

Integration of Pension, Assistance and Taxation : How to Balance Insurance Role with Redistribution Role*

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Abstract

The Pension Reform 2004 in Japan has fixed the schedule of contribution hike until 2017 and incorporated a mechanism of maintaining the financial sustainability of pension funds to some extent. However, there still remain a lot of problems including unequal burden-sharing, unqualified pensioners, old-age poverty and missing of contribution records. These problems are fundamentally originated in the structure of Japanese pension systems which are divided into several occupational groups. Firstly, this paper addresses the Japanese pension system is "inefficient" in terms of both smoothing income (insurance role) and providing adequate income (redistribution role), although the overall income level of Japanese elderly relative to young workers is better than that of the OECD average. Secondly, the paper reveals this inefficiency derives from fragmentations within pension systems, between pension and public assistance, and between pension and taxation. Finally, the paper argues the urgency of integration of relevant provisions for ensuring old-age income security in the context of rapid change in economic and social circumstances and discusses major issues in proposing several alternatives for integration with reference to major OECD countries' experiences.

Keywords: universal pension, social insurance, integration, public assistance, taxation on pension

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1. Introduction

Japan is not only the most rapidly ageing country in the world but also the country where her total population is decreasing¹. For several decades, debates on how to reform the public pension system have been growing at an unprecedented level and the Japanese government has been struggling to adjust the imbalance caused by the ageing population. For instance, the latest reform in 2004 fixed the schedule of future contribution increases until 2017 and introduced the new system of indexation to adjust to changes not only in wages and prices but also in life expectancy and the number of insured in order to stabilize pension finance.

However, it is still hard to say that the credibility and sustainability of pension systems has been restored and the fundamental goal to secure old-age income has been achieved. Recently, the situation has been getting worse recently rather than improving, because of the incident of "missing record of contributions". The Social Insurance Agency mismanaged record keepings of pension contributions and there are more than 50 million cases in which the Agency cannot identify who contributed to the pension funds. The foremost concern is the mismanagement itself, but the problem seems to stem from the fragmented structure of the Japanese pension system.

The Japanese public pension system is characterized by the division based on occupational groups such as the self-employed, employed and civil servants. In order to mitigate this fragmentation, the 1985 Pension Reform introduced the Basic Pension System which was intended to share burdens in an equitable manner and expected to guarantee a minimum retirement income for everyone. Nevertheless, the Basic Pension has not achieved the original goal and the fragmentation of pensions significantly undermines the credibility of the overall Japanese pension system. One of the biggest problems is that more than one third of people who are required to pay a contribution to the National Pension do not contribute due to various reasons. Although there are many old people with high income in Japan, OECD statistics show that Japan belongs to a group of countries which have higher poverty rate among

¹ The population aged 65 and over comprised 19.9 per cent of total population in 2005. See Table 3-1. According to NIPSSR(2006), the total population in Japan decreased to 127,757 thousand people in 2005 from the previous year's 127,776 thousand.

OECD member countries.

In sum, the integration of pension schemes have become a critical agenda in order to alleviate the fragmentation in Japan. What matters is how to ensure that the elderly are not placed at risk of poverty and can enjoy a decent standard of living. The focus should be on how to guarantee a minimum level of resources. Issues are not only related to pensions but also social assistance and taxation. The current debate in Japan is how the Basic Pension should be financed, namely by general tax or contribution. Currently one third of the expense of Basic Pension is financed by general tax, and the ratio of general tax revenue to the total expense is scheduled to be raised to 50 per cent in 2009, although Basic Pension is based on the idea of a social insurance contributory system. However, there has been little analysis and discussion on the issues of fragmentation and the relationship between contribution and general tax.

In this paper, we focus on an integration of pension, social assistance and taxation in Japan. We have two objectives in this paper, one is to analyze the problem of inefficiency of providing old-age income security in Japan and the other is to identify key issues in proposing alternative arrangements for an integration of relevant provisions.

The paper is structured as follows. The next section describes the framework of this study and identifies issues and problems. Section 3 compares various approaches to secure old age income and analyzes various ways to integrate pension, social assistance and taxation in major OECD countries. Section 4 sheds light on the current issues and problems regarding an integration of pension, assistance and taxation in Japan and section 5 discusses alternatives for reform. Finally we conclude in section 6.

2. Framework

There are several approaches to analyze pension systems in academic literatures². The first one is an institutional approach, which examines the structures, rules and

² The following classification on analytical approaches refers to OECD (2005a:11-12).

parameters of pension system such as coverage, upper and lower ceilings of contributions, calculation of pension entitlements and indexation. Detailed descriptions of a country's pension system could be used to analyze the redistributiveness and actuarial fairness of it. Examples of such literature are US SSA (2006a), Social Protection Committee (2006), and Whitehouse (2007).

The second one is a theoretical model approach, which projects pension benefits for illustrative workers at different levels of earnings based on current pension policies and formula. International organizations such as OECD and European Commission provide international comparisons of various pension systems using this approach (Whitehouse (2003), Cremer and Pestieau (2003), Disney (2004), Social Protection Committee (2004), and OECD (2005a, 2006)). One of the advantages of this approach is that it can assess the future implications of today's pension policies in a forward-looking manner across countries (OECD (2005a:12)).

The third one is an empirical approach, which uses household survey data to assess the distribution of older people's income and the effect of pension systems on it. Forster and Mira d'Ercole (2005) surveys the income distributions and poverty both for the young and the elderly in OECD countries. Dang et al (2006) studies how social benefits and the taxes affect income levels and income disparities across different age groups among nine OECD countries. This approach can reveal the actual outcomes of pension policies, but they are affected by past decisions.

The fourth one is a financial and fiscal approach, which projects pension expenditures and assesses fiscal sustainability of pension system in a long-term perspective. Its major aim is to assess the effects of ageing on public finance and study its implications. European Commission (2003) provides long-term projections of public pensions spending for each member countries. Ministry of Health, Labour and Welfare (2005c) also takes this approach.

This paper basically adopts the first one among four approaches above, because it studies the structure and design of pension systems and proposes the integration of pension systems with social assistance and taxation. We cover old-age income security as a whole, which includes public and private pensions, social assistance and

taxation, and try to analyze all three relevant provisions in an integrated manner by comparing pension design and its philosophy with its performance replacement rates, poverty rates and inequality.

The analysis is divided broadly into the following two parts: international comparison among OECD member countries and issues in Japan in terms of an integration of the three provisions. European Commission, OECD and World Bank have been making international comparisons of pension systems as already described. With reference to these previous studies, we choose ten major OECD countries which are Australia, Canada, France, Germany, Japan, the Netherlands, New Zealand, Sweden, UK and USA, and focus on how each country ensures old-age income security by putting together the three provisions, and explore the relationships between its policy and outcome. The second task is to analyze the structural problems in Japan's old-age income security system. Problems often cited are as follows:

1) The pension system is fragmented by occupational groups; in particular the cost of basic pension is shared unequally by groups. The number of insured who cannot pay monthly contributions or can pay only a smaller portion of contributions than required by the relevant law is increasing significantly regarding the National Pension which is mainly for the self-employed and part-time workers.

2) The amount of Basic Pension is less than that of social assistance, thus Basic Pension cannot provide adequate income security although the Japanese government declares to be a "universal" system.

3) One third of expense for Basic Pension is currently financed by general tax revenue rather than contributions, regardless of the pensioners' income level. In other words, the elderly with high-income is also subsidized by the government. On the other hand, several tax concessions are granted to older people, thus they are possibly better off than young workers.

The third task is to discuss several alternatives for integration. There have been few debates on an integration of pensions so far, and the Prime Minister's advisory body in Japan, namely CEFP (2004) provided specific examples of alternatives in order to expedite discussions and consensus. We will extend this proposal to suggest other alternatives and analyze their pros and cons in details.

There are numerous studies on the Japanese pension system, but they mainly focus on fiscal imbalance both on aggregate and micro level. There have only been a few papers which cover pension, social assistance and taxation as a whole and examine alternatives for integration. This paper will contribute to the discussion of how to restructure the current pension system in Japan through paying attention to integration. The fundamental question throughout this paper is how to provide an adequate income to prevent poverty in old age or retirement. Social Protection Committee (2004) clearly states the following three objectives:

(1) Ensure that older people are not placed at risk of poverty and can enjoy a decent standard of living; that they share in the economic well-being of their country and can accordingly participate actively in public, social and cultural life

(2) Provide access for all individuals to appropriate pension arrangements, public and/or private, which allow them to earn pension entitlements enabling them to maintain, to a reasonable degree, their living standards after retirement; and

(3) Promote solidarity within and between generations

There are also various criteria to assess old-age provisions. For instance, European Commission (2003) argues that member countries should meet the following eleven objectives: preventing social exclusion, enabling people to maintain living standards, promoting solidarity; raising employment levels, extending working levels, making pension system sustainable in a context of sound public finances,

adjusting benefits and contributions in a balanced way, ensuring that private pension provision is adequate and financially sound, adapting to more flexible employment and career patterns, meeting the aspirations for greater equality of women and men; demonstrating the ability of pension systems to meet the challenges. The UK government (2005:9) defines six principles for pension reform: tackling poverty effectively, building an adequate retirement income, maintaining affordability and economic sustainability, producing fair outcomes for women and carers, establishing a system that people understand, based around as broad a consensus as possible. It should be emphasized that viewing public pension schemes and their reforms in isolation from private pensions, public assistance and taxation does not offer a full picture of old-age income security.

In this paper, we focus mainly on two criteria such as adequacy and actuarial fairness and assess old-age income provision using these criteria. As we discuss in the next section, these two criteria can be used to analyze, classify and assess each country's pension structure and approach to ensure old-age income security.

3. Old Age Income Security in OECD Countries

This section studies how OECD countries ensure old-age income security, for instance, whether by redistribution or insurance, by public pension or private, by minimum pension or social assistance. Firstly, we overview demography and pension financing in OECD countries to understand the social and economic differences among them. Secondly, we compare various approaches to classify pension systems of OECD countries based on literatures to characterize the structure and design of pension provision. Finally, we focus on ten major countries and analyze their approaches for integration of pension, assistance and taxation. We will obtain lessons on the relationship between institutions and outcome.

3.1 Demography and Pension Finance

Almost all OECD member countries have been experiencing population ageing since the end of 20th century. **Table 3-1** shows that the ratio of the population aged

65 and over will be nearly doubled between 2000 and 2050 on the OECD total. The table also suggests there is a difference in the speed of ageing between countries. Japan, Korea, and Spain are countries where their population is ageing most rapidly, while the Netherlands, Sweden, the UK, and the USA are countries where their population is ageing gradually and is not projected to reach a higher level. Population ageing means not only the increase of the elderly but also the increase in the dependency ratio. **Table 3-2** compares the young and old-age dependency ratio, which is the number of children and elderly relative to the number of working age. It ranges between 40 per cent to 60 per cent among OECD countries. A population study reveals that the decline in fertility rate and the increase in life expectancy bring ageing society. According to **Table 3-3**, total fertility rate seems to vary across countries more than life expectancy. Amongst all, Czech Republic, Hungary, Japan, Korea, and Poland are countries where women have least babies. All in all, it is said that Japan and Korea can not avoid facing the most significant population ageing in the world.

This unprecedented demographic change inevitably affects public finance of member countries, in particular age-related spending such as pension and health care. According to the OECD social expenditure statistics, OECD countries spend 27.1 per cent of GDP for public and private social spending in gross terms in 2003, and one third of total social spending goes to pension-related spending³.

Table 3-4 provides figures for public and private pension spending which covers old-age, survivors, and disabilities. Among OECD countries, higher spenders include mainly European countries such as Austria, Poland, Greece, France, Germany, Sweden and Portugal. Lower spenders include Australia, Canada, Iceland, Ireland, and New Zealand, with expenditures of less than 5 per cent of GDP. In sum, the total pension-related spending varies from country to country, and the table shows that higher spending does not always relate to population ageing. **Table 3-4** provides just how much money each country spends for pensions at an aggregate level, but suggests

³ This is OECD 24 countries' average taken from OECD (2006a). Public social spending excluding private equals 23.5 per cent.

there is a balance between public and private spending. There is a marked difference in OECD countries. At one end of the spectrum, countries such as Germany, France and New Zealand rely heavily on public system shown by the fact that it comprises more than 90 per cent of the total spending. But at the other end of spectrum, countries such as Australia, Canada, the Netherlands, the UK and the USA rely on both public and private nearly equally, though strictly speaking, the public systems comprises somewhere between 50 to 60 per cent of the total. Japan's spending pattern is in the middle between both polar cases with the public pension comprising about 75 per cent of the total.

3.2 Structure and Characteristics of Pension Systems

The variation of pension spending suggests that there are different approaches and philosophies to ensure old-age income security in OECD countries. Many literatures try to classify countries into groups that share similar characteristics by using some criteria. This section surveys researches which classify and characterize various pension schemes in the world in order to recognize the policies and philosophies behind pension structure and design⁴.

The stylized classification of the pension systems is "Bismarckian" versus "Beveridgean". The former was originated in the introduction of pension systems in Germany in 1889, while the latter was originated in Denmark in 1891. There is a clear distinction in philosophy and structure of pension schemes between them, although some countries take on a mixed character of both models. The most distinguished difference is to what extent the state is responsible for old-age income security. On one hand, in Bismarckian systems the state takes overall responsibility for earnings replacement in retirement; on the other, in Beveridgean systems mandatory state provision is limited to a floor of contribution-based or income-tested welfare benefits, supplemented by mandatory or voluntary pensions that may be

⁴ For an international comparison of pension schemes in terms of structure and design, please refer to US GAO (2005), US SSA (2006a), OECD (2007), and Whitehouse (2007).

publicly or privately provided⁵.

Werding (2003:11-12) characterizes Bismarckian systems as compulsory mainly for dependent workers, systems often being categorical (e.g. blue-collar and white-collar), benefit entitlements strongly linked to individuals' contributions, and substantial replacement rate effectively providing a major share of retirement income for most pensioners. He also characterizes Beveridgean systems as universal often covering the total labour force, the link between contributions and benefits being weak, benefits largely intended to guarantee a minimum level of retirement income. Disney (2004) defines 'Bismarck'-style public pension by the characteristics of high actuarial fairness, significant departures from inter-generational equity, and limited private provision, while he defines 'Beveridge'-style public pension by the characteristics of significant departures from actuarial fairness, variable extent of inter-generational equity, and significant provision of private retirement benefit. Werding (2003:12) finds Bismarckian tradition in Austria, Belgium, Germany, Greece, Italy, Luxembourg, Portugal and Spain, and Beveridgean tradition in Ireland, the Netherlands and the UK. He also suggests that combined elements of both types of arrangements are operating in Denmark, Finland, France, Sweden, Switzerland, and the US.

One distinction in outcomes of pension policy is the replacement rate for different income level. The Bismarckian countries provide similar replacement rates to all income groups, but in the Beveridgean countries replacement rates are considerably higher for low income groups. In this regard, Conde-Ruiz and Profeta (2007:688) develops the 'Bismarckian' index which is a measure of the degree of redistributiveness of the social security system obtained by computing the correlation coefficient between pension benefit levels and pre-retirement earnings. According to their Bismarckian index, countries which have the most Bismarckian characteristics are Greece and Spain (about 0.7), followed by France, Germany, Italy, and Austria

⁵ Queisser et al (2007:552) describes as follows: Countries with more Bismarckian and strongly earnings-related public pensions tend to have relatively low levels of private pension provision, while, with some exceptions, countries with more Beveridgean and redistributive pension systems tend to have much more extensive private pension provision.

(0.5-0.7). Countries having lower index are Denmark, Belgium, Ireland, the UK and the US (0.2-0.5), thus they can be classified into Beveridgean systems.

Based on the classification by this index, Conde-Ruiz and Profeta (2007:690-692) depicts basic features of both models as follows:

1) More Beveridgean countries are more unequal, since the share of low and high income individuals is larger than in Bismarckian countries;

2) Countries with higher Bismarckian index are associated with lower median replacement rates for low-income individuals. More Beveridgean systems offer more generous pensions to low-income individuals;

3) More Beveridgean countries are typically associated with lower public pension expenditures than Bismarckian ones;

4) Some countries with high income inequality are associated with Beveridgean systems such as the UK and US;

5) More Beveridgean systems have a more developed second pillar than Bismarckian.

Characteristics explained above needs careful attention, because for instance Canada which is normally classified into Beveridgean systems is one of the countries where income distribution of the elderly is more equal than most other OECD countries. Cremer and Pestieau (2003:183) also classifies social protection systems according to size and redistribution into three categories; targeted or flat-rate for Anglo-Saxon countries; mixed for Scandinavian countries; Bismarckian for Germany, France.

The criterion of Bismarckian versus Beveridgean is insightful when we overview various pension schemes, but it seems too simple to be used to categorize them. OECD (2007:46-47) estimates the link between pre-retirement earnings and pension entitlements, which shows the benefit level that a pensioner will receive in relation to

average earnings in the respective economy. It can be seen as an indicator of pension adequacy. The OECD paper divides its member countries into six groups based on this adequacy indicator as follows:

- 1) Australia, Canada, Ireland, New Zealand, and the UK
- 2) Belgium, the Czech Republic, Denmark, Korea, and Switzerland
- 3) Austria, Iceland, Japan, Norway, and the US
- 4) France, Germany, Mexico, Portugal, and Spain
- 5) Finland, Luxembourg, Poland, Sweden, and Turkey
- 6) Greece, Hungary, Italy, the Netherlands, and Slovak Republic.

In the first group, there is little or no link between pension entitlements and pre-retirement earnings. However, countries belonging to the last group have a very strong link between pension entitlements and pre-retirement earnings.

Whitehouse (2003:54-55) classifies pension schemes broadly into three categories based on the calculation of earnings replacement among different income groups as follows;

- 1) Countries ensure all pensioners achieve a basic standard of living rather than aiming to give everyone a certain level of earnings replacement: Canada, and the UK
- 2) Countries achieve a great degree of earnings replacement even for high-income workers: Italy, the Netherland, Sweden, and Finland
- 3) Countries lie between both polar cases (intermediate): Japan, Germany. and the US

There are several approaches to classify various pension schemes, but clearly redistributiveness is a critical criterion. In general, redistributive components of a pension systems is included in the first tier, while the second-tier has an insurance and savings role to maintain pre-retirement income. Therefore how the first-tier within pension system of a country is structured and designed could determine the features of old-age income security. In this regard, Whiteford and Whitehouse (2006:84-85)

illustrates four generic types for first-tier schemes: social assistance, separate, targeted retirement-income programmes, basic pensions, and minimum pensions within earnings related plans⁶. According to their definition,

1) in a basic scheme, the benefits are flat rate with the same amount paid to each retiree, depending only on the number of years of work;

2) a targeted plan pay higher benefit to poorer pensioners and reduced or zero benefits to better-off retirees⁷;

3) a minimum pension forms part of the rules of second-tier, earnings-related pension provision to prevent pensioners from falling below the minimum level;

4) social assistance benefits protect poor older people in the same way as young people.

In addition, Whiteford and Whitehouse (2006:84-85) categorizes first-tier programmes of countries based on the benefit level relative to national average earnings. He estimates that the average safety-net retirement benefit from all the relevant first-tier schemes is a little under 29 per cent of national average earnings across all 30 OECD countries, but describes the minimum pension in Czech Republic as exceptionally low at just 12 per cent, and

1) the basic pension in Japan, minimum pension in Mexico and the targeted scheme in the US are on the low side, providing benefits worth one-fifth or less of average earnings;

⁶ OECD (2007:22) takes a similar approach, but does not distinguish social assistance with separate and targeted programs. They call it 'resource tested'.

⁷ There are several ways to assess eligibility of pension benefit, including pension-income test, broader income test and means test.

2) Luxembourg, Portugal, Greece, Austria and Belgium have minimum pensions worth well over 40 per cent of average earnings.

Let me summarize key findings from surveys above. OECD countries can be classified differently by applying different criteria, therefore members of groups are not always the same. However, the most significant criterion is to what extent redistribution of income is achieved within a pension scheme and how it does so. First of all, there are some countries such as Germany, that excludes redistributive role from pension provision while providing social assistance as a safety net. Other countries can be laid side by side from the most redistributive to the least. The former includes New Zealand, Canada, and Australia, and the latter includes Sweden and the Netherlands.

Some countries provide interesting exceptions. For instance, Werding (2003) calls the Netherlands a Beveridgean system, but the link between pre-retirement earnings and pension entitlements is strong according to OECD surveys. Japan and the US are other examples. Both countries are often identified as Beveridgean systems, although it is said that old-age income security is mainly covered by social insurance and a safety net measure is provided by social assistance with strict means test⁸. Most English speaking countries which are often called Beveridgean can be further divided into two groups; one includes the UK and US and the other includes Australia, Canada, and New Zealand. The former is still based on a social insurance model although their characteristics are different from those of Germany and France. The latter provides a universal pension where there is no link between contribution and benefit.

3.3 Approaches to Integration in Major Ten Countries

We provided an overview of pension systems and related matters in OECD countries. Based on this, we examine how a country integrates pension systems with

⁸ Conde-Ruiz and Profeta (2007:690) notes that Japan is classified as Beveridgean type, large component of benefits as flat-rate, combined with an earnings-related component.

social assistance and taxation in detail and the outcomes derived from such arrangements in terms of old-age income security. Then we will discuss problems and issues for integration. We chose countries that can be best used to represent variety of approaches for integration among major OECD members. These are Australia, Canada, France, Germany, Japan, the Netherlands, New Zealand, Sweden, the UK and the US. Beveridgean system includes Australia, Canada, Japan, New Zealand and the UK, while Bismarckian systems include France, Germany and Sweden with the Netherlands being difficult to classify. In general, ten countries chosen here can be distributed into each category classified by OECD (2007:46-47) and Whitehouse (2003:54-55). Rhodes and Natali (2003:4) identifies four European pension regimes by linking institutional features with programme functions and historical background as follows:

- 1) pure occupational systems (Austria, Germany);
- 2) occupational plus means-tested systems (France, Italy, Spain);
- 3) universal plus occupational systems (the Netherlands, the UK);
- 4) pure universal systems (Sweden).

The countries we selected is also appears here in each category. Therefore, our selection seems reasonable to discuss an integration of relevant systems. Firstly, we try to describe main features of each country's pension, social assistance and taxation in terms of old-age income security. Secondly, we compare outcomes of each country's arrangement with each other, then finally discuss issues and problems in the integration of pension, assistance and taxation.

There are two fundamental goals for old-age income security: one is to smooth income stream over an individual's lifetime, in other words to maintain the standards of living in retirement to some extent compared with that when working; the other one is to ensure that old people achieve at least a minimum standard of living, in other words, everyone should be entitled to receive an adequate income with reference to an

entire society's well-being. Thus, all pension systems contain an actuarial component and a redistributive component. Nevertheless, the balance between the two components differs from country to country and the approach to achieve both goals also varies from country to country. We reveal how each country of the ten listed designs old-age income security provisions including public and private pensions, social assistance and taxation from the point of balancing the two components. Key issues in order to assess each country's arrangement for integration are illustrated as follows:

1) how to provide minimum income provision as a safety net: general social assistance, assistance specialized for the elderly, basic pension (flat-rate), or minimum guaranteed pension? and an eligibility of these provisions is assessed by income test, means test, or universal to everyone?

2) to what extent a redistributive mechanism within pension provision such as lower and upper ceilings for the calculation of contributions exists? Do pension provisions cover not only the employed but also self-employed? What is the relationship between public and private pension systems?

3) how taxation is linked to pension systems particularly in terms of taxing on pension benefits and financing pension provisions? To what extent concession of tax are given to the elderly? To what extent the elderly is treated differently from the young?

Table 3-5 and 3-6 provides main features of each country's pension, assistance and taxation in detail⁹. It is not the objective in this paper to describe all relevant provisions comprehensively, therefore let me summarize in the prominent features of

⁹ Table 3-5 and 3-6 is made based on the latest information of each country, which is mainly derived from web site of relevant ministry and agency. In addition, we refer to Bonoli (2000), Borsch-Supan and Miegel (2001), European Commission (2003), Takayama (2003a), Whitehouse (2003), OECD (2006b), US SSA (2006a) and OECD (2007) on descriptions of Table and the following country specific explanations.

each country in terms of integration of relevant provisions.

Germany

The German public pension system is based on a social insurance model, which is characterized by being single-tier, earnings-related, and pay-as-you-go, and covers around 82 per cent of the employed population¹⁰. Public pension systems are mainly for general employed, and divided into several occupational groups, thus they do not cover the entire population. The formula for the earnings-related pension is based on a system of points. Points are calculated by contributions which are levied on earnings between one and 171 per cent of average earnings.

German pension system is a typical example of a social insurance model, however it contains a lot of redistributive elements. Firstly, there is a financial mechanism for burden sharing between fragmented pensions. Secondly, contribution paid by low-income earners is reduced although it affects pension benefits. Thirdly, general tax revenue finances about 25 per cent of total pension expenditure¹¹. Subsidies include contributions paid by the state for career breaks, such as child rearing periods, and other benefits not based on individuals' contributions. The ratio of tax revenue has been raised gradually with a marked event where the VAT rate was increased from 15 to 16 per cent in April 1998 with the additional revenue being used to finance pension expenditure. The additional revenue from gas and oil tax aimed for environmental protection has also been used to finance pension expenditure since 1999. On the other hand, this increase in general revenue reduced contributions, for instance in 1999 from 20.3 to 19.5 per cent and in 2000 reduced to 19.3 per cent and in 2001 to 19.1 per cent. Thus it can be said that Germany deviates significantly from a pure social insurance model.

The latest major reform was implemented in 2001 with the aim of reducing

¹⁰ For a general description of German pension system, see Borsch-Supan (2000).

¹¹ At the very beginning of social insurance pension in 1889, government subsidy financed a part of pension benefit. In 2001, the total revenue of pension fund was €220,320 million and government subsidy was €53,342 million. Thus the ratio of subsidy to the total revenue was 24.2 per cent (from Table 4-2 in Matsumoto (2004)).

replacement rates and promoting the development of private pension schemes. In general, occupational private pensions have been much less important in Germany than in Canada and the UK. However they became increasingly important to ensure old-age income security, because the reduction in public pension level was necessary to maintain financial sustainability. The government supports the promotion of private schemes with subsidies and tax expenditures.

One of the latest changes in Germany is a small modification of the public assistance scheme. In Germany the safety net for low-income earners is based on social assistance which is outside of the public pension system, although public pension system does contain some limited redistributive elements. Those who could not sufficiently contribute to public or private pension systems have been relying on general social assistance same as the young workers. But in 2003 a social assistance specialized for the elderly and the disabled called "Basic Security" was established separately from general public assistance. The new provision is a little more generous than traditional provision in point of claims for compensation, although both provisions provide the same amount of benefits. Basic Security aims to cover old people who do not have sufficient pension benefit but hesitate to apply for ordinary public assistance and is considered a different scheme from public assistance as well as social insurance.

France

The French pension system is based on a social insurance model with two-tier system¹². Mandatory supplementary pension schemes are followed by basic general schemes, and both are financed on a pay-as-you-go principle. The latter is established with strong solidarity which contains several redistributive elements such as supplementary benefits for child care, while the former is based on a point system which ensures a close link between contributions and benefits¹³. The French system

¹² For a general description of French pension system, see Blanchet and Pele (1997).

¹³ Bonoli (2000:123-124) notes the French welfare state can be described as a dual social protection system. One is a wide-ranging social insurance system, referred to as *Securite sociale* and the other one is a non-contributory scheme, referred to as *solidarite nationale*.

is characterized by the fragmentation; there exist a number of schemes according to occupational groups, therefore financial equalization mechanism is necessary to maintain solidarity among them.

A safety net for old people is not provided by ordinary public assistance but by a minimum guaranteed pension with a means-test. If people's income including pension is less than a threshold, the gap is compensated by Old-Age Solidarity Allowance¹⁴. On average the threshold is approximately three quarters of the average earnings of aged 65 and over. Taking into account other sources of income, poverty risk of old people is expected to be low due to these programs. The Allowance is fully financed by general revenue called Generalized Social Contribution which has an ear-marked income tax¹⁵. In addition to this Allowance, general tax revenues are widely used in French social insurance model mainly for funding solidarity elements including benefits awarded on the basis of the number of children, periods of national service, and contributions for the unemployed, because these measures are considered as the state's responsibility.

The 2003 Reform increased the number of years of contributions and introduced other measures mainly for maintaining fiscal sustainability, while it guaranteed the amount of full pension at 85 per cent of minimum wage level. Thus the minimum level of pension is expected to be raised in order to comply with this standard. Although further remedies are needed to restore sustainability of pension finance, the fragmented structure of pensions makes it difficult to achieve consensus for further reforms among the government and stakeholders.

Sweden

Sweden restructured her two-tier pension scheme fundamentally in the late 1990s.

¹⁴ There were several non-contributory allowance mainly for the elderly including AVTS (allocation aux vieux travailleurs salaries), secours viager, minimum vieillesse, ASV (allocation speciale de vieillesse), but these were consolidated into a single provision: Old-Age Solidarity Allowance (ASPA: allocation de solidarite aux personnes agees) in 2006.

¹⁵ GSC (in French Contribution Sociale Generalisee (CSG)) was established in 1991 to finance a certain number of non-contributory allowances. At the beginning the rate of GSC to income was 1 per cent to finance household allowance. In 1993 it covered non-contributory old-age benefit and in 1998 health care, by increasing tax rate.

The new scheme was introduced in 1999 as a single-tier model which consists of an earnings-related scheme and an old-age minimum guarantee scheme¹⁶. The former scheme is separated into notional accounts and individual accounts. 16 per cent of earnings are credited to the notional account as contributions, and the accumulated notional capital will define pension benefit as annuity at retirement. The benefit depends on individual retirement age and contemporaneous life expectancy. This is called a "Notional Defined Contribution (NDC)" scheme. The remaining 2.5 per cent of earnings are paid into individual accounts and this fund is invested in the market based on individual choice. Swedish pension system looks like private retirement savings as it links individual pension entitlements explicitly with actual contributions paid. The earnings-related scheme aims for actuarial fairness. It should be noted that a fixed contribution will gradually reduce replacement rate. For an average worker, the net replacement rate will decrease from 71 per cent in 2005 to 60 per cent in 2030 (Swedish Government (2005)).

The old-age guarantee pension provides minimum pension for people aged 65 and over based on the number of years of residency and is fully financed by general tax revenue. Maximum pension is earned with 40 years' residency and is reduced proportionally for shorter periods of residency¹⁷. The guarantee pension is provided to close the gap between income from the earnings-related pension explained above and the threshold. Importantly, the guarantee pension employs certain mechanisms to alleviate traditional problems in income security such as disincentives to save and work. It assesses income only from an earnings-related portion of the National Pension, in other words it ignores income from private pensions and assets.

A marginal tax rate for additional income from the National Pension beyond the minimum guaranteed benefit is not 100 per cent, thus the retired is given an incentive to work more to some extent. The guarantee pension is linked only to the price

¹⁶ The new schemes are explained in Swedish Government (2005) and Swedish Ministry of Health and Social Affairs, *The Swedish National Pension System*

¹⁷ Basic security in the form of full guarantee pension for single persons entails an annual income of SEK 82,218 in 2003 which is slightly more than 50 per cent of the median income (=SEK 157,632) (Swedish Government (2005)).

index, therefore real economic growth will widen the income gap between workers and pensioners who are only entitled to the guarantee pension. It should be reminded that another means-tested public assistance is provided for those who are not entitled to the guarantee pension due to shorter residency, mainly the immigrants. This special assistance came into effect in 2003 by Old-Age Living Assistance Law (2001).

Swedish pension system also has redistributive elements in earnings-related portion, even though it stresses actuarial neutrality¹⁸. For instance, pension credits are given to the unemployed or parents caring for their children.

In sum, Sweden has strengthened financial sustainability through an automatic balancing mechanism built into the earnings-related portion while ensuring adequacy of pension through the guarantee pension. However, there is a possibility that the poverty risk will increase due to the indexation of guarantee pension and an increased financial burden to sustain it.

United States

The US has an earnings-related, PAYG state pension scheme, which covers not only the employed but also the self-employed. The threshold of minimum earnings for contribution is very low, thus the coverage is wide in the US. Public pension is single-tier but its benefit is generous for low income elderly through a progressive formula¹⁹. Earnings-test also applies to people if they earn above a certain level, thus benefits from the public pension, namely Old-Age Survivors and Disabled (OASDI) is reduced by a formula. Many people also belong to a company occupational scheme and/or to an individual defined contribution pension, because the OASDI can not replace previous earnings sufficiently.

The US does not have a universal scheme, thus a number of people lack pension. GAO (2000) shows that in 1998, 81 per cent of employees earning less than \$20,000

¹⁸ The general revenue finances roughly about 15 per cent of the total pension expense including guarantee pension.

¹⁹ According to Edelman, Salisbury and Larson (2002:62), the minimum benefit was eliminated in January 1982 for workers who initially became eligible for social security after December 1981 in the USA.

and 79 per cent of part-time workers lacked pension coverage. Those who cannot be protected by OASDI are entitled to Supplemental Security Income (SSI). SSI provides a means-tested benefit for the elderly and disabled. The benefit of SSI is withdrawn totally if the income is above a certain level. In addition to SSI, most state governments provide supplementary benefits to the elderly. According to US SSA(2000), 12 states offer supplementary benefits to SSI with an additional payment of about 13 per cent for single pensioners.

There has been no major pension reform since the 1983 Reform in the US. Minor but important mechanism was introduced in 1984 to strengthen taxation on pension benefit. This claw-back scheme focuses mainly on people with high income, due to high threshold. The additional revenue from claw-back is directly transferred to the OASDI fund, rather than treated as general revenue. The revenue based on this taxation of benefits amounted to \$15.6 billion in 2006 and accounted for about 2.4 per cent of the total revenue of OASDI Trust Fund (Board of Trustees (2007)). Current pension debates in the USA centers around privatization including individual accounts, proposed by Social Security Advisory Council 1994-1996 and Commission to Strengthen Social Security 2001²⁰.

United Kingdom

Public pension system in the UK has two-tier; the first tier is a flat-rate, PAYG, basic pension; the second tier is an earnings-related additional pension. About 60 per cent of the employed contract out the second tier into private pensions if coverage by an occupational or personal pension scheme can provide equivalent or better benefits than the statutory scheme explained above. In addition to the mixture of public and private schemes, frequent reforms since 1980s have made British pension system immensely complex.

Unlike other OECD countries, the level of public expenditure on pensions is low and not expected to increase in the future, mainly because of the emphasis on private schemes including the creation of DC type pension called "Stakeholder Pension" in

²⁰ For instance, see Diamond (2006).

2001 and the change of indexation of the first tier from wages to prices. Thus, financial sustainability of pensions seems to be well under control so far.

Current debates on pension issue in the UK have been focusing on the adequacy of old-age income security, because the UK elderly are at a higher risk of poverty. Since the New Labour party took government, a number of measures have been implemented to strengthen adequacy of pension benefits. In 1999, the non-contributory Minimum Income Guarantee (MIG) was introduced with means-tested to support to people aged 60 and over. The MIG is intended to provide a minimum benefit for all pensioners at the social assistance level regardless of past contributions. Soon after the introduction, MIG was replaced with Pension Credit in 2003 which added incentives for savings through combining Guaranteed Credit and Savings Credit; it is provided with less severe means-test than for traditional public assistance²¹.

Although the New Labour Government implemented the first phase of pension reform, the UK pensions system still faced many problems, therefore the government established the Pensions Commission in 2002 for consultation. The Commission released three reports which analyzed issues and proposed necessary reforms (Pensions Commissions (2004,2005,2006))²². The Commission argued that the solutions must and should entail some combination of higher private pension saving, higher average retirement ages, and an increased percentage of national income spent on state pensions, and made two major proposals:

- 1) State system reform to deliver a more generous, more universal, less means-tested and simpler state pension;
- 2) Strong encouragement to individuals to save for earnings-related pensions through

²¹ The introduction of Pension Credit excluded old people from the coverage of ordinary supplementary benefit. PC differs from supplementary benefit in that the former guarantees higher benefit, offers no asset limit, and assesses assets as revenue more moderately. The marginal tax rate of Savings Credit is 40 per cent. The details of PC are shown in *The Pension Service* (2003,2006).

²² Hills (2006) evaluates Commission's reports.

the application of automatic enrolment at a national level²³.

Based on these reports often called the "Turner Report", the British government released the policy paper (DWP (2006)) in 2006 and implemented further reform in 2007, including the wage indexation applied to the first tier of Basic State Pension. In the end, pension reform is on the way and the UK is still struggling how to integrate pensions and related provisions to ensure old-age income security²⁴. The viability of current pension policy that emphasizes private schemes with the modernization of the means-tested programs seems questionable simply because low income earners don't have enough money to save or invest.

the Netherlands

The Dutch pension system is two-tier, consisting of a flat-rate public basic pension and earnings-related occupational schemes²⁵. Thus there is no publicly run earnings-related, PAYG pension like France and Germany, although more than 90 per cent of employees are covered by industrial-relations agreements²⁶. The Netherlands has a policy of treating full-time and part-time workers equally since the end of 1970s and occupational pension funds can no longer exclude part-time workers from 1994 onwards with the equal treatment being codified in the Civil Code and labour law (van Oorschot (2004:20)).

The public pension is a flat-rate benefit to all residents over the age of 65 but different from basic pension of other countries. It is financed by contributions levied on earnings at a rate that is statutorily limited to a maximum of 18.25 per cent. In contrast to the previous scheme, employers don't contribute to the public pension. As long as people have more than a certain level of income, they must contribute, but

²³ This is a new scheme for personal account called "National Pension Savings Scheme (NPSS)

²⁴ For current debates, see Miles and Sefton (2003) and Disney and Emmerson (2005).

²⁵ See Kapteyn and Vos (1997) and Dutch Ministry of Social Affairs and Employment (2003) for a general description of the Dutch pension system.

²⁶ Occupational pensions are integrated with the public pension system. Tax rules allow a maximum benefit of 70 per cent of final pay from both public and private systems, so private benefits are reduced by the value of the public pension entitlement (Whitehouse (2003)). This is called "franchising", and also see Ferricks (2006).

the entitlement to the basic pension accrues through residence in the Netherlands between the ages of 15 and 65. It seems like a contributory pension, but strictly speaking it is a universal scheme financed by ear-marked tax because there is no direct link between contribution and benefit. The public pension is effectively indexed to contractual wages according to law.

All in all, poverty rate of old people is very low in the Netherlands due to this universal scheme, thus adequacy is not an issue. However it is not without problems. As the maximum contribution rate of 18.25 per cent was fixed by the 1998 Reform, there is a possibility that the sum of contributions will not be sufficient to finance the total expense for basic pension. This can be expected to happen around 2010 (European Commission (2003)). Also there seems to be an adverse effect in the calculation of public pension contributions. Contributions are levied on as part of the first bracket of the personal income tax. They are deductible from the personal income tax while benefits are subject to personal income tax. Therefore individuals can avoid paying the old-age pension premium by shifting their taxable income through pension saving toward retirement (Bovenberg and Meijdam (2001)). This tax treatment means a subsidy to private pension schemes. The Dutch government tries to raise employment rates in order to support public pension system through active employment policies.

What stands out in the Dutch model is that universalism coexists in accord with insurance schemes including private ones. Traditionally, the Dutch welfare state was characterized by universal treatment and corporatist idea, but through a series of reforms in the 1980s, social insurance and social security via market have been strengthened²⁷. Van der Veen and Trommel (1999) describes as follows:

The Dutch case seems to demonstrate that institutional learning is possible and that welfare states are able to improve their efficiency and effectiveness, while maintaining a high level of social justice.

²⁷ Process of reforms is noted in van der Veen and Trommel (1999) and Bovenberg (2000).

Australia

In Australia, Age Pension has been developed to secure old-age income since its introduction of 1909, which provides a basic flat benefit to all Australians with means-testing, fully financed by general tax revenue²⁸. The replacement rates of Age Pension is 25 per cent of male average weekly earnings for singles and 42 per cent for couples and the net replacement rates are 33 per cent for singles (Productivity Commission (1998:192))²⁹. Even though means-tested, nearly two thirds of Australian can enjoy the full benefit of this first-tier pension³⁰. The income test of Age Pension reduces benefits by 40 per cent of marginal earnings. Simply said, it is a generous scheme, different from others like the UK or the US. The elements explaining Australia's success in helping the low-income earners from economic and social change has been means-tested targeting and providing benefit floor rather than replicating past income (Productivity Commission (1998:147)). It should be noted that richer people who are eligible for Age Pension do not always enjoy benefit of Age Pension, because Australia's high progressive tax rate claws back their money through the tax system.

A second-tier of earnings-related pension had not been established in Australia until Superannuation scheme was introduced in the early 1990s. Superannuation is a mandatory private pension scheme regulated and subsidized by the Australian government. In particular, the government co-contributes for low-income earners with some limits. Thus, the cost of subsidy, in particular through tax expenditures has been increasing significantly. As the contributions to Superannuation have been increasing, it is expected to replace the Age Pension in future.

The first-tier scheme is working well as a safety-net, but it is expected to affect the federal budget, thus the government is trying to strengthen the role of the second-tier. Nevertheless, this pension policy is hindered by the fragmentation

²⁸ A general information on Australian pension system can be found in DFCS (2003).

²⁹ The replacement rate in terms of gross minimum wage is 49 per cent for a single and 58 per cent for a single in terms of net minimum wage (Productivity Commission (1998:192)).

³⁰ According to Dunsford and Rice (2004), the ratio of those who have the full rate of Age Pension and Veterans Pension to the total is 53.5 per cent, 24.3 per cent for the part rate, 19.0 per cent for self funded and 3.4 per cent for employed at June 2003. The details and historical data of income support and status of old people are shown in DFCS (2000) and DFCI (2006).

between the first and the second-tier³¹. First of all, income and asset tests have provided disincentives to participate to annuitise Superannuation contribution, because annuitised benefits may reduce the amount of Age Pension. Pensioners are likely to spend all the savings from Superannuation before the age qualified for Age Pension. Secondly, tax system on Superannuation is complex and may produce unequal treatment among people.

Theoretically, the Australian model may be ideal, because the government takes full responsibility fully for the first-tier as a safety net, and lets private sector run the second-tier with some regulations. However, the Australian experience suggests the integration between public and private schemes is not easy. Dunsford, Geoff and Michael Rice (2004:3) summarize problems of the current Australian pension system as follows:

- 1) The Structure of the Australian Retirement Income system is conceptually good, but it is inefficient due to poor implementation;
- 2) Integration is hampered by the lack of clearly defined objectives;
- 3) The structure has become too complex, and there appears to be little political agreement to simplify the system;
- 4) Many anomalies have developed over the years which are difficult to eliminate without a comprehensive overhaul of the system; and
- 5) There are public concerns about the value of superannuation - and clear cases where superannuation is not efficient.

Finally, there has been increasing concerns about ageing population. Department of the Treasury, Australia (2002) estimates the costs of Age and Veteran's Pensions will increase from 2.9 per cent to 4.6 per cent of GDP by 2041/42. It is critical agenda to contain pension expenditure and not raise the tax burden. Dunsford and Ho (2003) proposes that the Age Pension should become a safety-net for a minority,

³¹ There have been a lot of debates on the integration of the first and the second tier; For examples, see Institute of Actuaries of Australia (1996), Ingles (2000.2001), Bateman, Hazel and John Piggott (2003), and Dunsford and Rice (2004).

instead of the current means tested right for the majority by requiring the benefits from accumulated compulsory super contributions to be used to purchase the pension up to the full Age Pension.

Canada

Canada has a so called three-tier system³². The first-tier is a universal, flat-rate pension, called "Old-Age Security (OAS)", fully financed by general tax revenue. The second-tier is an earnings-related pension, called "Canada Pension Plan (CPP)"³³, financed by contributions. The third-tier is a private pension which plays an important role for old-age income security as discussed later.

OAS is provided with residency test which accrues 1/40th of the maximum pension earned for each year of residence after age 18 up to a maximum of 40 years. The maximum benefit replaces about 15 per cent of average wage, thus it is not sufficient to prevent people from poverty. Those who don't have income adding to OAS are entitled to have a supplementary benefit, called "Guaranteed Income Supplement (GIS)" with an income-test. The total maximum benefit from both OAS and GIS equals to about 50 per cent of average income. The benefit is withdrawn against income other than OAS at a 50-per-cent rate. Both OAS and GIS are price indexed. What is unique in Canada is that OAS benefit is reduced for retired with high-income through taxation system: often called "claw-back" introduced in 1989³⁴. Recovery tax applies to annual income over about C\$65,000, and it can withdraw all benefit of OAS if an annual income of the retired exceeds about C\$100,000. The number of retired paying recovery tax is only about 5 per cent of the total elderly, because the threshold is relatively high. The tax reform in 1988 was also important for a horizontal equity between the elderly and the young. The age exemption which treated the elderly taxpayers more generously than young taxpayers at the same

³² See Human Resources Development Canada (2001) for a general description of Canada's pension system.

³³ There is another second-tier scheme in Canada. Quebec State government runs Quebec Pension Plan which is equivalent to CPP.

³⁴ Battle and Torjman (2001) argues the claw back which the Conservative Finance Minister introduced as a special tax on OAS and Family Allowance benefits ended universalism in Canada.

income level was replaced with the non-refundable age credit. It is a flat-rate benefit whose value in terms of income tax savings declines proportionately with the increase in income (Battle (2003:40)).

Compared with France and Germany which have public, PAYG, earnings-related schemes, the replacement ratio of CPP is not high. Occupational and individual pensions play an important role particularly for middle and high income earners who want to replace their income at working age. According to Tamagno (2006:13), from 1980 to 2004 the average income of senior household measured in constant 2004 dollars increased from \$33,900 to \$40,500, a rise of almost 20 per cent largely due to the increasingly important role played by two parts of the Canadian retirement income system related to earnings from occupational and individual pension plan, and CPP³⁵.

In sum, the Canadian pension model can be described as a well-balanced system between public and private, since OAS and GIS work as a safety net and CPP and occupational and individual schemes support self-effort of individuals, in particular middle and high income earners. It should be noted that these transformation occurred through several reforms due to economic slowdown. Battle (2001:54) describes that deepening deficits in the 1980s and 1990s spurred governments to impose gradual but cumulatively major and in some cases radical changes on virtually all areas of Canadian social policy through the politics of "relentless incrementalism".

New Zealand

Pension system in New Zealand is simple and public scheme was only a generous universal flat-rate pension financed through general taxation. Universal scheme has been developing since its introduction in 1898³⁶. New Zealand became the second country which introduced non-contributory scheme in the world following Denmark (1891), although the original model had a means-test. In 1938 Old Age Pension was replaced with Superannuation Benefit which provided pension with no means-test for

³⁵ The role of private schemes are also argued in Morissette and Drolet (2001).

³⁶ New Zealand is among a very limited number of industrialised counties which have abstained from introducing mandatory earnings-related pensions for the working population (quoted from Overby, "The New Zealand Pension System in an International Context"). This paper explains the development and peculiarity of New Zealand pension system.

those who were age 65 and over and had ten-year residency at minimum. In the first half of 1980s, New Zealand's economy stagnated, and the Labour Government taking office in 1984 started various structural reforms including cutting welfare expenditures. In 1985 superannuation surcharge of 25 per cent was introduced to pensioners; this meant income-test came back. Finally, surcharge was abolished in 1998 and today New Zealand is one of the few countries which provides public pension without any assessment although pension benefits are fully taxable³⁷.

Since the introduction of the universal scheme in New Zealand, there had been a lot of debates on whether the second-tier or private mandatory scheme should be introduced. In actuality, New Zealand Superannuation was introduced as an occupational scheme in March 1975, but the newly elected conservative government repealed the relevant law after winning the election in November 1975. In 1997 the national referendum on the introduction of mandatory saving scheme was called, and New Zealanders denied this proposal with a majority of 91.8 per cent of voters.

Although the second-tier has a controversial background as explained, in the end, New Zealand realizes that the first-tier universal scheme will not be sustainable against ageing population and a mandatory saving scheme will be necessary to raise national savings rate. The Labour and NZ First coalition government tabled KiwiSaver Bill in February 2006, and it was enacted on July 1st, 2007. Judging from the objective of KiwiSaver Act stipulated in article , it is a voluntary savings initiative designed to help make it easier for New Zealanders to save for their future through a work-based system. The government provides subsidies and tax expenditures to promote this scheme. It is not always clear whether KiwiSaver lasts and works well, but the departure from the single-tier model suggests that a mixture of universal and private mandatory schemes is necessary for spreading out various risks including ageing population and changes in the labour market.

³⁷ Since the surcharge on recipients of pensions was a form of income testing, there was some inherent disincentive to save since individuals could consume their retirement savings during their pre-retirement years to avoid the surcharge (St.John (2001:1295)).

3.4 Performances of Arrangements in Major Ten Countries

As previously noted, we focus on the balance between an actuarial and a redistributive component in old-age income security of a country. Most OECD countries have been successfully providing old-age income security, but their performances are not even among member countries. As there are two goals for income security, both goals should be assessed separately. We compare the overall performance of ten countries based on two kinds of OECD's comparable data and statistics. One is an empirical data derived from household survey of a country, the other is a hypothetical analysis derived from calculation of pension entitlements based on current pension provisions.

Firstly, we examine old people's overall economic well-being with empirical data. **Table 3-7** provides the ratio of equivalised disposable incomes of people aged 65 and over to that of people aged 18 to 64 taken from OECD (2005b). Old people have disposable incomes on average corresponding to something between 70 to 90 per cent of that of the relevant population around the year 2000, although there is a difference in the relative disposable incomes of old people across OECD countries with Australia being less than 60 per cent. Japan is well beyond the OECD average (76.9 per cent) and belongs to the group that has higher relative income among ten OECD countries, followed by France, Canada, and Germany. Forester and Mira d'Ercole (2005:38) notes elderly persons (66 to 75) recorded small declines in their relative income, which contrast with significant gains in the previous decades while the relative position of the very elderly (76 and over) was broadly stable. This is the case of Canada, France, Sweden, the UK, and USA among ten countries.

The next indicator is the Gini coefficient which measures income inequality among the elderly. Forester and Mira d'Ercole (2005:42) uses OECD statistics and notes that among ten countries focused here Gini coefficients of Japan (0.35) and the USA (0.38) exceed the OECD average (0.30) in 2000. The Netherlands and Sweden are the lowest group in OECD with Gini coefficients being around 0.20. The remaining countries such as Australia, Canada, France, Germany, and the UK are somewhere between 0.2 and 0.3 per cent. Forester and Mira d'Ercole (2005:40) also

points out that in a majority of countries income inequality among the elderly remains lower than among the population of working age, but Japan and the USA are exceptions. Cabinet Office (2002:Chart1-31) confirms the significant difference in Gini coefficients among age groups in Japan (Table 3-8). Differences in income inequality may reflect differences in several factors such as family structure, earnings, and social transfer. According to Shirahase (2002:82), high-income old people earn much higher income from employment than lower-income old people and this could amplify income inequality among the elderly in Japan³⁸.

OECD (2001:23-24) reveals disposal income of the population aged 65 and over by 10 income deciles compared with population aged 18 to 64 in the same income decile among selected countries (Table 3-9). This paper highlights the following points;

- 1) Except in Japan and the US, the 1st and 2nd deciles of older people have the highest disposable income relative to their working-age counterparts;
- 2) In Canada, Japan, and the US, the richest of the retirement age population have almost the same level of disposable income as the working-age population.

OECD (2001:24-25) also points out that mean disposable income of the lowest income quintile of people aged 65 and over as percentage of mean disposable income of people aged 18 to 64 in mid-90s in Japan is around 25 per cent; this is lower than that of Canada (65 per cent), Germany (40 per cent), the Netherlands (48 per cent), Sweden (51 per cent), and the US (29 per cent).

The most popular indicator to assess people's income level is the 'relative poverty level'. There are several ways to calculate low-income cut-off lines, but OECD adopts this approach to examine the number of people who have less than 50

³⁸ The ratio of earnings of highest group (10th income decile) to their total disposable income is around 48 per cent, while that of lowest (1st income decile) is less than 5 per cent.

per cent of the median disposable income of the entire population³⁹. **Table 3-10** shows poverty rates for the elderly and the entire population based on this approach. The US, Australia, and Japan belong to the higher group in terms of OECD poverty line, while Canada, the Netherlands, New Zealand and Sweden belong to the lower group. OECD (2001:26) and Forester and Mira d'Ercole (2005:71-74) provide poverty rates by age groups from the young to the old and their historical changes from mid-70s to mid-90s. These figures suggest the following points;

1) In Germany, Japan, the UK and the US the young and the old are likely to result in lower incomes, while in Canada, the Netherlands, and Sweden only the young are likely to result in lower income.

2) The poverty rate among the elderly in Germany, Japan, the Netherlands, and the US remained almost stable between the mid-70s and mid-90s, however that in Canada and Sweden dropped significantly over recent decades.

Secondly, we examine old people's income level with so called replacement rates. An indicator of 'relative income' is based on household surveys and tries to reveal actual income distributions, but does not provide the consequences of current pension systems in future. OECD (2007) estimates replacement rates which express the level of pensions as a percentage of previous individual earnings at the moment of collection of benefits⁴⁰. They are calculated with reference to a hypothetical worker with given earnings and career profile and by making specific assumptions on the key policy, economic and demographic parameters. Replacement rates can be used to describe the mechanisms by which pension systems work⁴¹. **Table 3-11** shows gross

³⁹ The definition of poverty is relative and there is no single decisive measure. In addition, comparison of poverty lines by relative income level or minimum income is complex because it could be affected by household structure and overall economic development of a country. Social Protection Committee (2006) measures poverty rates by reference to an income threshold: 60 per cent of median income.

⁴⁰ Social Protection Committee (2004) also calculates replacement rates for EU countries.

⁴¹ It should be reminded that OECD results are shown for a single person only, providing an illustrative example, rather than showing the whole picture of income security. This OECD

replacement rates for elderly at different earnings levels: half, three quarters, average, one and half, and double average earnings. On average in OECD countries, for workers with average earnings, the gross replacement rate from mandatory pensions including resource-tested benefits is 58.7 per cent. Major findings from [Table 3-11](#) can be summarized as follows.

1) The Netherlands and Sweden offer higher replacement rates in terms of workers at average earnings, while Germany, New Zealand, Japan and the UK offer less than 40 per cent replacement rates.

2) In most countries low-income workers are entitled to have higher replacement rates than high-income workers to protect them from old-age poverty. However, there is a clear difference in redistributiveness which can be measured by how much workers who earn half the average can replace their earnings relative to those who earn average. Commonwealth countries such as Australia, Canada, New Zealand, and the UK are much more redistributive than others such as France, Japan, the Netherlands, Sweden and the US. In addition, the Netherlands and Sweden provide the almost same replacement rates for workers who have double the average earnings, and rates themselves are also high.

As Whitehouse (2003:36) suggests, the levels of ceiling of contributions and benefits in pension schemes can affect replacement rates among workers with different levels of earnings. For example, there is no ceiling for pension payment and benefit in the Netherlands, thus the more workers earn during their working age, the more they are entitled to receive as benefit with no maximum benefit after retirement. On the other hand, if a ceiling is low, high-income earners are likely to have lower replacement rates, because earnings above a ceiling cannot be reflected in

model includes all mandatory pension schemes for private-sector workers regardless of whether they are public or private. The national scheme is modeled, but occupational plans with near-universal coverage and resource-based benefits for which retired people may be eligible are also included.

the calculation of entitlements.

At first glance, gross replacement rates seem an useful indicator for assessing old-age income security; however, they do not always show income level relative to pre-retirement earnings, because personal tax systems usually treat the elderly and the young differently so that the former can enjoy more generous treatment than the latter. Therefore, OECD (2007:34-35) provides net replacement ratio which is defined as the individual net pension entitlement divided by net pre-retirement earnings taking account of personal income taxes and social security contributions paid by workers and pensioners. **Table 3-12** shows net replacement rates of ten countries. OECD (2007:34) reveals that for average earners, the net replacement rate across OECD countries is on average 70 per cent, which is some 11 percentage points higher than the gross replacement rates. The difference between the net and gross replacement rates can divide ten countries into two groups: one is those having about 10 to 15 percentage points; the other is those having less-than 5 percentage points. The former includes Australia, Canada, France, Germany, the Netherlands, the UK, and the US, the latter includes Japan, New Zealand, and Sweden.

There exist several special treatments in personal income taxation and social contribution regarding pension schemes, both public and private as follows;

- 1) tax exemption for insurance contributions on earnings (for employed and employer)
- 2) no insurance contributions on pension benefits (or for those beyond certain age)
- 3) tax exemption or reduced tax rate for pension benefit

In addition to the above, a lot of countries provide tax allowances and tax credits based on age.

Keenay and Whitehouse (2003) compares the impact of the personal income tax and social security contribution system on the income of pensioners and workers, by using an indicator of average effective tax rates. Their findings are summarized as follows:

1) In such countries as Germany, Japan, and the US, pensioners face a lower marginal rate across the income range. On the other hand, in Australia, Canada, and Sweden, higher-income pensioners face the same marginal rates as higher-income workers, although low-income pensioners are treated more favourably than workers at the same income level.

2) In Australia, the Netherlands, and Sweden, the income tax burden for pensioners is higher than that for workers except in the lowest-income groups. Overall average effective tax rate including contribution for pensioners is lower than that for workers in the Netherlands and Sweden.

At the end of this sub-section, we focus on two more indicators which OECD (2007) has developed to measure a country's pension features; the progressivity index and pension adequacy.

The progressivity index shows the strength of the link between pre-retirement earnings and post-retirement pension entitlements, and is calculated as 100 minus the ratio of the Gini coefficient of pension entitlements divided by the Gini coefficient of earnings (OECD (2007:44)). A pure basic scheme would score 100% and a pure insurance scheme would score zero. **Table 3-13** compares this index among ten countries. At the end of the spectrum, New Zealand, Canada, Australia and the UK have highly progressive pension schemes, while at the other end of spectrum, the Netherlands, Sweden, France, Germany have less progressive ones. The former are based on Beveridgean model where targeted or basic pension schemes play an important role for redistribution, while the latter are based on Bismarkian model where social insurance schemes are important to smooth income over a lifetime. Japan and the US are located in the middle between two polars, because their pension schemes are based on social insurance model, but both include some redistributive mechanisms in their pension design such as minimum guarantee benefit in Japan and higher replacement rate applied to low-income pensioners in the US.

The second indicator is pension adequacy. Both gross and net replacement ratios are figures divided by individual earnings, so they cannot assess old people's income in relation to economy-wide earnings. OECD (2007:46-47) gives an indicator that measures pension adequacy though dividing gross individual pension by gross economy-wide average earnings. The indicator assesses pension level not by individual earnings but by economy-wide average earnings, so it can be used to measure pension adequacy. **Table 3-14** shows gross pension entitlement as a proportion of economy-wide average earnings for several different earnings levels. As seen already in section 3.2, OECD (2007) classifies member countries into 6 groups based on the strength of the link between pre-retirement earnings and pension entitlements. The indicator of pension adequacy features pension characteristics of countries almost same as the progressivity index, but the latter divides countries further into three groups based on the strength of the link. The Netherlands has the strongest link followed by Sweden, and Germany and France have less strength within Bismarckian model countries.

3.5 Problems and Issues for Integration

At the end of Section 3, we put together major findings obtained in the previous sub-sections, and discuss problems and issues on a country's old-age income security from the perspective of integration of pensions, assistance, and taxation.

Firstly, we try to compare outcomes with inputs in order to assess overall performance of old-age income security of ten countries. So far, we have looked at several indicators showing the level of input and others, as cost benefit analyses or cost effectiveness analyses of pension programs are extremely difficult.

Germany and France, being typical Bismarckian models, spend about 13 per cent of their GDP for public and private pension (see **Table 3-4**) while also relying on contributions (**Table 3-15**). This is very high among OECD countries. Performance indicators such as poverty and replacement rates rank both countries in the middle group. A major problem in these countries is the inequality between schemes due to the fragmentation of the pension schemes. It should be noted that significant amount

of general tax revenue goes directly into social insurance schemes. Low take-up rate of public assistance is also addressed in Germany.

In the US, the replacement rate is low and public pension is insufficient to maintain the standard of living. At age 62 a worker who had worked for 40 years at minimum wage would be eligible for an OASDI benefit of significantly less than poverty - approximately 76 percent of the threshold (Favreault, et al (2006:5)). Then at normal retirement age (of age 66), the worker would earn a benefit that just reaches poverty. The UK has also been facing higher poverty rates among the elderly, although adequacy of pension has been underlined since the Labour government took office in the end of 1990s. Interestingly, both countries' pension expenditures including public and private are around 11 to 12 per cent, which are not lower than countries with universal schemes.

Poverty rates in New Zealand, the Netherlands, Canada, and Sweden are less than 10 per cent (Table 3-10), but pension expenditure varies from country to country⁴². Canada spends moderately but her performance is relatively good even when taking into account less ageing population. OECD (2001) analyzes Canada's successful performance as follows;

Canada has shifted from having one of the lowest average replacement rates among the nine countries in the mid-70s to having the highest in the mid-90s. During the same period, there was a large decline in the number of older people living beneath the low-income cut-off line.

Several factors contributed to this positive outcome, including taxation, a growing weight on private pensions, reduced weight on working income and the design of public pensions. Basically, the income of all groups of older people improved, but the largest increase was among lower-income people.

All in all, the amount of pension expenditure does not directly affect the poverty

⁴² Australia has a universal scheme, but her poverty rate is more than 20 per cent (Table 3-10). Forster and Mira d'Ercole (2005:41) argues that consideration of actual housing costs reduces poverty rates in Australia.

rate among the elderly, but rather the institutional structure of pension system does. Forster and Mira d'Ercole (2005:43-44) states:

Among the features that are most obviously related to poverty outcomes are pension floors provided by public pension and welfare systems. In general, countries where pension floors - expressed as a ratio of the poverty line - are higher tend to display lower relative poverty rates among the elderly.

Secondly, we examine how each of the ten countries integrates relevant provisions in order to understand the relationship between pension structure and overall performance as discussed. **Table 3-16** classifies approaches for integration, in particular pensions as smoothing income and assistance as safety net among 10 OECD countries. First of all, a country chooses either public assistance or universal pension as a safety-net. Among the former group, there are two approaches. What makes the difference between Germany and France on the one hand, and the UK and the US on the other hand is that the former provide enough pension to replace income at working age through public schemes while the latter do so mainly through private schemes although they do have a public scheme⁴³.

Among countries which provide universal pension, one can identify different types and ways to provide benefits to old people⁴⁴. The most generous assessment for eligibility can be found in New Zealand where no means-test applies and pension benefit is subject to taxation as equally as the income of the young. The Netherlands seems to belong to same group as New Zealand, although the Dutch way of financing

⁴³ Whitehouse (2003:36) notes the following: By looking at replacement rates, one can see that there is a fundamental difference in philosophy between different countries' mandatory pension regimes. Countries like Germany provide comprehensive retirement-income insurance through the mandatory system to all workers including those with high income. In countries like Canada and the UK, earnings-related schemes are much smaller scale and focused more on redistribution to ensure that all pensioners meet a reasonable minimum income standard. This had led to the development of voluntary private provision to perform the insurance role for high-income workers.

⁴⁴ Social Protection Committee (2006:2-3) reports three types of minimum income guarantee for older people; minimum pension within general earnings related schemes, flat rate pension and separate social assistance benefits.

the universal scheme differs from that of other countries. The other extreme is Australia where income and asset test apply to all pensioners. Sweden and Canada are somewhere between both polar cases. Sweden assesses only income from public earnings-related pension for eligibility of minimum guaranteed pension to eliminate disincentive of longer working. Canada combines universal scheme and public assistance, which may result in less administrative cost because the assessment of eligibility focuses on the needed, rather than everyone like Australia. Table 3-17 illustrates the balance between the first-tier and second tier⁴⁵.

The most difficult issue on integrating pension and other related provisions is how to assess the eligibility of a safety net program. The traditional approach is means-test and its effectiveness has been debated around the world⁴⁶. Major criticisms for means-tested benefits are as follows:

- 1) Disincentives to save
- 2) Disincentives to work
- 3) Social stigma, creating the poor
- 4) Unfair treatment to those on the margin (low take-up)
- 5) High administrative costs and mismanagement

On the other hand, means-test can be justified because

- 1) Target precisely those in need
- 2) Encourage self-supporting efforts
- 3) Contain an increase of public expenditure

We summarize some means-tested programs among the ten countries, and look at

⁴⁵ It should be reminded that some elements are missing in Table 3-17, for instance Japan has a resource tested scheme such as public assistance in addition to basic pension which provides minimum benefit within earnings-related pension, and the US relies heavily on private schemes.

⁴⁶ World Bank (1994:240) pointed out the negative consequences of means-tested program as follows: first, administrative costs would increase, second, means-test acts as a tax on retirement income, third, means-test discourages applications from the eligible poor.

surveys discussing issues above. In the US, the Supplementary Security Income (SSI) is provided for sufficiently poor individuals aged 65 and over. Eligibility and the level of benefits depend on income and assets. SSI is supplemented by additional benefits in some states⁴⁷. The proportion of pensioners receiving the SSI is said to be around 10 per cent. SSI take-up rate is low, but about 8 per cent of social security beneficiaries aged 65 and over had family income below the poverty line according to US SSA (2006). In short, there is an inherent problem with the level of OASDI benefit. Those who worked full-year, full-time, received only slightly better social security benefit on an annual basis than they would, had they not worked at all and received only SSI (Favreault et al (2006:10)). Neumark and Powers (2000:78) find some evidence that SSI discourages work among men nearing the age of eligibility as predicted given the way the SSI program penalize post-65 income and assets. Favreault et al (2006:10) also argues that expanding means testing could target transfers progressively to those with less income, but would raise significant enforcement and administrative problems, could generate inequalities and program interactions, and many people would consider it degrading.

In the UK, the Minimum Guarantee Income (MGI) was replaced with the Pension Credit (PC) in 2003 in order to minimize several side effects of means-tested program. MGI caused a disincentive to save for low income earners, because even if people made an effort to save for retirement, their income from Basic State Pension (BSP) doesn't differ from the benefit provided by MGI. That's why PC has two components, namely guarantee credit and savings credit. The latter increases even if one has additional income up to a certain level. PC could mitigate the traditional problem of higher marginal tax rate of means-tested programs to some extent, but inconsistency between BSP and PC still exists, and the viability and effectiveness of PC is uncertain. Sefton et al (2005:3) uses an explicit model of household behaviour to infer long-term behavioural responses to the replacement of the Minimum Income Guarantee with the Pension Credit, then concludes as follows:

⁴⁷ For instance, the SSI payment for an eligible individual is \$637 per month from January 2008. In California the amount including both federal and state payments is \$870 per month

the reduction in pension means testing will reduce the reliance on the welfare state, the effect of the policy change on the aggregate Government budget suggests overall budget neutrality;

under the PC, the effects of reduced government expenditure on means-tested benefits, reduced tax receipts from savings and increased tax receipts from working longer all offset one another;

PPI (2006:29) provides several counter proposals against the White Paper proposals by the UK government, and the alternative which delivers a flat-rate state pension at the Guarantee Credit (GC) level for nearly all individuals abolishing Savings Credit (SC) would reduce eligibility for Pension Credit to around 10 per cent with no additional costs to the government. The PPI's proposal suggests means-testing program is ineffective for reducing poverty.

The US and the UK demonstrate a typical problem in integrating pension scheme and public assistance, which arises mainly from the low income group. Australia shows a different case where the integration of means-tested pension called "Age Pension" and private mandatory scheme called "Superannuation Guarantee" which relates not only related to the poor but also to middle income group has proven to be difficult (Bateman and Piggott (2003)). In Australia, income and asset test have provided disincentives to participate to annuitise superannuation contribution, because lump sum withdrawal of superannuation benefits is both permitted and widespread. If the retired has higher income from annuity, their benefit from Age Pension may be reduced due to income test of Age Pension. Unlike the US and the UK, more than two thirds of old people are entitled to receive benefits from Age Pension which can be defined as a universal pension with moderate means-test. Ingles (2001) underlines the inconsistency between means test and tax concessions for Superannuation, since the former discourages savings for retirement but the latter is designed to encourage it through tax incentives.

In sum, it is not easy to compare effects of means-tested programs with universal

schemes, but the following explanation is worthwhile.

In theory, providing means-tested benefits could be more efficient than universal benefits because the latter may require a much larger public pension system, but in practice, means-testing tends to create stronger disincentives because it raises the marginal rates of tax and benefit withdrawal (Juurikkala (2008:15)).

A minimum guarantee pension (MPG) possibly alleviates the trade-off we have discussed. Sweden pioneered a model of social insurance which also achieves universalism with MPG. One of the reasons to scrap the old basic pension which was a part of a two-tier scheme was that financing it largely with general tax was inefficient and general tax should target the most needed. MPG forms a part of the pension provision, and it is not simply an alternative form of income support. Atkinson (1995:320) defines MPG as follows:

the Minimum Pension Guarantee would differ from means testing in two important respects: (i) it would be calculated on an individual basis, and (ii) the calculation would not involve other elements of income, or capital assets. There would be no need to know about the income from savings, dividend income, earnings, etc.

MPG would eliminate the disincentive of conventional public assistance which penalize additional workings, because the Swedish MPG doesn't take into account other incomes and introduce a mechanism which can provide more benefit in relation to pension income, rather than offsetting the increase of pension benefit. In other words, the benefit receivable can be increased slightly even if income from earnings-related pension increases until it reaches maximum threshold.

MPG may be an alternative. Ingles (2000:20) also concludes the concept of a lifetime income test underlying the guaranteed minimum pension proposal has considerable merit as opposed to the current annual basis for the pension means test in Australia. However, the Swedish scheme is less than perfect. Firstly, minimum

pension would be provided to those who have large income from private savings or assets. It may be costly in terms of general tax revenue. Secondly, as for those who cannot earn pension income beyond the threshold for minimum pension from earnings-related portion, the scheme does not necessarily encourage continued gainful employment. In the case of a person who has earned few pension rights, additional payment of contributions need not necessarily mean that the final pension will be other than marginally higher. The new Swedish scheme has not matured yet, but higher spending for pensions with universal scheme results in good performance in terms of poverty.

Finally, we summarize current pension reform strategy among major OECD countries. Disney (2003:1432) introduces four kinds of measures in pension reforms in OECD countries; greater funded provision, parametric reform such as less generous indexation, actuarial basis and retirement incentive such as rises in age of retirement. From our point of view, reform strategy can be divided into two categories as follows;

1) to strengthen insurance role

pre-funding scheme : Germany, Sweden, the UK

defined contribution scheme : Sweden

2) to strengthen redistributive role

putting more general tax revenue into social insurance : France, Germany

modernization of public assistance : the UK (State Pension Credit)

minimum guarantee : Sweden

taxing pension income : Canada, the USA

The characteristic of recent reforms is to introduce a stronger link between contributions paid and future benefits, because the young generation is likely to consider pay-as-you-go scheme unfair from the intergenerational point of view and will not be willing to pay the contribution in most countries. Thus reforms should make sure that contributions directly relate to benefits. In addition, a lot of countries

decrease theoretical replacement rates or change rules of indexation in order to maintain sustainability of pension finance given projected increase of life expectancy. Although these measures cannot be avoided, we have to keep in mind their likely impact on overall performance. They would make the average relative income smaller and increase poverty risk among old people. It should be addressed that there is a trade-off in introducing a stronger link mechanism and we have to find a balanced.

4. Japan's Approach and Problems

This section analyzes critical problems in Japan's pension system and related provisions. In particular we focus on the fragmentation of pension systems, public assistance and taxation. First, we overview the current pension system in Japan, and discuss three kind of fragmentations with various statistics and some estimates on pension and taxation.

4.1 Overview of Japanese Pension and Related Systems

There are three main public pensions in Japan; the National Pension (Kokumin-nenkin), Employee Pension (Kosei-nenkin) and Mutual Aid Pension (Kyosai-nenkin)⁴⁸. The three of them have been developed differently and people are in principle required to contribute to one of the three pensions based on occupational groups.

Thus the Japanese pension system run based on a social insurance model.

Employee Pension originated in Labour's Pension which was established in 1942 and initially mainly for blue-collar workers. Employee Pension provides earnings-related benefits for employees who pay contribution with a flat rate of 14.642 per cent (in 2007) of their wages, equally shared between the employee and the employer. Mutual Aid Pension is for civil servants and divided into several

⁴⁸ Details of Japanese pension system is also described in Takayama (2003), and Ministry of Health, Labour and Welfare (2004). In addition to public pensions, there are several types of private occupational pension schemes including both defined benefit and defined contribution, which are regulated by the government.

groups such as central government officials and local government officials. The pension for civil servants was first introduced for military personnel in 1875 and expanded to other government officials step by step, although the original scheme was non-contributory and fully financed by general revenue. Mutual Aid Pension follows major features of Employee Pension as a whole, although there exist some differences including benefit formula and governance structure. The National Pension was introduced in 1961 in order to provide pension to those who were not covered until that time, typically self-employed and part-time workers. The National Pension is characterized by a flat contribution and a flat benefit, in other words, people contribute 14,100 yen monthly regardless of their income level⁴⁹ and 40-years contributions yields a monthly benefit of 66,002 yen for a single elderly in 2007.

The 1985 Pension Reform introduced the Basic Pension in order to share pension expense between the three pension schemes. This was mainly because the National Pension became financially unsustainable and it was urgent to provide a bailout. First of all, it should be noted that the Basic Pension contains a complex cash transfer system between various pension accounts in the Japanese budget. The level of contribution was not changed significantly, but benefit was restructured so that the flat benefit portion of Employee Pension and Mutual Aid Pension was made equal to the benefit of the National pension which provided a flat benefit since its introduction. Therefore all three pensions have the same flat benefit amount, although Employee Pension and Mutual Aid Pension keep their earnings-related portion of benefit.

The Basic Pension is a scheme to finance the expense of the flat benefit common to all three pensions. Its rules are as follows. General tax revenue contributes to finance a third of total expense which is incurred in a year. All three pension funds share the remaining expense based on the number of insured belonging to each pension. As we will discuss later, burden sharing of the Basic Pension is not equal among three pension funds, simply because the Basic Pension did not alter the structure of contributions as we already described.

⁴⁹ Currently, contribution for low-income earners is reduced and they can pay only a quarter, half three quarters of normal full contribution based on their income level. Reduced contributions result in reduced benefit according to the benefit formula.

Pension Laws in Japan requires the government to revise long-term financial projections in order to balance contributions and benefits with reference to the latest development in economic and social parameters such as fertility rates and economic growth. Normally a revision of forecast ends in amending relevant pension laws. The latest amendment was done in 2004 and its major reforms are as follows⁵⁰:

1) The schedule of contribution hike is fixed by law. The contribution rate of Employee Pension will be raised by 0.354 percentage points every year starting from 13.58 per cent in FY2004 to 18.30 per cent in FY2017. The contribution rate of National Pension will be raised by 280 yen every year starting from 13,300 yen in FY2004 to 16,900 yen in FY2017. Contribution won't be raised after FY2017.

2) A new indexation method was introduced so that a decrease in workforce and an increase in life expectancy and ageing population would automatically be taken into account at the calculation of benefits to keep financial sustainability of the pension system.

3) The ratio of general tax revenue to the total expense of the Basic Pension will be raised from a third to a half by FY2009 by making sure the availability of resources.

As Ministry of Health, Labour and Welfare (2005b) clearly states, pension system in Japan run based on social insurance model. A third of Basic Pension benefit can be provided to everyone without a record of contributions, however it is not enough to maintain a minimum standard of living. Basic Pension can be described as a minimum benefit within an earnings-related contributory pension. Thus so called first-tier or zero-tier system which provides universal safety net for old age income security in Japan is a general public assistance, which covers everyone regardless of age.

⁵⁰ Details of 2004 Reform were explained in Ministry of Health, Labour and Welfare (2005a).

4.2 Issues in Integration of Pension Systems

This sub-section analyses the number of insured by different pensions and financing arrangements, then addresses the fragmented structure of the Japanese pension system.

Table 4-1 provides the number of insured by category in the Basic Pension since 1994⁵¹. A remarkable change is that the number of first category, namely insured by the National Pension increased by about 20 per cent for 10 years since 1994, while the number of second category in the private sector decreased by about 2 per cent and the total number of insured remained almost stable. This dramatic change was caused by an increasing number of nonpermanent employees due to the structural change in the labour market for a decade. **Table 4-2** shows the number of nonpermanent employees increased by about 60 per cent from 1994 to 2004 and the ratio of nonpermanent employees to the total employees increased from about 20 per cent to 30 per cent in the same period. Employee Pension covers only those who work for more than three quarters of normal working hours, thus part-time workers are out of Employee Pension even though they are "employed". Are part-time workers exempt from contributing to the pension system? Obviously not; they are required to pay a contribution for the National Pension either if they are single or if they are spouses of insured by Employee Pension and earn more than 1.3 million yen a year. **Table 4-3** shows clearly what has happened since the 1990s, the number of self-employed now consists less than 30 per cent of the total insured by the National Pension, but the of employed makes up about 40 per cent. The number of nonpermanent employees is expected to increase further mainly because private companies are likely to think hiring permanent workers too costly. It should be noted that those who are part-time workers but do not pay a contribution is increasing as discussed later, even if it is against the pension law.

One of the biggest problems of the National Pension is the dramatic increase of

⁵¹ As described in previous sub-section, there three pensions in Japan. After the introduction of the Basic Pension, insured by the National Pension is named the "first category", insured by Employee Pension and Mutual Aid Pension are named the "second category", spouse of category is named the "third category".

those who cannot or will not pay a contribution .

Table 4-4 shows the number of insured who don't pay a contribution partially or fully.

From **Table 4-4** we find the following:

1) Only about 60 per cent of insured who are required to paid a contribution pay a contribution in 2006;

2) The number of insured who are exempt from paying contribution partially or fully due to low-income increased by about 60 per cent from 2000 to 2006, while the total number of insured was almost stable for the same period⁵².

In 2004, the Social Insurance Agency took a survey on why people do not enroll in the National Pension. 30.2 per cent of them answered they didn't know they were required to contribute, 22.8 per cent said the contribution was too expensive and can not afford to pay. According to the 2002 Survey, 64.5 per cent of non-contributors said contribution was too expensive. These answers reflect the income distribution of the insured. According to **Table 4-5** the annual average gross taxable income of the insured is about 1,260 thousand, and the ratio of insured whose gross taxable income is below 1,500 thousand yen to the total is about 70 per cent⁵³.

The contribution of National Pension is a flat rate of 14,100 yen (2007) regardless of income level with some exceptions. If gross income is below about 1.89 million yen a year, the amount of contribution will be reduced based on income level. If it is below about 0.57 million year, they will be free of charge. Anyway the contribution system can be said to be "regressive" and payment requirement may be on a "voluntary" base. The increase in those who don't contribute to pension fund means there is a significant number of people who will become old without pension benefits. The Social Insurance Agency estimates the number of no pensioners is about 1.18

⁵² This dramatic increase may be caused by the fact that the exemption arrangement was introduced recently.

⁵³ Gross taxable income means total gross income minus expense according to local income tax regulation.

million⁵⁴.

The "hollowing" of both National Pension and Employee Pension, namely the decrease of contributors undermines the financial health of Basic Pension, because Basic Pension is a burden-sharing scheme co-financed by three different pension funds. We examine how the Basic Pension is financed in actuality.

The Basic Pension is financed purely based on pay-as-you-go principle. A third of the total expense is financed by general tax revenue, and the remaining two thirds are shared between the National Pension, Employee Pension, and Mutual Aid Associations which are divided into three sub-groups such as for central government's official, local governments' officials, and private schools' employees. The Ministry of Health, Labour, and Welfare explains that Japanese pension systems run based on social insurance model, nevertheless the amount of contribution to the Basic Pension is not always obvious in reality. The contribution of people insured by the National Pension is a monthly flat rate of 14,100 yen (2007), and this can be treated as a contribution to the Basic Pension, but those insured by Employee Pension or the Basic Pension cannot be separately identified, because contribution is a flat-rate of 14.642 per cent of earnings which covers the flat-benefit of National Pension and earnings-related benefit altogether. The contribution of Employee Pension and Mutual Aid Association cannot be broken down to flat benefit portion and to earnings-related portion.

Therefore, we have to estimate figures in order to search how much the employed and government officials pay in contribution to the flat benefit portion, namely the National Pension. The estimate is as follows. The rule for burden-sharing is the number of insured of each pension. **Table 4-6** estimates how much each pension contributes to the Basic Pension in terms of per insured and month. The amount of monthly contribution is about 14,905 yen per insured, which is common to all pension

⁵⁴ The figure is taken from the article of Mainichi News Paper dated January 7, 2008. The figure includes the number of people who won't be eligible for pension benefit even if they pay a contribution from now on until old-age.

groups⁵⁵. However it should be noted that the number of insured of the National Pension which is used for the estimate does not equal the total number of insured but only those insured actually paying a flat amount of contribution while there is little difference in the number of insured of other pensions between the total number of insured and that used for the estimate.. As we already explained, nearly 40 per cent of insured of the National Pension don't pay a contribution at the moment, thus the number of insured used for estimating contribution from the National Pension is 11,701 thousands, rather than 21,900 thousands which is the total number of insured. In other words, the number of contributors of the National Pension to the Basic Pension is reduced to a half. If the figure of 21,900 thousand people was used for the above calculation, the amount of monthly contribution would have resulted in about 12,714 yen per insured. This calculation suggests that the employed and government officials pay a contribution that is 17.2 percentage points higher than the contribution calculated by using the total number of insured. Put another way, the financial loss which is caused by the large number of non-contributors in the National Pension results in extra burden for employed and government officials.

What we learn here is that the burden-sharing of the Basic Pension is not transparent or equal. If the Basic Pension was a scheme to be supported by everyone, it should be financed by a common and transparent rule based on ability to pay.

We address major points discussed here. The Ministry of Health, Labour and Welfare describes the Japanese pension systems as follows:

1) All persons living in Japan (including foreigners) shall be, in principle, covered by National Pension. As a result, National pension is a universal system for all people and provides Basic Pension (Ministry of Health, Labour and Welfare (2004:6),

2) Public Pension System is constructed on the basic concept that "the premium paid by the current working covers the current aged citizens' pension benefits (Ministry of

⁵⁵ If there was no subsidy from general tax revenue, the amount of monthly contribution would be 22,986 yen, which is about 1.53 times of that with subsidy.

Health, Labour and Welfare (2005b:3).

These explanations are contradictory to what we have analyzed here, for instance, a number of people don't contribute to the pension system and consequently not entitled; people don't know how much they pay as contribution (premium) to the Basic Pension. What has brought this contradiction? In short, this derives from the fragmentation within the pension system. Each pension in Japan such as National Pension, Employee Pension, and Mutual Aid Association run based on a social insurance model, however, the Basic Pension is theoretically a scheme to provide universal coverage with some general tax revenues. Obviously social insurance system and universal system cannot coexist in the same provision.

4.3 Issues in Integration of Pension and Assistance

The original idea of Basic Pension was a universal provision, but it is a contributory system in actuality. In Japan a universal safety net is an ordinary public assistance which can be provided based on means-test regardless of age. Thus, there is no income security program targeted to the elderly.

The number of households which consist of the elderly and receive assistance has been increasing since the beginning of 1990s. It should be noted that the elderly recipients are increasing at a much higher rate than the young recipients. [Table 4-7](#) shows nearly a half of the total households receiving assistance are households including the elderly, although old people consist less-than 20 per cent of the total household. [Table 4-8](#) shows the same thing in terms of number of individuals, rather than household. The number of recipients aged 65 and over who have not paid any pension has nearly doubled from 1998 to 2007 and they consist more than 50 per cent of the total recipients aged 65 and over ([Table 4-9](#)).

What is the relationship between the Basic Pension and public assistance? There is no relationship, because they have been developed separately. As public assistance insists on strict means-testing, the amount of assistance available will be reduced if they receive pension benefit. The standard of living allowance for a

single elderly who lives in the metropolitan Tokyo is 80,820 yen in 2007. However, the full benefit of the Basic pension for singles is 66,008 yen in the same year⁵⁶. People can receive 66,008 yen only if they contribute to pension fund for 40 years. In other words, even if they pay a contribution for 40 years, they will be able to receive only smaller amount than that of public assistance⁵⁷. This difference may discourage people to pay a contribution for a long time. In addition, the benefit level of Basic Pension will be reduced in two decades gradually due to the new indexation rule introduced by the 2004 Pension Reform. Yamada (2003:94) estimates poverty rates for those who received benefits from the National Pension and those who received benefits from Employee Pension using a 50 per cent median disposable income threshold based on the 2001 survey by the Ministry of Health, Labour and Japan, and finds poverty rate for the former (36.6 per cent) is three times the latter (11.6 per cent) in the case of male recipients. He concludes the National Pension is not enough to prevent old people from falling into poverty.

We have to look at income distributions in order to examine why a large number of old people fall into poverty and become recipients of public assistance. **Table 4-11** provides income distributions by several household types. The average income of an old age household⁵⁸ is about 3.02 millions yen, which is less than that of all types of households. However in terms of income per person there is no significant difference between old age household and all types households. Thus it can be said that Japanese elderly can enjoy income comparable to economy-wide income on an individual level, on average.

What matters is that the income distribution of old age household is uneven and nearly half of them live at the lower end of income level. According to **Table 4-11**, about 40 per cent of old age households have less than 2 millions yen compared with about 20 per cent for all types households. Higher incidence of low-income elderly

⁵⁶ It should be reminded that recipients insured by the National Pension were paid 47,210 yen per month on average in 2005, simply because a number of people were not able to contribute for 40 years. See **Table 4-10**.

⁵⁷ In case of a old couple (65 years old and 68 years old), the standard living allowance of public assistance in Tokyo is 121,940 yen, while the full amount of Basic Pension is 132,016 yen.

⁵⁸ "Old age household" is defined as a household which contains all aged 65 and over or that with unmarried aged under 18.

derives mainly from single elderly whose average income is 2.27 million yen for male and 1.68 million yen for female⁵⁹. On the other hand, old people with higher-income earn from business and employment rather than pension benefit (Table 4-12).

Income disparity among the elderly coming from employment earnings can be acceptable and should not be viewed as a problem. The remaining issue is how income redistribution is done by social transfer and taxation. According to the survey done by the Ministry of Health, Labour and Welfare, the income for those aged between 65 and 69 was raised from the original market of 1.83 million yen to 3.31 millions yen by adding social benefits and deducting tax and social contribution (Table 4-13). Thus the income for old people nearly doubled through the social welfare system. Unfortunately this statistics doesn't provide the income redistribution among the elderly by income level. Yamada (2002) compares the evolution of retirement income packages and inequality among nine OECD countries including Japan by estimating the share of net social transfers received by the retirement-age population by income quintile over the last decades. He concludes that in Japan the lowest quintile out of five quintiles receives only about 16 per cent of the total net social transfer, while the third quintile gains about 30 per cent of it in mid-1990s⁶⁰ (Yamada (2000:21)). He also finds this happens not only in Japan but also Germany, Italy and the US. OECD (2001:24) estimates disposable income of the population aged 65 and over by 10 income deciles; and reveals the 1st decile (lowest) of older people in Japan gain only 72 per cent of income for population aged 18 to 64 in the same income deciles, this ratio is the lowest among major nine OECD countries (Table 3-9).

Jones (2007:27) summarizes income distribution and relative poverty for working population and elderly population in Japan (Table 4-14). When it comes to elderly population, Japan is ranked somewhere between two polar ends in terms of market-income inequality and relative poverty, but the disposable income inequality

⁵⁹ Data is from the survey done by Ministry of Health, Labour and Welfare, called "Kokumin Seikatsu Kiso-Chosa 2006"

⁶⁰ If net social transfers were equally distributed, each quintile should get 20 per cent of the net social transfers.

is large. He argues better target social expenditures and reform of the tax system are needed to reduce low-income households.

All in all, Japanese old people are better off on average. It is also true that the percentage of population aged 75 and over that is above the middle-upper income cut-off line (150 per cent of the median disposable income of age 18-64) in Japan is about 18 per cent and highest among nine OECD countries (OECD (2001:185)). However, income disparity is much larger than other OECD countries. A number of old people are likely to fall into poverty due to several reasons including low-level working earnings, household types, and weak income redistribution, although it is not easy to feature an overall picture of old age income conditions.

4.4 Issues in Integration of Pension and Taxation

It is important that policy-makers bear in mind the role of the tax system in providing retirement income support. Social security contribution should also be taken into account. Most countries more or less provide income-tax concessions to the elderly more favourably than young workers.

Keenay and Whitehouse(2003) estimates average effective tax rate including personal income tax and social security contributions for pensioners and workers by different income levels among major OECD countries (Table 4-15). It should be noted that this is a hypothetical calculation, so it does not show actual tax treatments based on household survey⁶¹. Even with limited figures, it shows overall trends in tax treatment in Japan and other OECD countries. What they find from the hypothetical calculation includes the following:

1) The average tax burden in the nine countries is ten percentage points lower for pensioners than it is for workers;

⁶¹ This estimate assumes the following: the whole income derives from public pension; income tax on capital income and non-wage labour income and all indirect taxes are not covered; all central-, state-, and local-government personal taxes are included; figures only in case of a single person without children.

2) Broadly speaking, there are two patterns in terms of the gap between pensioners and workers; in Canada, Finland and Sweden there is little gap between them particularly at higher income levels, while in Japan, Germany, the US and others the gap doesn't diminish even at higher income levels;

3) The value of tax concessions to pensioner increases initially with income in Japan; the relative value of the tax allowance then declines as a result of that social security contributions at higher income levels reach to a ceiling.

It is questionable whether older people should pay less tax than people of working age with the same income. However, it is also unclear whether consumption needs are higher or lower for older people than for those of working age. Pensioners may consume housing and daily goods less, but health and care services more. What we want to do, is to examine how the current tax system in Japan treats old people relative to young workers and how much differential exist in actuality between them. Obviously it is not an easy task, so firstly we overview gross and disposable income for the young and the old, and secondly find differential in tax treatment by using taxing model.

Table 4-16 shows to what extent income redistribution takes place by age groups in terms of household income in 2005. When we compare the age group between 65 to 69 with that between 30 to 34, the latter's original market income is much higher than the former's, but the final disposal income is reversed with the former having slightly higher than the latter. In addition, when we include benefit in kind such as health care, old people are better off by about 12 per cent than the young workers aged between 30 to 34. The effective tax rates including social security contributions are 14.6 per cent for aged 65 to 69 and 16.6 per cent for aged 30 to 34. The differential is only about 2 per cent, but this is an average figure and it surely makes old people better off⁶².

⁶² Chopel, Kuno and Steinmo (2005:22) stresses that the Japanese social security system has quite unintentionally evolved from a redistributive program designed to aid society's most

Table 4-17 is another survey taken by the Ministry of Health, Labour and Welfare to illustrate gross income and tax treatment by age groups. There is no significant difference between age groups in terms of average disposable income per person⁶³. In particular, aged 65 and over are better off than aged less than 39. The effective tax rate including social security contributions is lower for old people than young workers, and the differential is roughly about 5 per cent, although one without contributions is slightly higher for old people than young workers. This is because social security contribution is not normally levied on pension benefits.

We move on to the second approach to compare tax treatment between young workers and pensioners. The international comparison done by Keenay and Whitehouse(2003) once again reminds us the importance of tax and social security contributions but the Japanese data is out of date because concessions for old people were reduced by the 2004 annual tax reform, which came into effect in 2005. This tax reform included the abolishment of special tax allowance of 500,000 yen for aged 65 and over whose income were less than 10 million yen and some adjustments in thresholds for pension income allowance. In short, this tax reform reduced the difference in tax treatment based on age which was a much disputed issue. It should be noted that the revenue through this tax increase was transferred to the fund of the Basic Pension which was in need of more financial resources.

What differs in tax treatment between young workers and pensioners in Japan is the amount of earnings-related standard allowance. There is a difference in the amount of allowance between young workers and pensioners, and also between pensioners aged under 65 and aged at 65 and over. **Table 4-18** provides employment income allowance and pension income allowance for aged under 65 and aged 65 and over by gross earnings. Even if workers and pensioners have the same amount of earnings, the amount of allowances differs because their allowance formulae are different. Pensioners can enjoy higher allowance than young workers unless gross

deserving poor (the aged) to a remarkably perverse redistributive program which transfers income from the financially strapped working families to the increasingly well-off retired population.

⁶³ This is so called "equalized income". Figures in Table 4-11 are based on household unit.

earnings exceed 5 million yen. What this table reminds us is that pensioners aged 65 and over are significantly better off than aged less than 65 due to higher minimum threshold for taxation. On the other hand, when gross earnings exceed 5 million yen, young workers can enjoy higher allowance, but there is no difference in the amount of allowance between pensioners.

We need to find out the overall effect of taxation on individual income level, thus we construct a model for taxation which takes into account personal income tax both by the central government and the local government, social security contributions including pension, health care services, old-age care services and unemployment. The model assumes a single person with no children and tax rates for fiscal year 2007. **Table 4-19** illustrates effective tax rates including social security contributions for workers aged at 40 (Case), pensioners age at 60 (Case), and pensioners aged at 65 (Case). Firstly, we compare Case and Case with Case . What we find from this table includes;

- 1) the total burden for aged at 60 is lower by 5 - 10 percentage points than that for aged at 40 when gross income is less than 3 million yen;
- 2) the total burden for aged at 65 is lower by 1 - 2 percentage points than that for aged at 60 when gross income is less than 3 million yen;
- 3) the tax burden for pensioners is higher by 1 - 3 percentage points than that for workers when gross income is over 3 million yen, but when including social security contribution, the total burden for pensioners is lower by 2 - 3 percentage points than that for workers, and there is no difference between aged at 60 and at 65.

This calculation may not depict actual incidences by taxation and social contribution payment, because it assumes all gross income comes from pension benefits in Case and Case . Normally, old people have several income sources,

for instance, pensions and employment incomes⁶⁴. We split total gross income into pension benefits and employment income by assuming some kind of shares with reference to Fukawa (2003)⁶⁵, then calculate average tax ratios. Case * and Case * provide figures for them. It should be reminded that the pension adjustment scheme in Employee Pension is applied for pensioners who also have employment income. For instance, if the sum of monthly pension benefit (=X) and monthly standardized employment income (=Y) is more than 280,001, and if X is more than 280,001 yen and Y is more than 480,001 yen, pension benefit will be reduced by the following;

$$[(480,000 \times 1/2) + (Y - 480,000)] \times 1/2$$

What we find from the calculations of Case * and Case * are as follows:

- 1) the total burden for aged at 60 is lower by 5 - 11 percentage points than that for aged at 40 when gross income is less than 3 million yen and the differential between aged at 60 and 65 is about 1 percentage point;
- 2) the total burden for aged at 60 is higher by 5 - 15 percentage points than that for aged at 40 when gross income is more than 3 million yen;
- 3) the total burden including pension reduction for aged at 65 is lower than that for aged at 65 when gross income is less than 10 million yen, while it is the opposite when it is more than 10,000.

⁶⁴ The amount of maximum pension benefit was about 3.6 million yen for those who started to receive pension in 2005. Benefits from corporate pension are also subject to pension income allowance, but it is unusual that they have pension benefits over 10, million yen.

⁶⁵ Fukawa (2003) estimates the ratio of pension income relative to the total income based on household surveys in 1998. According to his estimates, the ratio for the first quintile of income groups was 96.7 per cent (average income 240 thousand yen), 88.9 per cent (850 thousands yen) for the second, 87.1 per cent (1,730 thousands yen) for the third, 83.7 per cent (2,880 thousands yen), for the fourth, 44.1 per cent (6,960 thousands yen) for fifth, and the average ratio of total old people was 63.2 per cent (2,550 thousands yen).

What do these results imply for policy-making on integration of pension and taxation? According to [Table 4-11](#), 86.8 per cent of total households with elderly have gross income below 5 million yen. Therefore, we focus on differentials when gross earnings are below 5 million on [Table 4-19](#). However, it is not an easy question, because different tax treatment based on age and pension adjustment interact and produce a complex outcome.

The simplest way to realign these arrangements is to eliminate discrimination based on age and income. However, there has been a historical development in how to tax pension income. Income from pension was treated the same as employment income between 1957 to 1986, but the 1987 Tax Reform classified it under miscellaneous income, rather than employment income, mainly because necessary allowance for pensioners was different from that for employed⁶⁶. Allowance means certain amount of money to compensate for various expenses. Therefore, pension income allowance has been created and applied to pension income since 1987. The 1987 Tax Reform also abolished old-age special allowance because tax burden of pensioners was too low compared to young workers. It has been argued over long periods of time that most pensioners are free of tax and that they should pay more from the point of intergenerational equity. The 2004 Tax Reform was said to be an effort to follow this line of thought, but there still exist some unequal treatment in taxation between workers and pensioners. Firstly, there is few rational reasons why people aged 65 are treated more favorably in terms of tax than those aged less than 65. Secondly, those who earn income from both employment and pension are taxed less, because they can enjoy both employment income allowance and pension income allowance as we analyzed with [Table 4-19](#). Even if the 1987 Tax Reform was necessary, it is unequal and unfair that the amount of tax differs due to the combination of employment income and pension income. Thirdly, although this is not directly related to taxation,

⁶⁶ In the old tax system, taxable income was calculated as follows: [employment income + (pension income - old-age special allowance)] - employment income allowance, while in the new one, the formula is (pension income - pension income allowance).

pension adjustment scheme for pensioners who earn employment and other income beyond certain thresholds discourages longer workings, because higher income from employment could reduce pension benefits. Longer workings should be promoted in order to cope with rapid ageing. High income earners should be taxed not through the pension adjustment scheme but through final income tax return.

It may not be an easy task to balance tax burdens between young workers and pensioners, but we have to find equal and consistent treatment which could encourage long workings and balance burdens among generations.

4.5 Summary

We have discussed issues on the fragmentation of pension system, public assistance and taxation. Pension reforms to date have failed to successfully address the problem of old-age income security arrangements. We summarize major issues which may provide the foundation for the next discussion.

When we discuss pension reforms, we have to assess economic status of the Japanese elderly. Are they rich or poor? There have been a lot of discussions on poverty and inequality in Japan not only for old people but also the entire population⁶⁷. On average the Japanese elderly are better off shown by the fact that their average income is comparable to young workers. However, income disparity is large due to various factors including different household structures, the amount of employment earnings, and social welfare transfers. In particular we have to focus on the limited role of social welfare transfer and tax treatment of low-income elderly.

The analysis on the fragmentation of relevant provisions in Japan identifies the ambiguous role of the Basic Pension. According to [Table 3-13](#), Japan's pension progressivity index is somewhere in the middle between two extremes such as New Zealand and Sweden; this figure clearly suggests the characteristics of Japanese pension scheme. As we learned in sub-section 3.2, broadly speaking there are two approaches for old-age income security, namely Bismarckian and Beveridgean. The Japanese approach can be said to be "amphibian", because earnings-related pension

⁶⁷ For example, see Ohtake (2000).

with basic flat portion such as Employee pension redistributes incomes between the insured. In other words, the Japanese scheme tries to redistribute through a social insurance model, but in actuality ends up doing a half way job. It provides neither a sufficient safety-net for low-income persons nor an incentive for people to pay contribution. The more redistributive the social insurance model is, the less willing the insured will have, because the linkage between contribution and benefit will be weakened.

5. Alternatives for Integration

In this sub-section, we explore alternative arrangements for integration of pensions, assistance and taxation with reference to discussions in sub-section 3 and 4. Several approaches to ensure old-age income security exists, but the desirability and feasibility of arrangements depend on various factors. The question of how to mix different financing instruments remains, namely how to combine contribution and taxes to achieve different distributional objectives. We try to identify some key issues in proposing alternative arrangements in order to invite more serious and constructive discussions.

5.1 Models of Integration

What we have found in sub-section 4 is that old-age income security in Japan is inefficient mainly due to the fragmentation among pensions, public assistance and taxation. There are some inconsistency in relevant provisions and perverse effects on people's behaviour. Without the redesigning of overall old-age income security, we cannot successfully cope with an ageing society where a third of people will be 65 years old and over in a few decades. Thus an integration of the relevant three provisions is a critical agenda for the Japanese society.

The Japanese government stipulated the issue of financing the Basic Pension as an agenda in "Basic Policies for Economic and Fiscal Management and Structural

Reform 2003"⁶⁸. They said that the financing arrangement of the Basic Pension differs among occupational groups⁶⁹, thus it is necessary to identify the role of the Basic Pension and discuss issues to introduce common and equal financing arrangement regardless of occupation. In this context, the Council on Economic and Fiscal Policy (CEFP)⁷⁰ which is a statutory advisory body to the prime minister has been concerned with issues in financing the Basic Pension. The Council illustrated four alternatives for integration of the Basic Pension in their paper dated August 26, 2004; they included,

- 1) a basic pension as the first-tier, which covers everyone and is shared equally by everybody (either flat contribution or flat rate contribution on income or general tax);
- 2) an earnings-related pension as the second-tier, which covers everyone including the self-employed in addition to a basic pension described in 1);
- 3) an earnings-related pension as a single-tier scheme, which covers everyone including the self-employed;
- 4) a basic pension as the first-tier, which covers everyone and is shared equally by everybody, either in conjunction with the abolishment of current second-tier schemes or with the privatization of it.

In October, 2007, CEFP discussed again issues in financing the Basic Pension by

⁶⁸ "Basic Policies" was a policy paper of then government and authorized by the cabinet.

⁶⁹ As described in sub-section 4, the Basic Pension is currently financed by general tax revenue (1/3 of total expense) and contributions from five pensions (the remaining 2/3). An individual contribution as insurance premium differs among occupational groups.

⁷⁰ CEFP was established in 2002 as a part of administrative reform to strengthen prime minister's leadership in the government. CEFP consists of prime minister (chair) and ten members who are Cabinet Secretary, Minister of State for Economic and Fiscal Policy, Minister of Internal Affairs and Communication, Minister of Finance, Minister of Economy, Trade and Industry, the Governor of the Bank of Japan, two business persons and two academics. Major tasks of CEFP are to research various issues relating economic and fiscal policy and to advise to the prime minister.

comparing its current financing scheme with the scheme in which it would be financed fully by general tax revenue. They said the proposed scheme will solve the problem of non-contribution which is caused mainly by the self-employed and part-time or temporal workers, equalize the burden sharing across occupational groups, simplify social security administration, and improve an intergenerational and intragenerational disparity in burden sharing. They argued various issues in the proposal, including the relationship between basic pension and public assistance, the equity of those who already paid contributions to those who will receive benefit without contribution, a long period of transitional process from the current system to the new one, and the abolishment of employers' contributions.

It should be reminded that Pension Reform 2004 decided to finance a half of expense for the Basic Pension with general tax revenue until fiscal year 2009, while tax revenue currently finances a third of the total expense⁷¹. The additional financing cost by tax revenue will be about 2.5 trillion yen and without increasing tax the government will not be able to implement the commitment made in the Pension Reform in 2004.

As explained the government has started to discuss issues of integration, however their focus is mainly on how to finance the Basic Pension, namely through consumption tax or social insurance contribution, rather than how to ensure old-age income security in the overall context of a rapidly changing economy and society. Issues of financing pension scheme are critical in designing it, but what we have to discuss at the beginning is how to provide income security for old people, in particular how to balance redistributive role and insurance role, although we cannot introduce a completely new scheme from scratch. It may be costly to alter current arrangements fundamentally. In general the method of financing pension schemes will follow the philosophy of income security for old-age. In other words, arguments will last forever without first setting a strategy and philosophy for old-age

⁷¹ Strictly speaking, the ratio of tax revenue to the total expense has been increasing gradually since FY2005. Specifically, the ratio for FY2005 was $1/3 + 18/1000$, $1/3 + 25/1000$ for FY2006, $1/3 + 32/1000$ for FY2007, and $1/3 + 40/1000$ for FY2008.

income security.

The fundamental objective of old-age income security is providing adequate income for everyone while maintaining affordability and fiscal sustainability across generations. A given set of goals can be achieved in different ways and the range of potential choice over pension design is wide (Barr (2002:32)). For instance, we have to discuss;

- 1) public assistance versus universal pension as a safety-net measure;
- 2) actuarial fairness versus redistribution;
- 3) public versus private, mandatory versus voluntary;
- 4) single tier or two-tiers scheme;
- 5) pay-as-you-go versus funded, defined benefit versus defined contribution

Discussions should be held without prejudice but we must be aware of various constraints such as how pension schemes have been developed historically and what kind of equity and fairness people look for in income security. ISSA (1998:38) notes that the decisions around the selection of an approach usually depends on the following five elements:

- 1) social attitudes toward issues like the desirability of a close link between past contributions and current benefits
- 2) society's view on such as the general budget of other private sector sources
- 3) opinions about the wisdom and potential value of using pension institutions to achieve other social goals such as increased national savings
- 4) assessment of the likely relationship between pension agreements and future tax or contribution rates
- 5) the degree of trust the public is willing to put in the government.

Obviously it is not easy to redesign the current Japanese pension schemes and related provisions. However, the analysis on major OECD countries' experiences

discussed in sub-section 3 narrows down the options, and alternatives for integration which can be applied to Japan may not be so many. **Chart 5-1** proposes six alternatives for integration of pensions, assistance and taxation. Let me explain ideas and principles of each alternative and their strengths and weaknesses.

What we must choose at the very beginning is whether we will use public assistance or universal pension for safety-net measure, put another way, whether providing minimum income security is provided within a pension scheme or outside of it. A-1 and B-1 are schemes where conventional public assistance plays an important role as safety-net, thus they are not universal pension schemes.

A-1 is the simplest arrangement where the role of redistribution and income smoothing can be clearly divided in theory. However in actuality, redistributive functions are often incorporated in earnings-related scheme, for instance replacement rates for lower income group are higher than that for higher-income group in the US, government subsidy financed by general tax revenue are injected into earnings-related portion to support child care or disabled care in Germany and France. This means it is difficult to divide the two functions in practice and subsidy to insurance may undermine fiscal discipline to balance benefit with payment.

B-1 is a model which doesn't require significant changes from the current Japanese system. What differs is that the Basic Pension is separated into a universal portion and a insurance portion. The former can be financed either by income tax or consumption tax or a mixture of the two, anyway expense will be shared equally among people based on the ability to pay. The latter should cover everybody regardless of occupation and will be financed by social security contribution levied on overall income with flat-rate, although the benefit is flat. Those who don't have enough income to maintain a minimum standard of living are entitled to receive public assistance with means-test in addition to the 1/2 guarantee. B-1 introduces the so called "claw-back" provision in order to cut benefit for high-income earners, simply because there is no need to support them with general tax revenue. What is important is that the claw-back will be implemented not through social insurance benefit administration but through tax administration. The rich usually files income

tax return, so it is efficient to adjust benefits with tax administration. Second-tier may be as it is, that is to say, it is not always necessary to integrate all earnings-related schemes which are now divided into occupational groups.

Remaining four models are universal pensions, but approaches for integration differ mainly because of philosophy. A-2 balances pension income and minimum benefit which is indispensable for maintaining the standard of living, while other three models guarantee flat fixed benefits. In principle, ordinary public assistance to maintain the standard of living is not provided in these models except for model C-2⁷².

The model A-2 was pioneered by Sweden in the latter half of 1990s. The old Swedish pension scheme was a two-tier system where the first-tier was flat and subsidized by general tax, and the second-tier was earnings-related. In short, it was considered inefficient to provide income security for old people, thus restructured to the scheme featured as A-2. What distinguishes the Swedish model is the introduction of a mechanism in the earnings-related portion, which makes contributions relate directly to pension benefit in order to provide incentives to pay contribution. However Sweden did not abandon the idea of a universal pension; the old basic pension was replaced by a minimum guarantee pension where general tax revenue targets the most needy. A minimum guarantee pension can be provided through income-test which assesses only the amount of earnings-related portion of this pension scheme. It is very generous, because tax revenue can finance the shortage even if they have pension benefits from private scheme or dividends from stocks and financial instruments.

The idea of B-2 derives from the Dutch experience. B-2 can be said to be "amphibian", because it contains features of both social insurance model and tax-financed model. The Dutch model is often classified as social insurance⁷³, but strictly speaking it is a universal scheme financed by ear-marked tax, specifically personal income tax. A basic pension of B-2 is co-financed by general tax and

⁷² We don't consider various assistance benefits such as for housing and health care here.

⁷³ For instance, see US SSA(2006a).

contributions. Everybody regardless of occupation must contribute to pension as far as he/she earns income, although its benefit is a flat amount. In other words, if one does not earn income, for instance housewives, one is not required to pay a contribution. Contribution is levied on income with flat rate. Benefit formula is the years of residency, thus full benefit requires 40-years residency in Japan. Even if people do not pay any contribution because of no income, they are entitled to receive pension benefits unless they live abroad. What is prerequisite for B-2 is that almost all people can contribute according to their income level, in other words a threshold for contribution should be lower to cover as many people as possible.

Model C-1 and C-2 are similar in the way that both are two-tier schemes. The philosophy, however is different. A flat benefit portion of C-2 is just enough to pay standard living costs, because it is considered a counterpart of public assistance. Due to budget constraint, means-test may be necessary at the time of provision⁷⁴. On the other hand, a flat-benefit portion of C-2 is not enough to pay standard living costs. Although basic pension is provided to everybody without means-test, additional assistance is necessary for those who do not have any other income source. The rich is taxed with higher rate due to the claw-back system. What differs between C-1 and C-2 is that everybody is assessed in C-1 while only those who need additional assistance are assessed in C-2.

5.2 Discussions

Which model is the most feasible and applicable to Japan among six models if pension, assistance and taxation should be integrated? The answer will depend on what people look for in old-age income security and what they think equity is. It is not our intention to provide an answer to this question, but we can reveal key issues in the choice of a model given the current Japanese pension system and economic and societal environment.

At the beginning of the discussion, it is good to recall what the Minister of Health,

⁷⁴ Mean-test is not inevitable like New Zealand. Alternatively, flat benefit can be provided with claw-back system through tax administration. For simplicity, we do not discuss these alternatives here. A model A-2 with claw-back seems almost the same as C-2.

Labour and Welfare thinks of integration, in particular financing the Basic Pension fully by general tax revenue, because the choice of either contribution or tax is the most contentious and critical issue in the argument of integration.

According to the paper provided by the Ministry to the Council on Economic and Fiscal Policy on November 21 2007, the Japanese pension system is characterized by the following:

- 1) a social insurance model where everybody prepares for his/her old-age based on self-supporting efforts and contributes mutually to the fund;
- 2) universal pension which provides income security to everybody including unemployed, low-income people, and those who cannot pay a contribution.

The ministry underlines two principles of social insurance and universal pension, but their argument is contradictory, because there is no country which can achieve universality with a social insurance model. A country which chooses social insurance model relies on public assistance as a safety-net. This is the logical consequence of choice, rather than how to design a pension scheme.

This paper further notes the following:

- 1) Merits of social insurance model
 - (a) it is compatible with the idea of self-help and social solidarity
 - (b) the relationship between contribution and benefit is clearly defined, thus people are willing to pay contributions required to finance benefits
 - (c) people are entitled to receive benefits as a right
- 2) Merits of financing fully by tax revenue
 - (a) everybody can be covered and insured, thus there appears no-pensioners;
 - (b) administrative cost such as record keeping is less than for the social insurance model.

3) Problems of financing fully by tax revenue

- (a) significant amount of tax revenue is necessary and pension benefit may be reduced due to budget constraint⁷⁵
- (b) Means-test is inevitable as countries which finance basic pension fully with tax introduce income assessment to cut benefits in general
- (c) it requires a transitional period; it is necessary to secure pension entitlements for those who have been paying contribution, thus pension systems can not become universal immediately.

It is true that both social insurance model and financing the Basic Pension fully by general tax have merits and demerits, however most arguments above are not correct and persuasive. For instance, the Basic Pension cannot be classified as social insurance theoretically, because the employed don't know how much money they pay as contribution, therefore merits of insurance argued by the Ministry doesn't make sense. Budget constraint should not be forgotten, but means-test is not inevitable as we learned in sub-section 3. There is an actual example where a country introduced financing arrangement of general tax revenue gradually. The Netherlands took 50 years towards a basic pension fully financed by tax.

We don't have any intention to deny the integrity of a social insurance model, but discussion should be without any prejudice and based on facts and data. The fundamental objective of pension systems is to provide income security in old age. Individual commitment should be encouraged by proper system design, but the responsibility of the state with respect to the entire population must not be renounced. We need an integration of pensions as already discussed, and a proposal for pension reform should respond to overall economic and societal changes. For instance, the current pension system is incompetent in dealing with atypical working styles, such as

⁷⁵ According to this paper, an additional cost to finance the Basic Pension fully by tax is about 15 trillions yen (at the moment about 7 trillions yen are already subsidized to the Basic Pension)

part-time, temporary, self-employed workers and mobile workers. On the other hand, public finance in Japan is now the worst among OECD member countries, thus we have to consolidate it as soon as possible and be aware of the budget constraint.

We would like to summarize the five principles for reform as follows:

- 1) to respond to the economic and societal change, in particular labour market and ageing
- 2) to be more transparent and easy for everyone to understand
- 3) to strengthen incentives to work longer with safety-net for the disadvantaged
- 4) to share costs for necessary provisions more equally and fairly between generations and within generation
- 5) to choose an alternative which brings about the least change in pension structure.

As we have already discussed, all arrangements for old-age income security in the world contain both redistribution and insurance role, thus the issue is how to balance between the two. Augusztinovics (2002:24) states that most implemented or proposed pension reforms strive to separate assistance from insurance, distinguish among various risks and strengthen the contribution-benefit link, Schmahl (2000:132) also notes that it makes sense to clearly separate the financial instruments in line with the strategy underlying the design of a pension scheme. These arguments are plausible; we have to look for a scheme in which the role of government and public are clearly identified and predictability of pension provision is enhanced. In this context, it is rational to place responsibility on the government to provide a safety-net through financing the pension funds with general tax revenue while people themselves should contribute through insurance system, either public or private.⁷⁶

When we redesign old-age income security and integrate relevant provisions based on five principles as noted, there are several key issues in choosing among the

⁷⁶ Queisser, et al (2007) describes Beveridgean systems tend to provide for poverty alleviation through their public pension systems and redistribution across the life course through private systems.

alternatives. Firstly, is pension scheme either universal or not? This question directly relates to financing arrangements, namely tax or contribution. Schmahl (2000:129) describes two different financial arrangements as follows:

The main aim of a pension scheme of an insurance type is the intertemporal redistribution of income between the life span of gainful employment, combined with a pooling risk. In contrast, taxes are appropriate instruments in social protection schemes organized under the tax-transfer principle, aimed primarily at an interpersonal redistribution of income between individuals.

Typical critique for tax-financing scheme contains budget constraints and disincentive to save. Non-contributory and universal schemes are considered expensive since they provide benefit to people who do not really need it. Benefits may be at a low level, not enough for sustenance for people without any other source of income. Shifting of responsibility from the social insurance system to the general public budget may also increase the need to set political priorities for public expenditure. Disney (2004:272) argues that public pension contribution is not a tax on employment per se, but often contains a tax component which has adverse effects on economic activity for certain groups in the labour market. He argues that individual benefits should be more closely linked to contributions by reducing the tax component. If the contribution payment results in acquiring specific pension claims, one could expect that this burden is in principle tolerated more than general taxes, especially general taxes used for interpersonal redistribution.

On the other hand, a critique against a social insurance model is that it cannot cover the entire population. Thus it needs public assistance scheme as a safety-net, but means-testing is much more expensive because of the administrative costs, and old people may feel degraded. Costs and incentives are arguable and it is not always clear if a universal scheme is as noted, because public assistance may also be costly if a society thinks minimum income support is needed. It can be argued that a universal scheme makes everyone work harder, because it provides a guarantee to

him/her. In short, there is no conclusive evidence for deciding either social insurance or non-contributory universal pension.

Ultimately, the choice depends on philosophy. Conde-Ruiz and Profeta (2007:688) states that Beveridgean systems may be supported by a voting coalition of low income and high income individuals, while Bismarckian systems are established under the pressure of the middle class, but not the poor. Which do we think better for the current economic and societal circumstance in Japan?

The second question is whether we can collect social security contributions or income tax efficiently from everybody. This is important and relevant to the current problems in Japan, because about 40 per cent of the insured of the National Pension do not contribute for several reasons and Social Insurance Administration under the Ministry of Health, Labour and Welfare cannot enforce collection of contributions in actuality. The viability of models such as A-1, A-2, B-1 and B-2 critically depends on whether revenue can be collected from everybody based on income level.

The third question is which we prefer as a safety-net measure: minimum guarantee pension such as A-2 or flat basic pension such as B-2, C-1 and C-2 when we choose a universal pension scheme⁷⁷. In addition to this, is assessment necessary to provide benefits, and if so, which is better: means-test or income-test in terms of economic efficiency?

Means-test is often criticized for several reasons as already discussed in sub-section 3.5. Firstly, there is an incomplete take-up, thus it cannot save everyone who needs assistance. Secondly, it penalizes individual efforts, that is to say, low-paid workers lose a great deal of the advantage from earning more, as a result of the withdrawal of means-tested benefits. Pensioners with low-income may face savings-trap. Thirdly, means testing could target transfers progressively to those with less income, but would raise significant enforcement and administration problems, could generate inequities and program interactions, and many people would consider it degrading. These problems are actually argued in Australia where the

⁷⁷ This argument doesn't make sense when we choose a social insurance model, because public assistance is provided with means-test. The balance between earnings and a standard level of assistance will be paid to those who qualify.

first-tier is provided to everyone with means-test. The idea of a minimum guarantee pension may deserve consideration for benefit and tax integration⁷⁸. However it is not without question as discussed in sub-section 3.5. An effect of minimum guarantee pension on individual attitude depends on various factors, thus empirical research is needed for clarification⁷⁹.

Finally, we conclude the discussion in this sub-section. If we look for an integration of relevant provisions, we are expected to choose one from six alternatives. The choice depends on what people think of equity and fairness, and how efficiently a model will be implemented. There is of course no single answer, but careful consideration of current arrangements and conditions in Japan in addition to analysis and discussions in this paper may narrow down alternatives for integration.

It is not a politically viable option to give up an idea of universal pension. The government has already committed to maintaining universalism again and again. Thus Model A-1 can be deleted. Secondly, the other issue is whether a contribution can be collected efficiently and equitably from everyone based on his or her income.. Unless the employed, self-employed and other types of workers can be assessed and levied with a same standard based on the level of income, Model A-1, B-1 and B-2 would increase the so called "free riders" and widen inequality among people, in particular among occupational groups. It is desirable to place the minimum threshold for contribution as low as possible in these three models in order to widen coverage and share costs of pension equally and fairly. Thirdly, a universal pension with means-test like Model C-1 may not be efficient in terms of social security or tax administration, because everybody's income and assets should be assessed regularly. In Model C-2, income assessment would be done only for the needy. Model C-2 can withdraw benefit from older people with higher income through tax administration. Both C-1 and C-2 can adjust benefit for high-income pensioners, but this arrangement

⁷⁸ Ingles (2000) explains several approaches to guaranteed minimum pension.

⁷⁹ Social Protection Committee (2006:27) notes as follows. In theory, any form of minimum pension which does not add in full to other benefits or earnings could have as a side effect an increase of hidden work or early retirement of people who fulfill the eligibility requirements. However, most member states do not see that minimum income benefits would provide negative incentives toward longer workings or higher savings, as those benefits generally play a significant role only for people aged 65 or more.

will be done more efficiently and effectively in tax administration than in social security administration. This is particularly the case in Japan, because Social Insurance Agency has lost their credibility due to mismanagement of record keeping. **Table 5-1** classifies ten countries into three groups from the point of how to integrate public and private schemes, and social insurance and universal scheme. A universal with private encouraged model is the most viable because it can achieve two goals of adequacy and actuarial fairness in a balanced way.

Therefore C-1 may be a possible alternative for integration of pension, assistance and taxation. The advantage of C-1 is that some trade-offs such as between income smoothing and redistribution, and between public assistance and universal benefit are alleviated by its pension structure. We underline the efficient use of general tax revenue. In most European countries as well as in Japan, the ration of general tax financing social protection is increasing (**Table 5-2**). If this is a common and inevitable trend, we have to be wise on using general tax. The current arrangement of tax in Basic Pension may not be efficient. It seems efficient and effective to separate redistributive functions from social insurance by shifting them into the national budget. A lot of countries have redistributive functions within pension insurance and they are financed by general tax revenue, or by transferring money from the state budget to social insurance. For instance, a government pays a contribution for insured caring for children and elderly. However, the limitation of the redistributive function from social insurance would be useful in linking contribution and benefit. This idea assumes a universal scheme is funded fully by government contribution. In most countries that rely on PAYG schemes intergenerational transfer gives strong negative participation incentives for the younger generation.

6. Conclusion

Through providing international comparisons, this paper argues that although the overall income level of the Japanese elderly relative to young workers is better than the OECD average, the Japanese pension system is "inefficient" in terms of both smoothing income (insurance role) and providing adequate income (redistribution

role). Secondly, the paper reveals that this inefficiency derives from fragmentations within the pension system, between pension and public assistance, and between pension and taxation. Finally, the paper argues the urgency of integration of relevant provisions for ensuring old-age income security in the context of rapid change in economic and social circumstances and discusses major issues in proposing alternatives for integration with reference to major OECD countries' experiences.

Although the analyses are stylized, a few important lessons in designing a new social security policy can be obtained.. We conclude that the Japanese pension system requires the redesigning of financing structures by separating the functions of redistribution and insurance. An arrangement for old-age income security should ensure interpersonal redistribution of income by general tax revenue while income smoothing can be achieved so that there is a clear correspondence between contribution and benefit. There may be several alternatives for achieving this objective, but we would like to address transparency and efficiency in the discussion of pension reform. Pension policy especially in a pay-as-you-go-financed scheme is based on acceptance by the public, of a willingness to pay tax or contribution. This willingness to pay depends on expectations concerning one's own future, especially one's pension claims and pension benefit. A lack of transparency may increase the feeling of insecurity and reduce the willingness to contribute to the scheme.

There are several limitations and reservations in this paper. In particular, we cannot analyze overall financial arrangements by taking into account the pension expenditures, expenditures for public assistance and tax expenditure in addition to revenue of tax and contribution. The comparison between alternatives in terms of expenditure and revenue is indispensable in making a decision and informing the public. The financial sustainability of a pensions system is a necessary precondition for an adequate provision of pensions in the future, while ensuring adequacy is a precondition for obtaining political support for the necessary reforms of pension systems (European Commission (2003:9)). In a tax-transfer system the decisive question is which type of taxes should be used for financing the transfer of benefits, but we cannot discuss this issue.

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