*Public Pension Reform in Japan**

Summary

The March 2000 pension reform in Japan focused on the long-term financial sustainability of the country's two-tiered public pension system. The government opted for incremental changes in order to maintain pension sol„vency through 2060. Those changes could reduce future pension funding liability by an estimated one-third. Further, the decision to avoid structural reforms of its pension programs was based on fiscal considerations. Expanding general revenue funding for the first tier from the current share of one-third to cover the entire cost would require increases in the consumption tax that proved to be politically unacceptable. Fully privatizing the second, earnings-related tier would entail transition costs too great to bear at a time of rising budget deficits. In addition, the Japanese public generally supported the sharing of financial burden for public pension programs through a combination of benefit cuts, a raise in the pensionable age, and contribution rate increases. If current cost projections prove to be inaccurate, future pension reviews (scheduled every 5 years) will give the government further opportunity to fine-tune program changes.

Introduction

Japan launched its latest pension reform in March 2000 after a review of its public pension programs, which is scheduled every 5 years. The focus of that review was long-term financial sustainability of its public pension system. The Japanese public pension system is a two-tiered structure, with a privatized component in the second, earnings-related tier. General revenues supple„ment employer and employee contributions.

To maintain financial solvency through 2060, the 2000 pension reform introduced a combination of incremental changes—benefit cuts, a raise in the statutory pension„able age, and various revenue enhancements including scheduled increases of contribution rates—to shore up future pension funding. The government rejected two courses of action: assuming the entire cost of the first-tier (universal) pension, and privatizing the entire earnings-related tier.

The reform was driven by an anticipated rapid aging of the population, with no prospects of immediate recov„ery from the current economic recession and rising unemployment—two conditions that would lead to higher public pension costs with a relative smaller labor force to help pay for it. The government, however, has won continuing support from the public for the policy of cost-saving and revenue-enhancing measures that had begun in the mid-1980s (Liu 1987; Takayama 1995).

This note:

- Discusses Japan's underlying demographic and economic prospects;
- Introduces the prereform, two-tiered public pension programs;
- Summarizes the reform process, issues, and options developed during the 2-year pension review;
- Outlines the key changes stipulated by the 2000 pension reform; and
- Discusses the reform's projected impact on future pension costs.

Aging Population and Shrinking Economy

Japan's elderly population is growing rapidly at the same time as its fertility rate is falling. Life expectancies at birth for Japanese men (77 years) and women (84 years) are among the highest in the world. In 1998, the average fertility rate declined to only 1.38 (OECD 1999, 130). One recent comparative study (BIS 1998, 5-7) based on pre-1998 (thus, more optimistic) fertility rates, suggests that Japan's elderly dependency rate—the population aged 65 or older divided by the population aged 15-64—

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will be 44.0 percent in 2030 and 56.5 percent in 2050. Japan's 2050 rate is the second highest among the 11 major industrial nations; Italy is the highest with 68.8 percent. In comparison, the United States has the lowest elderly dependency rate among the same 11 countries for both 2030 (33.0 percent) and 2050 (35.2 percent).[1]

A 1997 government projection shows that Japan's total population is expected to drop to only 40 percent of the current total by 2100.[2] That does not bode well for Japan's economy in the long term, since the country has been in recession and suffering from rising unemployment in recent years. The noted Japanese economist Noriyuki Takayama (1998, 9) suggests that Japan is probably facing a future of "a sharp decline in young labor, a decrease in the savings rate, and a decrease in capital formation. All these factors will contribute to the shrinking of the Japanese economy."[3]

The Prereform Public Pension System: A Two-Tiered System

Japan has a two-tiered public pension system, with the option for large employers to "privatize" or "contract out" a portion of the second tier and replace it with enhanced employer plans.

The first (universal) tier, or National Pension (NP), was established in 1959. The NP is a mandatory, contributory program that covers working and nonworking residents aged 20-59. Employees are also covered by a second-tier pension. The self-employed, students, and nonworking spouses are the main groups covered by the first-tier pension only.[4]

The second (earnings-related) tier consists of the government-managed Employees' Pension Insurance (EPI), which covers employees in the private sector, and special programs for public and quasi-public employees.[5] Employers in the private sector may contract out a portion of the EPI by setting up employer-provided Employees' Pension Funds (hereafter called contracted-out employer plans). Enrollment in second-tier programs is mandatory except for workers in small businesses or firms with no more than five employees; temporary, seasonal, or contract workers; and other specified groups.[6]

As of March 1999, the NP had 70.5 million participants. Of those, 20.2 million (28 percent) participated in only the NP, 5.3 million (almost 8 percent) were members of the NP and government and quasi-government plans, 33 million (47 percent) were members of both the NP and the EPI as private-sector employees, and 12 million (17 percent) were covered under the NP and the EPI as dependent spouses of private- and public-sector employees. Of the 33 million private-sector employees, only 12 million (17 percent of the 70.5 million) were members of the NP, the EPI, and contracted-out employer plans (MHW 2000b, 449).[7]

The following discussion refers to the NP and the EPI as the public component and the contracted-out employer plans as the privatized component of the public pension system. Both the NP and the EPI also provide disability and survivor benefits, which are not discussed here.[8]

The Public Component: The Prereform NP and EPI

Old-age pensions under the NP have been payable at age 65 in flat-rate amounts based on years of contribution (with a 25-year minimum) rather than earnings. Reduced benefits were payable starting at age 60; benefits were increased for claims postponed until age 66 or older. The monthly flat-rate component equaled ¥1,675 (US$16) per year of contribution; the maximum monthly benefit (with 40 years of contributions) was ¥67,017 (US$622) as of April 1999, or 25 percent of the average wage.[9]

Pensionable age under the EPI has been 60 for both men and women. Those who had a combination of 25 years of coverage under NP and EPI (including at least 1 month under the EPI) were eligible for benefits under both programs, computed separately according to duration of enrollment under each program. There is no benefit increase for delayed claims under the EPI.

Before the reform, NP benefits were not payable until age 65, although EPI members aged 60-64 received a "bridge" benefit equal to the NP that was paid out of the EPI reserve fund. Members were also paid their earnings-related EPI benefit, with a flat-rate dependent supplement where applicable, out of the same reserve.[10] The earnings-related EPI benefit was 0.75 percent of the indexed career average monthly wage (excluding bonuses) per year of contribution. Upon reaching age 65, EPI members and dependent spouses began to receive their respective first-tier benefits from the NP reserve fund and only the second-tier EPI pension and dependent benefits from the EPI fund.

In recent years the government has taken steps to trim benefits payable to EPI pensioners aged 60-64 for cost-saving purposes. The 1994 pension reform scheduled a gradual phase-out of the NP-equivalent "bridge" benefit for EPI pensioners aged 60-64 to begin in 2001 and end in 2013 (2006-2018 for women). At the end of the 12-year transition, those EPI pensioners would receive only the EPI pension and the dependent benefit. The NP benefit would begin payment at age 65, in addition to the earnings-related EPI benefit. An additional cost-saving measure in the 1994 reform instituted an earnings test on the earnings-related portion of benefits until age 65 (Takayama 1995, 47-48).

Public Pension Financing

Funding for both the NP and the EPI comes from member and employer contributions as well as general revenue subsidies. Both member and employer contributions are excluded as taxable income. As of April 1999, NP members who do not participate in any second-tier pension contribute a flat monthly rate of ¥13,300 (US$123). The unemployed and low-income individuals may be exempt from contribution payments to the NP, and one-third of the "premium exempt" periods are credited as contributory periods when computing NP benefits.

Contributions to the EPI program enroll workers and their nonemployed spouses in both the NP and the EPI. The payroll contribution to the EPI (in equal shares from employer and employee) is 17.35 percent of the wage plus 1 percent of bonuses. (Typically, bonuses are paid out twice a year and average about 30 percent of wages.) General revenues pay for program administration costs of both the NP and the EPI. In addition, general revenues cover one-third of benefit expenditures for the NP.

At present, both reserve funds show positive balances. The first tier is, in effect, financed on a pay-as-you-go basis—that is, current contributions and required subsidies more or less pay for current program expenses—with a modest reserve balance (¥8.5 trillion, or US$78 billion, in 1997). The EPI has been partially funded since its inception. As of 1997, the reserve fund had a balance of ¥125.8 trillion (almost US$1.2 trillion) or 4.8 times the 1997 outgo (MHW 2000b, 457; *Social Security Statistical Yearbook, 1999* (2000), 219).[11]

The combined total of EPI and NP reserve funds is deposited with the Ministry of Finance's Trust Fund Bureau for fiscal investment and loans through the Pension Welfare Service Public Corporation. Most of the funds are earmarked to finance government low-interest loans for building physical infrastructure (such as housing, hospitals, roads, and recreation facilities). Since the late 1980s, an increasing proportion (39 percent in 1998) of those funds has been diverted from loans to investments.[12]

The Privatized Component of the Second Tier—Contracted-Out Employer Plans

Starting in 1966 (25 years after EPI's inception), large employers could opt out of part of the EPI by setting up an employer-managed pension plan. Those contracted-out plans are established either by single employers (each with at least 500 full-time employees as members) or groups of employers (a minimum of 800-3,000 members in each group). Member and employer contributions are tax free. Plans must provide defined benefit pensions and pay at least 30 percent more than the EPI benefit they replace.

Only part of the EPI benefit is contracted out. The EPI contributions of participating contracted-out employers and their employees are from 3.2 percent to 3.8 percent less than payroll deductions for regular EPI enrollment. In return, the EPI reserve fund pays the NP-equivalent "bridge" benefit for pensioners aged 60-64 who belong to contracted-out plans and, starting at age 60, the portion of EPI benefits not replaced by the contracted-out plans.[13]

During the first three decades under the contracted-out provision, the number of employers opting out has increased manyfold. In 1966, 142 contracted-out plans covered 500,000 employees. The number of plans reached an all-time high of 1,883 in 1996, and the number of employees covered peaked at 12.3 million in 1997 (MHW 2000b, 452).

Medium- and large-sized businesses that set up contracted-out plans benefited during the growth years in the 1960s and 1970s, when the industries were thriving and the average employee was younger. The aging of the workforce in declining industrial sectors (for example, textiles), however, began to create problems during the late 1980s and 1990s. Some plans have suffered in more recent years both from sectoral decline and from a growing number of pensioners. Further, the economic and financial adversities afflicting Japan beginning in the early 1990s, coupled with the Asian financial crisis in 1997, have led to steadily falling returns on employer pension plans.

A number of contracted-out plans responded by making smaller pension payments than promised to new beneficiaries (Aritake 1998). Some 1,300 of those plans (almost three-quarters of the total) were in deficit in early 1999 (IBIS 2000). Since 1996, dozens of the contracted-out plans have been terminated. The Dow Jones International News reported on June 17, 2000, that according to an estimate by the then Ministry of Health and Welfare, the total number of contracted-out plans fell to 1,835 with 11.7 million members between March 1996 and March 2000 (Dow Jones & Co. 2000).[14]

The Pension Reform Process

Pension reforms in Japan follow reviews scheduled once every 5 years. Pension specialists within the MHW are active participants of the reform process—from preparing the review agenda, developing proposals, and drafting bills for parliamentary discussion and debates, to guiding reform bills through passage in the legislature. Throughout the process, consultations with the National Pension Council (a consultative body that consists of academic and actuarial experts, representatives from businesses and trade unions, and others) and with the leading Liberal Democratic Party and minority political parties are carefully managed to ensure consensus and success.[15]

Preparations for the 1999 pension review had begun 2 years earlier. From the very start, MHW officials decided that the forthcoming review should consider various funding issues facing the NP and the EPI. One such issue was the feasibility of privatizing the entire EPI program by transforming the current, partially funded EPI into a fully funded personal pension system that eventually would pay defined contribution pensions.

Reform Options for Funding the NP and the EPI, 1997-1999

This section highlights the reform options for funding the NP and the EPI. For a chronology of reform activities, a summary of reform options, and criticisms of the prereform programs, see Japan International Corporation of Welfare Services (1999, 370-374 and 400-410). Economic analyses of the impetus for the reforms and various options are discussed in Horioka (1997), Endo and Katayama (1998), and Takayama (1998, 62-69).

Options for the NP

In addition to projected cost increases due to population aging and rising unemployment, NP funding is also troubled by problems of noncompliance. Some 15 percent of self-employed and nonemployed persons are either delinquent in paying contributions or evade participation altogether.[16] Nonpayment is especially widespread among students and low-paid workers. On the one hand, periods of nonparticipation lead to lower future retirement benefits; on the other, nonpayment shortchanges current NP funding and undermines the integrity of the program. Possible remedies for the NP included the following approaches, one incremental and one restructuring:

- Increase general revenue subsidies of program expenses; continue the contribution requirement for enrollment in general but relax contribution conditions for students and low-earners to help ease the problem of contribution evasion.
- Change program funding to earmarked tax revenues (from hikes in the consumption tax) only. The qualifying conditions for old-age benefits would be based only on years of residence in Japan, without requiring member contributions.

Options for the EPI

To ensure the long-term financial sustainability of its public pension programs, the MHW weighed the feasibility of fully privatizing the EPI, among other options. For example, the Economic Strategy Council (a body advising the Prime Minister) proposed in December 1998 to privatize the earnings-related tier over a 30-year transition period (OECD 1999, 132) and rely on the first-tier NP as the single public pension system.[17] The four options considered involved various levels of reductions in benefits and increases in payroll contributions. The options were as follows:

- Raising payroll contributions from the current 17.35 percent to 34.3 percent of the basic monthly wage (or 26.4 percent of total wage, including bonuses) by 2025, with no change in benefits.
- Limiting the payroll contributions to no more than 30 percent of basic monthly wage (not including bonuses) and reducing benefits by about 10 percent.
- Limiting the payroll contributions to 20 percent of total earnings (including bonuses) and reducing benefits by about 20 percent.
- Maintaining the current rate of payroll contributions and reducing benefits by about 40 percent.

Key Provisions of the 2000 Pension Reform

After 2 years of deliberation, the MHW decided and the Cabinet agreed not to consider restructuring pension funding of either the NP or the EPI. The substantial increases in consumption tax required to make it the sole source of funding for the NP proved politically unacceptable. Also, totally eliminating the EPI was not deemed feasible because of the high transition cost in paying benefit entitlement accrued under the program to date. The MHW (2000a, 119) estimates that the transition costs for transforming the EPI into a fully funded program would be ¥380 trillion (US$3.5 trillion)—a sum deemed too great to bear at a time of economic hardship and rising budget deficits.[18]

The MHW further concluded that public pension programs should provide stable and reliable defined benefit pensions protected against inflation (OECD 1999, 132). Benefit formulas under both the NP and the EPI should remain unchanged for the most part, and changes in benefits and payroll contributions would be introduced in both the NP and the EPI.[19] In its *Annual Report on Health and Welfare, 1998-1999,* the Ministry pointed to the results of a January 1999 survey on the social security system as evidence of the public's support for its policy. Survey results showed that a majority of workers agreed with the principle of intergenerational solidarity. Fifty-eight percent of those surveyed preferred to keep social security programs viable, 60 percent would accept the option of paying higher contributions to maintain the existing system, and more than 70 percent were against privatizing the EPI (MHW 2000a, 119, 156-157, and 168).

Reform Provisions for the NP

To remedy NP payment evasion, the MHW has settled on a combination of relaxing contribution requirements and accepting probable future increases in contribution rates and general revenue subsidies. Effective April 2000, full-time students may delay paying contributions to the NP until graduation and make retroactive contributions owed as students within 10 years of graduation. Further, effective April 2002, for each year a person has a low-paying job, he or she will be exempted from 50 percent of the standard member contribution amount and then be credited with only two-thirds of a year of contribution for purposes of benefit computation. Because of the current economic hardship, contribution rates and general revenue subsidies will remain unchanged, subject to revision by the next scheduled pension review in 2004.

Reform Provisions for the EPI

The Ministry has adopted a combination of reductions in benefits and increases in payroll contributions to the EPI that balances the share of the burden between generations.

Provisions relating to benefits include the following:

- A 5 percent reduction of EPI benefits is being phased in for new beneficiaries starting in April 2000.
- The once-every-5-year wage-indexing of benefits is being eliminated, effective immediately.[20]
- The minimum age to receive a full EPI benefit will be raised from 60 to 65 over a 12-year period starting in 2013 (2018 for women).
- A new earnings test for EPI pensioners is being introduced for those aged 65 to 69. Pensioners whose combined earnings and EPI benefits exceed ¥370,000 (US$3,432) per month (¥504,000, or US$4,674, for couples) will have their EPI benefits cut by one-half of the excess amount. (NP pensions will be paid in full and will not be subjected to any earnings test.)

Provisions relating to payroll contributions include the following:

- For the first time, old-age pensioners who work will be required to make payroll contributions to the EPI until age 70.
- Starting in October 2000, payroll contributions will be changed from 17.35 percent of basic monthly wage and 1 percent of bonuses to 13.58 percent of total earnings (including bonuses), thus increasing net contributions.[21]

Impact of the 2000 Reform on Future Pension Costs

One measure of the impact of the 2000 reform on future pension costs is to compare projected contribution rates estimated to ensure pension fund solvency (through 2060) before and after the reform.[22]

According to MHW projections, by continuing the prereform program, the NP contribution rate would rise to ¥26,400 (US$245) in 2025 (1999 prices) and remain constant at that level through 2060, almost double the current rate. Given the stipulated changes, the NP contribution rate will begin to decline in 2001 from the current ¥13,300 (US$123) a month to ¥12,706 (US$118) in 2004. It will then rise gradually to ¥24,800 (US$230) in 2020 (1999 prices) and remain at that level through 2025 and beyond.

For the EPI, the combined employer and employee contribution rate would have been raised to 34.7 percent of wages (not including the bonuses) under the prereform provisions. Because of the reform, the total payroll contribution rate will rise gradually to no higher than 21.24 percent of total earnings (or the equivalent of 27.6 percent of wages) in 2025 and thereafter.

A recent study estimates that the 2000 reform will reduce pension costs by about a third (Faruqee and Muhleisen 2001, 7 and 14).

By choosing incremental changes to bring about substantial reductions to future public pension costs, the Japanese government and public remain committed to social insurance as the preferred form of providing social security benefits. Further modifications will depend on how accurate the current projections of demographic and economic developments prove to be in the interim.

Notes

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[1] The other eight countries in this group are Belgium, Canada, France, Germany, Netherlands, Sweden, Switzerland, and United Kingdom. The rates are derived from the medium projection of the United Nations' *World Population Prospects, 1950-2050*, published in 1996 (BIS 1998, 7).

[2] According to this 1997 *pessimistic* variant of projections by Japan's National Institute of Population and Social Security Research, Japan's seniors aged 65 or older will account for almost 30 percent of the total population by 2030 and will reach 35 percent by 2050. Takayama suggests that this pessimistic scenario is the more probable one, because the same Institute's medium projections have turned out to be overly optimistic time and again since 1975 (Takayama 1998, 3-6).

[3] Although a sharp decrease in savings in the future could be a problem for economic development in the long run, economists generally contend that more consumption and less saving could help fuel Japan's stagnant economy at present, given its current net surplus in savings.

[4] The NP was initially a program to provide pension coverage to nonemployed working-age residents not eligible for enrollment in any of the employment-related public pension programs, including those for quasi-public employees. Since the 1986 reform, the NP has extended its coverage to working as well as nonworking residents and has taken on the role as the first of a two-tiered system, providing universal coverage.

[5] Programs for public and quasi-public employees include those for seamen and farmers and those organized by mutual aid associations (for national government employees, local government employees, private school teachers and employees, and employees of agricultural, forestry, and fishery cooperative associations) (MHW 1998, 53-61 and 81-88). Among the working population, only the self-employed have no second-tier, earnings-related coverage. They can, however, voluntarily participate in a National Pension Fund by paying an additional flat-rate monthly contribution and can receive a flat-rate, lifetime annuity after contributing for 15 years. Currently, only 0.7 million out of a total of 20 million self-employed are members of such a program (MHW 1998, 69-70; MHW 2000b, 449).

[6] These workers are, for example, lawyers; public accountants; licensed tax accountants; individuals engaged in agriculture, fishery, and forestry; employees in restaurants and hotels; and those engaged in theaters and entertainment industries (MHW 1998, 71).

[7] A great majority of the 33 million private-sector employees also have access to employer pensions. In 1997, almost 90 percent of employers paid a lump-sum severance benefit at retirement, equal to 40-46 months' salary for employees who have stayed with the same employer for 38 (for college graduates) to 42 (for high school graduates) years. In addition, some 53 percent of employers set up tax-qualified (defined benefit) pensions (TQPs), 20 percent participate in contracted-out employer plans, and 24 percent of firms offer both TQPs and contracted-out employer plans. Typically, TQPs are fixed-term (10-year) annuities, and employer contributions to those plans are exempt from the corporate tax (National Institute of Population and Social Security Research 2000, 11-13; Watanabe 1999, 219-223).

Further, members of NP who are neither members of EPI nor members of other public or quasi-public plans may participate in National Pension Funds for added retirement coverage. Those funds are organized either on a regional basis or according to occupational groupings. As of March 1999, they claimed 0.7 million members (National Institute of Population and Social Security Research 2000, 8; MHW 1998, 69-70).

[8] For disability and survivor benefit programs under the NP and the EPI, see MHW (1998), pp. 66-68 and 77-79, respectively.

[9] The monthly average wage (pretax, excluding overtime pay) for April 1999 was reported as ¥264,585 (US$2,454) (Ministry of Labour 1999). (Effective January 2001, the Ministry of Labour was merged with the Ministry of Health and Welfare and renamed as Ministry of Health, Labour, and Welfare.)

[10] The combined NP-equivalent "bridge" benefit and the EPI benefit is otherwise known as the "special old-age pension." As of April 1999, the monthly flat-rate dependent benefit of ¥230,000 (US$2,133) was payable, after 20 years of contributions, to the dependent spouse and the first and second dependent child under age 18 (20 if disabled). For each subsequent child, the monthly benefit was ¥76,700 (US$705) per month (MHW 1998, 73-77).

[11] Although the then Ministry of Health and Welfare's 1999 estimate for the EPI reserve fund is about ¥134.4 trillion (over US$1.2 trillion) (MHW 2000b, 457), the Ministry has also suggested that 1999 would be the first fiscal year in which current receipts from contributions would fall short of current outgo for benefit payments (OECD 1999, 130-131).

[12] At present, the Ministry of Finance oversees all pension fund management. However, the 2000 pension reform includes a provision to revamp the reserve fund management, with details and regulations pending. A new entity—the Pension Fund Management Fund—will take over all aspects of the reserve fund management, under the supervision of the Ministry of Health and Welfare (Japan International Corporation of Welfare Services 1999, 418-434; MHW 2000a, 182-183). The operating protocol will emphasize transparency and efficient and safe investments. The implementation of this new arrangement will coordinate with the dissolution of the existing management under the Ministry of Finance.

[13] According to the EPI benefit formula, the worker's past earnings are revalued according to a combined price and wage index. Before the 2000 reform, benefits were price-indexed for 4 consecutive years, then wage-indexed in every 5th year. However, the contracted-out plans are neither required to revalue past earnings nor required to price- or wage-index benefits. The EPI reserve fund is required to pay the amount by which the contracted-out plans fall short (IBIS 1997, 4d-3).

[14] According to one analyst, the extent of corporate pension shortfalls, including those of the contracted-out plans, will not be fully revealed until April 2001, when new accounting rules will require full disclosure of pension liabilities on companies' balance sheets (Matsushita 2000). Measures to shore up funding for contracted-out plans are part of the restructuring of corporate finance and employer plans in general, together with the ongoing overhaul of financial markets in Japan (see OECD 1999, 200-203), and are not discussed here. Suffice it to mention that the rescue reserve fund operated by the Pension Fund Association (an employer group) is far too small to bail out insolvent plans (OECD 1998, 148).

[15] Some observers contend that the MHW officials' active role in setting the reform agenda and guiding the reform process (strengthened by their close ties with the Liberal Democratic Party) may have prevented open debates of pension issues and remedies (Estienne and Murakami 2000, 49,, 58 and 61-63). For comprehensive and insightful analyses of pension reform processes in Japan through the 1980s, see Campbell (1990).

[16] An estimated 15 percent of self-employed and nonem,, ployed persons in Japan were evading contribution payments to the NP. Among them, 8 percent were participating NP members but had been evading payments to the program for at least 2 years as of 1996, and another 7 percent should have been participating in the NP but had not done so as of October 1995. In addition, another 18 percent were exempted from paying contributions to the NP as of March 1998 (Research Institute of Social Insurance 1999, 41).

[17] In recent years, some economists have questioned whether, given the aging populations in many industrialized countries, the pay-as-you-go financing of public pension programs in those countries would create an overly burden,, some "unfunded liability" for future generations of workers. A policy option that has been advanced by a number of Western economists to avert such a problem is to privatize the existing social insurance program or to convert the financing of the public pension system into prefunded or fully funded defined contribution programs. For examples of such debates among Japanese economists, see Horioka (1997); Endo and Katayama (1998); and Takayama (1998), pp. 62-69.

[18] For a discussion of the likely adverse impact of transition costs on Japan's economy, see Takayama (1998), p. 64.

[19] One other key reform provision not presented here is the decision to transfer the management and investment of public pension reserve funds from the Ministry of Finance to the Ministry of Health and Welfare. Thus far, details of the transfer are still wanting.

[20] In the long term, the combination of a 5 percent reduction of the EPI benefit and the elimination of the wage-indexing of benefit adjustments in every 5th year will continue to erode the value of retirement pensions—assuming that average wage increases routinely surpass average price increases. The reform provision also stipulates that benefits will be maintained at a level that is at least 80 percent in value as compared with prereform computations.

[21] See MHW (2000a), pp. 176 -183, for discussions of reform provisions.

[22] Based on the assumption of an average annual price increase of 1.5 percent and a wage increase of 2.5 percent. For comparisons of projected pre- and postreform contribution rates for the NP and the EPI, see Research Institute of Social Insurance (1999), pp. 207-208 and 203-204, respectively.

References

Aritake, Toshio. 1998. "Japan's Corporate Pensions Suffer Funding Shortage for First Time." *Pensions & Benefits Reporter* 25(3). August 17.

BIS (Bank for International Settlements). 1998. *Group of Ten: The Macroeconomic and Financial Implications of Ageing Populations.* Basel, Switzerland: BIS.

Campbell, John Creighton. 1990. *How Policies Change: The Japanese Government and the Aging Society.* Princeton, N.J.: Princeton University Press.

Dow Jones & Co. 2000. "Employee Pension Fund Subscribers Continue to Fall—Nikkei." *Dow Jones International News*. June 17.

Endo, Yukihiko, and Eiji Katayama. 1998. "Population Aging and Japanese Economic Performance." In *Aging Societies: The Global Dimension*, edited by Barry Bosworth and Gary Burtless. Washington, D.C.: Brookings Institution Press, pp. 240-266.

Estienne, Jean-Francois, and Kiyoshi Murakami. 2000. "The Japanese Experience of Review and Reform of Public Pension Schemes." In *Social Dialogue and Pension Reform*, edited by Emannuel Reynaud. Geneva, Switzerland: International Labour Office, pp. 49-66.

Faruqee, Hamid, and Martin Muhleisen. 2001. *Japan: Demo,, graphic Shock and Fiscal Sustainability*. IMF Working Paper WP/01/40. Washington, D.C.: International Monetary Fund.

Horioka, Charles Yuji. 1997. "Japan's Public Pension System: What Is Wrong with It and How to Fix It." In *Social Security Reform Conference Proceedings: Links to Saving, Invest,, ment, and Growth,* edited by Steven A. Sass and Robert K. Triest. Boston: Federal Reserve Bank, pp. 174-186.

IBIS (International Benefits Information Service). 2000. "Japan: Employees' Pension Funds." *IBIS Briefing Service* (May). Chicago: Charles Spencer & Associates, p. 23.

————. 1997. *IBIS Reference Manual—Japan.* Chicago: Charles Spencer & Associates.

Japan International Corporation of Welfare Services. 1999. *Textbook for the 9th Study Programme for the Asian Social Insurance Administrators, 27 September – 8 October1999.* Tokyo: Japan International Corporation of Welfare Services.

Liu, Lillian. 1987. "Social Security Reforms in Japan." *Social Security Bulletin* 50(8):29-37.

Matsushita, Nobuko. 2000. "Japanese Rules: Underfunding Exposed Under New Standards." *Pensions & Investments* (May 15).

MHW (Ministry of Health and Welfare). 2000a. *Annual Report on Health and Welfare, 1998-1999.* Tokyo: MHW.

————. 2000b. *Welfare White Paper* (in Japanese). Tokyo: MHW.

————. 1998. *Outline of Social Insurance, 1998.* Tokyo: MHW.

Ministry of Labour. 1999. *Final Report of Monthly Labour Survey, April 1999.* Available at www.mol.go.jp/info/toukei/english/1104fr/mk1104re.htm.

National Institute of Population and Social Security Research. 2000. *Social Security in Japan.* Tokyo: National Institute of Population and Social Security Research.

OECD (Organization for Economic Co-operation and Development). 1999. *OECD Economic Surveys—Japan.* Paris: OECD.

————. 1998. *OECD Economic Surveys—Japan.* Paris: OECD.

Research Institute of Social Insurance. 1999. *Constructing Japan's Pension System of the Twenty-First Century* (in Japanese). Tokyo: Research Institute of Social Insurance.

Social Security Statistical Yearbook, 1999 (in Japanese). 2000. Tokyo: Office of the Prime Minister, Social Security Council.

Takayama, Noriyuki. 1998. *The Morning After in Japan: Its Declining Population, Too Generous Pensions and a Weakened Economy.* Tokyo: Maruzen Co.

————. 1995. "The 1994 Reform Bill for Public Pensions in Japan: Its Main Contents and Related Discussion." *International Social Security Review* 48(1):45-65.

Watanabe, Noriyasu. 1999. "Japan." *International Benefits Yearbook, 1998-1999.* London: Sweet & Maxwell.