

## **SOCIAL SECURITY REFORM IN THE UNITED STATES: IMPLICATIONS FOR JAPAN**

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Japan and the United States have mature, defined benefit Social Security systems that provide a basic level of income to most retired workers. The retirement benefit in both countries is determined using an earnings based benefit formula. Japan has a separate benefit that provides a specified yen amount for all persons plus an earnings benefit. Current law specifies that the benefit formula will ultimately be 0.7125 percent of earnings for each year of covered employment.

In the United States, there is no flat benefit; however, the benefit formula is progressive and provides a greater proportionate benefit to low-wage workers. For a person reaching age 62 in 2003, benefits are determined using a formula that provides 90 percent of the first \$606 of average indexed monthly earnings (AIME), plus 32 percent of the next \$3,047 of AIME, plus 15 percent of AIME in excess of \$3,653. Both countries provide nearly universal coverage and workers who have average earnings and have a full career of participation in the system will receive a retirement benefit that is 40 to 50 percent of their average earnings.

The Social Security systems of both countries are facing significant long range funding problems. Important policy debates concerning how to modify these programs are occurring in both countries. Current projections indicate that to pay benefits specified under current law the payroll tax for the Japanese system would have to increase from its current level of 13.58 percent of annual earnings to 23.1 percent in the next 25 years. In the United States, the cost of Old Age Survivors and Disability (OASDI) is projected to rise from 10.9 percent in 2003 to 20.1 percent in 2080. The income rate for these programs is approximately 13 percent of covered payroll. Thus the projected shortfall in revenues in 2080 is projected to be over 6 percent of payroll (Board of Trust-

ees, 2003). Confronted with these financial realities, policy makers are debating how to reduce future costs of providing retirement benefits or identifying methods of increasing future revenues. The debates in both countries are wide ranging and include many policy options. This paper provides an assessment of the debate in the United States and discusses its implications for reform in Japan.

### **1. Financial Status and the Need for Reform**

The United States, Japan, and the other developed countries are facing the prospects of rapidly increasing costs associated with retirement programs. The projected higher cost of providing future retirement benefits is primarily the result of the continued aging of national populations and the increase in the ratio of beneficiaries per worker. While forecasting future costs and revenues of a national social security system is a complicated task requiring many assumptions, a simple example can illustrate the core of the problem facing national governments.<sup>1</sup> Consider a pay-as-you-go retirement system such that annual revenues must equal annual expenditures or

$$t W L = B R$$

where W represents average earnings per worker, L is the number of workers, B is the average retirement benefit, R indicates the number of retirees, and t is the tax rate necessary to provide needed revenues to pay retirement benefits.

Rearranging terms produces the following equation:

$$t = (B/W) (R/L)$$

B/W represents the replacement ratio and R/L indicates the ratio of retirees to workers. If we assume that B/W is set by the benefit formula under current law, then in-

creases in R/L resulting from population aging will increase the required tax rate. For illustration, assume that the benefit formula under current law specifies a replacement rate of 0.5 and that the current ratio of retirees to workers is 0.33 or three workers per retiree. The needed pay-as-you-go tax rate would be 16.5 percent of covered payroll.

$$t = (0.5) (0.33) = 0.165$$

As the population ages due to low fertility and increased life expectancy, R/L rises. Projections in the United States and Japan indicate sharp increases in this ratio will occur in the next few decades. Assume that R/L increases to 0.66 or 1.5 workers per retiree. Holding constant the benefit formula, the needed pay-as-you-tax rate would rise to 33 percent.

$$t = (0.5) (0.66) = 0.33$$

Faced with tax increases of this magnitude, countries around the world are considering a wide range of potential reforms to their social security programs. The future is clear. If the current defined benefit structure is retained, either projected expenditures must be reduced or revenues must be increased. The growth of expenditures can be slowed by reducing future benefits compared to those promised under current law. It is important to recognize that such proposals still may allow for the growth of nominal or even real benefits in the future. The growth in expenditures can be reduced by changing benefits formulas to lower future replacement ratios or by raising the retirement age to limit the number of beneficiaries. Alternatively, the defined benefit can be replaced in whole or in part by pre-funded individual accounts. Without such modifications in benefits, there must be a large increase in future tax rates. Of course, revenues could be increased by a higher payroll tax or through transfers from the general fund.

Recognizing the higher cost of future retirement benefits, both the United States and Japan have made policy changes to moderate the growth of expenditures. The normal retirement age in the United States is being raised from its traditional age of 65 to age 67. The normal retirement age in Japan is being raised to 65 and the benefit formula has been reduced from 1.0 percent of average career earnings per year of coverage to 0.7125 percent average career earnings per year of coverage. Despite these changes in benefits, expenditures as a percent of earnings are projected to increase significantly in both countries in the coming years.

Debate concerning reform of national social se-

curity programs is occurring in most developed countries and also in many of the developing countries. Policy makers can learn from the successes and failures of other countries. As requested by the National Institute of Population and Social Security Research, this paper provides a brief overview of the debate on social security reform in the United States. In addition, it provides an assessment of some of the specific characteristics of the U.S. system and how consideration of these parameters might be useful for policy reform in Japan. The paper concludes with a discussion of how the U.S. experience might be useful for Japan.

## **2. Social Security Reform Proposals in the US**

Over the past decade a series of national panels and commissions have made recommendations for reforming Social Security in the United States in order to address projected long run financial problems. In addition, presidents, senators, representatives, and other policy makers have also developed proposals to amend the system. At the present time, there is no single proposal for reform being debated in Congress nor is there a consensus on the urgency of action. Instead, policy makers are considering a wide range of options that would partially or completely eliminate the long-run financial deficit facing Social Security.

This section briefly describes some of the most prominent proposals that have been made, contrasts their policy objectives, and assesses their impact on the financial status of the system. The proposals described also illustrate the range of options currently being debated by policy makers in the United States. The review begins with the 1994-1996 Advisory Council and ends with the recommendations of the Bush Commission to Strengthen Social Security.

In 1994, President Clinton appointed the 1994-1996 Social Security Advisory Council. This Council was charged with developing a plan to restore the financial balance of the U. S. Social Security retirement and disability programs. The Council failed to reach a consensus on a strategy to address the financial imbalance of the current system. Instead of submitting a single proposal, the Council splintered into three groups each of which submitted its own proposal. These proposals were very different in their approach to solving the long run financial problems facing Social Security. One of the

proposals relied almost entirely on tax increases in order to finance the payment of currently promised benefits, one concentrated on benefit decreases to remain within expected revenues based on current tax rates, and the third involved a total restructuring of the system.

Since the Council issued its report, several others proposals have been made by national leaders and other commissions including a proposal made by President Clinton that would rely primarily on additional income from general tax revenues to help finance Social Security. In addition, each of the proponents of the three Council recommendations has amended their proposals in response to criticisms and in effort to obtain additional support.<sup>2</sup> In 2001, President Bush appointed the Commission to Strengthen Social Security (CSSS) to propose changes in Social Security consistent with his views. The primary recommendation of this commission was a change in the indexing formula that would reduce the growth of real benefits paid to future retirees. A review of the options in the three proposals by the Advisory Council plus those made by President Clinton and the CSSS provide a useful range of possible options for reforming Social Security. They represent the ideas from across the political and philosophical spectra for reforming Social Security.

#### ***1994-1996 Social Security Advisory Council***

Since the establishment of Social Security, advisory councils have been appointed periodically (typically every four years) to examine some specific aspect of the Social Security and to make recommendations for change. The focus of the 1994-96 Council was the long-range finances of OASDI. In their deliberations, council members generally agreed on the magnitude and timing of the deficit, however, they strongly disagreed on the best methods of restoring the financial status of the program.

The Council was unable to overcome these philosophical differences and thus the members did not reach agreement on a single consensus set of policy reforms to eliminate or reduce the long run funding problem. As a result, the members splintered into three groups and each group developed a proposal aimed at eliminating the long-term deficit. These proposals were very different in their philosophy and their approach.<sup>3</sup> Two of the proposals maintained the basic benefit structure but differed substantially in the future generosity of the benefits. Two groups proposed introducing mandatory individual retirement accounts for all workers although they differed

widely in the scope and options for these accounts. All three proposed considering the use of private capital markets to provide a higher return on Social Security Trust Fund investments. The changes contained in each of these proposals are briefly described below.

**Maintenance of Benefits.** One faction on the Council led by Robert Ball, former Commissioner of the Social Security Administration, developed a plan that was consistent with the traditional approach to addressing Social Security funding problems. This proposal was called the Maintenance of Benefits plan. The fundamental premise of this plan was to increase future revenues so that existing benefit formula could be maintained. This plan included several minor reductions in benefits but did not call for any major significant reduction in the benefits promised to future retirees.

This plan would increase future income to Social Security by raising the federal income tax rate on most Social Security benefits. Under current law, these taxes go to the Social Security Trust Fund. The proposal also would increase net revenues by requiring that all new state and local government employees be included in the Social Security system. Finally, the plan called for an increase in the payroll tax of 1.6 percentage point in the combined employer-employee payroll tax some years in the future.

These changes were not projected to be sufficient to eliminate the entire 75-year funding deficit. To address the remaining short fall in revenues, the advocates of this plan proposed to study the possibility of investing of some of the Social Security Trust Fund in the private equities markets. The expectation was that these investments would increase the return on assets and prolong the life of the Trust Fund. With the exception of this last component, this plan reflects the traditional response to projected deficits facing Social Security; that is to raise revenues to meet the obligations to pay benefits based on current law.<sup>4</sup> The proponents of this plan eventually dropped the idea of investing in private equities from their proposal.

This plan failed to completely eliminate the 75-year financial shortfall and did not address the on-going deficit facing the program in the years after the 75-year projection period. During the past few years, the authors of this plan have presented additional ways of increasing revenues and making marginal changes in the benefit structure in order to more fully eliminate the funding shortfall. In general, they have abandoned the idea of

investing the any of the Trust Fund in the private markets.

The Maintain Benefits Plan and others like it propose to eliminate the financial shortfall primarily through increases in the payroll tax. Taxes would be raised to whatever level is necessary to generate the required income to pay promised benefits on the current benefit formula, perhaps with some minor reductions in benefits. Typically, these plans focus only on the 75-year projected deficit and do not attempt to solve the on-going Social Security funding problems. In general, proponents of this strategy argue against the introduction of any type of individual accounts. They are especially opposed to these accounts if in any way they reduce the generosity of the current benefit structure.

**Individual Accounts.** A second group on the Council lead by Edward Gramlich, Chair of the Council and current Governor of the Federal Reserve System, proposed to retain the basic structure of Social Security benefits but to reduce future expenditures to the level of current tax rates. The reductions in the benefit formula were targeted on middle and high-income workers. The reduction in expenditures was accomplished by changing the benefit formula to lower the benefits paid to future middle and upper income retirees.<sup>5</sup> This plan also proposed increasing the normal retirement age to 67 more quickly than is currently legislated. In addition, they proposed indexing the normal retirement age to changes in longevity. This change was estimated to increase the normal retirement age about one month every two years.<sup>6</sup> Thus, the Individual Accounts plan recommended that promised benefits be reduced sufficiently to eliminate the financial deficit while holding taxes constant at their current level. The basic benefit structure of Social Security is maintained but the replacement ratio for the future retirees would be substantially lower than that paid to current retirees.

To compensate for the lower benefits that would accrue under the proposed benefit formula, this plan recommended an immediate additional mandatory payroll contribution of 1.6 percent of covered payroll that would go into an Individual Account for each worker. The Social Security Administration would administer these accounts. Contributors would have some limited investment choices including a small number of mutual funds composed of private equities. The balance in the accounts at retirement would reflect the individual's earnings history, their contributions, and their investment choices.

Individuals could begin withdrawals from their accounts after reaching age 62. Funds withdrawn from these accounts must be used to purchase monthly annuities from by the Government.

The Individual Accounts proposal was based on the philosophy that the current tax rate should be maintained and future benefits should fit this budget constraint. While this plan maintains the basic structure of the current Social Security system, the changes in the benefit structure would sharply reduce the replacement rates for workers who were in the middle and upper part of the earnings distribution. To offset the lower replacement rates, mandatory individual accounts were recommended. In part, this reflected the belief that "contributions" to individual accounts would be more acceptable than higher "payroll taxes" to support the current system.

**Personal Security Accounts.** The final proposal from the Advisory Council advocated a total restructuring of the Social Security into a plan with a flat benefit unrelated to a worker's earnings history and a large, mandatory individual account. This proposal has been referred to as the Personal Security Account plan. Its primary authors were Sylvester Schieber of Watson Wyatt Worldwide and Carolyn Weaver of the American Enterprise Institute. This plan included some of the features that were part of the other proposals including the additional federal income taxation of Social Security benefits, the inclusion of new state and local employees, and the acceleration of the normal retirement age and its indexing to longevity. However, the central component of this plan was to divide the payroll tax used for retirement benefits into two parts. These components of the payroll tax would be used to finance two new types of benefits.

There would be a universal flat benefit provided to all qualified retirees that was unrelated to their earnings history.<sup>7</sup> This benefit would be indexed to the growth of prices. The benefit would be approximately two thirds of the poverty level. The second benefit would be relatively large individual account plan financed with five percent of payroll.

In contrast to the Individual Accounts plan, the funds in the personal accounts would be controlled by the individual worker who would have a wider range of possible investment choices. The 5 percent points of the payroll tax used to support the personal accounts are being "carved out" of the existing Social Security tax, rather than being added to it. In other words, these tax revenues are being diverted from the traditional Social Se-

curity program to support the personal accounts. Like the more modest Individual Accounts plan, this would create a defined contribution component in the national retirement program. The eventual value of these accounts would depend on the choice and performance of the individual investments. At or after age 62, the proceeds could be taken out in a lump sum or used to purchase an annuity.

The diversion of 5 percentage points of tax revenues from Social Security's already inadequate future revenues would exacerbate the funding problem associated with paying any remaining benefits under the pre-reform benefit structure and the future benefits for the new flat benefit. Thus, additional funding would be required to finance future Social Security obligations. The Personal Security Account plan envisioned transitional borrowing by Social Security from the Federal government. This loan would be repaid with the proceeds of an additional payroll tax of about 1.5 percent of covered earnings over about 70 years.

This plan explicitly acknowledges the long run unfunded liabilities of Social Security. When matured after 75 years, this would be a fully funded plan and there would be no outstanding liabilities. Revisions of this plan by its proponents have eliminated the transitional tax and replaced it with permanent mandatory contributions to individual accounts. The revised plan leaves more money for the payment of the flat benefit. This plan solves the long run funding problem by dramatically altering the structure of Social Security to rely to a substantial degree on individual accounts and pre-funding.

#### **President Clinton's Proposal for General Revenues**

In his final term, President Clinton proposed that general revenues be used to support Social Security. These funds were to be drawn from the future government surpluses that were being projected at this time. In essence, surplus revenues would be devoted to the payment of future Social Security benefits. While never clearly articulated, this proposal would have been a significant change in U.S. Social Security policy. For the first time, general revenues would have been a significant component of Social Security financing.

The core of this plan was to transfer government securities purchased with general revenues to the Social Security Administration. These bonds would be redeemed in the future when Social Security revenues no longer fully support expenditures. Long run Social Security fi-

nances would certainly be improved by this plan because the Trust Fund would now have new assets that were not previously shown on its balance sheets. If implemented, this plan would postpone the year that the Trust Fund was projected to be exhausted until later in the 21<sup>st</sup> century. When Social Security begins to redeem its expanded stock of government bonds, the government would have to alter its other activities by raising income taxes, lowering expenditures on other government services, or re-financing the debt by selling equivalent amounts of new securities to the public.

The essence of this plan is to retain the current benefit structure and eliminate the short fall in revenues through the use of higher taxes. However, in this case, the additional revenues would come from general revenues and not the payroll tax that has been the sole source of revenues to Social Security. Many countries already use general revenues to partially support their social security systems. The partial reliance on income taxes has different distributional effects compare to complete reliance on the payroll tax.

#### **Commission To Strengthen Social Security**

In 2001, President Bush created an advisory commission to make recommendations to strengthen Social Security. He required that any Commission proposals by the CSSS had to be consistent with six principles.<sup>8</sup> The President specified that reforms could not change the benefits of current or near-retirees, could not raise Social Security payroll taxes and could not invest Social Security funds in the stock market. In addition, they had to preserve the disability and survivors' components of Social Security, dedicate all of the Social Security surpluses to Social Security only, and include voluntary, individually controlled personal retirement accounts.

Although the Commission proposed three plans, their second plan has received the most attention. This proposal would establish voluntary personal accounts without any additional taxes from employers or employees while also solving the long-range financial deficit facing Social Security.<sup>9</sup> Each worker could select to contribute up to 4 percent of taxable payroll up to a maximum contribution of \$1,000 annually. The maximum contribution would be indexed to the rate of wage growth. In exchange, there would be a reduction in the defined benefit component of Social Security equal to contributions compounded at a real interest rate of 2 percent.

This plan addressed the long-run funding prob-

lem by shifting the calculation of an individual's average indexed monthly earnings from a wage-based to a price-based index for all persons born after 1946. This change in the indexation of future benefits means that past earnings would be inflated to present dollars using an index of price changes rather than an index of wage changes as is currently done. Because prices tend to rise more slowly than wages (perhaps by 1 to 2 percent per year), the growth in future expenditures is significantly reduced. Compared to current law, future retirees would receive lower benefits. Thus, the replacement rates for future workers are projected to be lower than they would be under the current benefit formula. This change was projected to reduce social security's long-term liability by 2.07 percent of payroll and thus create a surplus of about 0.20 percent of payroll over the 75-year evaluation period.<sup>10</sup>

The commission also proposed to increase the benefits of certain beneficiaries including low-wage workers and widows. The proposal would provide a minimum wage worker with 30 years of coverage an inflation indexed benefit equal to 120 percent of the poverty. The plan also proposed increasing the widow's benefit to 75 percent of the combined retired worker and spouse benefit. The widow's benefit is currently two thirds of the combined worker/spouse benefit.<sup>11</sup>

The change in the indexing formula is the key to reducing the long-term financial problems of the system.

Despite its importance, the change in the indexation has received far less scrutiny than the commission's other major proposal, the establishment of voluntary individualized accounts. Under the Commission's proposal, workers would be allowed, but not required, to allocate up to 4 percentage points of their payroll taxes (to a maximum of \$1000, later indexed by the rate of average wage growth) to a personal account. In exchange for their reduced contributions to the basic benefit program, workers who choose to make a contribution to an individual account would have their traditional Social Security benefits actuarially decreased by the amount of the allocation to the personal account, compounded at a real interest rate of 2 percent.<sup>12</sup>

Participants who opt for individual accounts would be trading off a decline in their traditional benefits for the proceeds of a new individual retirement account, financed by a part of their current contributions. If the retirement account grows at more than 2 percent above the rate of inflation, the recipient will be better off with the account than without.<sup>13</sup> If implemented, these reforms are projected to have a positive effect on the cash flow for Social Security at the end of the 75-year accounting period. This positive effect is expected to continue in years beyond the forecasting period. Despite these positive long run effects, the proposal requires transfers from general revenues during the period 2025 through 2054.<sup>14</sup>

This Commission's proposal offers another

Table 1. Comparison of Reform Proposals

Proposal	Increase Taxes	Future Benefits	Use General Revenues	Change Indexing Formula	Individual Accounts
Maintain Benefits	yes	reduce future replacement rates slightly	no	no	no
Individual Accounts	mandatory contribution for individual account	lower benefit formula	no	no	mandatory
Personal Security Accounts	transitional tax or higher contribution for individual account	new flat benefit	no	new flat benefit is indexed	mandatory
Clinton	no	unchanged	yes	no	no
CSSS	no	replacement rate will be lower for future retirees	no	yes, earnings indexed to prices instead of wages	voluntary

method of reducing future expenditures compared to those currently being projected. Like the Individual Accounts proposal of the Advisory Council, this plan retains the basic structure of Social Security but forces it to fit the current budget constraint of revenues based on the current tax rate.<sup>15</sup> President Bush has never specifically endorsed the CSSS proposals as his plan for addressing the financial problems facing Social Security. While the CSSS proposal is consistent with his general guidelines for reform, a specific proposal must be embraced if legislation is to be enacted.

### **3. Evaluation of these Reform Proposals**

The five plans described above illustrate the range of options that are being considered to eliminate the long-term gap in Social Security revenues. Given the demographic changes that are expected to occur in the coming decades, retirement benefits must be reduced or taxes must be raised. In general, the Maintain Benefits Plan and the Clinton Plan argued for retaining the current benefit structure as well as the level of currently promised benefits. The financing gap is closed by higher taxes in future years. The Maintain Benefit plan would use higher payroll taxes while the Clinton plan uses monies from the general fund.

The Individual Accounts plan and the proposal of the CSSS attempt to solve the funding problem by maintaining the basic structure of Social Security but substantially reducing the replacement ratio for future retirees. These two plans propose holding the payroll tax rate constant at its current rate. The Individual Accounts plan has a mandatory additional contribution that would go into an individual account. These individual accounts would be a supplement to the less generous Social Security benefits. The CSSS plan would allow voluntary individual accounts that would further reduce the basic Social Security benefits for future retirees. In other words, the contributions to the individual accounts are carved out of existing payroll taxes rather than being an added contribution on top of the payroll. Under most projections, the total retirement benefit (Social Security plus the expected flow from the individual account) would exceed the benefit future retirees would receive if they declined to participate in the voluntary individual program.

The policy choices are starkly revealed by these four plans: maintain benefits and increase taxes or cut benefits and maintain the tax rate. The Personal Security

Accounts and to a certain extent the Individual Accounts plan and the CSSS also propose a fundamental change in Social Security through the introduction of individual accounts. In contrast to the Individual Account plan and the CSSS proposal, the Personal Security Accounts model fundamentally alters the structure of Social Security through the use of much larger individual accounts and the introduction of a flat, basic benefit.

All of these proposals are feasible policy choices for society. The unfunded liabilities over the next 75 years could be addressed by tax increases, benefit decreases or some combination of both while maintaining the basic structure of today's Social Security. Alternatively, the system could be totally altered to depend on individual accounts plus a basic benefit unrelated to earnings. What is true of all the plans is that the longer we wait to implement them, the greater the increases in taxes or reductions in benefits must be to solve the financial problems that lie ahead. It is also true that any change in the benefits promised to future retirees will be enacted only if the president and Congressional leaders are willing to devote their time, energy, and prestige to this effort.

### **4. Reform Efforts in the United States and Implications for Japan**

The debate over how to restore the long run sustainability of the U.S. Social Security system is currently dormant for four reasons. First, the war on terror and the war in Iraq have pushed most discussion of domestic issues into the background. Secondly, a concern for the current state of the economy and the need to stimulate economic growth has assumed primacy in the domestic policy debates. Thirdly, at present there is a greater concern for the projected future costs of Medicare and despite this fear of exploding health care costs for the elderly, many political leaders are proposing costly new health care programs such as a proscriptio drug benefit.

Finally and perhaps most troubling is the opinion of some political leaders that there is not a pressing problem associated with Social Security. This view stems in part from current excess of revenues over annual expenditures. These political leaders pointed to cost and revenue projections in the 2003 Trustees report. Using the intermediate assumptions, revenues are expected to exceed expenditures until 2018. After 2018, the system will begin to draw down the reserves in the Trust Fund. The system is projected to have sufficient monies to pay all

scheduled benefits until 2042. In comparison, the 2002 Trustees report indicate that there would be insufficient funds to pay scheduled benefits beginning in 2041. Thus, opponents of change argue that the problem is not of immediate concern and is actually becoming less pressing. For all of these reasons, there is no single proposal from the Bush administration on how to address the financial problems of Social Security and there is little current debate about reforming Social Security in Congress.

In contrast, the Japanese government is in the midst of its five-year review of its Social Security program. Leaders in Japan are directly addressing funding crisis confronting both the Employees' Pension Insurance system and the National Pension. Since 1985, Japan has made major changes in its Social Security system every five years that have reduced benefit formulas, raised retirement ages, and increased taxes. The last significant modification to the U.S. Social Security system was made in 1983. The major long run change at that time was to increase the normal retirement age from 65 to 67.

While the reform debate is dormant in the U.S., Japan is currently considering another round of policy changes in an attempt to reduce the increase in future taxes that will be required to provide benefits to the rapidly aging population. The sense of urgency in Japan is driven by the rapid population aging that is pushing up the cost of Social Security each and every year. At the onset of the 2004 review, the Ministry of Health, Labor and Welfare released simulation results for two models based on the most recent population projections. Model 1 is based on the current benefit structure of the EPI and indicates that the contribution rate must rise from 13.6 percent to 23.1 percent by 2025. Given other budgetary priorities and the concern over the adverse impact on economic growth, such a high contribution rate is deemed unacceptable.

To restrain the rise in the contribution rate, the Ministry has proposed to cap contributions at 20 percent. This would be accomplished by a change in the formula used to index career earnings that are then used to calculate retirement benefits. Instead of indexing earnings to the rate of growth of average or per capita net earnings in covered employment, the Ministry proposes to index earnings to the rate of growth of the total net earnings paid. With a shrinking labor force, total net earnings will rise more slowly than per capita net earnings. This change in indexing reduces future benefits and thus lowers future replacement rates. The Ministry projects that replace-

ment rates will decline from 59 percent today to 52 percent in 2025.

Several questions arise concerning these proposals that need further discussion. First, if the Ministry wishes to lower replacement rates in order to reduce the rate of growth of taxes and ultimately cap the contribution rate at 20 percent, why not do this directly. Over the past 20 years, the benefit formula has been reduced twice and the benefit formula is now 0.7125 percent of earnings per year of service down from 1.0 percent of earnings. According to Fukawa and Yamamoto (2003), present formula would be equivalent to 0.65 percent of annual earnings. A cut in the benefit formula would certainly be more transparent than a change in the indexing formula; however, this may be why the government favors the indexing change.

Second, how will the government react if a 20 percent contribution rate yields insufficient revenues to pay benefits at a replacement rate of 52 percent? In such a situation, will the contribution rate be raised or will further declines in the replacement rate be allowed to occur? The simulation by the Ministry in December 2002 has already shown that either high cost population or economic assumptions would cause the replacement rate to fall to 45 percent by around 2040.

Clearly, the hope is that the new indexing formula will automatically adjust the replacement rates so that a 20 percent contribution provides enough funds to finance replacement rates of 52 percent. But alternative scenarios indicate the possibility that the new indexing formula might yield substantially lower replacement rates. Would a replacement rate of 45 percent be too low? If so, consideration should be given to how future changes will be made in the benefit formula.

A final point concerns the subsidy from general revenues in support of the National Pension. The current proposal allows the government subsidy to rise from one third to one half of the basic pension. These costs are not included in the 20 percent cap on contributions. Thus, the full cost of Social Security programs in Japan will exceed 20 percent of covered earnings.

The coming months will be very important to the future of Social Security in Japan. Proposals for structural changes in the benefit formula need careful scrutiny to determine their long and short run effects. Proposed changes would significantly lower replacement rates for future retirees and make benefits directly dependent on demographic and economic trends. The fi-

nancial status of Social Security must be addressed to avoid sharp and continuing increases in taxes. The policy dilemma is how to slow the rise in Social Security policy changes should also consider recent developments in employer pensions that are also undergoing significant modifications. For the most part these changes are also reducing future retirement benefits. The combined impact of these changes is that future retirees in Japan can expect significantly lower retirement benefits from public and private pension plans. Japanese policymakers, like their American and European counterparts, can profit from examining the experiences in other countries. International comparisons provide useful information concerning the successes and failures of alternative policies.

## Notes

- <sup>1</sup> The assumptions and methods of the projections of future costs of the OASDI in the United States are provided in The Board of Trustees (2003). Also see the website of the Office of Actuary of the Social Security Administration at <http://www.ssa.gov/OACT/index.html>.
- <sup>2</sup> For example, see Schieber and Shoven (1999).
- <sup>3</sup> The three reform proposals are described in detail in Social Security Advisory Council (1997) pp. 25-33, which is available at <http://www.ssa.gov/history/reports/adccouncil/report/toc.htm>. The plans are also discussed and analyzed in chapter 3 of Council of Economic Advisors (1997) which can be found on line at <http://w3.access.gpo.gov/usbudget/fy1998/pdf/erp.pdf>
- <sup>4</sup> During the first 50 years of Social Security, the payroll tax was periodically raised to provide additional funds for the maturing retirement program. The tax rate paid by the employer and the employee was gradually raised from 1 percent of payroll from 1937 to 1949 (a combined employer plus employee tax of 2 percent) to 6.2 percent by 1990 (or a combined tax rate of 12.4 percent). The tax rate paid by employer and the employee is still 6.2 percent.
- <sup>5</sup> The current benefit formula for Social Security is 90 percent of the first \$606 dollars of average indexed earnings (AIME), 32 percent of the next \$3,047 of AIME, and 15 percent of all AIME above \$3,653. These dollar amounts are indexed to the growth of average covered earnings. The Individual Accounts proposal recommended that the formula be changed to 90 percent of the first level of earnings, 22.4 percent of the next level, and 10.5 of earnings above the second break point. The break points would continue to be indexed to wage growth.
- <sup>6</sup> Legislation passed in 1983 is currently increasing the normal retirement age from 65 to 66 over a six-year period (by 2 months per year), and then, after a 12 year hiatus, from 66 to 67, over another six-year period. The Individual Accounts plan (and the Personal Security Account plan below) would eliminate the 12-year lull, and raise the age from 65 to 67 in one 12-year period. An increase in the normal retirement age (waiting longer for a given benefit amount) is equivalent to an across-the-board benefit decrease (getting less at any given age.)
- <sup>7</sup> The amount proposed was \$410 per month (in 1996 dollars), about 2/3 of the poverty level for an elderly person living alone, and about 60 percent of the average retiree benefit in 1996. The flat-rate tier I benefit would be wage-indexed until the worker was eligible to retire, and price-indexed thereafter.
- <sup>8</sup> The report of the President's Commission, entitled *Strengthening Social Security and Creating Personal Wealth for All Americans*, was issued on December 21, 2001, and is available at web page [http://www.ssa.gov/commission/Final\\_report.pdf](http://www.ssa.gov/commission/Final_report.pdf).
- <sup>9</sup> The *Economic Report of the President, 2002*, pp. 79-84, describes the advantages of personal accounts, from the Administration's perspective.
- <sup>10</sup> Current projections indicate an actuarial deficit of 1.92 percent of payroll over the 75-year projection period. Thus, if liabilities were reduced by 2.07 percent of payroll by these reforms, the system would have a projected surplus of 0.15 percent of payroll.
- <sup>11</sup> Current law specifies that the spouse benefit is equal to 50 percent of the retired worker benefit. Thus, the household has a benefit equal to 150 percent of the retired worker benefit. Upon the death of the retired worker, the widow receives a benefit equal to 100 percent of the retired worker benefit. This represents a benefit equal to 67 percent of the household benefit before the death of the retired worker ( $100/150 = .67$ ).
- <sup>12</sup> See *Strengthening Social Security*, p. 99, for a discussion of the offset procedure.
- <sup>13</sup> The Commission assumes a pre-retirement portfolio that is 50 percent equities and 50 percent bonds (30 percent corporate bonds and 20 percent government bonds.) They project future rates of return of 6.5 percent for equities, 3.5 percent for corporate bonds and

3.0 percent for government bonds. With an estimate of administrative costs (0.3 percent of account balances), the Commission estimates that the net real rate of return on the mixed portfolio would be 4.6 percent. Since this is considerably greater than the 2 percent real rate used to calculate the decline in traditional benefits that participants would suffer for any funds allocated to the personal account, all participants are forecast to be better off under the new system than under a reformed current system, with future benefits decreased enough to make Social Security fiscally sound. (See *Commission Report*, pp. 97-98.)

<sup>14</sup> The general revenues are required to make up for what is estimated to be 0.7 percentage point deficit in payroll tax. The commission argues that this shortfall would be completely offset by future surpluses that are outside the 75-year window.

<sup>15</sup> An evaluation of the Commission proposal by the General Accounting Office can be found at [www.gao.gov/cgi-bin/getrpt?GAO-03-310](http://www.gao.gov/cgi-bin/getrpt?GAO-03-310). A clear picture of the thinking of the Commission is presented by two of its members John Cogan and Olivia Mitchell, "Perspectives from the President's Commission on Social Reform".

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