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IN THE TWENTY-FIRST CENTURY**

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Abstract

In this paper, I first briefly discuss the current structure of Japan's public pension system, the history of that system, the *raison d'être* of a public pension system, some of the defects in the current system, the origins of those defects, possible ways of alleviating those defects, future prospects for Japan's public pension system in the face of rapid population aging, and proposals for reforming Japan's public pension system. I argue that Japan's current public pension system has an adverse impact on the inter- and intragenerational allocation of resources, on the labor supply of the aged and of women, and on national saving and that it implicitly condones the widespread evasion of pension contributions to the National Pension System but that these distortions can be corrected by reforming the system in the appropriate ways. In particular, I recommend switching immediately to a system that is actuarially fair to all cohorts and to all groups within each cohort, that does not contain perverse incentives for labor supply and saving decisions, that eliminates the widespread evasion of pension contributions, and that ensures retirees an uninterrupted flow of income.

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I. Introduction

Japan's public pension system is essentially a pay-as-you-go system that is fraught with problems. For example, it has an adverse impact on the inter- and intragenerational allocation of resources, on the labor supply of the aged and of women, and on national saving, and it implicitly condones the widespread evasion of pension contributions. Moreover, many of these problems can be expected to become even more serious as the aging of the population proceeds at an accelerating pace. The United States, Germany, and many other developed countries not only have pay-as-you-go public pension systems that are very similar to Japan's but also face very similar demographic trends. Thus, the Japanese experience with, and the Japanese debate about, pension reform are of great potential value to policymakers in these countries, especially since the problems with Japan's public pension system are in many ways more serious and the aging of the population is proceeding much faster than in these countries.

In this paper, I briefly discuss the current structure of Japan's public pension system (section II), the history of that system (section III), the *raison d'être* of a public pension system (section IV), some of the defects with the current system (section V), the origins of those defects (section VI), possible ways of alleviating those defects (section VII), future prospects for Japan's public pension system in the face of rapid population aging (section VIII), and two proposals for reforming Japan's public pension system (section IX).

II. The Current Structure of Japan's Public Pension System

In this section, I briefly describe the current structure of Japan's public pension system (see Kōsei Tōkei Kyōkai (1996) and Takayama (1996) for more details).¹ Japan's public pension system is currently a two-tiered system consisting of a universal pension--the National Pension (Kokumin Nenkin) or basic pension (*kiso nenkin*)--and five second-tier pension programs for salaried workers--the Employees' Pension (Kōsei Nenkin) and four types of Mutual Aid Pensions

(Kyōsai Nenkin). Those other than salaried workers (the self-employed, farmers, those not working, and students) belong only to the National Pension System. They pay a flat-rate monthly contribution (13,300 yen² during the April 1, 1998-March 31, 1999 fiscal year and later) between the ages of 20 and 59 and begin receiving a flat-rate monthly pension, the basic pension (about 67,000 yen during the April 1, 1998-March 31, 1999 fiscal year and later for those contributing for the maximum period), starting at age 65.^{3 4} Note, however, that the spouses of salaried workers are exempt from paying monthly contributions if their annual income is below a certain level (currently 1,300,000 yen), as are certain other groups such as the handicapped and the low-income.

Salaried workers belong to both the National Pension System and to one of the five second-tier pension systems: most private-sector workers belong to the Employees' Pension System, while national government employees, local government employees, employees of private schools, and employees of agricultural, forestry and fishery organizations belong to one of the four Mutual Aid Pension Systems. Those belonging to these systems pay pension contributions equal to a certain percentage (17.35% since October 1996 in the case of the Employees' Pension) of their monthly salary until age 59 (with the burden being shared equally by employer and employee) and receive a two-tiered benefit--the basic pension plus an earnings-related component (30% of average monthly real earnings for those contributing for the maximum period in the case of the Employees' Pension)--starting at age 60 (five years earlier than in the case of those other than salaried workers).⁵ According to Takayama (1996), the total benefits of a typical salaried worker with a non-working spouse amount to about 68% (80%) of the average pre-tax (after-tax) monthly earnings of males who are currently working in the case of the Employees' Pension. Note, however, that salaried workers in Japan receive large lumpsum bonuses twice a year (three times a year in the case of government workers), that these bonuses amount to four to five times one's monthly salary in the case of employees of large corporations, and that public pension benefits replace only about 51%

(60%) of pre-tax (after-tax) annual earnings *inclusive of bonuses* in the case of the Employees' Pension.

Japan's public pension system is essentially a pay-as-you-go system, with the benefits of current retirees being financed primarily by the contributions of current workers. Note, however, that one-third of basic pension benefits are financed by subsidies from the general accounts of the central government. The government also pays administrative expenses but does not provide any subsidies for the earnings-related component of benefits. Finally, with respect to the tax treatment of public pensions, employer and employee contributions are fully tax-deductible, and although benefits are, in principle, taxable, there is a generous public pension benefit deduction, as a result of which benefits are largely untaxed.

III. The History of Japan's Public Pension System

In this section, I briefly discuss the history of Japan's public pension system (for more details, see Niwata (1983) and Kōsei Tōkei Kyōkai (1996)). Japan's public pension system has a long history, but universal coverage was not achieved until 1961 and benefits were relatively modest until 1973. Noncontributory pension (onkyū) systems for retired army and navy servicemen and government officials were established in 1875 and 1884, respectively, and laws institutionalizing these pension systems were enacted in 1890. Moreover, noncontributory pension systems for schoolteachers and policemen were established during the middle to late Meiji period (1868-1912), and a contributory pension system for blue-collar government workers not covered by existing noncontributory pension systems was established in 1920. However, a comprehensive Mutual Aid Pension (Kyōsai Nenkin) System for national government employees was not established until 1949, and similar Mutual Aid Pension Systems for employees of private schools, employees of public enterprises, employees of agricultural, forestry, and fishery organizations, and local government employees were not established until 1953, 1956, 1958, and 1962, respectively.⁶

The first public pension system for private sector workers (a pension system for seamen) was not established until 1939, and a comprehensive pension system for private-sector workers--the Employees' Pension (Rōdōsha Nenkin) System--was not established until 1941. Moreover, Japan's existing public pension system for private-sector workers broke down due to the chaos and hyperinflation of the early postwar period and had to be overhauled, a process that was not completed until the establishment of the new Employees' Pension (Kōsei Nenkin) System in 1954, and workers at companies with fewer than five employees, the self-employed, and farmers were not covered until 1961, when the National Pension (Kokumin Nenkin) System was established.

Thus, universal coverage was finally achieved in 1961, and continuity of coverage for those switching from one public pension system to another was achieved at the same time, but benefits remained relatively modest despite upward adjustments in 1965-66, 1969, and 1971-72. It was not until 1973 that benefit levels were increased enough to make the replacement rate comparable to what it is in the major developed countries (roughly 60 percent), and it was not until the same year that automatic cost of living adjustments were introduced for the first time. Since then, benefits have been adjusted not only for consumer price inflation but also for increases in real wages.

Additional improvements in the benefit levels and other provisions of public pensions were made during the remainder of the 1970s and in the early 1980s, but by 1980, it had become clear that the imbalance between benefits and contributions and the rapid aging of the population would necessitate a fundamental reform of the system, and a number of important changes were made as part of the major pension reform package that passed the Diet in 1985 and took effect in April 1986. For example, this reform package provides for a gradual reduction in benefit levels over a 20-year period, an increase in the contribution rate, and a partial unification of the various public pension systems into the current two-tiered system.

However, even this reform was insufficient, and in 1989 and 1994, additional reforms were

implemented. Space limitations preclude me from discussing the provisions of these reforms in detail, but two important features of the 1994 reforms should be noted. First, it was decided that the age at which salaried workers can begin receiving the basic pension would be gradually raised from the current 60 to 65 over the 2001-2013 period (note, however, that they will be able to continue receiving the earnings-related component of benefits starting at age 60). Second, whereas the earnings-related component of the benefits of former salaried workers were formerly adjusted by the rate of increase in the pre-tax wages of current workers, it was decided that, starting in October 1994, the criterion would be the rate of increase in *after-tax* wages. Since the combined rate of income taxes and pension contributions is projected to increase steadily over time, the new adjustment method implies a slower rate of growth of benefits than under the old method.

IV. The Raison d'Etire of a Public Pension System

My goal in the remainder of this paper is to evaluate, and identify defects in, Japan's public pension system and to propose ways of reforming that system, but before doing so, it is necessary to be clear about the *raison d'etre* of a public pension system. The public pension system has been used for at least three policy objectives: (1) old age security, (2) income redistribution, and (3) macroeconomic stabilization. I consider each of these in turn.

(1) Old age security. One oft-stated goal of a pension system (be it public or private) is to provide old age security, by which I mean the guarantee of an adequate income during retirement, regardless of how long one lives, or to put it differently, to eliminate longevity risk (the risk of an uncertain lifetime). In my opinion, this should be the one and only goal of a public pension system. It is difficult, if not impossible, to simultaneously achieve two or more policy goals using the same policy instrument, and thus, each policy instrument should be assigned to the one policy target to which it is best suited. And the policy target to which the public pension system is best suited is old age security.

(2) Income redistribution. There are some who argue that the public pension system should also be used to redistribute resources from the rich to the poor (from rich cohorts to poor cohorts and/or from rich individuals to poor individuals within the same cohort), but I am against doing so for at least two reasons: first, the public pension system is best suited to achieving the target of old age security and should be assigned exclusively to that target. A progressive income tax, a negative income tax, and/or transfer programs such as welfare are, in my opinion, the policy instruments best suited to achieving redistributive goals and should therefore be assigned to that target.

Second, as discussed in more detail later, Japan's current public pension system redistributes resources from younger cohorts to older cohorts on a massive scale, and one rationale that is given for this is that younger cohorts have much higher lifetime incomes, on average, than older cohorts. However, not everyone in younger cohort groups is wealthy, and not everyone in older cohort groups is poor. Thus, intercohort income redistributions will entail substantial redistributions in the wrong direction (from poor individuals to wealthy individuals). To prevent such perverse results, income redistribution should be done at the individual level rather than at the cohort level and should be achieved via the tax and transfer systems rather than via the public pension system.

(3) Macroeconomic stability. The Japanese government decided to temporarily suspend scheduled increases in the pension contribution rate as part of the 1999 pension reforms because the Japanese economy was in the midst of the worst recession of the postwar period, but I am against using the public pension system as an instrument of stabilization policy because fiscal and monetary policies are far better suited to that purpose and because doing so will compromise the government's ability to meet the primary purpose of the public pension system (Hatta and Oguchi, 1999, pp. 26-28). Indeed, Hatta and Oguchi (1999, p. 163) show that suspending the scheduled increases in the pension contribution rate will further exacerbate the already substantial

intergenerational inequity of the public pension system.

Thus, I believe that the goal of the public pension system should be to provide old age security to everyone and that redistributive and stabilization goals should be left to other policy instruments. This implies that the public pension system must provide lifetime annuities that are actuarially fair (i.e., for which expected lifetime benefits precisely equal expected lifetime contributions) to all cohorts and to all individuals within each cohort and that it must not cause any systematic redistributions of income among and/or within cohorts. Moreover, it is also desirable that the public pension system be neutral and that it not distort people's behavior (saving behavior, labor supply behavior, etc.).

I turn next to the question of whether the provision of old age security can be left to the market (the private sector) or whether government intervention is warranted. What would happen if the government abolished the public pension system and got out of the business of providing old age security? Individuals who wanted to have old age security would purchase lifetime annuities from private insurance companies and individuals who did not want old age security would do nothing. This might seem fine, at first glance, but at least two problems would arise (see Hatta and Oguchi, 1999, pp. 10-17).

The first problem is that of "moral hazard." Assuming there is a safety net such as welfare, many (low-income) individuals would choose not to purchase any lifetime annuities and would rely instead on welfare to finance their living expenses after retirement. They would reason as follows: "Why should I purchase a lifetime annuity and pay monthly premiums throughout my working years when I can pay nothing and get almost as much during my retirement years in the form of welfare benefits?" In effect, taxpayers would have to pay for the old age security of such individuals, and individuals who purchased lifetime annuities would have to bear a double burden: they would have to pay not only for their own old age security but also for that of those who collect welfare during their retirement years. This is clearly not equitable.

The second problem is that of "adverse selection" caused by the asymmetry of information. Insurance companies would ideally like to charge healthy individuals with longer life expectancies higher premiums for lifetime annuities because they can expect to have to pay such individuals benefits for a longer period of time, but if insurance companies have less than full information about the health status of insurees, they cannot base premiums on health status and would have to charge all insurees the same premium. But if they did so, healthy individuals with longer life expectancies would be more likely to enroll because they could expect to get back more in the form of benefits than they would have to pay in premiums. By contrast, frail individuals with shorter life expectancies would be less likely to enroll because they would have to pay more in premiums than they could expect to get back in the form of benefits. And if such adverse selection occurred, premiums would have to be jacked up above what they would be if participation were made compulsory, and frail individuals would effectively be shut out of the market.

The best way to eliminate these two problems simultaneously is to make participation in the pension program compulsory, and making the system government-run is one way of doing so. Note, however, that it is not the only way--the government need only issue a decree making participation in the pension system compulsory; there is no need for the pension system itself to be government-run.

To summarize, the sole objective of a public pension system should be to provide old age security to everyone by providing them with actuarially fair lifetime annuities. The public pension system should not cause systematic redistributions of income among and/or within cohorts, should not be used for stabilization purposes, and should not distort people's behavior (e.g., saving behavior, labor supply behavior, etc.).

V. Defects in Japan's Current Public Pension System

In this section, I compare Japan's current public pension system to the ideal system

described in the previous section and identify some defects therein. I look first at the Employees' Pension System and then at the National Pension System.⁷

A. The Employees' Pension System

The Employees' Pension System suffers from the following four defects: (1) the adverse impact on intergenerational equity, (2) the adverse impact on intragenerational equity, (3) the adverse impact on the labor supply of the aged and of women and (4) the adverse impact on national saving.

(1) The adverse impact on intergenerational equity. As Hatta and Oguchi (1997, 1999) have shown using a generational accounting framework in the spirit of Kotlikoff (1992), lifetime benefits greatly exceed lifetime contributions in the case of cohorts who were born before 1962, with the gap increasing with age, while lifetime benefits fall far short of lifetime contributions in the case of cohorts who were born after 1962, with the gap being larger the younger the cohort (Takayama et al. (1990a), Asō (1995), and Tajika, Kaneko, and Hayashi (1996) do similar calculations and obtain similar findings). Thus, the Employees' Pension System is redistributing resources from younger cohorts to older cohorts on a massive scale.

There are at least two reasons for this. First, benefits were made much too generous relative to contributions at the time of the 1973 pension reform, especially for those close to retirement in 1973, as a result of which the lifetime benefits of older cohorts far exceed their lifetime contributions. For one thing, even those who were too old in 1973 to contribute for the required number of years were made eligible to receive fairly generous benefits as a transitional measure. Moreover, the overly generous benefits of older cohorts have necessitated cuts in the benefits of younger cohorts as well as increases in their contribution rates, causing their lifetime benefits to fall far short of their lifetime contributions. Second, Japan's population is aging at the fastest rate in human history and will become the most aged population in the world by the year

2010 (see section VIII below for more details). Given the pay-as-you-go structure of the Employees' Pension System, in which the benefits of current retirees are financed primarily by the contributions of current workers, population aging (increases in the retiree-to-worker ratio) has necessitated further increases in the contribution rates of younger cohorts, and this, in turn, has caused the lifetime benefits of younger cohorts to fall even farther short of their lifetime contributions. Incidentally, the aging of the population in Japan is partly a permanent phenomenon caused by increases in life expectancy and declines in the birth rate and partly a temporary phenomenon caused by the aging of the postwar baby boom generation born in 1947-49. One reason why the lifetime benefits of younger cohorts will fall far short of their lifetime contributions is that, given the pay-as-you-go structure of the Employees' Pension System, they will have to pay large contributions to finance the benefits of the unusually large baby boom cohort.

(2) The adverse impact on intragenerational equity. The current Employees' Pension System has an adverse impact on intragenerational equity in at least three ways. First, as Takayama et al. (1990a) and Asō (1992) have shown, in any given cohort, the net transfer from the government arising from the Employees' Pension System is larger, the higher is the individual's income (at least for cohorts born before 1945). Thus, the Employees' Pension System has been a regressive one until recently, redistributing income from the low-income to the high-income.

Second, exempting the spouses of salaried workers who are not working or whose incomes are below a certain level from paying pension contributions and paying them supplementary spousal benefits between the time the primary beneficiary turns 60 and the time they themselves turn 65, the basic pension after they turn 65, and survivors' benefits (equal to three-fourths of the primary beneficiary's earnings-related benefits) after the primary beneficiary's death without requiring any corresponding contributions causes a redistribution of resources from single salaried workers and couples consisting of a salaried worker and a working spouse to couples consisting of

a salaried worker and a dependent spouse (see Takayama et al. (1990a), Asō (1992), Hatta and Kimura (1993), Tajika, Kaneko, and Hayashi (1996), Hatta (1997), and Hatta and Oguchi (1999)).

Third, pension contributions were, until recently, levied only on one's monthly salary, even though a considerable portion (as much as one-quarter or more) of worker compensation is paid in the form of semiannual or triannual lumpsum bonuses and even though there are enormous variations across firms and industries and over time in the relative magnitude of bonuses. Exempting bonus income from pension contributions has led to a redistribution of resources from workers for whom bonuses are a relatively small proportion of their total compensation to workers for whom bonuses are a relatively large proportion of their total compensation. Moreover, a similar argument can be made for lumpsum retirement payments, which are also not subject to pension contributions even though the amounts thereof are quite large (as much as three times annual income at retirement or more) and even though there is considerable variation among firms in the amounts thereof.

(3) The adverse impact on the labor supply of the aged and of women. Because the pension benefits of former salaried workers are reduced or eliminated between the ages of 60 and 64 if they continue working and earn more than a certain amount and because recent retirees can "double dip" (i.e., collect pension benefits and unemployment compensation benefits concurrently), the Employees' Pension System discourages salaried workers from continuing to work after the mandatory retirement age of 60. Company employees often have the option of continuing to work for the same company, a subsidiary of the same company, or an unrelated company after mandatory retirement, but they must accept a substantial pay cut, and as a result, they can often earn more by retiring and collecting pension benefits and unemployment compensation benefits than by continuing to work. Tachibanaki and Shimono (1985), Takayama et al. (1990b), Seike (1992, 1993), and others have found that the Employees' Pension System has, in fact, substantially reduced the labor supply of the aged.

Similarly, because the spouses of salaried workers who are not working or whose incomes are below a certain level are exempt from paying pension contributions, the Employees' Pension System also discourages dependent spouses (usually wives) from working (i.e., it encourages them to reduce their working hours so as to keep their incomes below the critical level). Higuchi (1995) finds some evidence of this effect: he finds that 11.5% of wives reduce their working hours for this very reason.

(4) The adverse impact on national saving. As pointed out by Feldstein (1974), the existence of a public pension system will reduce private saving, assuming that the wealth replacement effect is larger than the induced retirement effect, and national saving will also be reduced if the pension system is a pay-as-you-go system, meaning that government saving does not increase to offset the decline in private saving. Empirical work on Japan has tended to find that public pensions have, in fact, reduced private saving and thence national saving (see, for example, Takayama et al. (1990b)).

B. The National Pension System

The National Pension System suffers from the following defects: (1) the adverse impact on intergenerational equity, (2) the adverse impact on national saving, and (3) the widespread evasion of contributions.

(1) The adverse impact on intergenerational equity. Like the Employees' Pension System, the National Pension System has an adverse impact on intergenerational equity, with lifetime benefits exceeding lifetime contributions in the case of cohorts born before 1970 and lifetime benefits falling short of lifetime contributions in the case of cohorts born after 1970 (Hatta and Oguchi, 1999, Chapter 5).

(2) The adverse impact on national saving. Like the Employees' Pension System, the National Pension System is essentially a pay-as-you-go system and hence has an adverse impact

on national saving.

(3) The widespread evasion of contributions to the National Pension System. It is estimated that about one-third of those who belong (or should belong) to the National Pension System do not pay contributions. Sixteen percent are those who are legally exempt from paying contributions (for example, due to their low incomes), but 7.5% are those who refuse to enroll in the National Pension System and 8.2% are those who enroll but refuse to pay their contributions (Hatta and Oguchi, 1999, p. 81). These figures are not surprising because the government has done little about going after those who do not pay and because there is a widespread perception that the public pension system is a losing proposition (that lifetime benefits will fall far short of lifetime contributions). It is not that those who opt out of the National Pension System are not worried about their retirement; in fact, many of them *do* prepare for their retirement but do so by putting their money in banks, the postal savings system, individual pensions, etc., instead of in the National Pension System because they believe that they can get a better return on their investment in the case of the former. Many of those belonging to the pension systems for salaried workers would also undoubtedly choose to opt out of the system if they could, but they cannot because their pension contributions are deducted from their paychecks by their employers. Thus, the widespread evasion of contributions to the National Pension System causes not only a deterioration in the finances of the public pension system but also a further intragenerational equity (between salaried workers and the self-employed).

VI. The Origins of the Defects in Japan's Public Pension System

In this section, I consider why Japan adopted the public pension system it did even though it suffers from the various defects enumerated above?

(1) The adverse impact on intergenerational equity. In my opinion, the most serious defect in both the Employees' Pension System and the National Pension System is their adverse impact

on intergenerational equity, which in turn is due to the pay-as-you-go structure of these systems as well as to the fact that benefits were made too generous (relative to contributions) in 1973.

Looking first at why benefits were improved so dramatically in 1973, Noguchi (1987) and Tajika, Kaneko, and Hayashi (1996) identify the following two reasons: First, there was a growing consensus that, now that Japan had recovered from the devastation of the war and more or less caught up with the other developed countries, she should shift her priorities from maximizing economic growth at all costs to improving the quality of life, one important component of which is better social welfare programs. In response to this shift in priorities, the government made dramatic improvements not only in public pensions but also in health insurance, welfare programs for the poor, etc., in 1973. Second, Japan had enjoyed double digit rates of economic growth since the mid-1950s, the Japanese government's fiscal position in 1973 was very favorable, and there was widespread optimism that these conditions would continue and that Japan could afford better social welfare programs. Few suspected at the time that the first oil crisis of 1973-74 would bring Japan's era of rapid economic growth to an abrupt end and require the government to run massive deficits.

Looking next at why a pay-as-you-go structure was adopted, one likely reason is that virtually all other countries had adopted a similar structure, but Tajika, Kaneko, and Hayashi (1996) identify two additional reasons: first, there was a widespread consensus that resources should be redistributed from younger cohorts who were benefiting from Japan's current economic prosperity to older cohorts who had endured many hardships during the war years and the early postwar years and who had worked hard to make possible that prosperity. Second, it was politically easier to postpone the burden of financing benefits to future generations because future generations do not yet have a vote (Tajika, Kaneko, and Hayashi (1996) argue that the Japanese Ministry of Health and Welfare was well aware of the excessive burden that future generations would have to bear).

(2) The adverse impact on the labor supply of the aged. Another major defect in the current Employees' Pension System is the earnings test on workers aged 60 to 64, but Japan cannot be faulted for this provision either because the public pension systems of most countries contain a similar provision and because this earnings test has been gradually relaxed over time.

(3) The adverse impact on intragenerational equity and on the labor supply of women. A third major defect of Japan's current Employees' Pension System is the favorable treatment of dependent spouses, which not only causes intragenerational inequities but also discourages women from working. Until a provision exempting dependent spouses from paying pension contributions was introduced as part of the 1986 reforms, dependent spouses had the choice of enrolling in the National Pension System or foregoing public pension coverage altogether (except for survivors' benefits), and about 30% of dependent spouses chose the latter option (Hatta and Oguchi, 1999, p. 253). The 1986 reform package contained several unpopular provisions such as cuts in future benefit levels and increases in future contribution rates, and the government decided to include a provision providing for the exemption of dependent spouses from paying pension contributions in order to marshal support for the reform package.

(4) The adverse impact on national saving. Both the Employees' Pension System and the National Pension System have an adverse impact on national saving as a result of their pay-as-you-go structure. See (1) above for a discussion of why a pay-as-you-go structure was adopted.

Thus, the current structure of Japan's public pension system with all its defects arose partly because Japan followed the example of other countries, partly because of political expediency, and partly because of undue optimism about Japan's future growth prospects.

VII. Possible Ways of Alleviating the Defects in Japan's Public Pension System

In the previous section, I identified four defects inherent in the Employees' Pension System and three defects inherent in the National Pension System. In this section, I discuss possible ways

of alleviating or eliminating these defects.

A. The Employees' Pension System

(1) The adverse impact of the public pension system on intergenerational equity could be eliminated by switching to an actuarially fair system in which the expected lifetime benefits of each cohort exactly equal its expected lifetime contributions, as recommended by Tajika, Kaneko, and Hayashi (1996), Hatta (1997), and Hatta and Oguchi (1999). This would require raising the contributions and/or lowering the benefits of older cohorts and lowering the contributions and/or raising the benefits of younger cohorts. The government has already taken some steps to contain the increase in the benefits of older cohorts and to increase their contributions (e.g., it decided to gradually reduce benefit levels over a 20-year period as part of the 1985 reforms, it has begun indexing the earnings-related component of the benefits of salaried workers to after-tax wages rather than to pre-tax wages as a way of holding down increases therein, it is gradually increasing the age at which salaried workers can begin receiving the basic pension from 60 to 65, and it has been gradually increasing the contribution rate). However, all of the aforementioned measures are piecemeal measures. Personally, I would favor more comprehensive measures and would also favor performing explicit calculations to ensure that the system is actuarially fair to all cohorts. In my opinion, the best way to achieve intergenerational equity would be to switch over immediately to an actuarially fair system and to service the government's net pension debt (the net transfers to past, current, and future beneficiaries which the government has already paid or to which the government has already committed itself) via a progressive income tax and/or the issuance of long-term government bonds; in either case, the burden of servicing the government's net pension debt should be spread out as evenly as possible over future generations in order to preserve intergenerational equity (see Tajika, Kaneko, and Hayashi (1996), Hatta (1997), and Hatta and Oguchi (1997, 1999) for more details).

(2) The adverse impact of the public pension system on intragenerational equity could be alleviated or eliminated in the following ways. First, the adverse impact on equity among income classes could be alleviated by taxing pension benefits more heavily in the case of the high-income. This could be done by limiting or eliminating the pension benefit deduction in the case of the high-income.⁸

Second, the adverse impact on equity among household types could be eliminated by requiring the dependent spouses of salaried workers to pay their fair share of pension contributions, as proposed by Hatta (1997) and Hatta and Oguchi (1999).⁹

Third, the adverse impact on equity among workers receiving varying amounts of bonuses and lumpsum retirement payments could be eliminated by ending the exemption of bonus income and lumpsum retirement payments from pension contributions, as proposed by Hatta (1997).¹⁰ Beginning in April 1995, salaried workers are required to pay an additional pension contribution equal to one percent of their bonus income (with the burden being shared equally by employer and employee), but this contribution rate is far lower than the contribution rate applied to monthly salary (17.35% since October 1996). Moreover, another problem with this reform is that contributions from bonus income are not taken into account when calculating benefits. The contribution rates on monthly salary, bonuses, and lumpsum retirement payments should be equalized immediately, and they should all be taken into account when calculating benefits.

(3) The adverse impact of the public pension system on the labor supply of the aged and of women could be alleviated or eliminated in the following ways. First, the adverse impact on the labor supply of the aged could be alleviated by relaxing the earnings test on the pensions of former salaried workers and/or prohibiting double dipping (the simultaneous receipt of pension benefits and unemployment compensation benefits). The earnings test on the pensions of former salaried workers aged 60 to 64 has been relaxed several times (most substantially in April 1995), but there is room for further relaxation. As for double dipping, it was abolished in April 1998, and moreover,

a further step has been taken to encourage those aged 60 and older to continue working. Since April 1995, salaried workers who experience a sharp decline in their salary after mandatory retirement are regarded as being quasi-unemployed and are eligible for unemployment compensation benefits that amount to as much as 25% of their new salary. The pension benefits of such workers are reduced by an amount equal to 10% of their new salary, but even so, they are much better off than before, and more importantly, it is now less likely that they can earn more by retiring than by continuing to work.

Second, the adverse impact of the public pension system on the labor supply of women could be eliminated by requiring the dependent spouses of salaried workers to pay their fair share of pension contributions, a measure that would also alleviate the intragenerational inequities of the current system (see (2) above).

If adopted, these measures would not only eliminate distortions caused by the public pension system but would also alleviate the serious labor shortages that are forecast to emerge as the population ages by inducing the aged and women to increase their labor supply.

(4) The adverse impact of the public pension system on saving could be alleviated by converting Japan's public pension system from what is essentially a pay-as-you-go system to a fully funded system so that increases in government saving would fully offset any pension-induced reductions in private saving. It would be difficult to make this transition any time soon given the massive unfunded liabilities of the current pension system, but Hatta (1998) and Hatta and Oguchi (1999) show that there are a number of ways to complete the transition to a fully funded system by the year 2150.

B. The National Pension System

(1) The adverse impact on intergenerational equity (see (1) above)

(2) The adverse impact on national saving (see (4) above)

(3) The widespread evasion of contributions to the National Pension System could be eliminated by funding the basic pension out of general tax revenues or by means of an earmarked tax that would be used exclusively for the purpose of financing the basic pension.

C. Two Additional Recommendations

One additional recommendation I have is to raise the mandatory retirement age from 60 to 65 and to take other steps to enable and/or encourage those aged 60 and older to continue working. It is hard to believe, but Japan has traditionally had a mandatory retirement age of 55 despite having virtually the longest life expectancy in the world (83.82 years for females and 77.19 years for males as of 1997) and despite the fact that the pensionable age for salaried workers is 60. A mandatory retirement age of 60 was introduced in steps after 1986 but was not fully implemented until 1998. First, a law requiring firms to “strive” for a mandatory retirement age of 60 passed the Diet in 1986, but the adoption of a mandatory retirement age of 60 was a very gradual process: of companies imposing a uniform mandatory retirement age, the proportion that had adopted, or planned to adopt, a retirement age of 60 was only 71.4% in 1992 and 90% in 1996 (Maeda (1997)). A law fully implementing a mandatory retirement age of 60 (i.e., prohibiting firms from adopting a mandatory retirement age earlier than 60) finally passed the Diet in 1994 and took effect on April 1, 1998.

Now that it has been decided that the age at which salaried workers can begin receiving the basic pension will soon be raised to 65, it is imperative that the mandatory retirement age be raised further to 65 as soon as possible (at the latest by the time the pensionable age is increased to 65) to ensure that salaried workers have an uninterrupted flow of income. Note, moreover, that raising the mandatory retirement age to 65 and taking other steps to enable and/or encourage those aged 60 and older to continue working would also alleviate the severe labor shortages that are projected to emerge early in the next century and thus that two birds could be killed with one stone.

My last recommendation is that all social insurance programs affecting the elderly should be examined in their totality with a view toward insuring old-age security without wasteful overlap among programs and without excessive intergenerational inequities. In addition to the public pension system, Japan has a medical insurance system for the aged, and a public long-term care insurance system will be introduced in April 2000. Better coordination between these three programs is badly needed.

D. Overall Recommendation

In short, what I recommend (not only for Japan but for all countries) is a public pension system that is actuarially fair to all cohorts and to all groups within each cohort, that does not contain perverse incentives regarding labor supply and saving decisions, that eliminates the evasion of pension contributions, that ensures retirees an uninterrupted flow of income, and that is well-coordinated with other social insurance programs affecting the aged.¹¹ Note, moreover, that some of my recommendations would simultaneously ease future labor shortages, thus enabling two birds to be killed with one stone.

VIII. Future Prospects for Japan's Public Pension System

Japan's population is aging at the fastest rate in human history and will become the most aged population in the world by the year 2010, surpassing even the long-time leader Sweden. According to the projections of the National Institute of Population and Social Security Research of the Japanese Ministry of Health and Welfare, the aged ratio (the ratio of the population aged 65 or older to the total population) will increase from 16.2% in 1998 to 22.0% in 2010 and will rise further to 26.9% in 2020, 28.0% in 2030, 31.0% in 2040, and 32.3% in 2050. In this section, I discuss future prospects for Japan's public pension system in the face of such rapid population aging.

The rapid aging of Japan's population will cause the ratio of retirees to workers in Japan to skyrocket, and given the pay-as-you-go structure of Japan's public pension system, this in turn will necessitate drastic reforms of the system (e.g., sizable benefit reductions and/or sizable increases in contribution rates) if the solvency of the system is to be maintained. For example, according to calculations by the Japanese Ministry of Health and Welfare, the contribution rate for the Employees' Pension would have to be doubled from the present level of 17.35% to 34.3% by the year 2025 in order to maintain current benefit levels. Such a high contribution rate would impose too heavy a burden on salaried workers, especially when one considers that they would also have to pay national, prefectural, and municipal income taxes and separate contributions for health insurance and long-term care insurance. Thus, some sort of reform of the public pension system is badly needed. The next section describes and evaluates two reform proposals.

IX. Two Proposals for Reforming Japan's Public Pension System

A major reform of Japan's public pension system is implemented every five years, after the latest population projections have been released, and 1999 is one of those years. The Japanese Ministry of Health and Welfare finalized its 1999 reform proposal on February 26, 1999, and the ruling Liberal Democratic Party approved it with some modifications on March 5, 1999. Moreover, various individuals and groups have announced their own proposals. Both the Ministry of Health and Welfare/Liberal Democratic Party proposal (hereafter the MHW/LDP proposal) and the other proposals purport to maintain the solvency of the system while at the same time keeping the peak contribution rate more manageable than under the current system. In this section, I describe the MHW/LDP proposal (which will almost definitely have been approved by the Diet by the time this book is published) as well as the most promising alternative--the various proposals of Hatta and Oguchi (1999)--and evaluate each on the basis of the extent to which it solves the defects enumerated in section V.

A. Reform of the Employees' Pension System

(1) The Ministry of Health and Welfare/Liberal Democratic Party Proposal

A major goal of the MHW/LDP proposal is to reduce future benefit expenditures by about 20 percent so that future increases in contribution rates can be held down. The MHW/LDP proposal seeks to reduce benefit expenditures in the following ways:

(1) It proposes a five-percent reduction in the earnings-related component of the benefits of former salaried workers who begin receiving benefits after April 1, 2000 (the benefits of those already receiving benefits as of April 1, 2000, would not be affected).

(2) It proposes a temporary suspension of the wage indexation of benefits effective April 2000 (benefits would be indexed to consumer prices instead of wages, which implies a lower rate of increase as long as there is productivity (real wage) growth). (The suspension would be lifted after benefit levels fall below 80% of the level that would have been attained if wage indexation had been maintained.)

(3) It proposes gradually raising the age at which the earnings-related component of the benefits of former salaried workers are paid from 60 to 65 (by one year every three years between fiscal 2013 and 2025 in the case of males and by one year every three years between fiscal 2018 and 2025 in the case of females). Recall that the age at which the basic pension of former salaried workers is paid will be gradually raised from 60 to 65 between 2001 and 2013, pursuant to the 1994 reforms, and thus this provision implies that the pensionable age of salaried workers will be completely raised from 60 to 65.¹²

(4) It proposes applying the earnings test to those aged 65-69 and collecting pension contributions from all workers aged 65 to 69 beginning in April 2002 (these provisions currently apply only to those aged 60-64).

Four other provisions included in the MHW/LDP proposal are as follows:

(1) It proposes suspending scheduled increases in the contribution rate until the government subsidy to the basic pension is raised from one-third to one-half (see (2) below).

(2) It proposes raising the government subsidy to the basic pension from one-third to one-half as soon as a stable revenue source can be found and by the next pension reform (2004) at the latest.

(3) It proposes taxing bonus income at the same rate as regular wages beginning in April 2003.

(4) It proposes exempting employers from the employer share of pension contributions while employees are on child care leave beginning in April 2000.

In my opinion, the MHW/LDP proposal is totally unsatisfactory because it is a piecemeal reform whose primary aim is to maintain the solvency of the public pension system in the face of rapid population aging. It pays little heed to intergenerational or intragenerational equity, the adverse impact of the public pension system on the labor supply of the aged and of women and on national saving, or to the other issues I enumerated earlier. According to Hatta and Oguchi's (1999) calculations, the MHW/LDP proposal would further exacerbate the already substantial intergenerational equity of the public pension system. With respect to older cohorts, although their benefits will be reduced by the five percent cut in the earnings-related component of benefits and by the temporary suspension of wage indexation, they will escape the reduction in lifetime benefits caused by the increase in the age at which the earnings-related component of benefits is paid because it will not be implemented until 2013 and only gradually after that and their contributions will also be reduced as a result of the temporary suspension of scheduled increases in the contribution rate, meaning that their lifetime benefits will exceed their lifetime contributions by even more than under the current system. With respect to younger cohorts, although increases in their contribution rates would be held down, their benefits would also be reduced as a result of the five percent cut in the earnings-related component of benefits, the temporary suspension of wage

indexation, and the increase in the age at which the earnings-related component of benefits is paid, meaning that their lifetime benefits would fall short of their lifetime contributions by even more than under the current system.

Moreover, the MHW/LDP proposal *exacerbates* the adverse impact of the public pension system on the labor supply of the aged by extending the earnings test to the 65-69 age group, and it does nothing to alleviate the intragenerational inequities and the adverse impact on the labor supply of women that arise from exempting the spouses of salaried workers who are not working or whose incomes are below a certain level from paying pension contributions or the intragenerational inequities caused by the exemption of lumpsum retirement payments from pension contributions. Furthermore, the adverse impact on national saving would not be alleviated as the system would continue to be operated as a pay-as-you-go system. Finally, since there are no plans to raise the mandatory retirement age from 60 to 65 anytime soon, the MHW/LDP proposal would create a five-year gap between the mandatory retirement age (60) and the pensionable age (65).

About the only good things about the MHW/LDP proposal are that it alleviates intragenerational inequities by taxing bonus income at the same rate as regular wages and that it alleviates intergenerational inequities somewhat by indexing benefits to consumer prices rather than to after-tax wages, at least for the time being, which will hold down the benefits received by older cohorts and reduce the amount by which their lifetime benefits exceed their lifetime contributions.

(2) The Hatta-Oguchi 23% Reform Proposal

The most serious defect of both the current system and the MHW/LDP proposal is their enormous intergenerational inequity. Both systems propose to maintain the solvency of the public

pension system in the face of rapid population aging by *gradually* raising contributions and *gradually* lowering benefits. Examples of the latter are the current provision to *gradually* raise the age at which former salaried workers can begin receiving the basic pension from 60 to 65 and the proposed provision to *gradually* raise the age at which former salaried workers can begin receiving the earnings-related component of benefits from 60 to 65. But *gradually* raising contributions and *gradually* lowering benefits means that older cohorts will be able to escape the higher contributions and lower benefits, and thus will make out like bandits. By contrast, younger cohorts will have to bear the full brunt of both higher contributions and lower benefits and hence will receive a double whammy. The only way to minimize the intergenerational inequities of the public pension system is to raise contributions and lower benefits (e.g., by raising the age at which benefits are paid) *immediately*, and the Hatta and Oguchi's (1999) "23% Proposal" does just that. The main features of this proposal are as follows:

(1) It proposes *immediately* raising the contribution rate from 17.35% to 23.1% and keep it constant thereafter.

(2) It proposes suspending the wage indexation of the earnings-related component of the benefits of former salaried workers until 2030.

(3) It proposes continuing the wage indexation of the basic pension.

(4) It proposes *immediately* raising the age at which the earnings-related component of the benefits of former salaried workers can be received from 60 to 65 but offering salaried workers the option of retiring early (between the ages of 60 and 64) and collecting actuarially reduced benefits.

Provision (1) will lead to an *immediate* increase in contributions and provisions (2) and (4) will lead to an *immediate* reduction in benefits, and thus the 23% proposal goes a long way toward rectifying the intergenerational inequity of the current system while at the same time maintaining its solvency. (The authors do not propose suspending the wage indexation of the basic pension because they feel that its purpose should be to guarantee a minimal standard of living during old

age.)

Moreover, the 23% Proposal would eliminate the adverse impact of the Employees' Pension System on the labor supply of the aged because the benefits of early retirees would be reduced only actuarially, and it would also eliminate the adverse impact of the Employees' Pension System on national saving because it would achieve the transition to a fully funded system by 2150.

B. Reform of the National Pension System

(1) The MHW/LDP Reform Proposal

The MHW/LDP Reform Proposal contains at least two provisions relating to the National Pension System:

(1) It proposes the introduction of a partial exemption option for moderately low-income individuals enrolled in the National Pension System beginning in April 2002. Under this option, moderately low-income individuals (whose incomes are not low enough to qualify them for the full exemption) would have the option of paying half of the full contribution and receiving two-thirds of the full benefit.

(2) It proposes the introduction of an option for deferring the payment of contributions to the National Pension System for the period that one is enrolled as a student for up to ten years beginning in April 2000.

These provisions are designed to reduce the evasion of pension contributions by providing incentives for the moderately low income and for students to pay up, but in my opinion, they are not nearly enough to solve the problem entirely. Moreover, they do nothing about the intergenerational inequity of the current system or about its adverse impact on national saving.

(2) The Hatta-Oguchi Uniform Unification Proposal

The Hatta-Oguchi 23% Reform Proposal that I described earlier looks at the Employees'

Pension System in isolation, but Hatta and Oguchi (1999) also propose a plan (their so-called Funded Unification Proposal (Tōgō Tsumitate An)) to unify the various public pension schemes and to effect the transition of the public pension system as a whole to an actuarially fair fully funded system by 2150. Its main features are as follows:

- (1) It proposes reducing future per capita benefit expenditures by 20%.
- (2) It proposes abolishing contributions to the National Pension System and financing the basic pension via an earmarked 5% consumption tax.
- (3) It proposes reducing the contribution rate of the Employees' Pension System to 5.7%.
- (4) It proposes replacing the one-third government subsidy of the basic pension with a subsidy equivalent to a 13.4% tax on labor income.

Since responsibility for collecting the earmarked consumption tax would fall on the Ministry of Finance, which has more expertise at collecting taxes than the Ministry of Health and Welfare, this proposal would hopefully largely solve the evasion problem. Moreover, the proposal to keep the various tax rates constant over time instead of hiking them gradually would greatly ameliorate the intergenerational equity of the public pension system (see the discussion in section A above), and the use of a consumption tax rather than a lump-sum tax as at present would enhance the progressivity and hence the equity of the overall tax system. Furthermore, this proposal would eliminate the adverse impact on intergenerational equity and on the labor supply of women caused by exempting the dependent spouses of salaried workers from paying pension contributions. Finally, the proposal would also eliminate the adverse impact of the public pension system on national saving because it would achieve the transition to a fully funded system by 2150. The only drawback of the proposal is that breaking the link between benefits and contributions would discourage people from working, but since the current public pension system strongly discourages the dependent spouses of salaried workers from working and since this distortion would be eliminated by the Hatta-Oguchi proposal, it would, on balance, alleviate the disincentive effects on

labor supply.

Thus, in almost every respect, the Hatta-Oguchi proposals are far preferable to the MHW/LDP proposal and should be adopted instead of the MHW/LDP proposal. The likelihood of that happening is small, in large part because the older cohorts who have the most to lose from the Hatta-Oguchi proposals are already of voting age whereas the younger cohorts who have the most to gain from the Hatta-Oguchi proposals are not yet born or are still not of voting age. But time is rapidly running out, so I earnestly hope that the government and the people of Japan will have the wisdom and the courage to adopt a public pension system that not only maintains its solvency in the face of rapid population aging but also meets the requirements of an ideal public pension system.

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Footnotes

¹I focus primarily on old-age pensions even though disability, survivors', and welfare pensions are also available.

²The yen-dollar exchange rate was about 120 yen/dollar as of June 1999.

³Those aged 60 to 69 and Japanese nationals living abroad are also eligible to enroll in the National

Pension System on a voluntary basis.

⁴Those other than salaried workers ordinarily do not receive any earnings-related benefits, but since 1991, they can pay additional contributions and receive additional benefits under the National Pension Fund (Kokumin Nenkin Kikin) System.

⁵Since 1966, large corporations can partially contract out of the earnings-related component of benefits by setting up a private fund called an Employees' Pension Fund (Kōsei Nenkin Kikin), but to do so, they must pay benefits that are at least 30% higher than in the case of the Employees' Pension.

⁶The Mutual Aid Pension Systems for employees of formerly public enterprises (Japan Railways, Japan Tobacco, and Nippon Telephone and Telegraph) were absorbed by the Employees' Pension System in April 1997.

⁷Space limitations preclude me from discussing the Mutual Aid Pension Systems, but they are very similar in structure to the Employees' Pension System.

⁸Takayama (1992) advocates eliminating the favorable tax treatment of pension benefits altogether, and there is considerable merit to his argument.

⁹The inequity between salaried workers with a dependent spouse and salaried workers with a working spouse was alleviated as part of the 1994 reforms. Until then, dependent spouses were eligible to receive a survivors' benefit equal to three-fourths of the primary beneficiary's earnings-related benefit after the primary beneficiary's death, while working spouses had to choose between receiving the same survivors' benefit as dependent spouses and receiving an earnings-related benefit based on their own earnings; they could not receive both. Since April 1995, however, working spouses have an additional choice--namely, to receive half the combined earnings-related benefits of husband and wife. This reduces the inequity between salaried workers with a dependent spouse and salaried workers with a working spouse but does not eliminate it, and moreover, it introduces an additional inequity: not only salaried workers with dependent spouses but also salaried workers with working spouses are now favored vis-à-vis single salaried workers. Thus, my proposed solution appears to be the more equitable one.

¹⁰Takayama (1992) also advocates ending the exemption of bonus income from pension contributions.

¹¹Tajika, Kaneko, and Hayashi (1996) also strongly advocate a public pension system that is actuarially fair to all cohorts and to all groups within each cohort.

¹²Note, however, that the MHW/LDP proposal includes a provision for salaried workers to retire at 60 and collect benefits equal to 70 percent of what they would have received if they had waited until age 65.