

# How to Make the Japanese Public Pension System Reliable and Workable

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This paper has two objectives. The first is to identify current problems in Japan's pension administration. The chief problem is a weak governance structure. In particular, the current governance structure ignores the role of pension participants. A rigorous division and clear assignment of responsibilities to each of the pension participants, the Social Insurance Agency, and the Ministry of Health, Labor and Welfare is urgently needed. Given rapid demographic change, the second objective is to consider the case for full tax financing of the National Basic Pension. It is estimated that the net burden would vary across different cohorts, but we demonstrate that the net burden can be smoothed across different cohorts. This result is quite different from that in the 2008 Interim Report of the Japanese National Council on Social Security.

**Key words** demographic change, governance, public pension, social security

**JEL codes** G23, G38, H55

## 1. Introduction

Demographic change will require alterations to the functions and roles of many social institutions. The public pension system is one institution directly affected by demographic change. Indeed, given Japan's rapidly aging society, many experts on the public pension system and policy-makers have extensively discussed how to reform the system. For example, authors like Horioka *et al.* (2007), Takayama (1998, 2003, 2004, 2006), Takayama and Miyake (2008), Yashiro (2008), and Yoshida (2006) have discussed this issue.

The purpose of this paper is to take up two distinct issues related to Japan's public pension system. The first is to identify the current problems in Japan's pension administration. The chief problem is a weak governance structure. In particular, the current governance structure lacks a rigorous division and clear assignment of responsibilities to each of the pension participants, the Social Insurance Agency, and the Ministry of Health, Labor and Welfare. The second purpose is to consider the case for full tax financing of the National Basic Pension. The net burden of this change would vary across the

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different cohorts. We demonstrate that the net burden can be smoothed across different cohorts. This result is quite different from that in the 2008 Interim Report of the Japanese National Council, on Social Security (see National Council on Social Security, Japan, 2008).

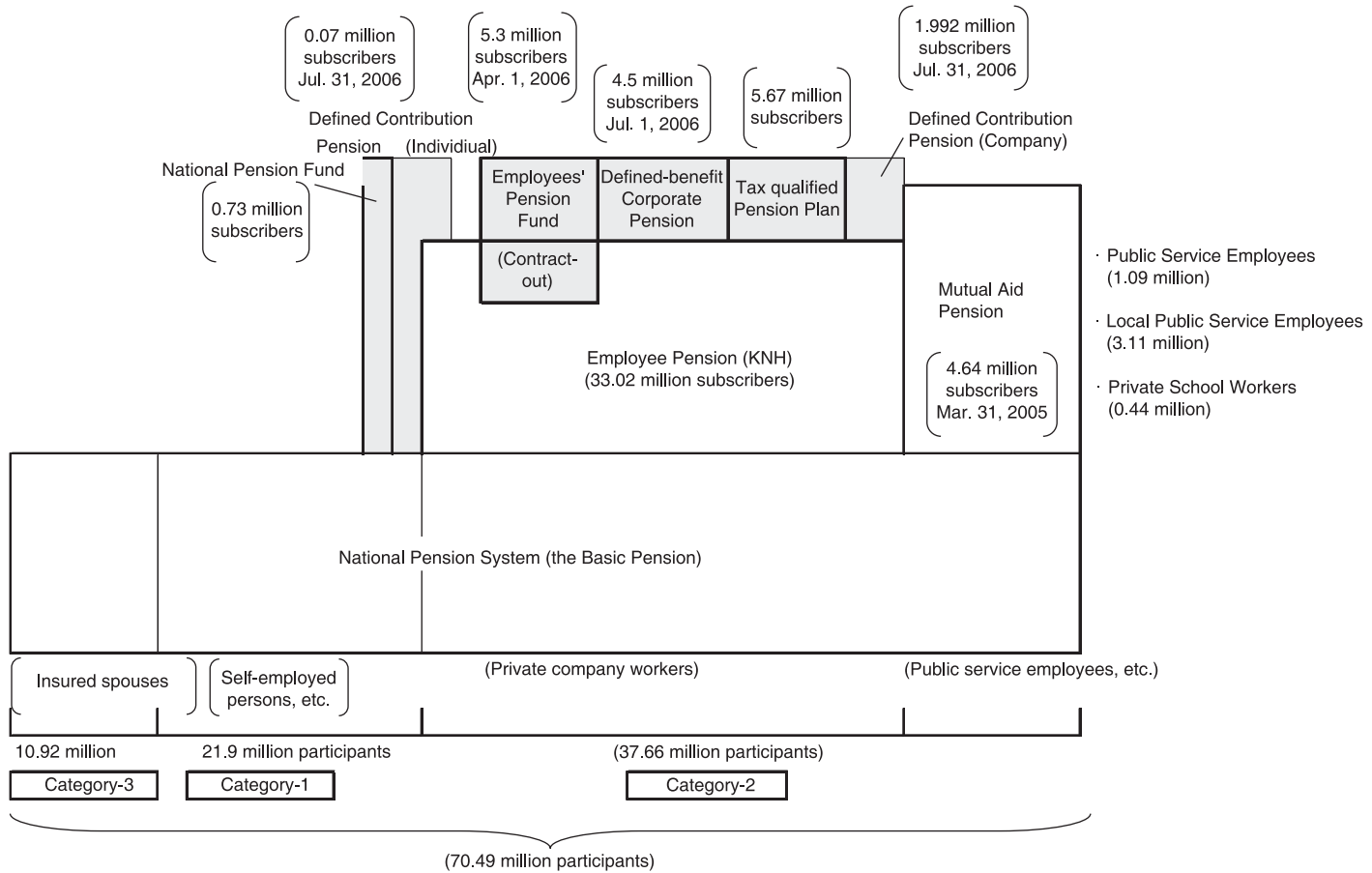
This paper is organized as follows. In Section 2, the current problems in Japan's pension administration are spelled out. These problems include the increasing rate of dropouts and problems with the keeping of pension records. Section 3 discusses the pension governance issues, focusing in particular on the new law establishing the Japan Pension Agency. In Section 4, a simple calculation of the change in the net burden in the case of full tax financing of the 1st tier National Basic Pension is considered. Section 5 contains a conclusion.

## 2. Current Problems in Pension Administration

Before discussing the current problems in Japan's pension administration, let us briefly explain Japan's current pension system. As shown in Figure 1, the pension system consists of three tiers. Contributions to and benefits from the National Pension System, which constitutes the 1st tier, are flat-rate, while those of the Employees' Pension System, which makes up the 2nd tier, and those of the voluntary Corporate Pension System for Employees, the 3rd tier, are earnings-related. The public pension system covers the 1st and 2nd tiers. The 3rd tier is the private pension system. The 3rd tier is now shifting from defined benefit plans to a defined contribution plans such as 401(k) plans. There are three categories of insured persons, namely, Category 1-insured persons, defined as those belonging neither to Category 2 nor Category 3. They are atypical employees and self-employed persons who work in agriculture, fishery, and forestry, for instance. Category 2-insured persons are participants in either the Employee's Pension System or the Mutual Aid Pension System. Category 3-insured persons are the dependent spouses of Category 2-insured persons. It is estimated that in 2006 there were 21.9 million people in Category 1, 37.66 million people in Category 2, and 10.92 million people in Category 3.

The public pension system is basically designed as a pay-as-you-go system. It is well understood that the rapid aging of the population creates a fundamental imbalance between benefits and contributions. Over years, the Japanese government has been reforming the public pension system in various dimensions by increasing contribution rates, cutting benefits, and increasing government subsidies. The public pension system runs a fund called the Government Pension Investment Fund (GPIF). As of June 2008, the total amount of the GPIF fund is about 123 trillion yen and this can be drawn down in the near future.

Pension reform is a major topic worldwide. In Japan, the pension reform implemented in 2004 was intended to assure everyone that pensions would be secure for the next 100 years. However, in the process of pension reform, many problems emerged. For example, it was discovered that many well-known figures in Japan, including the former Prime Ministers Junichiro Koizumi and Yasuo Fukuda, had failed to contribute to the public pension system for certain periods of time. Furthermore, in 2007, the public was informed that some 50 million pension records were unidentified. This mismanagement by the Social Insurance Agency became a national scandal, ushering in the demise of the Abe administration in the Upper House election in July 2007.



**Figure 1** Overview of pension system in Japan.  
 Source: Pension Bureau (2007).

In this section, the current implementation problems related to the public pension system are described in detail. They include the dropout problem, and problems with record keeping.

### 2.1 The dropout problem

In 1986, the National Basic Pension became compulsory for all citizens in Japan above the age of 20.<sup>1</sup> Insurees are required to contribute for at least 25 years to be entitled to receive an old-age pension.

The National Pension Law requires that insurees pay their contributions. In theory, the law provides the pension administration with strong powers to enforce this requirement. In practice, however, the Social Insurance Agency has not always used this power. As a result, a large number of Category 1 insurees have failed to pay their flat-rate contributions (14 650 yen per month as of April 2009).<sup>2</sup>

There are at least two types of individuals who refuse to pay their contributions. The first (Type 1) are those who cannot afford to pay because of fluctuating or low income,<sup>3</sup> while the second (Type 2) are those who do not trust the public pension system and refuse to participate even though their income is sufficient. For Type 1 individuals, the Social Insurance Agency can provide more flexible arrangements such as partial payments (i.e., allowing them to temporarily pay only part of their contributions), postponement of payments, and a reduction of contribution periods (i.e., waiving the minimum contribution period of 25 years). For Type 2 individuals, one of the reasons why the Social Insurance Agency does not take a strong action to enforce payment is that if Type 2 individuals do not pay their contributions, they are not entitled to receive any public pensions when they retire (i.e., the philosophy is “no contributions, no benefits”). In the judgment of Type 2 individuals, the internal rate of return from the current public pension system is expected to be negative. That is, they believe that it is not beneficial to participate in the system. The refusal to pay pension contributions itself is illegal and is subject to punishment.

In conjunction with the unpaid contribution problem, the Social Insurance Agency created yet another social scandal. By 2005, the problem of unpaid contributions had become prevalent and, as a result, the compliance rate had dropped substantially. In November 2005, the head of the Agency announced that all local offices had to achieve an official compliance rate target (65.7% in 2004, 69.5% in 2005, 74.5% in 2006, and 80% in 2007) for Category 1-insured persons. Many local officers took this message in the wrong way. They decided to reduce the number of eligible persons by giving exemption status for certain individuals without obtaining their consent. By reducing the denominator, the compliance ratio increased. Needless to say, this does not provide any solution to the problem of the declining number of contributors. As a result, the official compliance ratio remains still high, even though it has dropped from 85% in 1990 to 66% in 2006. Yashiro (2008) shows that, after correcting for these manipulations, this ratio has been less than 50% since 2003. What is more, these actions were also illegal under the National Pension Law. After this case became public, the Social Insurance Agency discovered that 222 578 cases had been handled illegally in 31 local branches and 116 local offices throughout Japan. In August 2006, the Agency punished 1752 officials for misconduct.

## 2.2 The record-keeping problem

The Public Pension System in Japan has undergone substantial expansion and reform since the 1960s, especially since the 1990s, reflecting Japan's low economic growth and rapid demographic aging. As part of these reforms, as well as a result of advances in information technology, the management of pension records also has undergone a series of changes. This is the source of the record-keeping problems mentioned earlier that will be discussed in greater detail now.<sup>4</sup>

Let us take a brief look at the history of pension record management. Pension records include: (1) the identification number of the respective pension system as well as the (2) name, (3) pronunciation of the name, (4) gender, (5) birth date and year, (6) address of the insuree, (7) date of enrollment and/or leaving the program, (8) the identification of the company where the insuree works, (9) the average monthly salary of the insuree, (10) the semiannual bonuses he or she received, and (11) the contribution record. For the National Pension System, pension records are supposed to include items (1)–(7) and (11). For the Employees' Pension System (Kosei Nenkin Hoken [KNH]), the company address is included instead of the insuree's address.

However, prior to the introduction of digitized records in the 1960s, all records were kept in handwritten paper form. In the process of transferring these written records to computer records via punch cards, Japanese names written in Chinese characters could not be handled because of technological limitations at that time. But since there are variations in the pronunciation of Japanese names consisting of the same Chinese characters, it is necessary to ask each individual to verify the correct pronunciation of their name. However, the pronunciation of the names of those people who quit their job in the case of the KNH before July 1979 were mechanically assigned without being checked. In addition, the name and birth date from the KNH may be wrong because they come from companies' record, not from an individual's self-declaration. Either the company did not pay enough attention to the correct information or the individual might not tell the truth about his or her identity for various reasons.

Turning now to the monetary transactions related to pension contributions for Category 1 persons, responsibility for these transactions was delegated to municipal governments. From April 1961 to September 1971, payments of pension contributions at municipal governments were certified by stamping the payment slip. Then, from October 1971 to March 2002, payments were made through financial intermediaries such as banks and post offices, and a receipt was given in return. Since April 2002, pension transactions have been handled by the Social Insurance Agency through financial intermediaries, with receipts being given to confirm the payment.

In January 1997, the government introduced the unified basic pension identification number for all eligible individuals. Prior to 1997, pension identification numbers were issued independently for each pension scheme, for each individual, and for each company. As a result, some 300 million pension identification numbers were assigned.<sup>5</sup> At that time, the basic attitude of the Social Insurance Agency was that pension participants would apply for their entitlements voluntarily when they reached retirement age, and that they would keep all their wage and pension contribution records. This implies that the pension records at the Agency were not corrected unless the pension participants claimed and proved that these records were wrong.

On the occasion of the introduction of the basic pension identification number, the Social Insurance Agency sent postcards to all identified participants (about 100 million) of the Public Pension System asking whether they had multiple identification numbers for their pension records in the past. The Agency received only 9.16 million replies. The Agency has identified some 250 million numbers, and consolidated them into 100 million basic pension identification numbers. However, even in June 2006, there remained about 50 million unidentified numbers (40 million in the KNH, and 10 million in the National Pension System).

The Social Insurance Agency explained that these numbers may be attributable to individuals who had passed away, individuals who did not qualify for pension entitlements due to falling short of the required contribution period, or individuals who received compensation when they voluntarily left the KNH. Classifying these unidentified numbers in terms of the insured's age, there are 22.15 million cases for insureds younger than 60 years old, and 28.80 million cases for insureds older than 60 years old (see Figure 2, Table 1). Among these 28.80 million, there are likely to be a considerable number of pensioners who are receiving lower pension benefits than they are due because some of their contributions were not consolidated in their pension records.

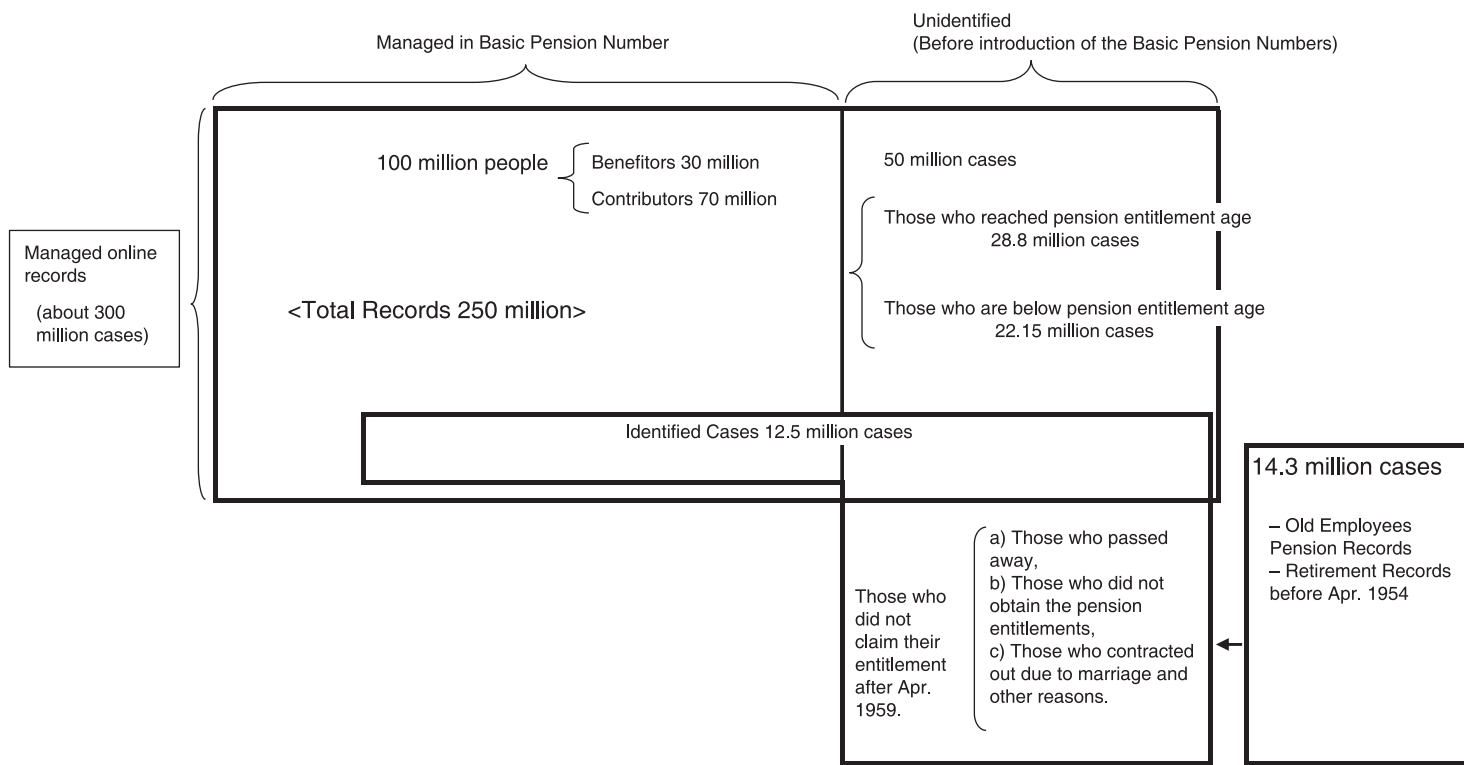
Investigations of the unidentified pension records carried out between June 1, 2006, and March 6, 2008, led to the following five findings. First, among the originally unidentified member records, 6.19 million were newly identified. Second, 5.15 million of the unidentified records were of individuals who had either passed away or did not qualify for pension entitlements. Third, for 10.27 million of the unidentified pension records, likely matches were identified, but needed to be confirmed, and special notification letters were sent to these individuals when addresses were available. In response to the special notifications sent out, replies were received in relation to 5.59 million notifications, while no reply was received in relation to 4.07 notifications. No addresses were available for 0.65 million of the likely matches. Fourth, 3.16 million unidentified pension records were still under investigation. Fifth, 16.18 million required further investigation in the future.

Thus, while some progress was made in resolving the issue, almost 20 million pension records remained unidentified.

The government created a third-party committee for pension record scrutiny that allows insureds to appeal when their pension record does not reflect their actual payment history.

Record discrepancies may happen for various reasons; for example, simple mistakes in data inputting in the local offices of the Social Insurance Agency or municipal governments, mistakes made in the process of transferring the records from the old format to the new format, fraudulent activities in the process of pension handling, and cheating by insureds. As of August 24, 2008, the third-party committee for pension identification had accepted 67 104 cases (28 371 for the KNH and 38 733 for the National Pension System), had examined 22 211 cases, had approved 9151 cases, and had turned down 13 060 cases.

The difficulties in maintaining correct pension records and correspondence addresses of pension participants are quite prevalent.<sup>6</sup> The private pension system is also to blame for the pension record problems in the public pension system. The private pension system – that is, the corporate pension in the third tier – has introduced defined contribution



**Figure 2** Structure of unidentified basic pension numbers.  
 Source: Pension Bureau (2007).

**Table 1** Unidentified basic pension numbers by age of insuree (as of June 1, 2006)

	Age	Employees' pension (cases)	National pension (cases)
	~29	91 051	441
	30~34	839 128	676 059
	35~39	1 847 523	793 558
	40~44	2 087 273	479 389
	45~49	235 136	592 710
	50~54	3 756 136	833 144
	55~59	6 561 810	1 222 258
<div style="border: 1px solid black; padding: 5px; display: inline-block;">           Above 60 years of age            28 503 391 cases            Among them:            KNH: 21 812 834            National Pension: 669 557         </div>	60~64	4 567 456	794 443
	65~69	4 357 233	1 156 633
	70~74	3 601 566	1 280 747
	75~79	2 473 400	1 230 282
	80~84	1 808 024	832 991
	85~89	1 266 058	605 537
	90~94	1 110 760	516 672
	95~99	1 010 736	267 529
	100~	1 617 601	5 723
		Birth date unknown	300 675
	Total	39 661 821	11 289 282
			<div style="border: 1px solid black; padding: 5px; display: inline-block;">           Total of birth date            unknown 301 841 cases         </div>
			<u>Total amount: 50 951 103</u>

Source: Pension Bureau, Japan (2007). KNH, Kosei Nenkin Hoken.

plans such as 401(k) plans in the past 10 years, but, contact has already been lost with the holders of 80 000 accounts, and, thus, their contributions are not properly invested. The correspondence addresses of 20 000 of them are unknown. These episodes reveal that workers' knowledge about the pension system is still very limited, and quite often workers lose their entitlements simply because of ignorance. At the same time, it may not be justifiable for the Social Insurance Agency to behave passively and wait until participants claim their entitlements.

### 3. Pension Governance

In order to understand how pension governance works, we need to formulate a behavioral model of the public pension system. Kitamura and Takayama (2008) took up this task. The theoretical insights we obtained relate to: how to prevent collusion between the Social Insurance Agency and the Ministry of Health, Labor and Welfare; and how to make the Social Insurance Agency reveal its mistakes and errors honestly.

With the help of these results, we would like to discuss how to make the public pension system reliable and workable in practice. In particular, we want to address the question of why there was misgovernance in the Japanese pension administration. We believe that the answer to this question is not that Japan suffers from the type of corruption observed in many developing countries where bureaucrats derive private benefits. Rather, it seems that the cause is a series of cases of misconduct without any prompt correction of errors. Pension administrators did not understand the long-run costs they would face if they left their mistakes untouched.

Now that a fundamental reform of Social Insurance Agency is being undertaken, we would like to make some proposals regarding reform.

#### 3.1 Feedback and error correction

To begin with, it should be noted that imperfections in pension records can be found in most countries, so in this regard Japan is no exception. In the USA, for example, about 8 million public pension records (around 4% of the total) need to be corrected every year, and about 5 million letters containing Social Security statements annually are returned to the Social Security Administration because addresses are no longer correct. Similarly, in the UK, every year, about 2 million pension contribution records (around 3.5% of the total) do not contain the national insurance number. In addition, it is estimated that there were about half a million cases of underpayment of public pension benefits (equivalent to about 250 billion yen) because of missing records on home responsibilities protection (HRP). Most of those affected were women. HRP is not a benefit, but a scheme that helps to protect the basic state pension of people who do not work, whose earnings are low, and are caring for someone. This system is not well understood, thus many people are not caring much about HRP. In Australia, about 6 million records were lost on members who quit their job or migrated abroad.

What is more, in Japan, problems regarding pension records are not restricted to the public pension system. In the case of the 3rd-tier corporate pension funds (more exactly, the contracted-out Pension Fund Association), 1.24 million cases (154.4 billion yen) were

unpaid in 2006 because records did not match and insurees made no claims. Moreover, 0.127 million individuals in 621 Occupational Pension Funds did not receive their pension benefits at their retirement.

Problems have occurred in the other financial contracts in Japan; for example, 38 life insurance companies did not pay benefits for 1.31 million cases (96.4 billion yen) in 2001–2005, and 26 non-life-insurance companies failed to pay for 0.49 million cases (38 billion yen) in the same period.

Given that human error is unavoidable, a public pension system therefore should be designed in such a way that human errors are corrected periodically and systematically, as the US Social Security Administration does. Moreover, as part of this process, pension participants should be more actively involved in this error correction process. Unfortunately, so far, the involvement of participants has been limited in Japan. The Social Insurance Agency sent out 100 million letters in January 1997 asking participants to match their multiple pension numbers under their unified basic pension identification numbers. Only 9.16 million (9%) replies were received. From December 2007 to March 2008, special notification letters were sent out to 10.27 million people because their pension records were likely to be identified if participants provided further information. Only slightly more than half of those contacted replied. The Social Insurance Agency sent additional letters to encourage participants that did not reply to provide information and help with the error correction process. Without their help, this process cannot be completed.

### 3.2 Pension administration improvement under e-government

Many countries are moving towards e-government. Much information is released through the Internet and e-mails on both private and public levels. Governments also use these instruments more extensively than before. The Japanese government has announced that governmental administration and registration procedures should use computer-cum-Internet systems more extensively in the coming years. The Social Insurance Agency has not developed a system for updating the correspondence addresses of pension participants, as is illustrated by the fact that 0.65 million special notification letters were returned to the Agency because insurees had moved and their forwarding addresses were unknown.

Needless to say, it is essential for the pension administration to keep valid correspondence addresses for all participants. The central government and municipal governments, in fact, collect individual and household information on various occasions such as the time of a birth, marriage, divorce, death, change of address, tax payment, and school enrollment. If the various levels of government were able to share such information and consolidate it in the same database, it would be much easier to find and correct pension participants' valid addresses. In Sweden, for example, much government registration information is pooled and consolidated or classified into an individual information account, which is administratively efficient, convenient, and cheaper than keeping separate databases. In addition, given the rapid progress in digital technology (i.e., information processing), it is technologically possible to issue a unified smart card that includes information on an individual's public pension record, health insurance record, name, address, birth date, gender, etc.<sup>7</sup>

Of course, governments need to pay full attention to security and privacy issues in relation to the Internet and e-mail. In so doing, they need to send sensitive information via postal mail or ask participants to access such information on the Internet in a strictly protected way.

Under e-government, pension participants must be able to access their records on past pension contributions along with wage payments through the Internet, so that errors can be quickly corrected. As the recent pension record problems reveal, individual records are not necessarily correct. In order to amend errors in the pension records, participants are required to keep their wage records and receipts on their public pension contributions for some years. This is already common practice in many other countries. In France, for example, insurees are required to keep all receipts for 40 years, while in Italy, they are required to keep them for at least for 5 years. Under e-government, companies would also be required to register all the relevant information through the Internet. Various types of information on each company could be consolidated into an individual company record. Assembling data on a company in this way would make it difficult for companies to commit fraud in relation to pension records.

### 3.3 Information disclosure

The pension administration has a strong incentive to hide negative information such as errors and fraud. The past behavior of the pension administration suggests that it tends to think that if negative information becomes public, public criticisms would destroy the reputation and credibility of the pension administration, and that this would further increase the number dropouts from the Public Pension System.

At the same time, keeping negative information secret does not provide any solution. In the long run, this would create irrecoverable damage to the administration of the pension system. We believe that this is exactly what happened with the Social Insurance Agency in Japan.

Consequently, incentives to reveal negative information are that: early error correction is administratively cheaper; information sharing can prevent a further spread of errors and fraud; and feedback from the participants is the simplest and the most direct way to find errors.

Information we ask the Social Insurance Agency or the Ministry of Health, Labor and Welfare to reveal annually or quarterly are: the types and nature of the errors; the number of errors; the number of corrections; the number of individuals that cannot be reached (returned mails); the number of face-to-face telephone, or Internet consultations; the content of the consultations; and the number of staff working on record keeping administration and the Agency's budget.

### 3.4 Organizational issues

The Social Insurance Agency is expected to be divided into two independent organizations; namely, the National Health Insurance Organization activated as of October 2008, and the Japan Pension Agency, which will be established in January 2010.

There are two aims of the reorganization of the Social Insurance Agency. The first is to reduce the size of the organization by cutting the number of staff by 40% (from 23 780 in

2005 to 14 470 in 2012). The second is to progressively use outside resources (i.e., private companies).

In relation to the second aim, the following items are expected to be delegated to outside entities: the processing of various application forms and documents; the initial screening of application forms; the use of call centers to reply to pension and health insurance-related questions; public awareness campaigns for the National Pension System and the KNH; measures to encourage the pension participants to contribute and help for those who can apply for payment exemptions; and general administrative work such as the calculation of salaries, the provision of fringe benefits, and the maintenance of facilities.

The first aim deserves further discussion. The Social Insurance Agency has been criticized for its lack of a proper governance structure. In order to address this issue, the Japan Pension Agency will set up sections in charge of internal controls, internal auditing, and compliance issues. In addition, this agency will have multiple supervisory authorities. The primary supervisor will be the Ministry of Health, Labor and Welfare as is specified in the new law. The Board of Audit of Japan, the Ministry of Internal Affairs and Communications, and private audit firms will also be involved in monitoring the activities of this agency. At the moment, however, it is not clear how the roles and responsibilities in monitoring will be divided.

Another issue concerns the personnel system. Previously, it was clearly divided into three layers, consisting of the top executive bureaucrats from the Ministry of Health, Labor and Welfare, middle managers from the headquarters of the Social Insurance Agency, and local staff recruited by the local offices. There was no promotion across the three layers. Under the new setup, new recruitments are to be made centrally at the headquarters. As part of their promotion pattern, executive bureaucrats will be expected to move around local offices. The new agency will accept bureaucrats from the Ministry of Health, Labor and Welfare, but such bureaucrats will be expected to stay in the Japan Pension Agency and not go back to the Ministry. The personnel and wage systems will be changed from a civil-servant style one to the system employed by independent agencies and will provide employees with incentives to use their expertise.

### 3.5 Integrated collection

According to the stipulations establishing the Japan Pension Agency, the Agency will be responsible for collecting and handling pension contributions. However, as a matter of comparative advantage, the tax bureau and municipal governments have more expertise in the collection of various taxes and National Health Insurance contributions. In fact, in many countries, the collection of public pension contributions is delegated to the tax bureau. The tax bureau usually has more information on companies' profits and transactions. Companies have less room to evade pension contributions. From the corporate perspective, it is cost-effective (i.e., compliance costs are lower) when they pay taxes and pension contributions at the same time. For these reasons, we strongly believe that it would be better to move the collection of pension contributions to the tax bureau or the municipal governments.

## 4. Reforms of the basic pension system

### 4.1 Financing the basic pension system

Let us now turn to the method of pension financing. We would like to examine whether the Basic Pension (1st tier) should be financed fully by (a consumption) tax or essentially by participants' contributions and tax subsidies.

At present, one-third of the Basic Pension system is financed by taxes. This ratio will change to one-half in fiscal year 2009. Nevertheless, it is administratively important to distinguish between full tax financing and pension contribution financing with tax subsidy.

As background information, the support ratio (the ratio of the working-age population to the retired population) was 9.1 in 1965, 3.3 in 2002, and will drop substantially to 1.4 in 2050. The pension replacement rate – that is, the average monthly pension benefit payment relative to average wages – was 59.3% in 2004 and will gradually drop to 50% in 2038. If the current pay-as-you-go system is to be maintained, then the replacement rate will have to be reduced to as low as 40% in 2050. According to new generational accounting by Yoshida (2006), intergenerational inequality between the current and future generations will worsen from 182.8% obtained with the fiscal rule and position as of 1995 to 591.7% as of 2000. Similarly Horioka *et al.* (2007) have shown that net lifetime pension benefits remain positive only for cohorts born before 1970, suggesting that from the viewpoint of intergenerational equity, it would be fair to currently tax older people more.

The Nikkei media group, the Japan Business Federation, the Japan Association of Corporate Executives, and the Democratic Party have all argued that the Basic Pension should be fully financed by taxes because this would be fairer, more universal, administratively cheaper, and simpler.<sup>8</sup> Let us briefly review the major proposals. First, the Nikkei media group proposes that: an ear-marked consumption tax of about 5% to replace the current 1st tier pension contribution financing, and a 1st tier basic benefit of 66 000 yen per month. Second, the Yomiuri News Paper group proposes that: the 1st tier basic pension system be maintained as an insurance system with a minimum guaranteed benefit of 50 000 yen per month; an ear-marked consumption tax be introduced and set at a rate of 10% to finance all social security-related expenditures; and pension eligibility can be obtained with a minimum of 10 years of contributions. Third, the Democratic Party proposes that: the 1st tier basic pension system be fully tax financed; the 2nd tier KNH pension system be earnings-related; and the replacement rate be 55%.

Some people are against full tax financing because the linkage between contributions and benefits becomes unclear. If full tax financing is introduced, past contributions might be ignored. That would be unfair for honest participants in the past. It also requires additional burdens for current pensioners because the tax liability would fall on them as well. The problems of the transition from the insurance system to the full tax financed system deserves further discussions.

### 4.2 The case for full tax financing

The above-mentioned proposals raise a number of interesting points. Let us provide a rough estimate of the change in the burden each generation would face in the case of a

switch to full tax financing. We make the following assumptions: (i) Full tax financing starts in 2007. (ii) The benefit level of the Basic Pension remains at the same level as before; that is, around 66 000 yen per month for those who made full contributions for 40 years and are aged 65 or over. (iii) Contributions to the Basic Pension are replaced by a pension-ear-marked increase in the consumption tax. This portion of the consumption tax rate is 4.2837% as of 2007. (iv) Contributions to the National Pension of 14 100 yen per month for Category 1 persons are abolished. (v) The pension contribution rate for the KNH was 14.996% in 2007. Employees' contribution is reduced by 5 percentage points, and is financed by the newly created ear-marked consumption tax. Companies' contribution rate remains the same as before (i.e., about 7.5%).<sup>9</sup>

Household consumption data are obtained from the 2004 National Survey of Family Income and Expenditure (NSFIE; Statistics Bureau, 2004), and are converted into 2007 values after the usual statistical adjustments and assumptions.<sup>10</sup>

#### 4.2.1 *Changes in pension burdens*

A shift to tax financing of the Basic Pension reduces the pension contributions of insurees in all occupations and income groups. Among salaried workers, this shift benefits the higher-income groups.<sup>11</sup> In contrast, among the self-employed, this shift benefits lower-income groups. This is due to differences in the contribution schemes, that is, Category 1 individuals are required to pay a flat rate regardless of their income level, while the KNH contributions are proportional to employees' income. Our findings are in contrast to those of the National Council on Social Security, Japan (2008), whose estimates suggest that the net pension burden for employers decreases, while that for employees increases. This difference results from the fact that the Council assumes equal reductions in the pension contributions of employees and their employers, while we assume that employers' contributions remain unchanged. Pensioners (couples or single persons) face an increase in their pension burden. Figure 3 illustrates these findings.

#### 4.2.2 *Lifetime effect*

What is the lifetime effect of a shift to tax financing of the Basic Pension? We assume that this shift occurs once in 2007 and this financing remains afterwards.

A typical life is assumed to be as follows: (i) A man starts working at age 20 and keeps working until age 65. (ii) He gets married at age 30 to a woman aged 26. (iii) They remain married until the husband's death at age 80. (iv) They receive the public pension after retirement. (v) After the husband's death, the wife receives the public pension until her death at age 85.

The estimated lifetime effects are reported in Tables 2 and 3. Table 2 assumes no wage-profile shift and a zero discount rate in nominal terms, while Table 3 assumes a 2.1% wage increase per annum and a 3.2% discount rate, which are the same values as those assumed in the 2004 Pension Reform. Let us look at Table 2 first as the benchmark case.

According to the current existing plan, pension contributions will be raised by 0.354% each year from 2007 until 2017. As a result, the contribution rate will reach 18.3% in 2017 and will be fixed after that. The changes in the net burden differ substantially across

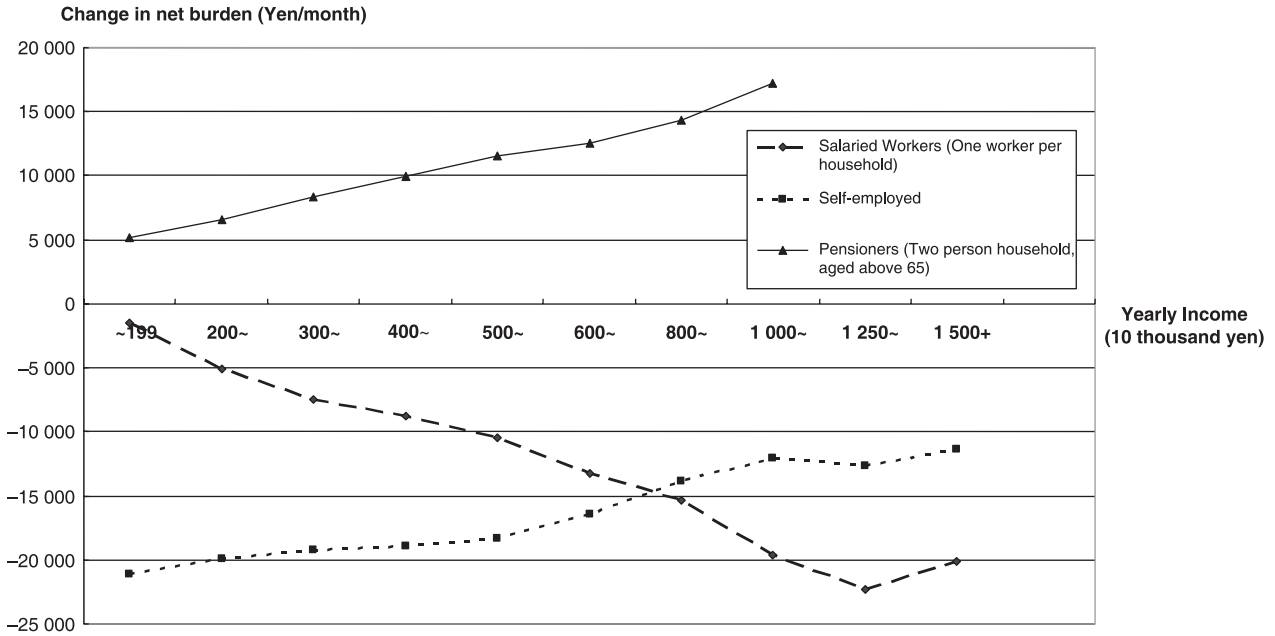


Figure 3 Changes in pension burdens in 2007 through a shift to tax finance, by occupation.

**Table 2** Lifetime effect of a shift to tax finance by cohort (Version 1)

Birth year (husbands' age)	Change in the net burden under the current plan (A, yen)	Change in net burden under shift to tax finance (B, yen)	Lifetime change in net burden (A + B, yen)
1987 (20)	8 765 192	-4 069 883	4 695 309
1982 (25)	8 049 404	-3 604 567	4 444 836
1977 (30)	7 159 659	-3 139 252	4 020 407
1972 (35)	6 098 384	-2 476 909	3 621 475
1967 (40)	4 924 180	-1 680 892	3 243 288
1962 (45)	3 652 438	-816 209	2 836 228
1957 (50)	2 320 590	53 648	2 374 238
1952 (55)	1 076 220	942 111	2 018 331
1947 (60)	256 545	1 896 573	2 153 117
1942 (65)	0	2 320 332	2 320 332
1937 (70)	0	1 713 457	1 713 457
1932 (75)	0	1 152 374	1 152 374
1927 (80)	0	629 472	629 472
1922 (85)	0	314 736	314 736

Source: Values were calculated from the data derived from the 2004 National Survey of Family Income and Expenditure, Statistics Bureau (2004).

Notes: The wage remains the same, and the discount rate is zero. Age is as of 2007.

different cohorts. For cohorts aged above 65 in 2007, the net burden does not increase as they are already retired. For the cohort of those aged 20 in 2007 (born in 1987), the net burden increases by 8.77 million yen. For the cohort of those aged 35 (born in 1972), the increase in the net burden is 6.1 million yen, while for the cohort of those aged 50 (born in 1957), it is 2.32 million yen.

Next, let us consider the case with a shift to tax financing. This shift also alters the net burden substantially across different cohorts. For the cohort of those aged 65 in 2007 (born in 1942), the increase in the net burden is the highest at 2.32 million yen. For the retired cohorts, the older cohorts face smaller net increases. For the cohort of those aged 75 in 2007 (born in 1932), it is 1.15 million yen. As for cohorts that are currently working, the net burden increases for those over 50 years of age, while it decreases for those below 50 years of age.

Combining the two calculations, the net burden increases for all cohorts. This result implies that the pension burdens are distributed over the population, but that the net burdens become smoothed over the different cohorts compared with the existing plan of pension contribution increases. For the cohort of those aged 20 (born in 1987), the net burden decreases from 8.77 million yen to 4.70 million yen. For the cohort of those aged 50 (born in 1957), the net burden increases slightly from 2.32 million yen to 2.37 million yen. For the cohort of those aged 60 (born in 1947), the net burden is 2.15 million yen. This

**Table 3** Life time effect of a shift to tax finance by cohort (Version 2)

Birth year (husbands' age)	Change in the net burden under the current plan (A, yen)	Change in net burden under shift to tax finance (B, yen)	Life time change in net burden (A + B, yen)
1987 (20)	6 704 057	-3 723 103	2 980 954
1982 (25)	6 372 758	-3 447 457	2 925 301
1977 (30)	5 913 107	-3 156 639	2 756 467
1972 (35)	5 200 972	-2 646 327	2 554 645
1967 (40)	4 338 166	-1 969 868	2 368 298
1962 (45)	3 328 282	-1 185 259	2 143 024
1957 (50)	2 199 337	-352 119	1 847 218
1952 (55)	1 014 140	546 095	1 560 235
1947 (60)	249 340	1 561 911	1 811 251
1942 (65)	0	2 085 536	2 085 536
1937 (70)	0	1 573 554	1 573 554
1932 (75)	0	1 080 685	1 080 685
1927 (80)	0	600 122	600 122
1922 (85)	0	308 098	308 098

Source: Values were calculated from the data derived from the 2004 National Survey of Family Income and Expenditure, Statistics Bureau (2004).

Notes: It is assumed that nominal wages increase by 2.1% per annum and that the nominal discount rate is 3.2%. Age refers to the age in 2007.

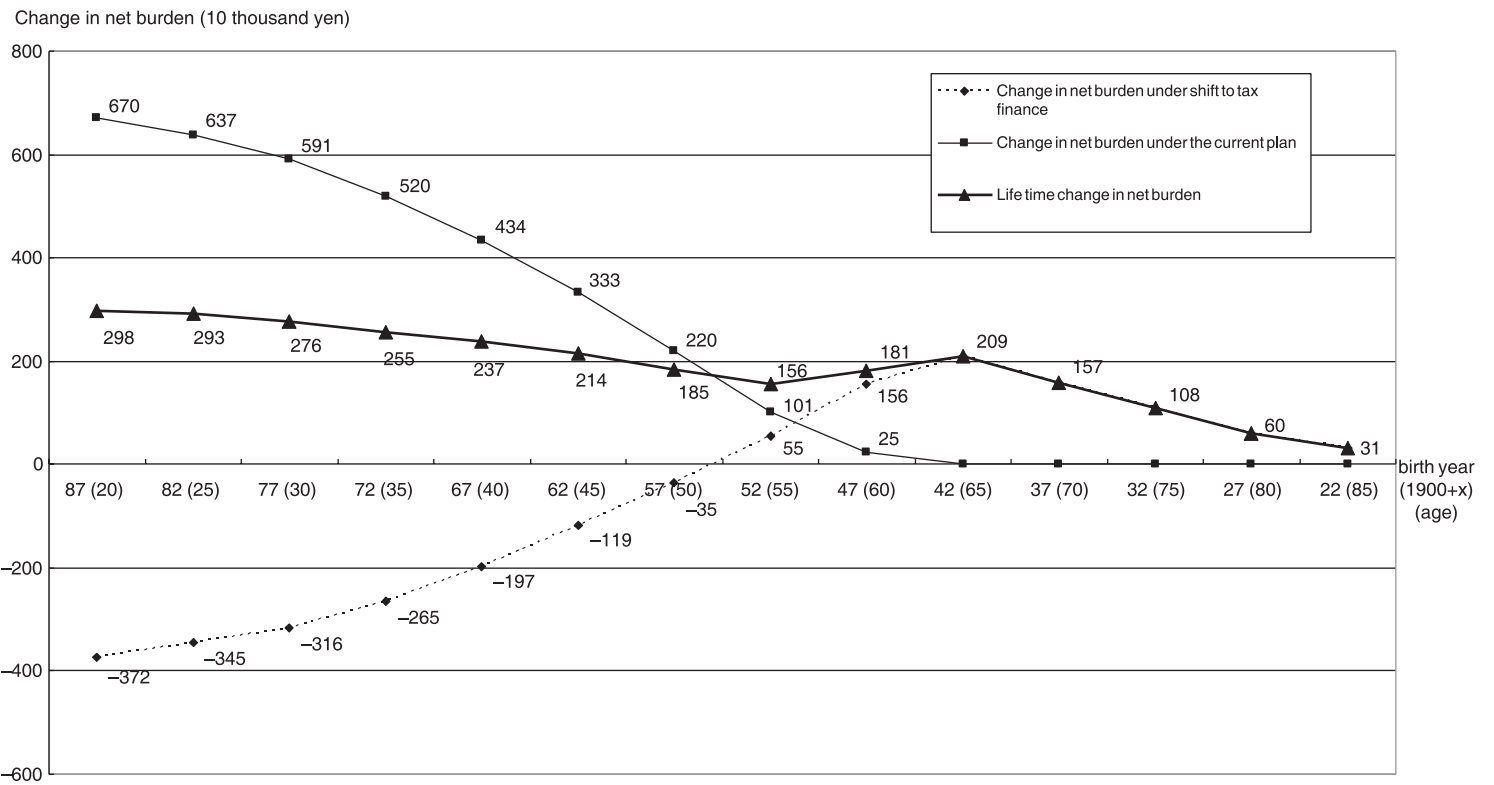
figure is not much different from those in their 50s. For the retired cohorts aged above 65 (born before 1942), the pension burden increases somewhat due to the new tax financing.

Table 3 and Figure 4 show that the basic pattern remains the same, but the net burdens are distributed even flatter.<sup>12</sup>

#### 4.3 One-half of the basic pension system to be tax financed

The idea of tax financing for the Basic Pension System has attracted a lot of attention. The above calculation is just one of many alternatives. But given that, the medium- and long-term prospect for the consumption tax rate is that it will have to be increased to 15%, an increase of 10 percentage points over the current rate. The Basic Pension would at most account for 2 percentage points out of the 10 percentage points, given that other welfare programs such as health care, nursing care, childcare, and various municipal expenditures will likely also be funded from consumption tax.

An increase in the share of tax financing to one-half of benefit payments in the Basic Pension by financial year 2009 has already been officially approved. However, the tax source itself has not yet been officially identified because politicians are very reluctant to ask for tax increases before a general election.



**Figure 4** Lifetime effect of a shift to tax finance by cohort.  
 Source: Authors' calculation.

In order to justify this shift of tax financing, the government needs to provide a rationale for tax financing. We could interpret the Basic Pension as now being divided into two parts: a tax-financed part and a social insurance part. The former can be considered as a universal pension and the latter as a contribution-based pension.<sup>13</sup>

## 5. Conclusion

A reasonable public pension system would guarantee incentive compatibility, administrative flexibility, and long-run sustainability. However, with rapid demographic change, the Japanese public pension system has deteriorated substantially.

This paper had two objectives. First, it sought to identify the current problems in pension administration. It was shown that the administrative problems stem from a weak governance structure. In particular, the current governance structure ignores the role of pension participants. A rigorous division of responsibilities and their assignment among the pension stakeholders (i.e., the pension participants, the Social Insurance Agency, and the Ministry of Health, Labor and Welfare) are urgently needed. Second, given the rapid demographic change, we considered the case for full tax financing of the Basic Pension. The net burden would vary across the different cohorts. We demonstrate that the net burden can be smoothed across cohorts. Further debate concerning the method of financing the Basic Pension and burden sharing among stakeholders is also needed.<sup>14</sup>

## Notes

- 1 Until 1986, it was optional for students to participate in the National Pension System. However, in 1991, participation became compulsory for all citizens, without exception.
- 2 Not all Category 1 insurees are company employees, in which case it is impossible to withhold their income at source. Such insurees have to contribute to the public pension on a voluntary basis.
- 3 There are many reasons for why persons earn less than they expect, such as becoming unemployed or sick, or having to support other family members.
- 4 Takayama and Miyake (2008) report that pension record problems are prevalent in almost all major countries, including the USA, the UK, and Australia.
- 5 This number is about three times the eligible population (i.e., 100 million).
- 6 In the summer of 2007, in the process of an inspection of the Social Insurance Agency, almost 100 cases of pension fraud at municipal governments and at the Social Insurance Agency amounting to more than 343 million yen in total over a 44-year period were discovered. The amounts involved ranged from 70 000 yen to 44 million yen. However, compared with the annual revenue of the public pension system as a whole (42.4 trillion yen in 2003), these figures were negligible.
- 7 Takayama and Miyake (2008) argue that this smart card can be used as a drivers' license, passport, and financial transaction and tax payment identification number. For security reasons, this Smart card itself should not carry all the information, but it can be used to access the individual databases the government maintains.
- 8 A tax-financed 1st tier public pension system has been introduced in New Zealand, Australia, Canada, Denmark, and other countries.

- 9 This assumption differs from the one in the Interim Report by the National Council on Social Security, Japan (2008).
- 10 For details, see Takayama and Miyake (2008).
- 11 This result may seem counterintuitive because higher-income groups would consume more and the consumption of nonworking spouses of insureds in these groups would add a further burden. The result here is derived from the 2004 NSFIE, and, thus, is sensitive to data-specific parameters.
- 12 The shift to consumption tax finance penalizes households with a nonworking spouse, who tend to belong to higher-income groups.
- 13 Everyone in Japan has been paying consumption tax since April 1989. One could argue that those aged above 65 and who receive no pension would be entitled to receive half of the full amount (i.e., 33 000 yen) of the Basic Pension. As of January 2007, the number of those aged above 65 who were not entitled to the Basic Pensions were 420 000 and this number is expected to reach 1.18 million in the future.
- 14 Raising the normal pensionable age from the current 65 years to 68 or even 70 years as well as a better investment portfolio of the Government Pension Investment Fund would mitigate the financial difficulties of the public pension systems in the future.

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