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Introduction
An American Perspective

Martin Feldstein

Financing the retirement income and health benefits of an aging population is the most significant fiscal problem facing the industrial countries of the world. Spending on these programs is already the largest part of the public budget in most industrial countries. The taxes to finance these outlays have an enormous impact on the economy. They raise the overall marginal tax rate of middle-income workers to more than 50 percent, reducing the incentive to work and increasing the incentive to take income in the form of fringe benefits and other nontaxable forms. These distortions cause large deadweight losses that reduce the standard of living of the working population.

The high tax cost of financing the current benefits for the aged reflects the pay-as-you-go nature of the existing programs. In pure pay-as-you-go (PAYGO) programs, there are no investments in private stocks and bonds in either government trust funds or in individual accounts to reduce the cost of providing benefits. In those countries that have previously adopted investment-based programs to supplement or replace PAYGO systems, the cost to the taxpayers is significantly less.

The aging of the population will make the problem substantially worse in the next several decades. Moreover, although the retirement of the baby boom generation will accelerate this process, the increase in the relative number of aged in the population is a permanent shift that will make the cost of PAYGO programs permanently higher. Actuaries estimate that this demographic change will raise the cost of financing existing benefit rules

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by about 50 percent or, if taxes are not to be raised, will require reducing benefits by about one-third. The provision of adequate retirement income and appropriate medical care for the aged is thus also one of the biggest social problems that industrial countries face.[1]

The Problems are Greater for Europe

Although the situation varies from country to country, the problem is generally more serious in Europe than in the United States. There are five reasons for this. First, the current benefit costs are substantially higher relative to gross domestic product (GDP) in Europe than in the United States. This primarily reflects earlier retirement and higher ratios of benefits to previous wages. The earlier retirement is due to a combination of the incentives built into the Social Security pension rules (see Gruber and Wise 1999, and chap. 2 in this volume) and the national labor market practices designed to encourage early retirement on the mistaken presumption that it will reduce unemployment among the young population. Because benefits are now a higher fraction of GDP in Europe than in the United States, the increase in benefits associated with any degree of aging will also be a greater proportion of GDP as well.

Second, the demographic trends in Europe will lead to a higher ratio of aged to young than in the United States. While the ratio of those over the age of sixty-five to the population aged fifteen to sixty-four is expected to increase from 19 percent now to 36 percent in 2050 in the United States, the same ratio is expected to rise in Germany from 24 percent now to 49 percent in 2050.

Third, overall tax rates are already substantially higher in Europe than in the United States. While taxes take one-third of GDP in the United States, the share in Europe is typically one-half or more. Since the deadweight loss of the tax system varies with the square of the marginal tax rate, adding each additional percentage point to the tax rate will cause a greater incremental deadweight loss in Europe than in the United States.

Fourth, in Europe these problems are exacerbated by the interaction of taxes and minimum net-of-tax wages. Because legal rules and national custom put a floor on net wages, the increased taxes raise the cost to firms of hiring low-skilled workers. Where custom forces relative wages to remain roughly unchanged, the increased taxes raise the cost of hiring more-skilled workers, as well. The result of these higher real-wage costs is an increase in unemployment and therefore in unemployment benefits and

1. The problem of financing health care for the aged is basically similar to the problem of providing general retirement income. We do not discuss these similarities here, but the reader can consult Feldstein and Samwick (1997).

welfare payments. Financing these unemployment benefits and welfare payments exacerbates the problem of high social insurance taxes. The consequence is a vicious spiral in which higher benefits for the aged lead to higher taxes, higher labor costs, more unemployment, and more unemployment benefits and welfare payments—and thus even higher taxes, more unemployment, and so on.

Finally, although a majority of American workers now participate in investment-based company pension plans or have private Individual Retirement Accounts (IRAs), in most European countries company pensions are generally unfunded and individual tax-advantaged retirement saving plans like the American IRAs do not exist.

European governments are, of course, acutely aware of these problems and are beginning to take steps to deal with them. Although European countries differ in their responses, the common feature of the response in almost every country has been a reduction in future benefits.[2] In some cases, this was achieved by changing inflation-indexing within the existing system; in others, by shifting the base for calculating benefits or the age of eligibility for full benefits, or by more radical changes associated with going from traditional defined benefit (DB) plans to notional defined contribution (DC) plans.

Some countries have shifted to investment-based systems to reduce the long-run cost of providing benefits. The Netherlands has had such a system for a very long time. As a result, the Netherlands and the United Kingdom have already substantially funded their future benefits and do not face the kind of problem that affects the others. Sweden now permits individuals to shift 2 percentage points of their payroll tax to investment-based individual accounts. Italy permits firms and their employees to agree to shift their currently unfunded private severance pension plans into regular investment-based pension accounts, although there are strong incentives that until now have limited the adoption of this possibility. The essays in this volume describe these changes as well as the more radical innovations that have been made in Poland, Hungary, and Romania. The German government has announced a plan, not yet enacted at the time of this writing, to reduce future retirement benefits while allowing workers to save in tax-advantaged accounts to make up for the lost retirement income.

2. This is particularly striking to an American observer because much of the emphasis in the current discussion about Social Security reform in the United States has been on how to avoid future benefit reductions. It is true, however, that the last major reform of Social Security in the United States in the early 1980s also involved substantial reductions in benefits achieved through increasing the retirement age, temporarily suspending indexing, and subjecting benefits to taxation. There are now a number of Congressional plans in the United States that would also resolve the future financing problem in part by a reduction in benefits.

Problems for an Integrated Labor Market

The enormous differences in social security systems among the European countries can create substantial problems for the attempt to develop an integrated labor market for Europe. Because the individual country systems are essentially DB systems, someone who works in a country for a short period of time may get nothing in exchange for the taxes that he and his employer paid during those years. Similarly, someone who works in several countries over the course of a lifetime will receive less than someone with the same earnings record who worked in a single country. Because these benefits are large, the current system may substantially discourage cross-border mobility.

An obvious resolution of this problem would be a system based on individual investment-based accounts. I have difficulty reconciling the French prime minister's recent rejection of such accounts on the assumption that maintaining the current unfunded DB system is crucial for national solidarity with the French government's emphasis on the need for a single market for labor in the European Union. What does national solidarity for employees mean in a single Europe-wide labor market?

A Life-Cycle Framework

As an economist, when I think about retirement income and the expenses of old age, it seems natural to think in terms of a life-cycle framework in which individuals save during their working years and dissave during their retirement. Because of the well-known problems of shortsighted planning and the ability of lower-income individuals to benefit by "gaming" the welfare state (i.e., undersaving in the knowledge that means-tested benefits will then be provided), retirement saving cannot be left completely to individual discretion. With these considerations in mind, it is surprising that individual DC accounts are not more commonly used or discussed as a way of dealing with the current and future problems of financing benefits for the aging population.

There is, of course, some use of such investment-based DC plans. Sweden has explicitly adopted this as part of its overall state pension system. The U.K. system also has such accounts as an option and it is one that is widely chosen.[3] The transition economies that were formerly under Soviet domination have moved further in this direction than have the major countries of western Europe.

Such individual investment-based accounts have much to recommend

3. In the United States a majority of the voluntary employer plans (i.e., the plans that are over and above the mandatory Social Security pensions) are now defined contribution plans. Some of the proposed reforms in the United States would also use personal retirement accounts.

them in comparison to alternative ways of financing income during retirement years. The most important advantage is that an investment-based plan (or a mixed plan that combines traditional PAYGO and investment-based components) has lower long-run costs than a PAYGO system. Calculations based on U.S. demographic data show that each 1 percent of wages saved in an investment-based system with a real return of 5.5 percent can replace about 3 percent of wages collected in taxes in a PAYGO system. This is a long-run property that reflects additional saving in the transition years. Although it is not a Pareto improvement that benefits all generations, the resulting change in the consumption stream has a positive present value because the marginal product of capital exceeds the net return that private savers receive after corporate and personal taxes.[4]

Individual Investment-Based Retirement Accounts

The cost-reducing advantage of an investment-based system (or a mixed system) could in principle be achieved regardless of whether the investments are in individual accounts or in a centrally managed government trust fund. However, the individual accounts do have several additional advantages.

First, an investment-based system automatically eliminates the existing early retirement incentives that raise the cost of the program. Although a PAYGO system can in principle be modified to make the present value of retirement benefits independent of the age of retirement, an investment-based system with individual accounts automatically achieves this because the funds belong to the individual.

Second, individual accounts avoid the risks of political control that would accompany a centralized pool of funds, a point emphasized in this volume by Assar Lindbeck (chap. 1). Avoiding the political control that might accompany a centralized account is not only desirable in itself but also could increase the rate of return on the accumulated funds and thus reduce the cost of providing any given level of retirement income.

Individual accounts that are provided competitively by private financial institutions are likely to lead to greater innovation in products and a higher standard of service than would be achieved with a government monopoly.

Assets accumulated in individual accounts could be bequeathed to spouses or other heirs if the individual died before reaching retirement age. Postretirement annuities could be designed to permit bequests conditional either on the age of death or on the size of the accumulated fund. All of this creates a greater sense of ownership than would be true in a centralized investment fund.

Although critics worry about the risks inherent in an investment-based

4. For a discussion of these issues, see the appendix to Feldstein (1998).

system, a number of studies show that the risk that individuals would face in a mixed system would be relatively low and could be eliminated or reduced by either government guarantees or by the guarantees that could be provided by private financial markets.[5]

Finally, although there is much debate about the administrative cost of a system of individual accounts,[6] the recent introduction by TIAA-CREF[7] of a saving and variable annuity plan with an annual cost of only 37 basis points is reassuring evidence. A program in which the government would collect the funds along with the Social Security payroll tax could be managed for an even lower annual cost.

Notional Defined Contribution Systems

The attractive features of a system with investment-based individual accounts have induced several European countries to adopt investment-based systems as part of their state pension programs. The transition to an investment-based system does, however, require some additional saving. The amount of this transition saving, although relatively low,[8] is one of the barriers to adopting any degree of investment-based funding. Sweden, Italy, and Poland have therefore adopted something of a compromise system in the form of notional defined contributions within the broader framework of a PAYGO system. The basic idea in such a system is that individual employees (or those employees and their employers) pay mandatory contributions and receive credits in individual accounts for the amounts contributed just as they would in any other DC plan. These contributions are not, however, invested in financial assets but are paid out as part of a PAYGO system. The notional accounts nevertheless keep track of the individual contributions and are credited with a rate of return equal to the growth rate of wages. In this way, the benefits that will eventually be paid are consistent with a PAYGO method of financing with a constant rate of tax.[9]

5. See Campbell and Feldstein (2001) for several studies of the risks of PAYGO and investment-based systems. Also see Feldstein and Ranguelova (2001b) for a discussion of risk in a pure investment-based system. Feldstein and Ranguelova (1998) discuss ways that the government could reduce the risk to retirees of the investment-based system, while Feldstein and Ranguelova (2001a) show how financial market instruments (a combination of buying a put and selling a call) might be used to guarantee retiree benefit levels.

6. See Shoven (2000) for several studies of the factors affecting the administrative costs of an individual account investment-based system.

7. Teachers Insurance and Annuity Association College Retirement Equity Fund, a very large U.S. insurer and mutual fund provider.

8. Feldstein and Samwick (1997) showed that the transition from the existing U.S. PAYGO system to a fully investment-based system could be done without ever increasing the payroll tax rate by more than 2 percentage points.

9. See the papers by Palmer on Sweden and Franco on Italy (chaps. 6 and 7 in this volume, respectively) for more details of how such systems will operate.

These notional DC accounts have three major advantages over traditional DB plans. First, by linking future benefits clearly and tangibly to the individual's contributions, they reduce the extent to which those contributions are perceived as a tax. Second, the focus on the "assets" in the individual account (even if they are only "accounting assets") reduces the distortion in retirement decisions. Third, notional DC accounts implicitly limit future benefits to the amounts that can be financed by the existing tax rates. And fourth, they provide an individual account framework within which an investment-based system could later be introduced or expanded.

It must be emphasized, however, that the notional defined contributions provide a lower rate of return than true investment-based accounts and therefore cannot achieve the full advantages of an investment-based system. The rate of return in a notional system can be only the rate of growth of the tax base that results from rising real wages and increasing numbers of employees (Samuelson 1958). This is now likely to be about 2 percent, substantially less than the real pretax rate of return on incremental capital, which may be as much as 9 or 10 percent. Even if individuals could receive a net-of-tax real return of only 6 percent, the difference between that and a 2 percent rate of return in notional accounts implies that the mandatory contributions to the notional system are effectively a tax of about three-fourths of the statutory tax rate.[10] This means that the distortions in labor supply during working years and at the time of retirement are reduced somewhat but are not changed substantially. The cost of funding future retirements is not reduced as it would be with an investment-based system.

For an American looking at social security pension reform in Europe, it is encouraging that many countries have made or are making fundamental reforms. Yet for several of the larger countries, including France, Germany, and Spain, the reforms are either very small or nonexistent. There is now, however, an opportunity for these countries to learn from the experiences of their European neighbors. Investment-based reforms can have substantial favorable effects but only over a long period of time. Because the demographic changes will exacerbate an already worrisome situation, Euro-

10. To see why the effective tax rate in the notional system is approximately three-fourths of the statutory rate, consider the following example. An individual earns an additional 500 kronor (SKr) and pays mandatory contribution of 100 SKr to a notional account, equivalent to a 20 percent tax rate. The value in the account grows at 2 percent per year. If we take age forty as the midpoint of the years of contribution and age seventy-five as the midpoint of the years during which benefits are withdrawn, the initial 100 SKr would grow to 200 SKr. If instead the 200 SKr of benefits had been financed by an investment-based plan that provided a real return of 6 percent, the 200 SKr could have been accumulated with an initial deposit of 25 SKr, equivalent to 5 percent of the 500 SKr of initial earnings. The 5 percent in the investment-based plan is not really a tax because the individual receives a full market rate of return. However, the excess tax (i.e., the difference between the 5 percent and the 20 percent in the notional system) is a tax. Thus three-fourths of the mandatory contribution to the notional system should be viewed as a tax.

pean governments must make major changes soon to keep their retirement systems viable and their overall tax burdens tolerable in the decades ahead.

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