with strengthening policies for employment expansion for those in their latter sixties.⁶²

9.4 Concluding Remarks

As stated above, the future of social security pensions in Japan will decisively depend on 1) future demography, 2) the level of real economic growth, 3) what changes in pension programs will take place, 4) how long each individual will make pension contributions, and 5) each individual's choice when to start receiving pension benefits.⁶³

In particular, working longer is a trump card for younger generations to attain the long-term healthy financing of social security pensions, together with enjoying an adequate amount of their benefits after retirement. It is absolutely necessary for pension policy makers to couple with employment policy authorities in order to actualize working longer, and to induce a higher LFPR for females.

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⁶¹ The abolition of the existing earnings test for those of age 65 or above is not realized yet. It is one of policy challenges in the near future.

⁶² Any increases in the NPA can be a matter of policy options in Japan after the automatic balance mechanism fulfills its mission of financial sustainability by reducing the current, too generous replacement rate.

⁶³ The first two serious factors are related to social and economic challenges for Japan herself. They are almost beyond a control of pension policy authorities.

Chapter 10

How Do Japanese Learn Lessons from Experiences of Other Countries in Designing Social Security Pensions?

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10.1 Introduction⁶⁴

This chapter demonstrates the Japanese way on how to learn from experiences of other countries in designing/reforming social security pensions. Before going into discussion, it makes a brief sketch on distributional aspects of the postwar Japanese economy under rapid growth, with referring to the emergence of a “redistributive state,” highlights major reforms of Japanese social security pensions during the period of diminished expectations, and focuses motivations for mutual help, selfless reformers with foresight, and the current role of social security pension benefits.

10.2 The High-speed Growth Period

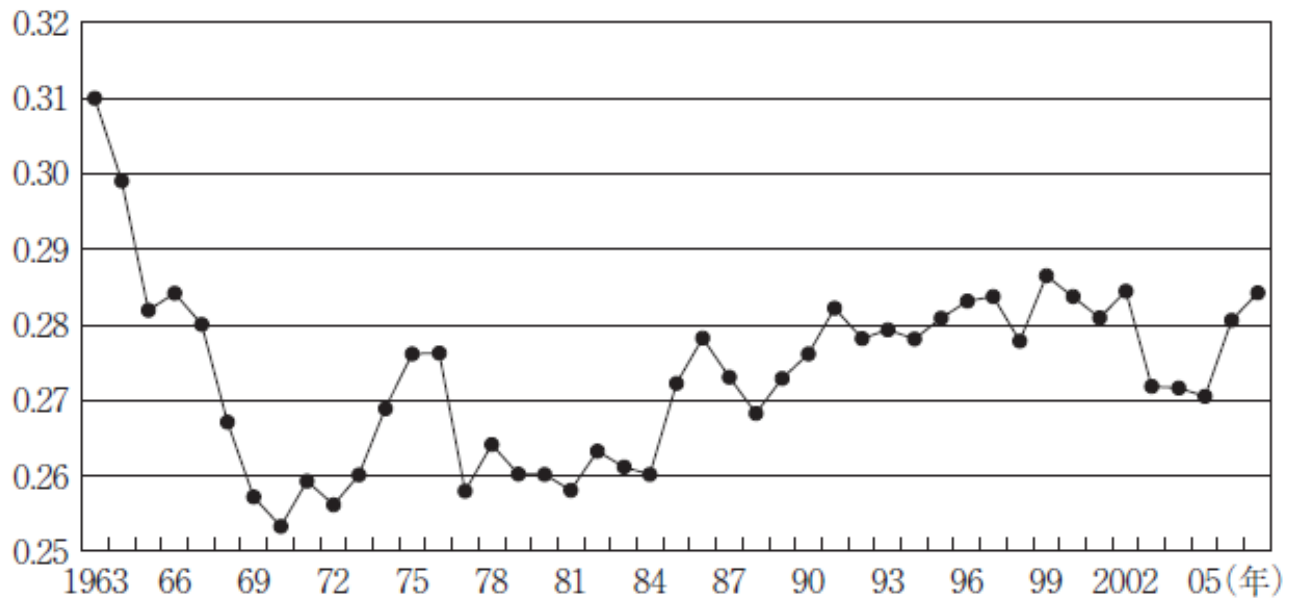
In the high-speed growth period, wages and salaries of Japanese employees climbed upward every year by a considerable amount in real terms, while income gaps got widened between cities and rural areas, between salaried workers and farmers, and within salaried workers among different industries.

In due course, however, the market mechanism began to operate to diminish these income gaps, as is depicted in the left side of Figure 10.1.⁶⁵

⁶⁴ This chapter is a slightly revised and extended version of my report on “How Japan Has Handled Old-age Income Security?” presented at the Opening Ceremony of the Center of Social Welfare and Governance Research, Zhejiang University, Hangzhou, 19 May 2018. The set-up of a new research center, headed by Professor Wenjiong He, was to commemorate the 40 years’ anniversary of China open-reform policy. By chance, Year 2018 is also the 40 years’ anniversary of the China-Japan Treaty of Peace and Friendship. It is a sincere hope of the present author that the new institute will soon grow to become a center of excellence (COE) as a prestigious and influential organization not only in China but also in the rest of the world. There are several requirements for the COE. Among others, the following five are essential; 1) foresight and outstanding leadership of Director, 2) high-quality research output of international standard, 3) international engagements: net-working and active collaboration, 4) significant contributions to the evidence-based policy formation, and 5) neat dissemination of research activities.

⁶⁵ The increase in Gini coefficient after around 1980 reflected the population aging, since the within-age income gap got widened as ages went up in Japan.

Figure 10.1 Gini Coefficient of Household Income in Japan



Source: Ohtake-Kohara (2010)

It is mainly due to a rapid urbanization, a drift of population from rural to urban areas, another drift from declining industries to growing ones, and increasing establishments of production bases in local areas. This move was intensified by the tightening labor market. The so-called Kuznets' inverted U-shape hypothesis held good in Japan.

10.3 Emergence of A “Redistribution State”⁶⁶

Retired persons were left behind, enjoying few dividends from economic growth, however. The market mechanism was found to be helpless in this point. The elderly were then regarded as pitiful. There were loud and intense voices for a drastic increase in social security old-age pension benefits.

In 1973, Prime Minister Kakuei Tanaka (田中角栄) announced that “Here comes the *First Year for Welfare Society* (福祉元年); we have decided to realize it by partially transferring money from naturally increased massive tax revenues and social security contributions owing to the ongoing rapid economic growth.”

The Tanaka administration enormously lifted the replacement rate of social security pension benefits, introduced an automatic benefit-indexation to CPI, and enforced a drastic cut of user charges (co-payments) of social security health care services down to JPY zero for the retired elderly.

⁶⁶ Regarding Section 10.3, Section 10.4, Section 10.6 and Section 10.7 in this chapter, more detailed explanations were given by Takayama (2018).

10.4 The Period of Diminished Expectations

The 1973 first oil crisis bitterly destroyed the rosy picture for future Japan. The period of diminished expectations started. Policy makers were forced to take an opposite turn to reduce the increasing social security benefits and to increase the rates of tax and social security contributions, as well. These were reforms with pains and tears, quite unpopular to the general public. Repeated challenges took place, but often went in vain.

Japanese had a weakness in dealing with the long-term problem. Sooner or later, however, a majority of people were forced to realize that a crisis in social security would come very shortly to them. Once they understood the gravity of the problem (for example, falling into a current account deficit), they reluctantly accepted political compromises which were required to overcome the problem.

Never-ending reforms have been carried out to contain spiraling social security costs (by reducing the level of pension benefits and pulling up the normal pensionable age) due to a population aging. Moreover, segmented social security pension systems were integrated step by step to avoid bankruptcy for some financially-weak segments. At the same time, the pension gap between civil servants and private-sector employees was completely deleted.

The latest overhaul of the social security pension system was made in 2004. It has fixed the contribution rate unchanged for the next 100 years, thereby making the system to virtually move from a pay-as-you-go defined-benefit plan to a pay-as-you-go “defined-contribution” one. A new indexation formula that takes demographic factors into account was introduced as an automatic balance mechanism, as well. It was expected to bring a negative adjustment every year in real terms to pension benefits.

It is well known that working longer with higher productivity provides the most decisive solution to cope with a population aging. Giving greater incentives to work longer is currently the major policy concern in pension issues.

10.5 Motivations for Mutual Help

Social security is a system of mutual help. Cost sharing within social security requires a sense of unity or togetherness among its participants. That sense varies depending on different degrees of common interest and risk sharing.

Usually, families are the strongest body bound by common interest. Each company will work as the second-strongest entity pursuing the common benefits. Neighbors or regions come next. Religious groups can play some roles on giving alms or dedications to someone in need. The last resort is the nation. Without any compulsory actions, the nation remains the least potent in executing mutual help.

Through the process of industrialization, the role of families has been weakened. Instead, there has been a growing demand for the nation to redistribute income for old-age income security.

In mandating this redistribution, some words are necessary for the nation to induce people to arrive at an agreement. Each country has its respective words for this inducement. Examples are:

- "Solidarity" for Germany and France

- "Partnership" for the United Kingdom
- "We are the No. 1 in the world" for the United States
- "We are all Japanese" for Japan

How about China? Is it "All men are brothers (四海之内、皆兄弟也：孔子)"?

10.6 Selfless Reformers with Foresight

The history of pension reforms in Japan implies that challenges sooner or later make a person well qualified to solve them. Mr. Kiyoshi Murakami (村上 清, a researcher) and Mr. Shin-ichiro Yamaguchi (山口 新一郎, an administrative official) were typical examples. Both of them were selfless men of deep insight with a strong sense of responsibility for future generations, working out the practical pension reform plans with foresight and full persuasiveness.



The Late Mr. Kiyoshi Murakami



The Late Mr. Shin-ichiro Yamaguchi

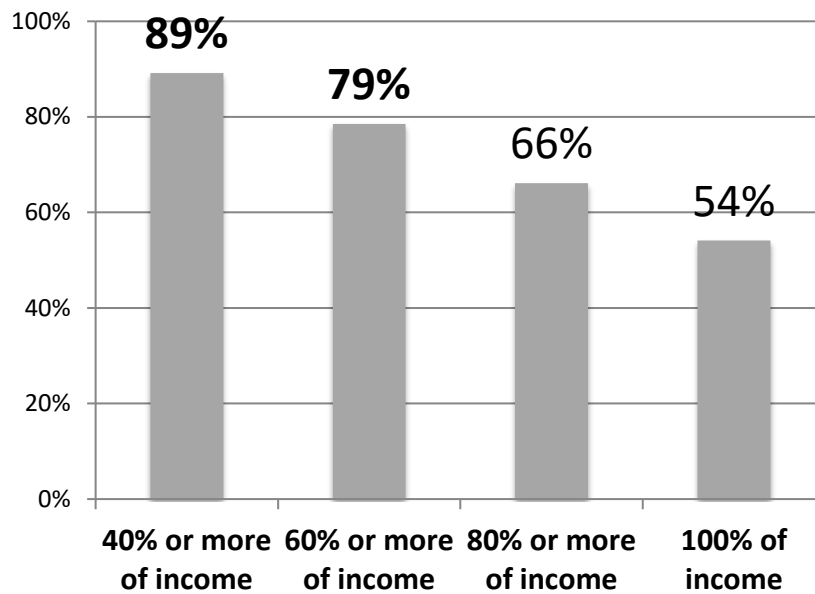
Japanese are quite happy and proud to have such outstanding reformers of pensions.

The present author firmly believes that China has her own pre-eminent persons who give the right solutions to the existing problematic system of pensions. Be wise enough to distinguish such exceptional figures from not a few pretentious experts with no discerning eyes who often talk loudly for the sake of some specific group.

10.7 Current Role of Social Security Pension Benefits

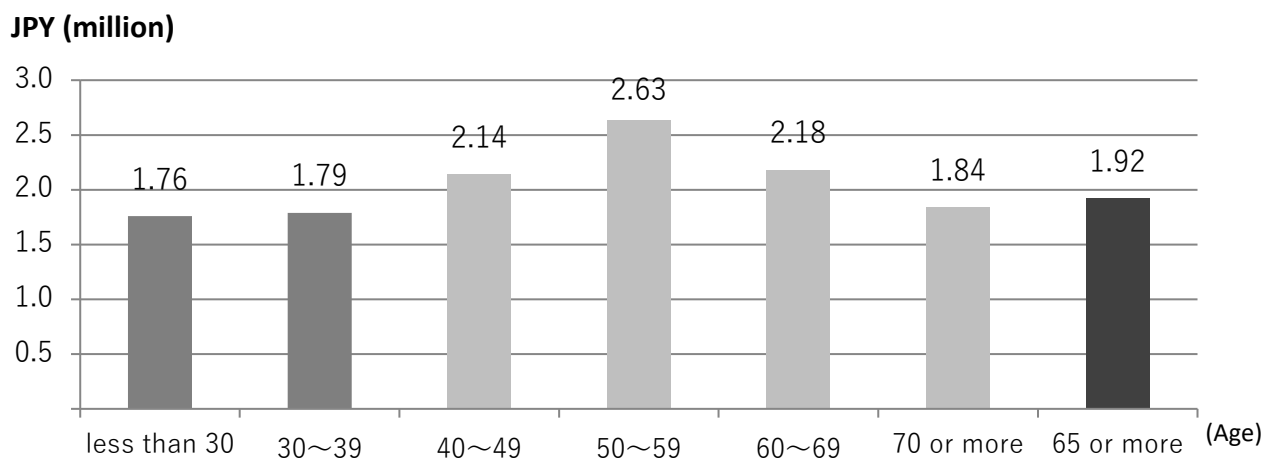
Social security pension benefits are currently the major income source in old age, especially for low- and middle-income groups in Japan, as is shown in Figure 10.2. Moreover, Figure 10.3 indicates that Japanese elderly households are slightly better off than young ones. These outcomes reflect repeated reforms based on painstaking efforts with wisdom.

Figure 10.2 Percent of Aged Receiving Social Security Benefits, by Importance Relative to Income in Japan



Source: MHLW, *The 2016 Comprehensive Survey of Living Conditions*

Figure 10.3 Average Household Annual Income per Capita by Age in Japan



Source: MHLW, *The 2015 Comprehensive Survey of Living Conditions*

Note that the hard core of income in old age is social security pension benefits financed by a pay-as-you-go defined-benefit (or notional defined-contribution) program, and not by a funded plan. In almost all developed countries, situations make little difference.

Taking this stylized fact into account, how do you think of someone in China if he/she proposes that governments should allow people to choose any tier's pension scheme voluntarily from public to private ones?

This proposal seems very similar to the contracted-out from social security, which Japan once introduced and abolished later. The proposal is like saying that one of three sons who have been sending money to support their parents would begin to save for his own, by

stopping sending money to his parents. The two remaining sons will be adversely affected or the income level of their parents will be reduced accordingly.

The pay-as-you-go defined-benefit supporting is based on a principle of mutual help, but any opting-out funded schemes are essentially for their participants' own interest for "cream skimming."⁶⁷

A behavior for seemingly cream skimming in pensions will often bring the opposite outcome; any funded pension plan will turn, sooner or later, to be quite risky in securing old-age income, as Takayama (2017a, 2017b) demonstrated.

10.8 Lessons from Experiences of Other Countries

It is quite important to learn lessons from experiences of other countries. Japan has been very careful for doing it. If some reforms are necessary, related matters are first intensively studied in detail country to country by government officials and non-government researchers, as well. Then, policy makers cautiously examine what reforms in other countries can most fit the ongoing Japanese context, since pensions reflect the history, culture and philosophies of people living in respective countries. In comparing policy options, policy makers place greatest significance on higher feasibility, and do not stick to introduce cutting-edge or front-line measures.⁶⁸ Modifications and refinements for promising options to match the Japanese setting are seen any time.

Typical examples are:

- Non-contributory sunset pensions for the elderly
- Early benefit maturation
- Cost-sharing in basic pensions
- Establishment of the women's pension right
- Demography-related benefit indexation

Remember that Japanese seldom used any policy measure as it was which was borrowed from other countries or proposed by foreign advisers. Foreign advisers and/or experts from international organizations are most likely to have only superficial knowledge on the Japanese context, yet hurry themselves to press their favorite. Research staff in international organizations are not the smartest, in general. They usually are second-ranking experts in their mother country.

Can you imagine that the most honorable Chinese economist Jinglian Wu (吳敬璉老師) would have served for more than 20 years as a staff member of some international organization? The answer by the present author is absolutely "No".⁶⁹

⁶⁷ Cream skimming is one of basic technical terms in economics. See the website below.
https://en.wikipedia.org/wiki/Cream_skimming

⁶⁸ Sun Yat-sen (孫中山) is said to have made a retrospective review of the 1894-95 Sino-Japanese War that China bought up state-of-the-art warships which few Chinese knew how to build and navigate, and that hired foreign advisers turned utterly useless in the pinch, while Japanese sea forces made full use of non cutting-edge warships for themselves which were improved by home-grown skills.

⁶⁹ In Japanese eyes, Dr. Jinglian Wu seems to have been one of the most distinguished Chinese figures with penetrating intellect to think for themselves, confidently planning China

Incidentally, in October 2017 at Beijing, the present author praised Robert Holzmann as a Pope in charge of pension issues *among international organizations* since he was the first World Bank official who made formal and affirmative statements on *incorrect* arguments and the *incorrect* assumptions involved in funded pensions. But the present author did not say “He is a Pope of pensions *in academia*.” The present author hopes his word-restriction of October 2017 will tell its own story in China. If Robert Holzmann wants to be called as a father or mother of notional defined-contribution plans, he should have promoted them as the World Bank section director of social protection when he committed to the Liaoning experiment of fulfilling empty account in 2001.⁷⁰

Finally again, the present author strongly believes that Chinese policy makers will soon regain their self-confidence in re-building the basic framework of their social security pensions in the right direction by their own judgment.

【Acknowledgements】

The present author is deeply indebted to valuable and helpful advices from Dr. Xinmei Wang for writing this chapter.

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open-reform policy as the principal economist.

⁷⁰ Robert Holzmann was really an excellent operator in international organizations. But, Chinese pension experts should have known what Robert Holzmann did in Liaoning in 2001. Robert Holzmann still seems to say that the failure in the Liaoning experiment might be mainly due to insufficient “implementation” capabilities of Chinese administration, and not due to the idea of the 1994 World Bank report on *Averting the Old Age Crisis*, thereby escaping from his commitment-responsibility for people in Liaoning. If the present author were a Chinese in charge of making policies on the pension program in China, he would have never had invited Robert Holzmann again as a pension-adviser.

Appendix A

A Tribute to the Late Mr. Kiyoshi Murakami

村上清さんを偲んで

(初出：ウェブ限定記事、高山オンライン、2009年3月25日)

一橋大学 高山憲之

年金評論家の村上清さんが2008年12月14日にお亡くなりになった(享年82歳)。村上さんは1960年代の中頃からほぼ40年間にわたり年金評論家として旺盛な言論活動をつづけてこられた。在りし日の村上さんを偲び、その輝かしいご功績の一端をここに記すことにする。

村上清さんは“先見の明”の持主であった。誰よりも早く、日本における年金の将来を鮮やかに切りとることができた人である。まさに稀有の能力に恵まれた非凡な人であった。以下、その例を3つ列記したい。

第1。日本の公的年金は賦課方式に基づいて財政運営されている。そのことを日本ではじめて指摘したのは村上清さんである。当局による公式見解は、(修正)積立方式に基づく財政運営というものであった。1966年改正で、いわゆる1万円年金(厚生年金における給付月額モデル水準)が実現したとき、政府は修正積立方式論に基づいて将来の年金保険料を9%程度(労使込み)と見込んでいた。その見込みが非現実的であることを鋭く指摘したのが村上さんであり、将来の年金保険料は9%の4倍、36%(旧来の標準報酬月額ベース。現行の総報酬制の下では27%程度)になると看破したのである。将来の公的年金財政が賦課方式で運営されることを一早く見通した的確な予見であった(村上清著『退職金と年金制度の将来』ダイヤモンド社、1969年刊)。当局が旧来の公式見解を捨て、公的年金が賦課方式に基づいて運営されていることを繰り返して説明するようになったのは、村上さんによる最初の指摘からほぼ10年が経過した1970年代末のことである。

第2。1973年は“年金の年”と呼ばれ、年金の自動物価スライド制や、いわゆる5万円年金が実現した年であった。第一次石油ショック直前、多くの国民が高度経済成長の美酒に酔いしれていた年の年金改革であった。厚生年金の給付水準(モデル年金)は賃金の60%に設定された。この年金改革を世論はこぞって歓迎した。批判を封じるような空気が支配していたのである。そうした中であって村上清さんは、モデル年金の給付水準が将来80%超まで上昇することを誰よりも先に見抜き、将来の過大な負担による財政の崩壊を防ぐためには給付水準に上限を設定すべきだと主張した(村上清「厚年5万円年金案の問題点」『週刊社会保障』1973年2月12日号)。ただし、その主張は当時、政治家や政策当局に黙殺されてしまった。当局が村上さんの指摘を真摯に受けとめ、生年月日別に給付乗率を引き下げたのは1985年であり、村上さんの指摘から10年以上たった後のことであった。

第3。厚生年金基金は税制適格年金と並ぶ日本の代表的な企業年金であった。厚生年金基金は公的年金である厚生年金給付の一部を国に代行して支払う。その代行について村上清さんは当初から慎重なスタンスをとりながら解説していた。その後、厚生年金に自動物価スライド制が導入されることになり、村上さんは意を決したかのように代行そのものの論理矛盾

を鋭く突きはじめた。すなわち賦課方式で運営されている公的年金を積立方式の私的年金で代行するのは財政上無理だと断言し、厚生年金基金は早晩いきづまると警告したのである（「厚生年金基金による代行の将来」『生命保険経営』1989年11月号）。村上清さんの警告は、厚生年金基金制度のさらなる普及を意図していた人びとの思惑とは真正面から対立する内容であったが、その警告の正しさはバブル崩壊後になって、ようやく広く認められるようになった。厚生年金基金の解散があいつぎ、代行返上ラッシュが起こったからである。

村上清さんは“正論の人”であった。年金をめぐる議論は昔も今もロマンや感情論にとらわれたものが多い。身勝手なご都合主義であるかのような主張も少なくない。そうした中であって村上さんは、曇りのない無私の眼で常に年金を凝視し、ロゴスを大事にしながら堂々と正論を述べつづけたのである。ときに、勤務先（日本団体生命）の役員や業界関係者さらには年金を所管する官庁等からの誤解や反発、中傷・誹謗等も予想されたに違いない。それらに臆することなく、将来世代や一般サラリーマンの利害にも配慮した、バランスのとれた主張を村上さんは常に勇気をもって展開したのである。年金研究者にとって村上さんは、まさに“導きの糸”であり、北極星のような存在であった。

村上清さんは類まれな啓蒙家でもあった。NHKテレビ等の年金番組に多数出演して年金のしくみをやさしく解説する一方、『年金の知識』『企業年金の知識』（いずれも日経文庫）を公刊し、年金に対する国民の理解を深める努力を惜しまなかった。リズムカルで軽やかな語り口が村上さんの身上であった。

村上清さんは年金研究者として世界ではじめて認められた日本人でもあった。まさに我われ日本人の誇りである。終戦後に来日し、「マイヤーズ勸告」を執筆したことで知られるR.マイヤーズ氏をはじめとする外国人は、日本の年金のことになると村上さんにまず聞くというのが通例であった。ILO等、外国における招待講演も少なくなかった。村上さんは、そうした実績をふまえつつ、世界における年金の常識を日本に紹介しながら、日本の一部にみられた年金の非常識（たとえば公的年金民営化論や公的年金の積立方式化など）を批判しつづけたのである。

村上清さんは国家公務員等共済組合審議会委員、地方公務員共済組合審議会委員をはじめとする共済年金関連の公職に多数就任し、年金制度の安定化にも少なからぬ貢献をした。どういふわけか年金審議会委員には声がかからなかったものの、名誉欲や虚栄心とはいっさい無縁の人だった。

村上清さんは年金の専門家として“深く”生きた人である。見事な人生であった。ここに謹んで村上さんの卓越した幾重にもわたる偉大なご功績を讃えるとともに、ご冥福を心よりお祈りする次第である。

Part III Other Related Topics

Chapter 11

A Report on Sweden's Tax and Social Insurance Contribution Collecting System

スウェーデンにおける税と社会保険料の一体徴収および個人番号制度

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本章は2008年3月27日(木)～28日(金)にスウェーデンの国税庁および社会保険庁にて Henrik Lund 氏(国税庁)、Ingegerd Widell 氏(国税庁)、および Arne Paulsson 氏(社会保険庁)に対して行ったインタビューの結果をとりまとめたものである。インタビューにあたり小多章裕氏(財務省主税局課長補佐)、岡部史哉氏(在ストックホルム日本大使館1等書記官)、および通訳の土屋哲志(さとし)氏に一方ならぬお世話になった。記してお礼申し上げる次第である。⁷¹

11.1 個人番号制度について

(1) 国民総背番号制度

スウェーデンでは、いわゆる国民総背番号制度が採用されている。あらゆる行政手続きにおいて、この個人番号は普遍的に利用され、また民間の取引においても活用されているのが実態である。プライバシーの侵害という議論は、この制度に関するかぎりほとんどなく、制度は定着している。

(2) 住民登録と個人番号の付番

国内で新生児が生まれると、病院から税務署へ出生記録が送付される一方、両親が新生児の氏名申告書を出生から3ヶ月以内に税務署へ提出する(この提出義務を怠ると罰金を課せられることがある)。それらの情報に基づいて国税庁(Skatteverket)は、みずから管理している住民登録中央データベース(Population Register)に住民登録し、個人番号を付番する。なお、国外からの移住者には移住時に個人番号が付番される。さらに、死亡診断書を書

⁷¹ 本章は、2008年3月27日～28日の両日、ストックホルムで実施されたインタビューの主要内容を再録したものである。2008年4月以降における制度変更は一切、含んでいない。初出は世代間プロジェクトのDP-374(2008年度)である。英語版は作成していない。

いた医師は死亡の事実を、また埋葬責任者は埋葬場所をそれぞれ税務署に報告しなければならない。

(3) 住民登録事務：教会から国税庁への移管

住民の出生や死亡等は、もともと教会に届け出ている。教会における住民記録管理は 1571 年に始まったといわれている。1686 年には住民記録管理に関する統一規則が制定された。国民総背番号制度が導入されたのは 1947 年である。1960 年代に入ると、記録のデジタル化（コンピュータ化）が開始された。住民登録事務が教会から国税庁に移管されたのは 1991 年であり、IT 基盤のデータ化を促進する一方、生活面における利便性を向上させることに、その移管の目的があった。

(4) 一生涯不変の個人番号

個人番号は原則として一生、不変のままである。転居や結婚・離婚、改姓・改名でも個人番号は変わらない。個人番号は性転換したときには変更される（性転換者は毎年 15~20 人いる）。

(5) 住民登録情報の具体的内容：

個人番号、出生年月日（移住年月日）、氏名、出生地、国籍、教区名、両親の氏名、育児責任者の氏名、現住所、結婚歴、離婚歴、結婚相手の氏名、子供の氏名、養子の有無、所有不動産等。

(6) 住民登録内容の変更手続：とくに転居の場合

転居や結婚・離婚・出産・養子縁組・育児責任者の変更・性転換等の場合、住民は税務署に、それらを申告する義務がある。この中では転居の手続がとりわけ重要である。転居する場合、遅くとも転居の 1 週間前までに最寄りの税務署・社会保険事務所・郵便局のいずれかに変更届を提出するか、インターネット上の住所変更サイト（Adressändring）で変更手続きをしなければならない。変更申請後に、変更確認書が転居前の住所に郵送される。この確認書送付は他人の不正申告を避けるために行われる。確認書に署名して返送すると、住所変更手続きが完了する。この手続きをすると、郵便局をはじめとする他のすべての行政機関が保有する住所情報が自動的に変更される。

なお上記のインターネットサイトで、不在期間中の郵便物取りおき、再配達、郵便物の転送サービス（有料）、の申込みもできる。

住所変更を申請せずに転居してしまう人もいる。そこで社会保険手続、運転免許証の交付・更新、子供の就学手続等のさいに登録済みの住所とは異なる住所が記入された場合、各行政機関はその住所変更を税務署に通告する義務がある。

登録住所が正しくない場合、本人に毎年送付される所得税確定申告用通知書が本人に届かず、税務署に戻ってくる。その場合、移動先の新事業主や社会保険事務所、地方自治体等からの住所変更通知を税務署は待つことになる。なお所得税の確定申告は国民全員の義務となっている。その確定申告のさいに現住所情報が更新されることもある。

住民登録情報が正しいか否かは別途、特別調査でもチェックされている。1996 年に実施された 1 万人調査（於 Västernorrland カウンティ）によると、登録情報の誤りは 0.17% にすぎなかった。

(7) 年間のサービス業務量

人口が約 900 万人のスウェーデンにおいて、個人番号や氏名の証明サービスは年間で約 180 万件に達していた(1998 年)。そのうちの約 110 万件は 2 日以内に手続きが完了していた。登録内容変更件数は年間で約 200 万件ある。そのうち約 100 万件が転居である。他省庁・地方自治体への通知件数は年間で 260 万件、SPAR (Swedish Population and Address Register) の毎年取扱い件数は 2 億 5000 万件となっている。ここで SPAR とは国税庁に附置されている氏名・住所情報提供機関であり、銀行・保険会社、信用調査会社・投資調査会社、新聞社、民間営利企業等に有料で住所等の個人情報を提供している。なお個人番号関連業務をしている国税庁職員は約 600 人である。

(8) 個人番号の桁数および構成要素

個人番号は 10 桁の番号であり、3つの要素から構成されている。ある地域で 1964 年 8 月 23 日に生まれた男性を例にとって説明しよう。まず、最初の 6 桁は生年月日である。次の 3 桁は生誕番号 (birth number) であり、男性は奇数、女性は偶数となっている。3 桁の数字は乱数的に付番され、特別の意味を有していない。性転換者の番号が変わるのは性別で生誕番号が異なるからである。最後の 1 桁はチェック番号を表しており、以下に示す特別の計算式 ("Modulus 10"方式) に基づいて決められている。

6	4	0	8	2	3	-	3	2	3
2	1	2	1	2	1	2	1	2	

$$1 + 2 + 4 + 0 + 8 + 4 + 3 + 6 + 2 + 6 = 36$$

$$10 - 6 = 4 \rightarrow \text{チェック番号}$$

すなわち生年月日番号と生誕番号のそれぞれの桁ごとに 2 と 1 を交代で乗じて、その積を求める。そして、その総和を計算する。そのさい、積が 12 と 2 桁になったときは、1 桁ずつの数字 (1 と 2) とみなして総和を計算する。総和 (36) の末尾の数(6)を 10 から差し引いた数がチェック番号となる。

年齢が 100 歳になると、生誕番号の前の記号 (ハイフン) がプラスに変わる。

(9) 個人番号の使用範囲

個人番号は、あらゆる行政手続および民間の取引において広範に使用されている。住民登録、納税、社会保険、雇用・失業、病院、徴兵、運転免許、パスポート、郵便、不動産登記、警察、教育、選挙、統計調査など。民間では銀行取引、保険手続など。統一された個人番号の使用頻度は高く、誰もが覚えている。

なお個人番号が記入されたパスポートを本人確認用の ID として使う場合が多い。また IC チップ入りの職員証 (身分証明書、個人番号記載、顔写真つき) を本人確認用の ID として使用しているケースもある。

(10) 不正防止

別人による個人番号の流用は現にある。他人になりすまして転居通知をしたり、郵便物の盗み見など。転居の場合は本人確認を必ずしている。なおクレジットカード犯罪はきわめて少ない。顔写真つきの ID カード（パスポートなど）がないとクレジットカードは発行されない。

11.2 税金と社会保険料の一体徴収

(1) 社会保険料の徴収業務が国税庁・税務署に移管されたのは 1985 年であった。これは、主として事業主の便宜を向上させること、また徴収コストを節減すること、の 2 つに狙いがあった。

(2) 毎月 12 日に税および社会保険料が事業主から税務署に納付される。なお事業主負担の社会保険料の賦課ベースは青天井となっており、上限がない。

(3) 社会保険料徴収記録の社会保険庁への伝送

社会保険料と税金は国税庁（税務署）が一体として徴収している。年金保険料の徴収記録は国税庁から社会保険庁に電子伝送されており、両庁のデータベース間に“no-match”は、ほとんど生じない。個人番号を利用した照合と伝達がスムーズに行われているからである。ただデジタル化が完了する前の 1970 年以前には手書きで年金記録を残しており、記入ミス・転記ミスが残っていた。

記入ミスを少なくするために給与支払額や保険料の天引額を事業主が本人に毎月、給与明細表で通知する一方、事業主は税務署に、そのすべてを申告する。その申告に基づいて税務署は所得税確定申告書用フォーム（給与額や社会保険負担額があらかじめプリントされている）を作成し、本人に郵送する。その両者を照らしあわせて本人が給与支払い額と保険料天引額を確認し、記入ミスがなければ、その用紙に署名して税務署に提出する。給与が高いほど老齢年金受給額も高くなるので、正直に申告するインセンティブが老齢年金制度に組み込まれている。現段階で事業主報告の 99.5% は正確だといわれている。

(4) 不法就労や経営難の企業

土木・建築の作業現場やレストラン・床屋等では不法就労が少なくない。

(5) 事業主は前年に支払った給与総額の従業員別ファイルを毎年 1 月に税務署に提出する。

(6) 不正申告のチェック手段

事業主から正しい報告が税務署に行われているかについては、①税金・社会保険料の合計額と 1 月に提出される前年分の納付総額のカrossチェック（給与総額のカrossチェック込み）、②従業員本人の所得税確定申告書と事業主提出の給与支払い申告書のカrossチェック、③予告なしの事業所訪問と検査、によってチェックしている。③は、とくにレストランや床屋、建設業者に対して重点的に行っている。レストランについては約 80% の店舗を 1 年間で訪問しており、雇用記録の毎日作成義務を果たしているか、無届けの従業員がいないかなどをチェックしている。床屋は現金払いのところが多い。不法就労に伴う Tax Gap は 2001 年から 2005 年までの 5 年平均で年間 660 億クローナ (Tax Gap 総額の約 50%、Tax 総収入の約 5%、

GNP の約 2.5%) となっていた。1 クローナは日本円換算で約 17.6 円である (2008 年 4 月 23 日時点)。

(7) 税金口座

税務署には税金や社会保険料の振込用専用口座 (税金口座) が設けられている。法人・個人とも、それぞれ 1 口座となっており、その口座に税金や社会保険料を振り込む。この口座は銀行や郵便局の預金口座と類似している。

(8) 給与明細書の保存義務について

給与明細書を保存する義務は従業員には課せられていない。ただ、倒産等で事業主が各種の申告を怠った場合、本人が給与明細書 (の写し) を提出すれば、各種の社会保障給付が受けられる。

(9) 社会保険料の未納・滞納

給与の無申告・過少申告に基づく社会保険料の未納は年間で約 300 億クローナと推計されており、保険料総額の約 8% 相当となっている。なお社会保険料の滞納は 45 億クローナ (全体の 0.3%) にとどまっている。

(10) 所得の不正申告等による Tax Gap のうち 520 億クローナは個人事業主 (Micro Company) に係わるものである。

(11) 税務署が徴収した税金・社会保険料は国庫に納められ、そのうち所要額が社会保険庁に振り込まれる。

(12) 税金の徴収費用は全体として徴収総額の 0.45% である。国税庁・税務署の職員数は 2007 年時点で約 1 万 3000 人であり、年々減少している。

11.3 徴収庁：滞納徴収の一元化

スウェーデンには税金や社会保険料だけでなく、公私を含めた様々の滞納金を一元的かつ専門に徴収する機関がある。スウェーデン語で Kronfogdemyn-digheten (英訳名: Enforcement Authority) という機関がそれであり、国税庁と関連している (所在地は同じである) もの、独立機関である。

徴収するのは税金・社会保険料の滞納金以外に、テレビ受信料、駐車違反の罰金をはじめとする各種の滞納金である。このうち民間請求分では裁判所の判決が出た強制徴収分 (いわゆる悪質な滞納分) のみに限定されている。

滞納分は、まず税金還付金や各種給付から控除する形で徴収する。給与や不動産を差し押さえ、競売を執行する権限もある。徴収は本来徴収分の納付期限の年末から五年以内と定められており、それまでの間に徴収できない場合は、一部ないし全部を債権放棄することになる。

徴収庁による滞納分の回収率は税金の場合、最近時点で約 50% となっている。

11.4 社会保険庁の業務

(1) 職員数など

現在、社会保険庁の職員総数は1万4000人前後である（地方機関込み）。行革やIT化の流れの中で人数は最近、減っている。年金部門の職員は昨年1年間に約3割減少した。2006年に発足した保守・中道の連立政権（非社会民主党政権）は行革に熱心である。ちなみに2008年度における給与総額の増額は3%にとどまっておらず、人員削減をさらに進めないと、民間なみの給与アップとはならない。なお社会保険庁におけるパートタイム職員の数はきわめて少ない。

社会保険庁には毎日、約10万件強の問い合わせ（コンタクト）がある。最近ではインターネットで問い合わせる例が増えている。なお相談窓口への電話が繋がりにくいという苦情が絶えない。

民間に委託している業務も今のところきわめて限定的である。各種データのスキヤニング、IT上の技術開発、オレンジレターの印刷・郵送など。

(2) 職員による不正

公金横領はほとんどない。ただ、それが発覚すると、本人だけでなく上司も解雇処分となる。

(3) 年金庁分離案

社会保険庁から年金担当部局を分離し、それとプレミアム年金管理庁とを統合する。これを現与党は提案した。小さい組織の方が効率的で業務集中が容易であるという判断による。ただ、コンピュータシステムが別々となっているため、プレミアム年金管理庁との統合には困難が伴う。社会保険庁職員も、この統合には概して消極的である。

(4) 失業保険は労働組合が所管

スウェーデンでは失業保険は社会保険庁所管となっていない。その所管は労働組合である。スウェーデンにおける労働組合参加率が高い最大の理由は、この点にある。

(5) 職員の退職年齢

社会保険庁職員に定年はない。以前は65歳が定年であったが、今は61～70歳の選択制となっており、選択幅が大幅に拡大した中で、60歳代前半で退職する人がいる一方、70歳まで継続勤務する人もいる。

(6) 行政費用

老齢年金だけに着目すると、年金の行政コストは保険料収入の0.6%にすぎない。

(7) 社会保険料率

スウェーデンでは年金保険・疾病保険（休業保障）・労災保険・両親保険などが社会保険として運営されている。失業保険込みの事業主負担の保険料率は2008年時点で合計32.42%となっている。年々、保険料率は変わりうる（たとえば疾病保険料は2007年から2008年にかけて8.78%から7.71%に下がった）ものの、年々の総保険料負担を一定の32.42%に維持するために一般賃金税（Allmän löneavgift）が残差項（バッファー機能）として設けられてい

る。なお本人負担の保険料があるのは老齢年金のみであり、2008年時点で7.0%である。

(8) 行政上の標語

社会保険庁では業務の推進にあたり、“easy, fast and correct”（理解が容易で、迅速かつ正確なサービス）を catch-word として掲げている。

11.5 オレンジレター

(1) スウェーデンでは年1回、2月の後半から3月にかけて全6ページの手紙を16歳以上の年金被保険者（全国計で600万人）に送る。この手紙はオレンジ色の封筒で送られるので、オレンジレターと通称されている。オレンジ色の封筒の他目的使用は禁止されていないものの、国民感情としては公的年金専用封筒という意識が強いため、事実上、他目的には使用されていない。

(2) 記載内容

氏名、個人番号、給与収入、所得比例年金の年初・年末残高、1年間のみなし運用益、プレミアム年金情報、所得比例年金とプレミアム年金を合計した年金予想受給額、計算根拠、用語解説等。なお、記載内容は毎年、少しずつ改良されてきた。またオレンジレターの記載内容はインターネットを通じてアクセス可能となっている。

(3) オレンジレター送付後の問い合わせ

記載内容の修正を求める問い合わせは、きわめて少ない。むしろ給与が低かったことに対する不満を言う例が多い。

(4) 郵送のねらい

給与支払い額や年金記録が正確であるか否かを年1回のペースで本人に確認を求め、誤っている場合は直ちに修正する。さらに、年金受給月額を多くするためには高い給与を稼ぐか、退職年齢を遅くするか、のいずれかの選択しかないことを自覚させる効果もある。

11.6 年金給付支払い通知

年金受給者には年1回、1月14日前後に年金給付支払い通知書が送付される（年金給付は課税対象となっており、給付時に源泉徴収される）。ただ、通知書の内容が難解であるという苦情は依然として少なくない。なお、年金額が少ないという不平や不満は例外的にしかない。

11.7 その他

(1) 保証年金

スウェーデンの年金受給者のうち2008年1月時点で保証年金（Guaranteed Pension）を受給していたのは男性の20%、女性の67%、男女計で46%であった。受給者の割合は年々、低下する傾向にある。なお2007年時点における保証年金の給付総額は200億クローナであるのに対し、所得比例年金（公的年金）の給付総額は1900億クローナに達していた。保証年金の公的年金給付全体に占める割合は10%弱にすぎない。

(2) 自動安定装置：

スウェーデンの年金自動安定装置 (balance mechanism) は制度創設後、1 度も発動されていない。公的年金のバランスシートが債務超過となっていないからである。

(3) みなし運用利回り

1996 年以降における公的年金の「みなし運用利回り」は年平均で名目 3.1%であった。他方、市場運用利回りは 2008 年 1 月末時点で年平均 3.9%となっている。2008 年 3 月末時点では、さらに低下しており、みなし運用利回りとの違いはほとんどなくなった。

参考資料

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2. Swedish Tax Agency, "The Tax Gap Map."
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Chapter 12

Cost Sharing among Different Ages/Regions/Occupations in Japanese Social Security Healthcare

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12.1 Introduction⁷²

Cost sharing in Japanese social security healthcare has been growing and its current size is quite massive. It is executed by pooled insurance contributions and statutory transfers from general revenue. Due to dragged-out slowdown of her economy along with a rapid population aging, a resulting persistent budget deficit has forced the central government to severely contain an increasing amount of transfers from general revenue to healthcare. Consequently, cost sharing by pooled contributions, especially by the supportive grants from actively working generations to retired persons, plays an increasing role.

This chapter presents cost sharing in Japanese social security healthcare, with highlighting their backgrounds and underlying philosophies. Before going into detailed discussions of them, Section 12.2 explains the outline of healthcare system in Japan, and points out its several unique features. Section 12.3 focuses the substantial differences of medical expenses by age. Section 12.4 and Section 12.5 clarify how to share the medical cost for elderly persons. Section 12.6 provides a brief outline of the *Kokuho* (国保) scheme organized on a community basis and deals with its cost sharing between rich and poor regions. Section 12.7 takes up varying insurance contributions among different provinces for the *Kyokai* (協会) scheme of employees in SMEs. Section 12.8 concludes this chapter.

12.2 Outline of Healthcare Insurance System⁷³

The Japanese insurance system of social security healthcare has the universal coverage. Currently it is broadly composed of the following five schemes, covering different sectors of the population by age and by occupation:

- A: the scheme for the “*Old-old*” (those aged 75 and over: 後期高齢者)
- B: the schemes for those of age 74 or younger
 - B1: for regular employees

⁷² This chapter is a revised and extended version of my report presented at the China-Japan joint workshop on pensions, Beijing, 27 July 2018.

⁷³ Ikegami-Campbell (1995), Ikegami et al. (2011), Iwabuchi (2013), Ministry of Health, Labour and Welfare (2013, 2014, 2016, 2017c, 2018a, 2018b) make an overview of the Japanese system.

civil servants (*Kyosai*: 共済)

employees in large firms (*Kumiai*: 組合)

employees in SMEs (*Kyokai*: 協会)

B2: for non-regular employees, self-employed, pensioners, and others (*Kokuho*: 国保)

Individuals have no choice of the schemes. The participation in the first *Old-old* scheme is exceptionally on an individual basis. The schemes for regular employees are based on employment, while the last scheme (*Kokuho*) is organized on a community basis. Dependent persons are covered by respective schemes which their breadwinner participates in.^{74, 75} The first and the last schemes (*Old-old* and *Kokuho*) are financially managed on a provincial basis (都道府県単位).⁷⁶

Poor persons⁷⁷ are exempted from participating in any schemes above mentioned, and their medical costs are wholly covered by public assistance (生活保護: 医療扶助).

There are several unique features in the current Japanese healthcare insurance system. Among others,

1) at retirement, regular employees are usually obliged to move from their schemes (*Kyosai*, *Kumiai*, or *Kyokai*) to the last one (*Kokuho*).⁷⁸ The *Kokuho* has no choice but just mandate the retirees to participate in its scheme;

2) the social security coverage of medical care service and its reimbursement to providers are the same for all the programs;

3) each patient in Japan enjoys free access to any medical service providers at any time, purchasing most available medical treatment at a publicly determined price through social insurance program for healthcare;

4) the copayment (user charges) is basically 30% of medical costs, while special reductions are given to older people of age 70 or over and infants less than 6 years old (Table 1).^{79, 80} Moreover, a very generous ceiling on copayment is implemented, and any amount

⁷⁴ Dependent persons do not directly pay their own insurance contributions. Instead, their breadwinner pays them based on his/her salary (*Kyosai*, *Kumiai*, and *Kyokai*) or on his/her annual income, number of household members, etc. (*Kokuho*). Dependent persons have their own health insurance card individually.

⁷⁵ Dependent persons in China are to be all covered by a community-based scheme. This is a big difference between China and Japan. See Katayama (2018).

⁷⁶ Japan currently has 1724 cities (市町村) and 47 provinces (都道府県) in 2019. Each city belongs to the respective province.

⁷⁷ Their number was 1.7 million; 1.4% of the total population in 2014.

⁷⁸ In China, retired employees remain in the same scheme as before in many cases.

⁷⁹ To be more accurate, prior to the start of compulsory education. The copayment for infants is virtually reduced a great deal or even to a nil, due to special political considerations by almost all municipalities.

⁸⁰ The copayment in China is quite different from that in Japan. Chinese people are asked to first pay 100% of the medical expenses up to the stipulated amount in many cases, and after these deductible expenses, a copayment rate ranging from 3% to 40% is applied. Moreover, there is the upper ceiling above which Chinese patients are again forced to pay 100% of their medical expenses. Each deductible amount and each upper ceiling vary between the inpatient and the outpatient, and the copayment rate depends on the different ratings of

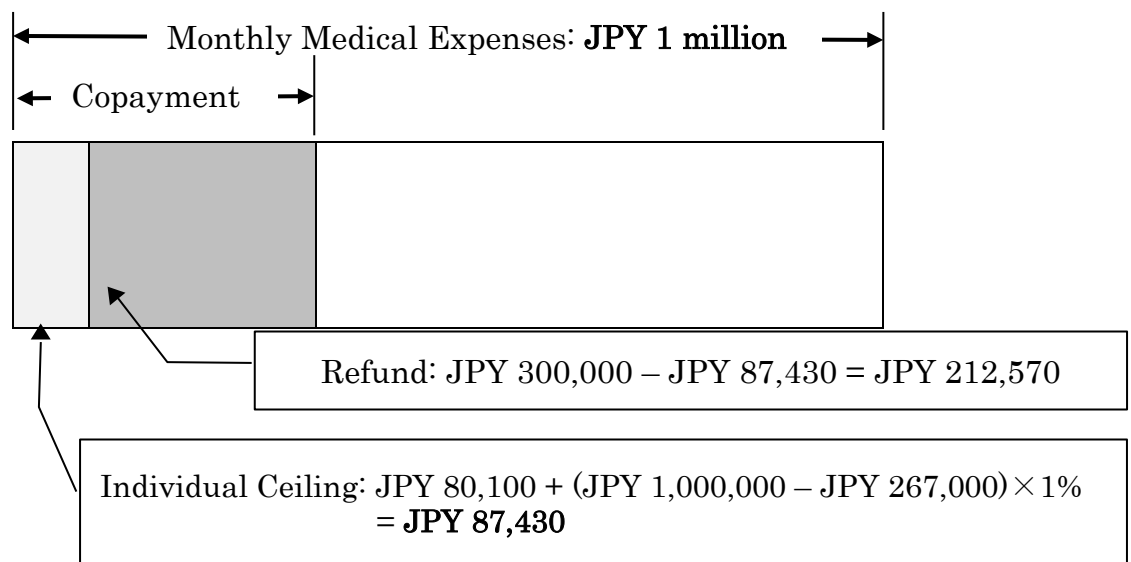
that exceeds the fixed monthly threshold is to be reimbursed in order to ensure that the financial burden on the patient does not become too heavy. The system is called “Refund of High Medical Expenses (高額療養費制度).” Its standard case for a middle-wage earner⁸¹ is presented in Figure 12.1;

Table 12.1 Copayment by Age

Age	Copayment (%)
0-5	20
6-69	30
70-74	20 ^a
75+	10 ^a

a: 30% exceptionally for those households with annual income of JPY 5.2 million or higher (for single households, annual income for JPY 3.83 million or higher).

Figure 12.1 Ceiling on Copayment for Middle-income Earners

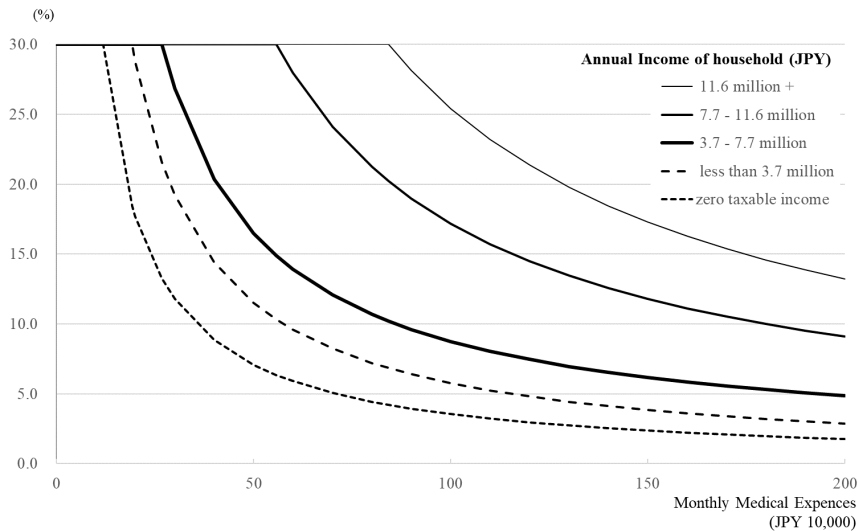


Note: Figure 12.1 takes up a case of JPY 1 million for the amount of monthly medical expenses. The amounts of JPY 80,100 and JPY 267,000 together with the percentage of 1% are all given by the legislation concerned. The middle income is defined as the annual income between JPY 3.7 million and JPY 7.7 million. The exchange rate as at 10 September 2019: RMB1 Yuan = JPY15.1

hospitals and/or where the hospital is located or whether the hospital is administered by the corresponding local government. These Chinese system looks like a private insurance one.

⁸¹ There are five different minimum amounts of copayment above which the reimbursement is available. They are set by respective income classes.

Figure12.2 Copayment in Practice



Source: Ministry of Health, Labour and Welfare, Japan (2018c).

Note: less than age 70. Case: 30% copayment rate

Figure 12.2 depicts varying institutional percentages of the copayment among different income groups. In fact, the effective copayment rate on the national health expenditure basis was about 11.6% on average in 2015.⁸²

5) in contrast to the benefit side, each program for healthcare adopts a different financing method. Generally speaking, schemes covering low-income persons as their major part receive statutory transfers from general revenue of the central and/or local governments,^{83, 84} and first *Old-old* scheme additionally receive supportive grants from all the other schemes whose major income source is the insurance contribution paid by their enrollees (and their employers).

There are following two principles in paying medical expenses.

- 1) The *Old-old* and *Kokuho* schemes are not responsible for higher average ages of their participants. Differences in average annual medical costs due to different age distribution have thus to be adjusted for equity consideration.
- 2) Persons with the same level of income should pay the same amount of contributions, regardless of regions, provided that the age-adjusted medical costs per person remain same. Differences in the average income level among different regions are another structural factor to be adjusted for achieving horizontal equity.

Reimbursement to healthcare providers is principally based on fee-for-service schedule (出来高払制) that is uniform among different healthcare schemes. The amount of aggregate annual healthcare expenditure in 2016 was 7.8% of GDP, which is relatively low among major

⁸² See MHLW (2018c) for more details.

⁸³ In addition, schemes without employers' insurance contributions receive statutory transfers from general revenue.

⁸⁴ In 2018, transfers from the central government to social security healthcare totaled up to JPY 11.6 trillion, which was almost the same as the amount to social security pensions (JPY 11.7 trillion).

old countries.⁸⁵ Due to the rapidly aging population, however, it will further increase steadily until around 2040.

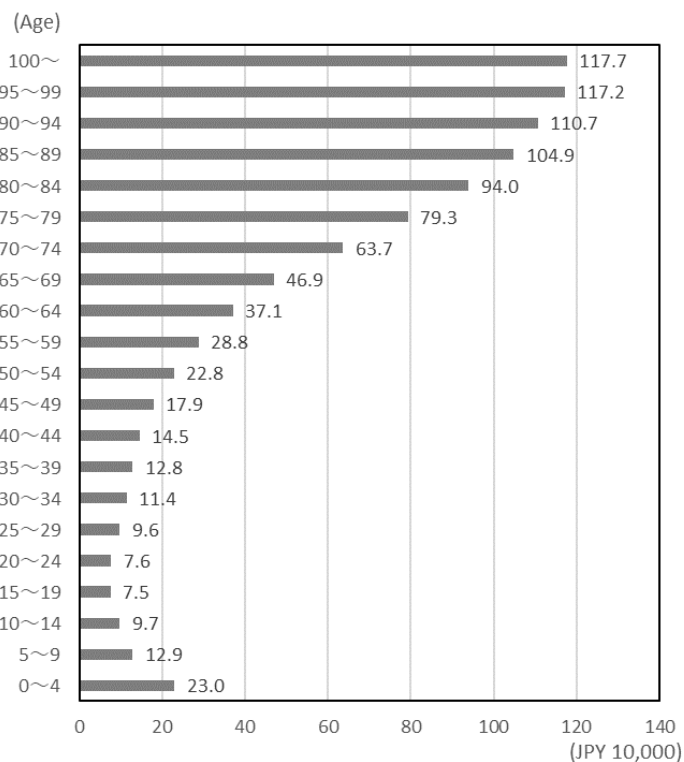
12.3 Substantial Differences of Medical Expenses by Age

Figure 12.3 gives annual medical expenses per person by age in 2015. It shows that they very much varied among different age groups. For example, they were JPY 159,000 for those less than 15 years old, JPY 120,000 for those between 15 and 44, JPY 285,000 for those 45 and 64, and JPY 742,000 for those 65 and above. For the old-old persons aged 75 and above, they were JPY 929,000, about 7.7 times the expenses of those between 15 and 44 years old.

Elderly people are heavy users of medical care services, and consequently in 2015, 59% of aggregate medical expenses were incurred on the people aged 65 and above,⁸⁶ while their share of the total population was 27%.

On the other hand, the average annual income is relatively low for participants in the *Old-old* scheme, as is indicated in Table 12.2, and thus the *Old-old* scheme can hardly be maintained independently. Some cost sharing is required among different age groups.

Figure 12.3 Annual Medical Expenses per Person by Age in 2015



Source: Ministry of Health, Labour and Welfare, Japan (2017b)

⁸⁵ See Honkawa Data Tribune (2019).

⁸⁶ The aggregate amount of medical expenses for the *Old-old* was JPY 15.1 trillion in 2015, amounting to 35.7% of the total expenses. Its share has been steadily increasing.

Table 12.2 Basic Statistics by Healthcare Scheme in 2015

	Schemes				
	<i>Kyosai</i>	<i>Kumiai</i>	<i>Kyokai</i>	<i>Kokuho</i>	<i>Old-old</i>
No. of participants (1,000)	8,774	29,136	37,165	31,822	16,237
(share, %)	(6.9)	(23.0)	(29.3)	(25.1)	(12.8)
Participation Rate (%) (Age 65-74)	1.5	3.1	6.4	38.7	—
Average Age	33.1	34.6	36.9	51.9	82.3
Annual Medical Expenses per Person (JPY 1,000)	157	154	174	352	952
Average Annual Income (JPY million)	6.37	5.52	3.79	1.4	0.8
Transfer from General Revenue	0%	0%	16.4%	41%	33%
Rate of Insurance Contributions (%)	9.24	9.03	10.0	—	—
Average Annual Contributions (JPY 1,000)	271	221	187.0	139	67
Aggregate Annual Medical Expenses (JPY trillion)	1.37	4.49	6.41	11.46	15.21
Aggregate Annual Copayments (JPY trillion)	0.30	0.98	1.42	1.99	1.19
Aggregate Public Transfers (JPY trillion)	—	—	1.22	4.27	7.04
Aggregate Supportive Grants Paid (JPY trillion)	0.58	1.84	1.98	1.34	▲ 5.85
Aggregate Insurance Contributions Required (JPY trillion)	2.19	6.80	7.29	2.89	1.13

Source: Ministry of Health, Labour and Welfare, Japan (2017b)

Notes: (1) Average annual income for employment-based scheme is calculated by excluding salaries more than the upper limit. Average income and contributions for *Kokuho* are exceptionally on a household basis. (2) Transfers from general revenue includes transfers from local governments, as well. (3) Rates of contributions are combined ones for the employees' portion and their employers' portion. (4) Annual contributions are the employees' portion only for *Kyosai*, *Kumiai* and *Kyokai*. (5) The aggregate supportive grants for *Kokuho* is a net amount subtracting JPY 390 billion (received for the young-old) from JPY 1.73 trillion (paid to *Old-old*).

12.4 Cost Sharing for the *Old-old* of Age 75 and over

In 1983, a cost sharing scheme was established for the elderly. Several reforms were carried out thereafter, and the latest overhaul was seen in 2008.

Basic Framework

The main contents of the current *Old-old* scheme are as follows.

The old-old (age 75 and over) pay a lower share of their medical costs; their copayment (患者負担) is basically 10% as described above,⁸⁷ and additionally their insurance contributions (保険料) are set only to finance 10% of the remaining aggregate costs (Figure 12.4).

⁸⁷ Their effective copayment rate in practice was 7.8% in 2015. Some experts assert that the basic rate of copayment for them should be lifted up to 20% as that for those of age 70 to 74.

Figure 12.4 Cost Sharing in the *Old-old* Scheme

Supportive Grants (40%)	Public Transfers (50%)
Contributions (10%)	

Note: Copayments are excluded.

The major part of aggregate medical costs for the *Old-old* are financed by statutory public transfers from general revenue (公費負担; 50%) and the supportive grants (支援金) from all the other schemes of younger groups (40%) as is demonstrated in Figure 12.4.^{88,89} Public transfers come from both the central government and local governments. Their respective shares are 2:1. Among local governments, provinces and their cities share the transfers equally on an aggregate basis.

The supportive grants are first divided into two parts by the head count ratio between all employment-based schemes and *Kokuho*.⁹⁰ Then, among the employment-based schemes, each share is decided to be proportional to respective aggregate amounts of salaries. The ability-to-pay principle is completely applied within the employment-based schemes in sharing the supportive grants. The average income of participants in *Kokuho* are lower than that of participants in any employment-based schemes as is shown in Table 12.2, however. *Kokuho* is forced to bear heavier burdens by the first per-head principle on cost sharing.⁹¹

Insurance Contributions

Contributions by participants in the *Old-old* scheme are composed of two portions: a flat-rate amount and an income-related portion (which is proportional to income).⁹² Each share on an aggregate basis is *normally* 50:50 where the average income of the old-old in the province

⁸⁸ To be precise, statutory public transfers are 47%, due to no public transfers to old-old persons who enjoy a higher level of income as actively working employees. Supportive grants are lifted up to 43%, then.

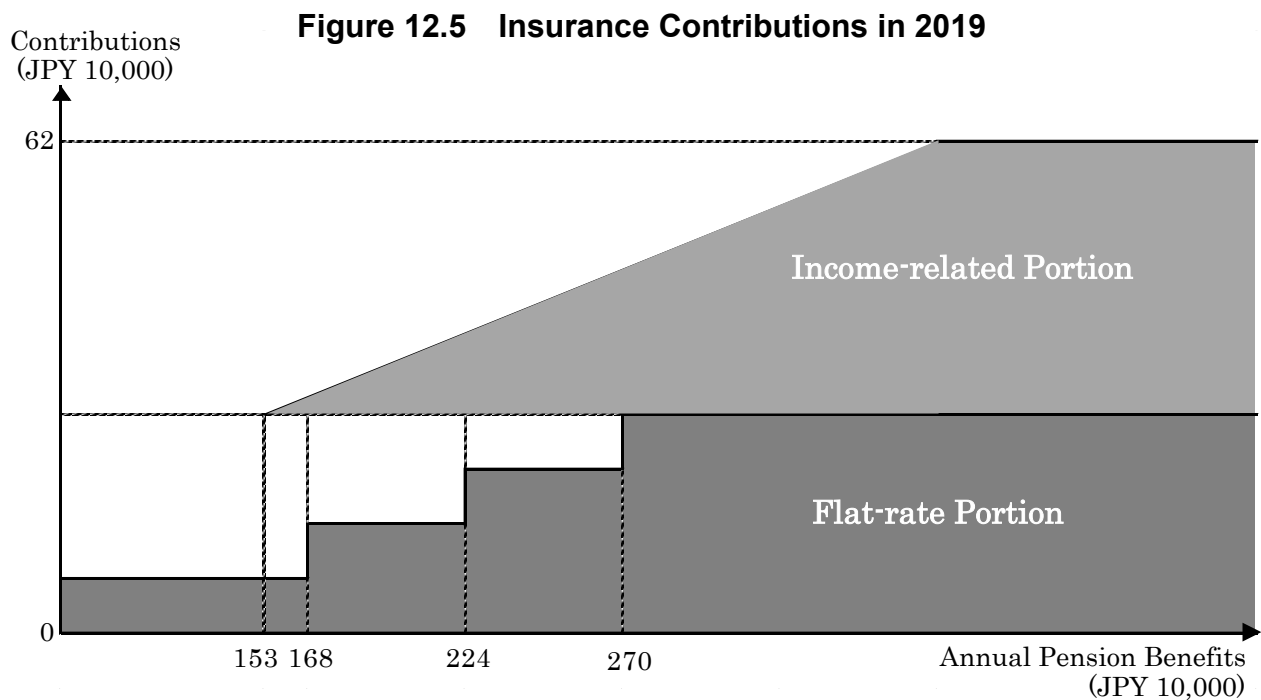
⁸⁹ Statutory public transfers are perfect testimony to a government commitment, and a reflection of generous thought to low-income earners. On the other hand, the supportive grants are for reducing the share of insurance contributions. Note further that public transfers are financed not only by income taxes, real-estate taxes, and VAT, but also government debts in current Japan. That is, healthcare costs for the elderly are partly covered by deficit bonds, which is putting off their burden on to *future generations*.

⁹⁰ In calculating each head count ratio, the number of dependent persons is taken into account.

⁹¹ Moreover, the average income of *Kokuho* participants vary by province. Under the per-head principle, the *Kokuho* groups in poorer provinces are further forced to bear much heavier burdens than those in richer provinces.

⁹² Contributions are individually deducted from social security pension benefits of each participant in the *Old-old* scheme before he/she receives pension benefits.

concerned equals the national average. Any province with a higher average income has a share of more than 50% for the income-related portion. Elderly persons with lower income are applied to the reduced amount for the flat-rate portion. The reductions are 70%, 50% and 20% depending on the level of income.^{93, 94} Their gap is covered by additional public transfers.⁹⁵ The upper ceiling has been set up for the annual amount of combined contributions, and the latest annual ceiling is JPY 620,000 in 2019 (Figure 12.5).⁹⁶



There remains a considerable gap (1.5 times) among different provinces in annual medical expenditures per person for the *Old-old* even after the difference in the age structure is adjusted, as is presented in Table 12.3.⁹⁷ Still more, even when annual medical expenditures per person is same, municipalities with richer participants could levy a lower rate of contributions on each participant. Currently there is no social pooling of *insurance contributions* between rich and poor provinces in the *Old-old* scheme.

⁹³ There remains a transitory reduction of 85% in 2019.

⁹⁴ Those persons with reduced contributions are 8.26 million in number, amounting around 52% of the total participants of *Old-old* in 2015. Due to these reductions, the share of the flat-rate portion was pulled down from normal 50% to actual 37% on average, and no province had a share more than 50% for that portion.

⁹⁵ These reductions (JPY 270 billion in total) together with other factors cut down the share of contributions from 10% (above mentioned) to around 7% in practice in 2015.

⁹⁶ The annual ceiling is set for persons with the annual amount of pension benefits of JPY 8.64 million or more in 2019.

⁹⁷ This gap can be used to give great incentives to those provinces with higher medical costs per person for containing them, by imposing higher amounts of contributions and copayment. The gap in the annual flat-rate contribution per person was 1.8 times (JPY 29,700 vs JPY 16,900) between provinces and the gap in the rate of insurance contributions was 1.6 times (11.47% vs 7.15% of taxable income) among them.

Table 12.3 Gap of Age-adjusted Annual Medical Expenses per Person by Province in 2015: The *Old-old* Scheme (Top 3 and Bottom 3)

Province	Rank	Medical Expenses (JPY million)
Kochi (高知)	1	1.15 (1.23)
Fukuoka (福岡)	2	1.14 (1.22)
Nagasaki (長崎)	3	1.09 (1.17)
National Average		0.93 (1.00)
Aomori (青森)	45	0.80 (0.86)
Iwate (岩手)	46	0.75 (0.81)
Niigata (新潟)	47	0.75 (0.81)

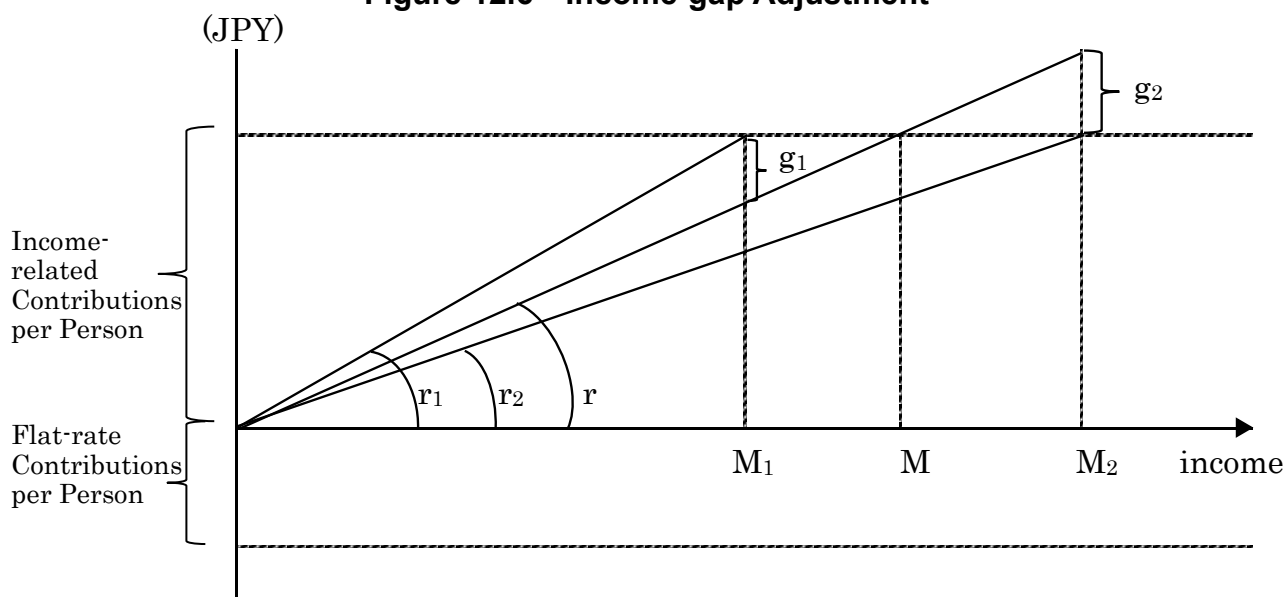
Note: Figures in () indicate each ratio to the national average.
 Source: MHLW (2017d)

Adjusting Income Gap among Regions

Equal footing can be attained through a following adjustment mechanism, as is illustrated in Figure 12.6.

Let us consider a two-province case; one is rich and the other is poor in terms of average annual income (M_1 and M_2), where $M_1 < M_2$. Provided that all other things are equal (the amount of age-adjusted annual medical expenses per person, the amount of flat-rate contributions per person, the amount of income-related contributions per person), the rates of income-related contributions (r_1 and r_2) differ between the province 1 and the province 2, where $r_1 > r_2$. That is, the poor province 1 has to levy a heavier burden.

Figure 12.6 Income-gap Adjustment



Source: Komatsu (2008)

If equal footing is required, then both provinces should have an equal rate of income-related contributions. The equal rate of income-related contributions can be calculated as follows. Let M be the average annual income of the two provinces combined, then r is equal to the average rate of income-related contributions as a whole. We then have g_1 and g_2 as differences of the amounts of income-related contributions per person between before and after required adjustments. If some adjustment fund is set up, and it collects the supportive money (g_2 multiplied by its number of persons P_2) from the rich province 2, while giving subsidies (g_1 multiplied by the number of persons P_1) to the poor province 1, then an income-gap adjustment is completed.⁹⁸

Japan currently has a different way of equal footing from the example stated above. 7.5% of the aggregate medical expenses (copayment excluded) are currently transferred from general revenue of the central government to each province. This adjusting money is called as the general subsidy (普通調整交付金), which is one component of public transfers given in Figure 12.4.⁹⁹ Using this general subsidy, the income-gap among different provinces is partly adjusted.

Its adjustment mechanism is as follows. Let us take three provinces, where their average annual incomes are denoted as M_1 , M_2 , and M_3 . If $M_3 = M$ (the national average), then no adjustment is done, and the original subsidy of 7.5% remains unchanged for the province 3. If $M_1 = 0.8 \times M$, then the poor province 1 can levy 80% of the income-related insurance contributions C_1 (which is calculated as if its average income were equal to M), and the gap is made up for an additional general subsidy. Consequently, the province 1 finally receives the original 7.5% subsidy plus 20% of C_1 as the general subsidy. On the other hand, the province 2 is rich and their income is given as $M_2 = 1.3 \times M$. Then, the province 2 is asked to levy 130% of C_2 (calculated as if its average income were equal to M), and its general subsidy is reduced in turn. The province 2 finally receives the original 7.5% subsidy minus 30% of C_2 as the general subsidy.

Currently all provinces receive more or less the general subsidy from the central government, and only a part of the general subsidy is used to adjust income gaps between rich and poor provinces.

12.5 Cost Sharing for the Young-old of Age 65-74

As for those elderly of age 65-74 (前期高齢者), around 80% of them currently participate in *Kokuho*. The majority of them are retired persons who moved from employment-based programs. The amount of medical costs per person for this age-group is relatively expensive,

⁹⁸ In this case, $g_1 \times P_1$ is not always equal to $g_2 \times P_2$. Consequently, the adjustment fund has to hold its own reserves or to receive transfers from general revenue.

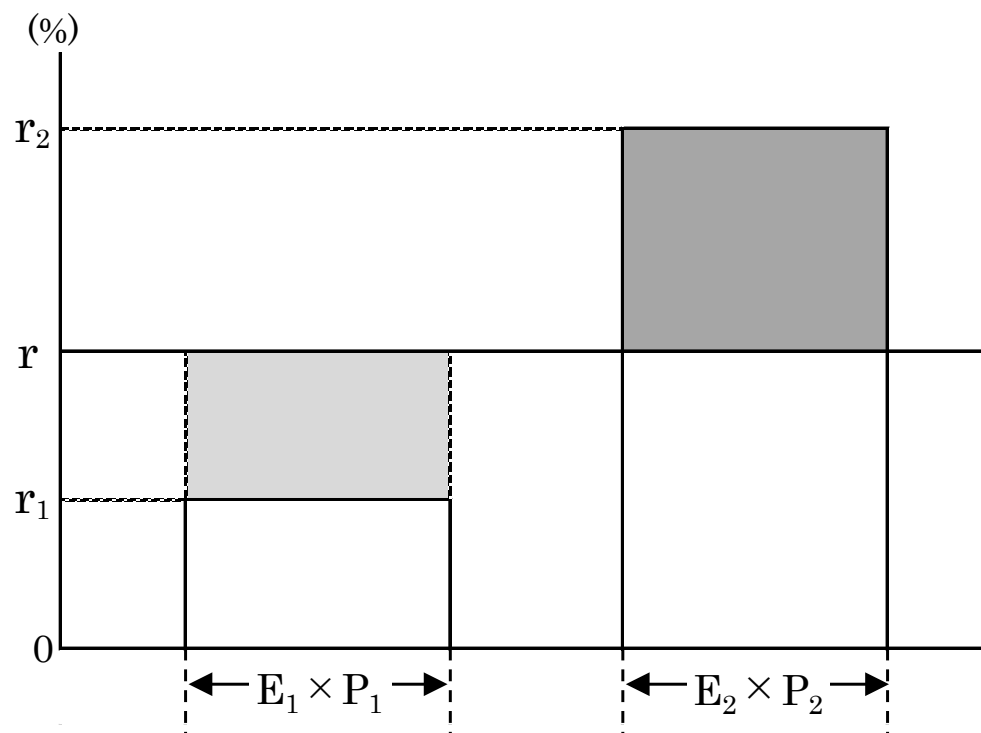
⁹⁹ There is another subsidy from the central government, called “the special subsidy (特別調整交付金).” It is for helping provinces suffering from natural disasters and other specific difficulties, and currently is 0.83% of the aggregate medical expenses (copayment excluded). The other components of public transfers are all proportional to the medical expenses.

as is shown in Figure 12.3. If no scheme of cost sharing for them had been implemented, then *Kokuho* would have faced serious financial difficulties.

The special cost sharing method was invented in 1984, and its latest revision was done in 2008. The current method is depicted in Figure 12.7. The basic idea is that each healthcare scheme has to share the medical expenses as if its participation rate¹⁰⁰ of the young-old is equal to the national average. Let us denote each participation rate by r_i , where $r_1 < r_2$, and r is its national average. Further let us denote each amount of annual medical expenses per person for the young-old and each number of participants of age less than 75 by E_i and P_i respectively. Then the amount of grants paid in the cost sharing scheme is given by $E_1 \times P_1 \times (r - r_1)$, whereas the amount of grants received is given by $E_2 \times P_2 \times (r_2 - r)$.¹⁰¹

Through this kind of the cost-sharing arrangement, *Kokuho* receives a massive amount of grants from all the employment-based schemes. Table 12.4 presents cost sharing for the young-old in practice in 2018. It shows that *Kokuho* received the grant amounting annually to JPY 3.6 trillion. It was a little more than its aggregate amount of insurance contributions, equivalent to around one fourth of its total revenue. In other words, cost sharing for the young-old operates as another method of income transfer from actively-working younger persons to retired older ones, though Japan has no independent healthcare scheme for them.

Figure 12.7 Cost Sharing for the Young-old



¹⁰⁰ The participation rate for each scheme is defined as the number of participants of age 65-74 divided by the total number of participants of age less than 75.

¹⁰¹ Using E_i as a base for cost sharing may have no incentives to containing higher medical expenses of *Kokuho*.

Table 12.4 Grants Paid and Received for the Young-old in 2018

Scheme	Annual Amount (JPY trillion)
<i>Kyosai</i> (共済)	0.5 (paid)
<i>Kumiai</i> (組合)	1.5 (paid)
<i>Kyokai</i> (協会)	1.5 (paid)
<i>Kokuho</i> (国保)	3.6 (received)

Note: Figures are based on the budget for fiscal Year 2018.

Through cost sharing in the *Old-old* scheme and a special arrangement for the young-old above explained, social security programs for healthcare 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.

12.6 Cost Sharing in the *Kokuho* Scheme

Overview of *Kokuho*

Kokuho dates back to 1961 when all the remaining others than participants in the employment-based healthcare insurance programs were *mandated* to enroll in the community (city)-based program. It includes self-employed persons, farmers, independent workers, non-regular employees, the unemployed, and retired persons.¹⁰² Their average age is relatively high, and thus their average medical cost per person is relatively high, as well. Still more, their average level of income is relatively low. Incidentally a little less than 30% of *Kokuho* households had no *taxable* income in 2015 (see Table 12.5).

¹⁰² The major part of the *Kokuho* participants has changed dramatically for the past 50 years. In 1965, farmers and the self-employed people were 68% in number, while in 2015 its share dropped to 17%. In turn, non-regular employees and persons with no occupation (including pensioners) were 34% and 44% respectively in number in 2015.

Table 12.5 Income Distribution of the *Kokuho* Households in 2015

Annual Taxable Income (JPY 10,000)	Household Share (%)
0	28.4
1~99	28.2
100~199	22.9
200+	20.5
Total	100.0

Average Income: JPY 1.40 million
Number of persons per household: 1.66

Note: Annual taxable income is calculated by deducting JPY 330,000 from annual earnings. Here, annual earnings are obtained by subtracting business expenses from its returns, or by subtracting the statutory deduction from public pension benefits.

Source: MHLW, *The 2015 Facts and Figures of Kokuho* (国民健康保険実態調査)

The insurer of *Kokuho* is each city. In 2015, the small-size *Kokuho* insurers of less than 3,000 participants were 471 in number, one fourth of the total (1716). Their fragmented financial condition was quite unstable. Furthermore, even within each province, there were considerably huge gaps among their cities in the annual medical expenses per person (the maximum 2.6 times within Hokkaido province), the average level of annual income (the maximum 22.4 times within Hokkaido province), and the average amount of insurance contributions (the maximum 3.6 times within Nagano province).

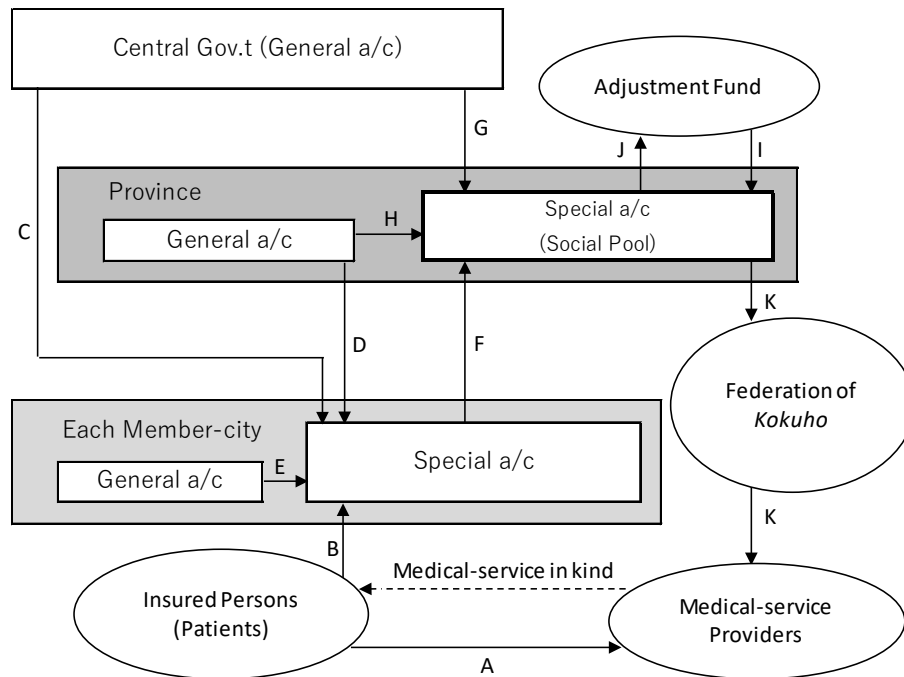
In 2018, a new cost sharing scheme within each province launched. That is, the main body for *Kokuho* financial managements of healthcare services moved from cities to their province. Each province is responsible to pay all the medical expenses to medical-service providers, while it collects the required money (国保事業費納付金) from its member cities. Each amount of the required money is decided by the province and is levied on its member cities.

Money Flow of *Kokuho*

The chart of current money flow is demonstrated in Figure 12.8. Insured persons of *Kokuho* receive medical services in kind from medical-service providers by directly paying the copayment A (患者負担分) to them.¹⁰³

¹⁰³ Participants can receive cash payments, as well, such as the refund of high medical expenses (高額療養費), lump-sum allowance for childbirth/child-nursing (出産育児一時金) and others. These cash payment is not illustrated in Figure 12.8.

Figure 12.8 Money Flow of *Kokuho*



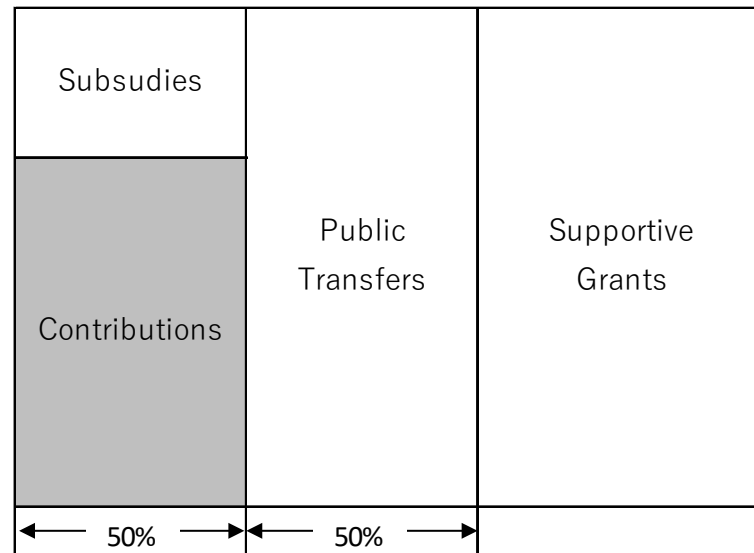
The copayment by patients is basically 30% of the total medical cost. However, a reduction applies to the specified age-groups, and there is an upper limit in copayments. Consequently, the effective copayment rate was 17.3% of the aggregate medical expenses in 2015.

Medical-service providers send the bills of the remaining medical cost to the Federation of *Kokuho* (国保連合会)¹⁰⁴ and receive the reimbursements K after the professional checks and approvals from the Federation of *Kokuho*.

As is explained above, the current main body for *Kokuho* financial managements is each province where its special account (特別会計) for *Kokuho* works as a social pool for paying the reimbursements K to medical-service providers through the Federation of *Kokuho*, and for paying the supportive grants J to the *Old-old* scheme through the Adjustment Fund (支払基金).

¹⁰⁴ The federation of *Kokuho* is set up on a province basis.

Figure 12.9 Cost Sharing in the *Kokuho* Scheme



Note: Copayments are excluded.

Figure 12.9 demonstrates the financial sources of the special account for *Kokuho* at the province level together with their respective shares. Its major source is the supportive grants (前期高齢者交付金) for the Young-old of age 65 to 74 which come from the employment-based healthcare schemes (I in Figure 12.8), as is already described in Section 12.5 in this chapter. The *remaining* sources are public transfers, subsidies¹⁰⁵ and insurance contributions, and the share of public transfers is statutorily set to equal 50% of those sources.

Public transfers are made up of the following 4 components.

- 1) The basic transfer from the central government (定率国庫負担). It was initially 20% of the aggregate medical expenses. It was once increased up to 40% of the aggregate expenses (copayments excluded). But, due to embarrassed state finances, together with a new introduction of transfers from local governments, it was decreased step by step to 32% of them (both copayments and supportive grants excluded) from 2012 on.
- 2) The general grant from the central government for partly adjusting the income-gap among different provinces (普通調整交付金). Its standard rate is 7% of the aggregate medical expenses (two components excluded, as mentioned above). Rich provinces receive less than 7% of them, whereas poor provinces do more than 7%.
- 3) The special grant from the central government (特別調整交付金) for helping provinces/cities which suffer from natural disasters and other specific difficulties. As a whole, it is 2% of the aggregate medical expenses of *Kokuho* (two components excluded, as mentioned above).
- 4) The grant from its own province (都道府県繰入金). Its share is 9% of the aggregate medical expenses (two components excluded, as mentioned above).

¹⁰⁵ Subsidies are mainly for reducing the share of insurance contributions.

The first 3 components are shown as G in Figure 12.8, while the 4th component is denoted as H in the same Figure.

Regarding subsidies, *Kokuho* receives following 5 kinds of them.

- 5) The compensating grants for reduced contributions (保険料軽減分) toward low income persons. 75% of them are subsidized by the province and the remaining 25% by the city. They are shown as D and E in Figure 12.8.
- 6) The subsidizing grants for paying high medical expenses above JPY 800,000 per month per person (高額医療費負担金).¹⁰⁶ The central government and the province share each 25% of them, and the remaining part (50%) is paid by insurance contributions. The grants are included in G and H shown in Figure 12.8.¹⁰⁷
- 7) The subsidy for supporting insurers of *Kokuho* (保険者支援分), which corresponds to the varying number of low income persons. The central government shares 50% of its subsidy (shown as C in Figure 12.8), while the remaining 50% is shared half and half by the province and the city (both included in D and E respectively in Figure 12.8).
- 8) The stabilization grant (財政安定化支援分) from the central government for helping to level off the average amount of contributions among different cities.¹⁰⁸ This grant is included in C in Figure 12.8.
- 9) The subsidy (保険者努力支援分) from the central government for encouraging local governments to make medical expenses more reasonable and to promote a healthier life there. This subsidy is included in G in Figure 12.8.

Owing to the implemented massive amounts of supportive grants, public transfers and subsidies, the share of the insurance contributions is reduced to 24% of the aggregate annual medical expenditures (copayments excluded), as is shown in Table 12.6. Nevertheless, burdens of insurance contributions in *Kokuho* are still heavier than those in the employment-based schemes.¹⁰⁹

¹⁰⁶ There is an additional subsidy for paying much higher medical expenses more than JPY 4.2 million per month per person. This subsidy comes from the central government.

¹⁰⁷ China has a unique system for managing high medical expenses in the community-based scheme. It is a joint venture of the community and private insurance companies.

¹⁰⁸ There is an additional money transfer, though not legislated by statute, coming from many cities (which is included in E in Figure 12.8). This transfer is to make up for the deficit of the special account of *Kokuho* at the city level, arising mainly from hesitating to levy higher insurance contributions and/or a lower collection rate of contributions. The aggregate annual amount of this transfer was JPY 300 billion in 2015, which decreased the amount of contributions from JPY 3.0 trillion to JPY 2.7 trillion.

¹⁰⁹ In 2015 the average rate of contributions for *Kokuho* was 9.8%, whereas that for *Kumiai* was 5.7% (employers portions excluded).

Table 12.6 Financial Sources of *Kokuho* in the 2019 Annual Budget

Source	Amounts (JPY trillion)	Share (%)
Supportive Grants (前期高齢者交付金)	3.49	31.8
Basic Transfer (定率国庫負担)	2.29	20.8
General Grant (普通調整交付金)	0.64	5.8
Special Grant (特別調整交付金)	0.18	1.6
Grant from Province (都道府県繰入金)	0.64	5.8
Grant for Reduced Contributions (保険料軽減)	0.44	4.0
Subsidy for High Expenses (高額医療費負担金)	0.19	1.7
Subsidy for Supporting Insurers (保険者支援)	0.26	2.4
Stabilization Grant (財政安定化支援)	0.10	0.9
Subsidy for Encouraging Insurers (保険者努力支援)	0.09	0.8
Insurance Contributions (保険料)	2.67	24.3
Total (総計)	10.99	100.0

Note: Copayments are excluded.

Allocation of the Required Money: Cost Sharing among Regions

The aggregate amount of required money for each province (国保事業費納付金) is given by deducting supportive grants for the Young-old, public transfers and subsidies from the aggregate amount of annual medical expenses (copayments excluded), and by adding the supportive grant to the *Old-old* scheme. This amount is allocated into its member cities by each province. Each member city has to pay exactly the same amount of the allocated money to its province. In allocating this money, age gap and income gap are both taken into consideration. This section explains how these gaps are currently adjusted in the *Kokuho* scheme.

(1) Adjusting Age Gap

Age gap is seen between provinces and also within provinces. Age gap between provinces is adjusted through cost sharing for the Young-old (前期高齢者) based on their respective participation rates, as is described in Section 12.5 of this chapter.

Age gap within provinces is adjusted as follows. Take City A for example, and let N_i and M_i indicate each number of *Kokuho* participants in its city and each national-average amount of annual medical expenses per person by 5-year age groups i respectively, then the total sum of $(M_i \times N_i)$ divided by the total number N of *Kokuho* participants in City A means the amount of annual medical expenses per person in that city, provided that medical expenses per person of City A by age were equal to the national average. The age-adjusted

index is given by $Y/[\text{sum of } (M_i \times N_i)/N]$, where Y demotes the actual amount of annual medical expenses per person in City A.¹¹⁰

If this index is more than 1, the age-adjusted medical expenses are relatively higher than the national average. Using this index, cost sharing among cities is executed.

(2) Adjusting Income Gap

There are mainly two policy measures for the authorities to adjust income gap.¹¹¹ One is the general grant from the central government (普通調整交付金), and the other is the required money levied on its member cities by each province (国保事業費納付金).

The adjustment mechanism of the former is essentially the same as that of the *Old-old* scheme, as already explained in Section 12.4 of this chapter. If Province P has its average annual income being equal to the national average, then it receives the standard 7% of its aggregated medical expenses as the general grant. If Province Q is rich, enjoying a higher income level, then its general grant is reduced to less than 7%. If Province R is poor, having its average income less than the national average, then it receives more than 7% as its general grant, which enables Province R to set the share of income-related insurance contributions to less than 50%.

All the statements above assume that the age-adjusted annual medical expenses per person in Provinces P, Q and R is same. If this amount is different among these provinces, then the general grant is further adjusted, being proportional to the age-adjusted index above explained in Section 12.6 of this chapter.

Allocation of required money to the member cities (国保事業費納付金) is sophisticated. In allocating it, the money is divided into two parts; one is proportional to the head-count ratio (人数割), and the other is an income-proportional portion (所得割).¹¹² There is a guideline that the standard shares of them are 50:50, provided that the average income of the region is equal to the national average. Any city with a higher (lower) level of average income is asked to have a share of more (less) than 50% for the income-proportional portion.

Take Province P for example which has 3 member cities, A, B, and C. Let assume that the amount of age-adjusted annual medical expenses per person of Province P (and its cities A, B, and C) is equal to the national average, and that each number of participants and the amount of average annual income in member cities are given as presented in Table 12.7. The amount of the average annual income per person in Province P is assumed to be equal to the national average (JPY 10,000), and the aggregate amount of required money for this province is assumed as JPY 100,000. Then, each share of two portions is 50:50 on the province basis, and each allocated amount is shown in Table 12.7.

¹¹⁰ In practice, the age-adjusted index is calculated as its moving average of the latest three years.

¹¹¹ Another measure is the subsidy for supporting insurers (保険者支援金).

¹¹² In practice, the head-count ratio can be combined with the per-household portion, and the income-proportional portion can be matched with the real-estate-related one.

Table 12.7 Allocation of Required Money: Example 1

City	Number of Participants	Average income (JPY)	Index of Medical Expenses	Required Money per Person (JPY)		Aggregate Amount of Required Money (JPY)			Income Ratio		
				Portion 1	Portion 2	Portion 1	Portion 2	Total	Portion 1	Portion 2	Total
A	50	10,000	1.0	500	500	25,000	25,000	50,000	0.050	0.050	0.100
B	20	17,500	1.0	500	875 (500×1.75)	10,000	17,500	27,500	0.0286	0.050	0.0786
C	30	5,000	1.0	500	250 (500×0.5)	15,000	7,500	22,500	0.100	0.050	0.150
Total	100	10,000	1.0	—	—	50,000	50,000	100,000	—	—	0.100

Note: It is assumed that the amount of age-adjusted annual medical expenses per person and the level of annual income for Province P are both the same as their national averages. Portion 1 indicates the part by the head-count ratio, and portion 2 means the income-proportional one. Figures highlighted in blue are the assumed ones.

Table 12.7 implies that without the income-proportional portion, the poor city C would have been forced to pay quite heavier burdens due to the portion by the head-count ratio only, though the head-count principle will equalize the burdens per person among cities in Province P. With the combined income-proportional portion, the relative burdens of City C are reduced, although its burdens still remain relatively heavy. Anyway, the income-proportional portion operates as a gap-decreasing factor, and enables each rate of insurance contributions (the income-proportional portion) of the member cities to be same if all their indexes of age-adjusted annual medical expenses per person remain same.¹¹³

Table 12.8 Allocation of Required Money: Example 2

City	Number of Participants	Average income (JPY)	Index of Medical Expenses	Required Money per Person (JPY)		Aggregate Amount of Required Money (JPY)			Income Ratio		
				Portion 1	Portion 2	Portion 1	Portion 2	Total	Portion 1	Portion 2	Total
D	50	10,000	0.8	400	400	20,000	20,000	40,000	0.04	0.04	0.08
E	50	10,000	1.2	600	600	30,000	30,000	60,000	0.06	0.06	0.12
Total	100	10,000	1.0	—	—	50,000	50,000	100,000	—	—	0.10

Note: It is assumed that the average level of annual income in Province Q and its member cities D and E is all equal to the national average, and that each number of participants for D and E is also equal. The index of annual medical expenses per person is given as age-adjusted, and is assumed to be different between D and E as 0.8 vs 1.2. Figures highlighted in blue are the assumed ones.

Table 12.8 demonstrates another allocation of required money in the case that the indexes of age-adjusted annual medical expenses per person vary among different cities. Table 12.8 takes up Province Q which has two member cities, D and E. D and E have the only difference in levels of the index of medical expenses, assuming all other things being equal. It is shown that the required money for the member cities is proportional to the varying index of medical expenses, and this holds true for both portions. In short, a guiding principle is that if the average level of income is same for the two cities concerned within a certain province, the required money per person levied is proportional to the age-adjusted average medical expenses per person of each city.¹¹⁴ The different level of the age-adjusted medical

¹¹³ This adjustment is done by the general grant from the central government (普通調整交付金).

¹¹⁴ There are some rooms, though exceptional, for provinces not to set the required money

expenses per person remains untouched in cost sharing. It is a matter of each insurer, and insurers are encouraged to have more cost-effective healthcare services by other policy measures.

Offer of the Standard Contributions

When a province gives the formal notice of each annual amount of the required money to its member cities, it offers the standard insurance contributions to them, as well, as a pro forma amount. The comparative list of them together with the index of age-adjusted medical expenses per person and the average income can visualize their differences among member cities, and thereby promote their leveling within its province. This leveling is preferred after the unit of social pooling was scaled up to each province.

The base for calculating the standard insurance contributions is given by deducting two subsidies¹¹⁵ (for supporting insurers (保険者支援) and for encouraging insurers (保険者努力支援)) from the required money, and adding the expenses for implementing health programs (保健事業).¹¹⁶ In calculating standard contributions, each province takes into account the standard collection rate of contributions for respective cities.¹¹⁷

Insurance Contributions¹¹⁸

Each insurer (city) decides the actual contribution rate, referring to the standard one given by its province, with taking into account the compensating grants for reduced contributions (保険料軽減分).

Furthermore, some cities are able to have a lower rate in practice if they can enjoy special non-statutory transfers from general revenue of its own city, and/or they have a higher collection rate of contributions.

Contributions for *Kokuho* are generally composed of following four portions: (a) income-related (所得割), (b) the real-estate-related (資産割), (c) per-person (均等割), and (d) per-household (平等割) portions. The former two portions are an ability-to-pay part, while the latter two are a part on benefit principle.^{119,120,121}

completely proportional to the indexes of medical expenses for their member cities.

¹¹⁵ There is one more deduction: a subsidy to care for intractable diseases such as mental and children-related ones.

¹¹⁶ Their examples are consciousness building, health guidance and encouraging medical consultation by using receipts and others.

¹¹⁷ The standard collection rate of contributions for *Kokuho* was 83.3% in 2015 on average. In other words, around 17% of the total *Kokuho* households remained delinquent in paying insurance contributions in the same year.

¹¹⁸ An overwhelming majority (87%) of cities have adopted the insurance “tax” for the legal term, instead of the insurance “contributions” in 2016.

¹¹⁹ Smaller cities usually have the real-estate-related portion, while larger ones do not necessarily have this portion. Some cities, though minor in number, do not have the per-household portion.

¹²⁰ In the employment-based healthcare schemes of Japan, there is only an income-related portion, and no other portions such as those on benefit principle.

¹²¹ In China, the community-based system has a flat-rate per-person portion only, with no other portions.

Reduced contributions are levied on persons with lower income. Reductions only apply to the per-person and per-household portions. The rates of reduction are 70%, 50% and 20% depending on the level of income.¹²²

The upper ceiling for the annual amount of contributions per household are JPY800,000 in 2019, and this ceiling has been updated every year. The proportion of those households who are applied to this upper ceiling will gradually reach to 1.5% of the total *Kokuho* households in number.

In total, around 40% of the *Kokuho* households were exempted from paying the income-related portion due to their very low or zero taxable income in 2015. Only 15% paid the real-estate-related portion, and a little more than 50% were permitted to pay a reduced contribution levied on benefit principle.

12.7 Insurance Contributions in the *Kyokai* Scheme

The current scheme for employees in SMEs is *Kyokai* (協会), which is financially managed by a nationwide non-public organization, while the rate of its insurance contributions is set on a provincial basis. Its former scheme was called as *Seikan* (政管：政府管掌健康保険) which was managed by the central government and had only one unified rate of insurance contributions. The shift of the scheme to *Kyokai* took place in 2008.¹²³

Kyokai receives statutory transfers from general revenue. They currently amount to 16.4% of the aggregate annual medical expenses (copayments excluded). The main reason for these statutory transfers is the participants' lower level of income, compared with that for *Kumiai* or *Kyosai* participants as is presented in Table 12.2.¹²⁴ Age gap and income gap among different provinces are adjusted through transfers from general revenue, as well.¹²⁵

The rate of insurance contributions differs between provinces, reflecting varying indexes of age-adjusted annual medical expenses per person (see Table 12.9) and different levels of salaries on average.¹²⁶

¹²² In 2019, the respective thresholds of annual earnings for reductions of 70%, 50% and 20% are JPY 330,000, JPY 330,000 + (JPY 280,000×*N*), and JPY 330,000 + (JPY 510,000)×*N*, where *N* is the number of household members. Recently around 40% of *Kokuho* participants pay reduced contributions.

¹²³ This shift is in line with the policy that each province, which holds jurisdiction over establishing a system that provides high quality medical care, is to actively work through diminishing the gap in medical expenses per person between provinces.

¹²⁴ The overwhelming majority around 81% of business establishments participating *Kyokai* were those with 10 employees or less in 2017.

¹²⁵ On the other hand, *Kyokai* pays a substantial amount of supportive grants to the *Old-old* schemes and to *Kokuho* (for the young-old). In 2017, it amounted to 36.7% of its aggregated annual expenditures.

¹²⁶ See Hokkaido Branch (2014), p.4 and pp.11-13 for more details.

**Table 12.9 Gap of Contributions by Provinces in 2018:
The *Kyokai* Scheme (Top 3 and Bottom 3)**

Province	Rank	Rate of Contributions (%)
Saga (佐賀)	1	10.61
Tokushima (徳島)	2	10.28
Oita (大分)	3	10.26
⋮	⋮	⋮
Shizuoka (静岡)	45	9.77
Nagano (長野)	46	9.71
Niigata (新潟)	47	9.63

Source: Kyokai (2018) “Table of Contributions” (協会けんぽ「2018年度保険料額表」)

12.8 Concluding Remarks

Overall, thanks to full-fledged cost sharing among different ages, regions and occupations, together with free access to any medical service providers and a very generous refund system for high medical expenses, Japanese are under a distinctively egalitarian scheme of social security healthcare.¹²⁷ Yet, her aggregate annual amount of medical expenses as a ratio to GDP is relatively low among major old countries in the world.

Age gap and income gap are two major structural factors to be adjusted in cost sharing of social security healthcare. At the same time, a majority of Japanese take it for granted that gaps in medical expenses per person have to be reflected to varying amounts of copayments and relevant rates of insurance contributions among different healthcare schemes.

Cost sharing of social security healthcare is massively done in Japan through pooled insurance contributions (supportive grants) and public transfers. By and large, it is executed on a provincial basis.

Due to persistent ongoing aging of her population, its cost sharing will further grow in the future. How to make it to be compatible with a cost-effective system still remains. Never-ending reforms will continue in Japan.^{128,129}

¹²⁷ As far as social security system of healthcare, pensions and long-term care are concerned, Japan looks like a country under a profound socialism. Generally speaking, Japan is sustaining a society of mutual trust between people, and almost all Japanese government officials are clean, winning a sense of trust from a majority of people.

¹²⁸ Among others, halving the gap in medical expenses among regions is one of top priorities in current healthcare policies. Also the gender gap in medical expenses will be additionally taken into account in allocating the general grant from the central government (普通調整交付金) in *Kokuho*.

¹²⁹ Social security long-term care and medical assistance (in public assistance) in Japan will face more serious financial problems.

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Chapter 13

Pension Design:

QA and Discussions with Some Chinese Pension Experts

Note by the Translator:

There are numerous QA and discussions between Professor Takayama and Chinese experts, scholars and graduate students in various occasions, such as seminars, symposiums, dinner tables and so on from September 13, 2016 to November 25-26, 2019. All the content of this chapter comes from recordings, emails, etc. during above period.

In total, there are 19 major seminars, invited presentations and symposiums during the above period. Among them, the panel discussions held in the Chinese Academy of Labour and Social Security of the Ministry of Human Resources and Social Security on the afternoon of April 22, 2019 has been separately arranged into Chapter 7 of this book, so this chapter does not include that part. The titles or some QAs seem to repeat previous chapters, but the actual contents are basically not restated. Professor Takayama often gave explanations by different perspectives according to the questions and added new contents more. In a very few occasions, the translator has kept several reiterations there in order to make readers feel the atmospheres of those discussions vividly. Furthermore, important things should be highlighted and repeated.

The order of contents has not exactly followed the order of the original conversations, but to some extent is re-organized by the translator according to the contents, and subtitles are added by the translator. In the following paragraphs, the name of questioners or speakers from Chinese are not showed, all just simply referred to as "Chinese". When another Chinese member spoke immediately after the previous one, another paragraph separately begins with the name of "Chinese".

The Success of Pension Reform Depends on Whether a Country Has Selfless and Visionary Pension Experts

Chinese: what is the most important factor to ensure the success of pension reforms in Japan?

Takayama: It should be the outstanding pension system designers with a strong sense of responsibility in Japan who have designed a farsighted, convincing and practical proposals for Japan at every critical point of reform. For pension reform, the public usually can't figure out what the future will be like and what to do. The government needs these outstanding experts to design the reform, and explain clearly what the pension situation will be in the next five years, or 10 years or more, and how the reform can be effective, so as to change the mind of the public.

Chinese (in May 2018): What are the most important objectives for SS pension reform?

Takayama: Because of the different initial conditions of each country, the priorities of their policy objective are different. In some countries, the adequacy is the most important, while in others, the long-term sustainability is the most important.

In Japan, in the process of maintaining the SS pension system, the long-term sustainability has always been regarded as the first importance. Therefore, facing the aging,

if we want to keep the system survival, we must maintain its financial sustainability for a long term. While, now, Japan's focus is shifting to the adequacy.

For China's SS pension system, the task of expanding coverage is still relatively heavy, and Japan has basically no such problem. In addition, as far as I know, the implementation also needs to be improved, and good implementation is necessary for SS pensions.

What is the most important issue for China? Priorities need to be decided according to the importance of the issues. I don't exactly know what is the motive of China's SS pension system reform nor what is the most important policy objective? Can the government's policy objectives on pensions be recognized correctly by the people? If we don't know these, it's useless to put forward a series of reform proposals.

Adequacy of a SS Pension

Chinese: What are the objectives of a SS pension system?

Takayama: Generally, when a pension economist refers to the word of "adequacy", it is about the issue of benefit level for the middle class. Based on the general principles of pension economics, building a SS pension system is to solve the consumption smoothing problem of the middle class, not to solve the poverty prevention problem of low-income groups. Though the content of poverty prevention is designed as a part of the public pension system, however, this part is not a typical representative content of a SS pension system. In addition, the problem of poverty prevention can also be solved by a minimum living protection system. It is not necessary to establish a SS pension system for it.

Therefore, the SS pension system is a system established to ensure the stability of the middle class' living. These people are the majority of the society. If their stable living could be ensured, the government can avoid riots caused by them because of their hard livings. This is the starting point for the establishment of this system. The high-income class does not need the government's care. They can take good care of themselves, so they are not the major target of concern for the SS pension system.

The next step, we need to consider what kind of financing model is feasible. The public generally is more likely prefer an earnings-related scheme by contributions to a flat rate plan all financed by taxes.

Chinese: How much benefit would be adequate for a SS pension?

Takayama: It varies from country to country. There is no fixed number to say how much it must be. Because the history of pension in each country is different, it is a level that most people of a country agree on. For example, the share of SS pensions among total pension systems in the UK and Canada is relatively low, while it is much higher in Japan, Germany, France and Italy. Now the replacement rate of SS pension for a standard family (an employee with 40-year career and a full-time housewife who don't work) in Japan is 50%. It is up to Chinese about how much China's SS pension should be.

Shares of PAYG SS Pensions and Funded Private Pensions

Chinese: For the whole pension system of a country, what should be the respective share between the PAYG SS pension and the funded private pension?

Takayama: In developed countries, the level of protection provided by the PAYG SS pension system is not just to guarantee the minimum living standard of all the elderly who will not die of hunger, but to be higher and have a decent and stable living. The spirit of PAYG SS pension system is that the whole society helps each other. It's not like the funded pension, where its participants only care about themselves individually.

Any businesses can become good or bad, and any industries can be prosperous or shrinking over time. The elderly retired from currently declining enterprises will be supported by the young people in growing enterprises. A PAYG pension is a system of mutual help across regions, enterprises and generations. The extent of such mutual assistance depends on the extent to which the citizens of the country would like to have. Countries like the United States pay more attention to individual's freedom than the mutual help of the whole society, so the share of PAYG SS pension is relatively lower than other countries of mutual help with a higher priority. In short, it depends on how much people in respective countries think they should help each other.

Chinese: How about the idea of abolishing China's existing earnings-related SS pension, and only having a universal flat-rate pension financed by general revenue?

Takayama: The purpose of earnings-related SS pension system is for achieving consumption smoothing. Participants usually would have better feeling when their benefits come from their own contributions rather than from other one else. So most developed countries have an earnings-related SS pension.

Chinese: The SS pension systems in most developed countries are two-tier, including the poverty prevention supported by tax, and the consumption smoothing based on the contributions which usually are split half between employees and employers and the more contributions the more benefits, even though there is some redistribution element involved. Therefore, the earnings-related system can provide a well-balanced mechanism for both the incentive to contribute more and the redistribution of income.

Takayama: Most of the elderly in Japan can receive two tiers of SS pension; 20% of them have only the first tier SS pension and this proportion will decline further in the future.

The proportion of agricultural labor force is 5% to 10%, and some of them also do part-time other jobs. One reason for the relatively high proportion of the elderly with only the first tier pension is that, in 1960s or 1970s, the proportion of the people who participated only in the first level pension system was relatively higher. Now, Japanese have longer life expectancy, so these people are still alive. Almost 100% of the elderly aged 90 or over are covered by only the first tier pension. While, today, among the new pensioners of 65 years old, the share who can get only the first tier pension is about 5-10%.

Chinese: Is it OK to change the social pooling part of China's earnings-related pensions for urban workers into a NDC?

Takayama: No. Sweden's NDC is accompanied by a minimum pension system, while China does not. If China also changes to a NDC, then does China want to become a country that lacks the spirit of mutual help?

Chinese: How can we improve the benefit level of urban and rural resident pensions?

Takayama: The main source of China's fiscal revenue is indirect tax. Thus, the tax burden of low-income people is relatively higher than that of high-income people. The indirect tax they pay can be regarded as a contribution to the SS pension system, so as to improve the benefit level of urban and rural resident pensions.

Funded Pension is Only an Issue for Upper Middle or High Income Earners. The Most Decisive Approach for Dealing with the Ageing Problem is to Work Longer

Chinese: In European countries, the benefit level of SS pension has declined due to the aging. Many countries rely on the expansion of funded pension as compensation. Japan is the country with the most serious ageing problem. Does Japan have the problem of insufficient

benefits of SS pension? Through Professor Takayama's speech, we know that Japan's funded pension system is relatively weak, so what measures will Japan adopt to solve this problem?

Takayama: During the period of high economic growth, Japan felt that the elderly was too poor, so it had greatly increased the benefit level for many times, resulting in the problem that the level of pension benefit is too high. When facing the financial difficulties of SS pension, we have made great efforts to gradually reduce the benefit level, but the current pension benefit level, according to my understanding, is still too generous and too high, and there is still some room for further reduction. This is one approach we used. Another possible measure is to increase the contribution rate. While, now the contribution rate of SS pension has reached the highest level, and there is no room for further increase.

For compensating the benefit decline of SS pensions, we encourage the middle and high-income people to voluntarily participate in funded pensions for they can afford the risk of the capital market to some extent.

As for the measures to deal with the financial difficulties of SS pension due to aging, a funded pension will not perform better than a PAYG system.

Rather, working longer with higher productivity is the only way out and the most important measure. We encourage workers to work for more years from the existing 40 years to 45 years, 50 years or more. I'm 72 years old and still working.

This is my understanding of the corresponding measures taken by Japan so far.

Portability of Occupational Pensions

(The following QA are mainly from 中国社会科学院人口所双周论坛, "积累制养老金: 日本的经验教训", 2016年9月13日, 人口所会议室, 北京。Chapter 6 in this book)

Chinese: With the increasing mobility of Japan's labor market, many young people are no longer working in the same firm for a very long career as their parents. Will the amount of the lump-sum retirement benefit be reduced?

Takayama: Indeed, as you said, young people change jobs more frequently than their forefathers. If it goes on like this, their lump-sum retirement benefit could be much less. The lump-sum retirement benefit is a DB occupational pension, not portable when employees change jobs. It is necessary to solve the portability problem for these people, but under the DB system, it is very difficult. In fact, there is no progress. At present, they are only suggested to participate in the enterprise's DC plan, because the DC pension is portable when they change jobs.

Chinese: In the past, the number of participants was relatively small in French funded occupational pension system, so they made some changes to allow flexible withdrawal before the retirement age. Japan's DC plan is developing slowly. Is it possible to change it?

Takayama: Japan now allows people to withdrawal DC pension before the retirement age. It is necessary to make up the tax that was originally exempted.

Chinese: How to think tax preference for DC pensions?

Takayama: Raising the tax exemption limit can be a way to promote the development of DC.

Chinese: in October 2015, Japan merged the SS pension of civil servants into the SS pension of enterprise employees. How did their occupational pension change?

Takayama: Before October 2015, the SS pension of civil servants (共济年金) and the SS pension of enterprise employees (厚生年金) were independent each other. Now it has been

merged, and the contribution and benefit rules become the same. However, the lump-sum retirement pensions remain independent each other.

Chinese: What's the difference between the new DB and the previous DB of the occupational pension in Japan?

Takayama: Because EPF and TQPP systems were abolished, the new DB was used to take over the funds that still exist in these two systems. Compared with the EPF, the new DB no longer has the function of “代行” in the EPF system, and has nothing to do with the government's PAYG pension, leaving only as a supplementary pension. Compared with TQPP system, it overcomes the problem that TQPP cannot guarantee the entitlements.

Could Funded DC Perform Better than Funded DB?

Chinese: China has just started to build occupational pensions, and Japan has a long history of it, so it is very enlightening to listen to your speech today. In particular, the pension system must be well designed at the beginning, otherwise it will be difficult to sustain. Most of Japan's occupational pension system (厚生年金基金) was DB, which set the benefit level in advance, so the government had to bear this commitment all the time, and it was difficult to adjust or reduce the benefit level. China has not decided whether it should be DB or DC in designing occupational pension. Therefore, I would like to ask which one should be used for an occupational pension, DB or DC?

Takayama: Japan's occupational pension (厚生年金基金) was indeed a DB, and it failed. So if you use DC, can you avoid the failure? I don't think so. Japan's DB run well in the period of high economic growth. Its failure came from the decline of the rate of return accompanying with the end of the high economic growth. This situation also applies to China. Japan's high economic growth lasted for 30 years, and China's high economic growth cannot continue forever either.

I don't think that it could avoid failure if it was a DC after Japan enters a period of low economic growth. The success of a funded pension system needs 50 or 70 years of high economic growth. In this case, people can receive the expected pension benefits when they retire. If high economic growth stops in the middle, it will get into trouble. But no one can guarantee a high economic growth for 70-year. As soon as we enter a period of low growth, the rate of return on investment will decline. Even if Japan run well with DC at the early period, it failed inevitably.

The lesson of Japan is that it is very dangerous to choose to run SS pension on a funded basis. It doesn't matter if the additional funded part on the top of the SS pension is operated. This additional part is only for a part of the people, that is, the middle and high income groups. Failure doesn't matter much. However, it is very dangerous to use a funded system to operate the SS pension which is supposed guarantee the basic living of the people.

Chinese: What do you think of the negative rate of return in the current capital market?

Takayama: Wages and prices have been falling in nominal terms in Japan in the past 20 years. The interest rate is basically zero.

Chinese: Yes, I know that the interest rate in Japan has always been zero. While the financial industry somehow can do with a zero-interest rate. But if the interest rate turns to negative, the story will be different. Countries with negative interest rates, such as Sweden, Japan and the European Union, are now under great pressure. The response from the financial industry is that we will bankruptcy if the situation of negative interest rates lasts more than 3-5 years.

Chinese: The reform of SS pension in Japan in 2004 has ensured the financial

sustainability, but it will also lead to the decline of the replacement rate of SS pension in the future. So, does Japan consider to make up for the decline of SS pension benefit by encouraging the development of occupational pension?

Takayama: Yes, Japan is also considering to expand occupational pensions to make up for the decline of SS pension benefit level in the future. In particular, Japan is easing the restrictions on funded DC pensions and attempting to make the DC system operate more easily and smoothly.

Funded DC is Small in Japan

Chinese: Compared with Europe and the United States, the development of occupational pension in Japan lags behind and expands slowly. Is it because the SS pension benefit is too generous, or are there other reasons?

Takayama: Japan's SS pension benefit had been very generous for a period. Another reason is that Japanese enterprises provide a quite amount of lump-sum retirement benefit which is a kind of occupational pension, but it is not included in the European and American statistics. It is not operated on a funded basis, but by a book reserved manner, which is an equivalent to a PAYG system.

For Japanese, there are two main sources of income after retirement: one is the lifetime benefit from the SS pension, the other is this lump-sum retirement benefit. The scale of DC occupational pension similar to those in Europe and America, is relatively small in Japan.

Because the lump-sum retirement benefit is on a PAYG basis, inevitably there are problems when population aging. Therefore, in recent years, although the DC plan has the same problems, yet we have established the DC plan to provide the middle and high-income people with a different way to deal with the problem of decline of SS pension benefit. I think the government's response will be to gradually improve the DC plan by easing various restrictions.

In the international comparison, Japan's replacement rate of SS pension is not very high, which is not as high as Japanese think, and the scale of funded occupational pension and private pension are also small. These two characteristics are pointed out by the OECD. However, for Japanese, the coverage rate of the lump-sum retirement pension is 75%. In major OECD countries, such as the United States and the United Kingdom, the coverage rate of their occupational pension is no more than 50%. These countries are proud to claim that their occupational pension system is well developed (although I have some doubts), but if you look at the coverage of their system, you can see that the countries with high coverage rate are no more than 50%, and the remaining 50% or more enterprises do not have any occupational pensions, while 75% of enterprises in Japan have occupational pension called "the lump-sum retirement benefit". Therefore, the conclusion that "Japan's occupational pension is underdeveloped" given by European and American people is wrong, because they do not know that Japan has a lump-sum pension system. Japan's lump-sum pension system is very important and is a substitute for DC occupational pension.

The European and American people don't know this situation, because they do not have a Japanese style's lump-sum retirement benefit system. They do not understand and do not want to understand the thing which does not exist in their own countries. However, they arbitrarily believe that the elderly in Japan might live in poor. In fact, I think Japan's elderly as a whole live in rich in the world owing to their pension benefits.

Raising the Retirement and Pension Age Separately

Chinese: China is considering raising the retirement age, but encountering a lot of resistance. Is there any resistance to raising the retirement age in Japan? How to deal with it?

Takayama: When Japan first established the SS pension system in 1942, the mandatory retirement age was 55. When we wanted to raise the pension age to 60 and keep the mandatory retirement age unchanged, we encountered strong opposition from the trade union because the two ages were inconsistent. So we set a 20-year transition period from 1954 to 1973 and provided a huge amount of re-employment subsidies to employers, encouraging them to extend the mandatory retirement age for their employees from 55 to 56, 57, This subsidy policy is only for small and medium-sized enterprises, but not for large enterprises. In the 1970s, the compulsory retirement age gradually rose to 60. Later, when we raised the pension age from 60 to 65 leaving the mandatory retirement age unchanged, we also used this re-employment subsidy system. Now the compulsory retirement age in Japan is still 60.

Large enterprises have high added value, high profits, high wages and relatively more gifted employees. Usually, the outstanding employees of large enterprises will be re-employed by their original employers after retirement, and these employers have no difficulty to pay wages for these re-employees. Most of other retirees will move to small and medium-sized enterprises, so there are no subsidies for large enterprises.

Age Ceiling for Contribution to SS Pensions

Takayama: The age ceiling for contribution to SS pensions in Japan is 70 years old (as at 2020). I am already over age 70, still working and receiving salary. I no longer pay SS pension contributions. But I'm still paying in SS medical insurance and nursing insurance.

How to Use the Lump-sum Retirement Benefit

Takayama: The lump-sum retirement benefit that employees receive from their employers upon retirement is usually equivalent to 10-12 years of SS pension income, which is basically tax-free in Japan. Civil servants also have this benefit financed by general revenues. The lump-sum retirement benefit I received was 30 million yen (about 1.8 million yuan RMB). It is equivalent to 2.5 times of the annual salary before retirement.

Chinese: How do the Japanese usually use these benefits? Will they buy a lifetime annuity?

Takayama: Usually they buy some low-cost, low-risk financial products. For annuity products, at most, they will buy some 5-year or 10-year annuity with the cost at about 1%. They are often financed by a relatively small part of their total amount of the lump-sum retirement benefit. Almost no people go to commercial insurance companies to buy high-cost lifetime annuity.

Chinese (a graduate student asked): If you only buy an annuity product for 5 or 10 years, the income of the elderly will be significantly reduced after it expires. Then will the elderly become short in money in the rest of their life?

Takayama: Young people may not realize (while I am 72 years old, so I know) that for the elderly, it takes physical strength to spend money. For example, when people reach the age 80, their willing to go shopping and other activities will decline. They have less need for clothes, less appetite, and spend more money for medical care and nursing. While in Japan, SS health insurance and long-term nursing insurance also take care of these expenses. In fact, with the increase of age, the elderly spend less money.

They basically keep the expenses of daily life within their usual income, and at the same

time, they set aside part of the lump-sum retirement benefit to pay extra services needed at the final stage of their lives. While they also start to withdraw this asset for daily living when need.

Lifetime annuity in commercial pension insurance and life insurance company is a kind of business for profits. Over 90% of Japanese buy life insurance, but it is an accidental death insurance for protecting their families. Almost no one buy insurance for their own interests.

In Japan, there is a kind of trust fund linked to the market rate of return. The advantage is that the cost is very low, because its investment behavior is very passive. People usually invest the lump-sum retirement benefit in these products.

Chinese: This message is very important to China! China's occupational pension and the commercial pension insurance all limit the way to receive life annuity.

Commercial Pension Insurance

Chinese: China is fostering commercial pension insurance. What do you think of this system?

Takayama: For the middle and low-income people, the SS pension is the most important.

Chinese: What do you think of this reform direction?

Takayama: For the policy makers, the most important thing is to ensure the sustainability of SS pension. It is very important to establish a mutual help system of the whole society before providing voluntary occupational pension and commercial pension insurance. As for the current China's pension system, the most important task seems to transform the personal accounts in the SS pension system into a PAYG system to ensure the basic living of all people.

Some people seem having their special preference for funding, then just ask them to invest their own money rather than to manage to invest other people's money to the capital market.

Personal Accounts of SS Pensions

Chinese: When Liaoning started to fill up the empty personal accounts of SS pensions, the central government's policy was that Liaoning was responsible for 20% and the central government was responsible for 80%. However, this model failed to apply to other provinces, for the central government had no extra resources. We are considering three options to deal with this problem. What's Prof. Takayama's comment on these three options?

The first option is to maintain the funded DC, because the government should keep its promise. Two reasons have made the accounts turn to empty: the government has to use these contributions to pay the benefits for the existing pensioners, and we did not know where and how to invest. At the beginning, the funds became the bank's "agreement deposit" at a very low interest rate; later they are used for the payment for the existing pensioners in the name of "borrowing".

The government had worked hard to keep its promise. Given that the "old people" and "middle people" did not pay contributions in the past, which are a historical debt, the government decided to sell state-owned assets in Liaoning to fill up the empty accounts due to the historical debt. However, Liaoning does not have much valuable state-owned assets, so the central government proposed to use 10% of the national state-owned assets to solve this problem. This method was used symbolically several times, but almost stopped later. Today, the government-owned assets of the whole country have grown greatly and are still growing. So can we use the current state-owned assets to make up for the empty accounts at the past prices and maintain the funded DC?

The second option is to abolish it. However, the government cannot bully the weak and small citizens. It must return the money which is supposed to be in the personal accounts back to people before abolishing it.

The third option is to switch half of them to PAYG and leave another half of them as funded DC, because the government should not change policies randomly.

Takayama: Another way for persuading policy makers to give up the funded SS pension can be: “times have changed.” The global trend of pension reform today has been quite different from that in the late 1990s.

No matter how great a person is, he will inevitably make some mistakes. The quickest way to solve this problem is that the original top decision makers themselves tell the current top officials at a small inside meeting that: we now recognize that funded DC is wrong. Please do not get stuck because of caring of my position, just abolish it and go ahead.

Canada and Australia’s Pension Funds

Chinese: The performance of investment of Canadian SS pension reserve funds is the best in the world. Now half of the expenditure of SS pension benefits comes from contributions and half from the return of SS pension reserve funds. It means the contribution burden from the young people got reduced by half. Their success comes from long-term investments. Professor Takayama has ever said that the financial crisis happens every 10 or 20 years, in this case, if I make a long-term investment in a period of 30 or 40 years, the performance should be fine. Just like the sea waves, if the middle ship spans 3 waves, our big ship spans 10 waves, then no problem.

Chinese: There are two types of pension funds: reserve funds and funds for individual accounts. The success of the former for a period cannot ensure the success of the latter.

Chinese: I agree. Chile’s personal accounts failed. The National Council for Social Security Fund of China now has become capable of running funds successfully. But the situation may change in the future if the scale of funds becomes larger. Furthermore, the market may change again if the United States and Japan start to join the market. So I respect Prof. Takayama’s advice very much. Here I compromise again. My opinion is that currently we keep the National Council for Social Security Fund go on because it is small, only a small part of the total pension funds, and performing well now.

Chinese: While, the domestic market is not the same as the international market. The domestic market is guaranteed. If we go to the international market, the risk will become much greater. European countries are also small countries. The Netherlands is doing well and growing rapidly. However, when France entered, it suffered losses.

Takayama: There have been many failures in the investment of the SS pension reserve funds in Japan. Once a huge fund is there, it naturally will lead to the formation of interest groups and squandering on the use of funds. In Japan, they had ever frittered the SS pension reserve funds in places with low productivity and build many unused facilities, and then consequently the relevant politicians will receive “political contributions” from the beneficiaries of these projects. Politicians usually tend to fritter the funds according to their own preferences, rather than for the benefit of the elderly. Japan had experienced such kind of lessons a lot.

The success of pension fund investment in Canada and Australia is because they have completely excluded the interference of politicians. If China can establish an investment mechanism free from political interference, it should also gain certain benefits. The question is: can this be done?

Chinese: Canada has told us two principles ensuring the success of the investment: to

exclude political interference and to employ the highest level professionals in this field. The probability that China can rule out political interference will be smaller, but we cannot say that it is impossible. We hope that Prof. Takayama will pay long-term attention to China's pension reform in the future, come to China more often and contribute more wisdom.

Takayama (in another meeting): The success of pension fund of Australia comes from its high economic growth for over 20 years in the past. We don't know whether the good performance can last for the next 50 years, and success would be difficult if the growth rate of economy declines in the future. Also, Australia would have been successful even if the system were on a PAYG basis rather than on a funded basis.

National Pooling of SS Pensions

Chinese: China is now starting from the 3% of adjustment fund system for promoting the national pooling. How long did it take for Japan to achieve national pooling?

Takayama: I'm very glad to hear that China has taken the first step towards national pooling.

National Pooling of KN

Takayama: Japan expanded the coverage of KN (国民年金) to all participants of SS pension system in 1986.

In Japan, the director of the Pension Bureau of the Ministry of health and welfare (equivalent to the director of the Pension Department of the Ministry of Human Resources and Social Security) is virtually responsible for reforming the pension system. In 1981, the new director (Shin-ichiro Yamaguchi) took office. Since 1982, he began to solve the financial problem of KN.

During the 1950s and 1960s, with the rapid urbanization in Japan, more and more young people from rural areas went to work in cities, and became the participants of enterprise pension (厚生年金KNH) and civil service pension. Their contributions were not used to support their parents. Then, the KN, which covered the parents of migrant workers, was facing the risk of deficit, and the serious worry from the public grew rapidly.

Yamaguchi's solution is to expand the coverage of KN to the whole society, and let KNH and civil service pension help KN. At first, many people were reluctant to help KN, but migrant workers hoped that their contributions would be first received by their parents in rural areas.

The reform proposal was submitted to Congress in 1984 and got passed after discussion. The new system would be implemented in 1986, two years later. Japan did not use the adjustment fund system for a transition like China, so it was directly in place in one step.

Director Yamaguchi, who designed the above reform plan, suffered from cancer during his term of office. He regarded the KN reform in 1986 as his last mission in his life, and continued to give various instructions to his staff in his hospital bed. But he died before he could see the Congress vote. At the meeting of Congress vote, Mr. Yamaguchi's family took part with his portrait, so that meeting was very unusual from the previous ones. His portrait was overwhelming on the scene. As a result, all the members who attended the meeting voted "approval" for it, and several members who had always opposed it chose to be absent from the meeting, in order to avoid being accused by the public of lacking normal human feeling.

The Prime Minister, 中曾根康弘, participated the funeral of Mr. Yamaguchi and said "Mr. Yamaguchi is the mirror of all civil servants". Later, Mr. Yamaguchi's family set up the "Yamaguchi Shin-ichiro Award" to reward those who have made outstanding contributions in the field of pension research.

Chinese: This story should be used to make a movie.

National Pooling of Earnings-related SS Pensions

Takayama: The National Pooling reform about earnings-related SS pensions was to merge the independent systems of KNH and civil servants into one. In the past, the replacement rate of civil servants' pension was very high, which had been envied by enterprise employees. However, after the bubble burst in the early 1990s, Japan's economic growth rate declined, then wages declined, land prices and stock prices also fell.

Consequently, people's expectations on the future of Japan's economy have changed. Employees in enterprises stopped expecting to achieve the same level of pension benefits as civil servants in the future, which cannot be realized at all. While in reality, civil servants had still been receiving a very high pension benefit. Therefore, enterprise employees again launched a serious inquiry: "are the contributions of civil servants to the society worthy of this benefit?"

The conclusion is: indeed, as the elite of the country, civil servants had played an excellent leadership and made outstanding contributions to Japan's high economic growth in the past. But now, Japan has been stuck in low economic growth because the civil servants have few new ideas in their work and has lost its leadership in leading economic growth. Therefore, civil servants no longer seem to make any special contributions to the country. In addition, there were some corruption incidents, and civil servants even have not worked well sometimes. Consequently, the reason that civil servants deserve receiving high pension benefit had not existed any more. Therefore, enterprise employees demand that the pension benefits of civil servants should be reduced to the same level as that of enterprise employees.

The SS pension system of civil servants and enterprise employees had been operated independently. At that time, the system of civil servants did not have the problem of fiscal deficit. The unification of the two systems only came from the demand of enterprise employees. The legislation was almost passed in 2007, but due to the power change of the government, it really was passed in Congress in 2013, and the year of implementation was set as 2015.

The jealousy on the special preferential benefit for civil servants had been intensified since 2000. Finally, the two systems got unified. Now there is no difference in the contribution and benefit rules.

In short, Japan's SS pension system is on a PAYG basis. Therefore, the higher the pooling level, the more sustainable the finance.

Everyone can Benefit from the "Principle of Fairness" in the Long Run

Chinese: In the mid-1990s, when the pooling level of SS pensions was upgraded from each enterprise to local governments, we encountered the problem that enterprises with good benefits resisted joining in. We worked extremely hard and finally got the task finished. We have encountered similar problems again upon raising the pooling level from local governments to the central government. Advanced provinces and cities with low contribution rates strongly resist to support backward areas.

Takayama: To persuade the advanced areas to help the backward areas, we can use the "principle of fairness": for the insured of the same cohort, if they had paid the same amount of premium in the past, they should be entitled to receive the same amount of pension benefit now.

People who used to work in advanced areas or past growing industries should not be affected by the fact that this area has become a difficult area or their industry has become a

declining industry. The SS pension system is related to a person's basic living's stability for 60 years or even nearly 100 years in his entire life course from the beginning of paying contributions to the end of his life. In such a long period of time, it is inevitable and often unpredictable that there will be ups and downs among regions and industries. In the long run, national pooling will be the most conducive to the stability of the system, and every insured person and every insured area can benefit from this fair and unified system.

The History of Japanese SS Pensions Setup

Takayama: Japan did not establish SS pensions for all people from the beginning, but started from where they were able to start. The first SS pension was the military pension (1875), about 10 years later it was the civil servants pension, then the ship's crew pension, and finally the enterprise pension (1942). These were all earnings-related pensions which were expanded bit by bit according to the occupation category, and belong to the second tier in OECD classification.

At that time, there was no flat-rate pension. Others, such as farmers and self-employees, et al., had been without any SS pension for a long time. Therefore, in 1961, the government wanted to turn Japan into a country where all citizens can enjoy SS pension, and created the slogan of "all citizens enjoy pension". At the same time, in the field of SS medical insurance, it also created the term of "all citizens enjoy insurance", covering farmers and all other groups.

The historical background of these policies was as follows. Japanese economy went great backwards in 1945. So the reconstruction began, and in 1955, 10 years later, it returned to the pre-war level. Japan's politics situation was very turbulent in 1960. Japan and the United States signed the "US Japan Security Treaty". The public's opinions were in fierce controversy. In the chaos, some people even lost their lives. In 1960, the prime minister was changed from 岸信介 to 池田勇人.

The new Prime Minister Ikeda proposed that "from now on, the Japanese should turn their attention from politics to economy, and their living should become rich aimed to double their income in 10 years, called "income doubling" plan." In fact, it did not take 10 years for Japan to achieve this goal. If the economic growth rate is 10% annually, then its economy will double in seven years.

The steady growth of economy made the general revenue get increased year by year. Because the main source of tax in Japan is income tax, not value-added tax. Then, the government had more and more spare revenues, and consequently decided to use the newly increased revenues to establish "国民皆年金" and "国民皆保険" also based on the expectation of future economic growth. KN started with a system in which individuals need to pay a monthly premium of 100 JP yen. It seemed very low.

For the KN, the big difficulty is how much contribution should be charged at that time, for it was the most important to let everyone pay. The minimum contribution years were 25 before age 60, and the normal age to claim benefit is 65 years old. Earlier claim from age 60 is allowed just with a reduced benefit. With the help of general revenues, KN system started at a lower premium. The benefit level was consequently relatively low. But the most important thing was to set up the system first.

At that time, there existed a lot of people whose maximum contribution years would be less than 25 years at age 60. Therefore, an exceptional transitional policy was introduced. For those who were 50 years old in 1961 and their actual contribution years were 10 years before age 60, they were specially entitled to claim the benefits of KN. People of age 40 in 1961 were also entitled to claim the special benefits after 20 years of contribution.

Old Age Well-being Pension: Do not Let Anyone Left Behind

Takayama: For people that their maximum number of possible contribution years could not reach 10 years before age 60, for example, who were already 59 years old in 1961, “old age well-being pension benefit (老齡福祉年金)” was transiently established for them, which were entirely financed by general revenues with a means-test. This special benefit can be received from age 70. Its benefit level was very low at the beginning, 1000 JP yen per month, but it made the poor old people feel that they could have some pocket money to buy something for their grandchildren. The elderly prefer to have a sense that they are needed. This system enables them to receive thanks from their grandchildren in a happy mood. Therefore, they are very grateful and feel that the government has really done a good job.

Owing to the rapid economic growth, the level of this special benefit was increased. In 1973, it rose to 5000 JP yen per month. These people have reached about over 100 years old now, and the number of beneficiaries has been decreasing year by year, close to zero now. This system only needs a certain amount of financial expenditure at the initial stage and was not a too heavy burden for the government.

Only Japan has this type’s unique system; South Korea or China do not have it. It would be very good if China could have such a system, but it is a matter of political will.

Raising Benefits of KN

Takayama: The benefit level of the KN is calculated based on the following rules: the government assumed to run the system on a funded basis at the beginning, so the benefit level is calculated according to the rate of return of 5.5% with 25 years’ contribution. In the first 10 years since the establishment of the KN in 1961, only contributions were collected and accumulated, but no benefit was paid, because the minimum contribution years were transiently set to be 10 years. Almost all the contributions had been invested.

1971 was the first year for KN began to pay benefit. Due to the low level of contribution, the level of benefit was also low. However, the benefit level of KN should not be lower than that of “old age well-being pension benefit” which is a system with non-contribution. Therefore, the public continuously asked the government to increase subsidies, and proposed that the benefit level of KN should be the same as that of enterprise retirees. In 1966, the slogan of “10,000 yen pension” per month for a couple was put forward.

Later, with the momentum of high economic growth, the level of benefit continued to improve significantly several times. By 1973, the monthly benefit for a couple of KN had reached 50,000 yen. There was no exact financial foundation for this 50,000 yen, but the figures are good-looking and easy to understand. This reform was done by Prime Minister Tanaka, thinking that Japan has been a rich country in which one of its symbols should be: the benefit of SS pension should guarantee a decent living of all the elderly.

Chinese: When Japan first proposed the policy of “providing farmers with the same level of pension benefit as enterprise employees”, did academic circles not predict that this idea was unrealistic?

Takayama: It was in a period of high economic growth, and the government had abundant general revenues. We felt that low-income groups should also enjoy the fruits of high economic growth, and wanted to take care of low-income groups, so there was no strong opposition in academic circles.

Chinese: Are SS pension systems used as a means of redistribution?

Takayama: In the period of high economic growth, the wages of the working population

increased by 10% every year, and their income level was increasing rapidly. However, some of the elderly were isolated and had little connection with this income growth. So the political argument was: “the elderly are so poor that they should enjoy some of the fruits of economic growth”.

A New Idea to Rescue the Safety Net for KN Participants

In Japan in the past, the group left behind in the rapid economic growth was the elderly. Therefore, for protecting the elderly and letting the elderly share the fruits of economic growth, the slogan of “10,000 yen annuity” and “50,000 yen annuity” was put forward.

At that time, people who participated in KN could begin to receive benefits after 10 or 20 years' contributions, so the number of beneficiaries has increased sharply since 1971, and the level of benefit increased rapidly, but the number of KN contributors decreased, because a large number of young people moved from rural areas to urban areas to work in enterprises. Therefore, we soon realized that this system would soon turn into a deficit. The government immediately started to fix the sustainability issue at once, otherwise, the public might become to refuse paying contributions anymore because of too much worries about its bankruptcy.

In the early 1980s, the sustainability of KN was a big issue in Japanese society. At that time, the new director of pension bureau, Mr. Yamaguchi, had just taken office, and Japan's high economic growth was over and the era of fiscal surplus of the government was over. It was impossible to use general revenues to help further. However, it is necessary to find out resources. Director Yamaguchi has put forward a new idea: to use part of the contribution from wage/salary earners to support KN.

Cutting Benefit of KN

Takayama: The current benefit level of KN is 65,000 yen per month per person. Assuming that the economy does not grow, wages and prices remain unchanged, under the automatic balance mechanism launched in 2004, it will drop to about 40,000 yen in the next 30 years. The current benefit level is based on the assumption that a person contributes from 20 to 60 years old (40 years of contribution). If the number of contribution years is increased to 45 years, the benefit can be increased. Therefore, what we are discussing now is to extend the contribution years, even to 70 years old, to mitigate the problem of benefit cut.

Japan's pension finance is tested every five years, and the next round will be carried out next year in 2019. The government also has been trying its best to persuade the people to improve their benefit level by delaying retirement and/or increasing contribution years in order to keep the benefit remain the same as before. The government did not say that all people must delay their retirement to age 65 or 70, but just showed various options. The government has not forced people to do so, because some people are unable to extend their employment or contribution years, so they have no choice but to accept the decline of benefit. However, these people are minority, and most of them can delay retirement. The government's policies are formulated according to the situation of the majority, while the situation of the minority can be solved by other means.

No Regrets on the Introduction of Automatic Adjustment Mechanism

Chinese: Does Japan have any regrets about the introduction of the automatic adjustment mechanism?

Takayama: In the late 1990s, with the rapid development of aging in Japan, the anxiety about sustainabilities of the SS pension system was growing. In 2001, KNH turned into a deficit.

How to resolve the national anxiety and make the pension system sustainable? All kinds of ways have been considered. In the end, the only thing left is to use the automatic balance mechanism to reduce the benefit.

Politically, a small number of people are firmly opposed to this method, and the debates had been widely reported in the news and media. Finally, as a basic principle, automatic balance mechanism is understood by most people. Although there would be a problem if the benefit level will fall too much in the future, but at present, the pension benefit is too high and can be reduced. In short, we need to solve the problem of sustainability first, and the most important thing is to start implementing this policy. The nominal amount of benefit would not drop for the time being, but the real benefit will drop in the next 30 years.

We have no regrets about the introduction of the automatic balance mechanism. This is a policy adopted on the basis of the consensus of Japanese pension experts, and it is an important policy to ensure the sustainability of Japan's SS pension. As a result, the rank of the political importance of pension sustainability in Japan have been greatly reduced, and medical care and long-term care have become major problems.

The Only Fault was the Wrong Prediction on Future, but It Is Inevitable

Chinese: Japan has adopted an automatic adjustment mechanism because the pension benefits are too generous. Has Japan ever reflected on raising the pension benefits too high?

Takayama: During the period of high economic growth, everyone had had a rosy picture on Japan's future. Few people predicted that the stock price would drop to 1/5 of its highest level, CPI would fall, nominal wages would fall, real interest rate would become zero. A family used to have two children, while, suddenly, people have become reluctant to have children. If we had predicted these changes, the pension benefits would not have been adjusted so high. At that time, no one had ever predicted these unexpected changes. We always have assumed that the high economic growth would continue in the future.

Considering that some social groups (the retired elderly) were left behind, they were in a miserable situation, and ignoring them was not a correct attitude for a healthy society, so we raised the pension benefits. Moreover, the government's fiscal revenue had been growing rapidly, and it always had a lot surplus. So there were no opponents. These were the jobs we should and must do. Now, we have recognized that the level of benefit was raised too high, but in the historical process at that time, raising the benefit was reasonable. The only fault was the wrong prediction about the future.

The change of Japanese mentality began in the 1980s and 1990s. Marked by volatilities of price, bubble collapse and so on, these entirely unusual events had made Japan clearly enter another era. We understood that we can't do what we used to do.

Although people's expectation of the future was wrong at that time, while human's ability to predict the future was basically at this level, which could not be better. In fact, we still can't exactly predict what would be like after the next 50 years in Japan. Although we need to be cautious in policy-making, yet there will be many unpredictable aspects. In the case that we can't predict the future precisely in advance, what we can do is to adjust ourselves in time along with the changes of the environment and to adapt to the new environment.

So does China. Although China has been enjoying high economic growth, it is impossible to know what will happen in 30 or 50 years. At the end of the 1960s, did China predict that 50 years later China would be the same as it is today? I don't think so. Can we accurately predict what China will look like in the next 50 years? Therefore, the only way is to adjust the system along with the new situation of each era.

Intergenerational Equity

Chinese: During the process of aging, under the PAYG system, we need to increase the contribution rate or contribution years of the younger generation for getting the same amount of pension benefit as the older generation. Is this result unfair to the younger generation?

Takayama: The contribution rate of Japan's SS pension was relatively low at the beginning, and then gradually increased. Nowadays, people aged 80+ have paid very little pension contributions during their working period, but their benefit level is relatively high. The generation after that paid more contributions and received less benefits than the previous generation. Now, recognizing that the benefit was too generous, various reforms related to the benefit cutting were implemented. Then, the consequence is that the current elderly paid least contributions but receives the highest pension; the younger generation will pay the highest premium and receive the least benefit.

From this point of view, intergenerational relations are very unfair. So how can we persuade the people to understand and accept this reality? Indeed, the premium paid in the past by the senior citizens was very small, while they are enjoying high benefit. However, one important point is that their wages were low. Furthermore, in those severe times, they had ever worked hard and managed to pay the premium despite their low wages, at the same time, using their own pocket money they also had looked after their parents and grandparents who had little pension income, which should also be their contributions to the society. This is an explanation by the perspective of contribution. By the perspective of benefit, the young people today will live longer than the old people in the future, and they will receive benefit for more years than the old people. Given that the number of years of receiving benefit has increased, it is reasonable to reduce the amount of benefit each month.

There is also another way for old people to refute this kind of "dissatisfaction" from young people. Currently young people can live a very stable and rich life, go to college, get a high salary, and enjoy all kinds of fun in life. On the other hand, current older people had experienced the pain due to the war and the tragedy of life, finally somehow have managed to keep ourselves alive up today. They paid less and receive more in formal pensions, and current young ones pay more and receive less in formal pensions. Do you think that it is unfair between generations and that current elderly ones have taken advantage of the young? Would you like to change the life course with the current elderly?

If possible, the current elderly would love to change it, because the life of the current young is much happier than the current old. Are young ones willing to live through that hard times the old people had been through? If we consider equity issue by a broader stance, will you still say it's unfair? Today's young people's life is much better than that of the old people in the past. Why do you just select the pension benefit only when comparing the intergenerational unfairness? The comparison should be based on a much broader perspective.

On the issue of intergenerational equity, this is the theme of the large-scale research project that I had headed for 15 years since 2000. There are more than 1000 papers on the website of this project, including many English papers. If you are interested in, you can go there to search for and download them from the website below:

<http://takayama-online.net/pie/stage3/Japanese/>

<http://takayama-online.net/pie/stage3/English/>

How to Find out the Solution?

Takayama (in July, 2018): My study on China's pension reform began in 2002. At that time, I spent one day per week for a whole year to study China's situation of pension in Asian Development Bank Institute at Tokyo, and published a paper. Since then, due to full involvement in designing Japan's pension reform plan of 2004, my opportunity to study China had been lost.

My research on China's pension has always been prudent and cautious. When I studied the Japanese system, I have always been thinking about: Why did such a system be designed at the beginning? Because of what it became like this, what are the motives behind various ideas, and what kind of negotiation process it experienced for reaching the final consensus? The changes of Japan's pension system directly reflect the history, cultural and social conditions of Japan.

China's pension system's changes are expected to be similar. What are the Chinese people's world outlook and values? What kind of history course have you experienced? What is the position of the pension system in this country? If we don't know these, it's hard to say that China's pension reform should be like this or like that? My understanding on Chinese culture and world outlook is still very poor, so it's hard for me to say what to do and how to do.

I have been doing research on how Japan's pension has developed for more than 30 years. I have known well about Japanese world outlook and values, the way of mutual compromise, the historical background and reasons for each change, and the theory and philosophies behind discussions. Because my pension research career is relatively long, I can sort out these issues clearly.

However, the papers written by pension experts often lack the explanation of the changes of background and philosophy. What kind of theory was based on when a new policy was launched? In fact, I don't understand why China directly adopted the system suggested by the world bank in 1997? Why did the distinguished and outstanding Premier 朱镕基 agree? No one wrote these things out.

There have been various opinions and a lot of discussions including some fierce debates before every pension reform policy was implemented in Japan. Also there have been detailed explanations on each reform plan. When we all understood the causes and consequences on the basis of full discussions, we then compromised with each other, agreed to a certain reform proposal, and move forward step by step.

The idea that the funded SS pension can cope with the aging is a complete lie. It is an unmoral behavior for the pension specialists to test a new system in other countries, which was refused to be used by their mother countries. This system is specially served for the interest of financial sector, not for the interests of the participants, and entirely cannot be a measure to deal with aging. But why China has established such a system? If Chinese can write down the background and basis of the policies in detail, I can understand where the problem lies.

Chinese: I admire your sincere heartfelt words very much. China's decision-making mechanism is totally different from that of Japan, therefore it is easy to make mistakes because of the lack of sufficient discussions and democratic decision-making procedures. Under such conditions, we should furthermore study the international experience of pension reform well and deliver the correct information to China.

Takayama: I went too far.

Chinese: Not at all.

Appendix B

List of Conferences and Penal Discussions on China's Pension Reform Author Participated

附录 高山教授主持或参加关于中国养老金制度改革的研讨会、座谈会目录

2016年9月13日-2019年11月25-26日期间,高山教授主持的或者受邀报告论文的研讨会,以及以教授为中心的座谈会如下,共19次。

一、中日两国养老金合作研究项目研讨会,“中国的养老金制度改革:基于日本经验的新构想”

第1届,东京,日本养老金与老龄化政策研究所,2017年9月7-8日

第2届,北京,中国社会科学院人口所,2017年12月8-9日

第3届,东京,日本国际医疗福祉大学,2018年3月21-23日

第4届,北京,中国社会科学院人口所,2018年7月27-28日

第5届,东京,日本一桥大学,2018年12月3-4日

第6届,杭州,浙江大学,2019年4月20-21日

第7届,东京,日本养老金与老龄化政策研究所,2019年11月25-26日

二、中方邀请高山教授做报告的其他会议及教授报告的论文题目

(1)中国社会科学院人口所双周论坛,“积累制养老金:日本的经验教训”,2016年9月13日,人口所会议室,北京。

(2)中国社会科学院人口所举办的“东亚社会经济发展与老龄化问题比较研究”第21届社会经济国际研讨会,“日本公共养老金的财政可持续性与待遇水平的适当性”,2016年9月14日,人口所会议室,北京。

(3)中国社会科学院人口所举办的“养老金改革:国际动态与中国实践”国际研讨会,“再评世行1994年的《应对老龄化危机》”,2017年10月15日,国宾宾馆,北京。

(4)中国社会保障学会与中国社会科学院人口所联合举办的“多层次养老保险体系建设研讨会”,“多层次养老金”,2017年10月16日,中国人民大学,北京。

(5)浙江大学“民生保障与公共治理研究中心”启动典礼,“日本在设计公共养老金制度时是如何学习国际经验的?”2018年5月19日,浙江大学,杭州。

(6)浙江大学公共管理学院专题论坛,“日本公共养老金制度的主要变化:背景及背后的理念”,2018年5月20日,浙江大学,杭州。

三、以高山教授为中心的座谈会

(1)2017年12月7日下午,与国家开发银行刘克崮前副行长率领的研究团队座谈。

(2)2018年7月26日上午,与国家开发银行刘克崮前副行长率领的研究团队座谈。

(3)2018年7月26日下午,与浙江大学何文炯教授率领的研究团队座谈。

(4) 2019年4月22日下午，在人社部社会保障研究院与金维钢院长及研究院的研究人员座谈。

(5) 2019年4月23日上午，与中国国际交流中心的姜春力部长与国家发展改革委员会的牛明处长座谈。

(6) 2019年4月23日下午，与中国经济体制改革研究会原会长宋晓梧，中国国际交流中心的姜春力部长座谈。

其中的4次座谈会为3个半小时，两次为2个半小时。由于参会人员的热烈讨论，导致所有的这些座谈会都无中场休息。举办地点除了在人社部社会保障研究院的那次以外，全部都是在人口所。“中日养老金合作研究项目”的中方团队成员，几乎都全程参加了上述座谈会。

上述各项会议的参会人员，除了上述提及的人员以外，还有来自北京大学、北京师范大学、北京政法学院、中国人民大学、上海财经大学、武汉大学、国务院发展研究中心、中国劳动关系学院及中国社科院的人口所之外的其他研究所的养老金方面的研究人员等。中日两国养老金合作研究项目的日方参加者为日本一桥大学经济研究所所长小盐隆士教授、日本国际医疗福祉大学稻垣诚一教授、日本一桥大学经济研究所马欣欣副教授。