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EDITORIAL

Seeking a better return

by Marc Twinney

In the discussions of Social Security reform, much has been made of the money's-worth ratios for individuals with different birth years. Of greater importance in my opinion is the internal rate of return on the aggregate contributions made to the system. This rate is a measure of how the various suggested reforms compete with each other, with other forms of savings, and as an investment in our economy.

If you do the mathematics for an unfunded defined benefit system that is in balance, the system's rate of return boils down to the rate of growth in the aggregate taxable payroll. Adjusting benefits and taxes to achieve long-term actuarial balance in the present pay-as-you-go system decreases the system's rate of return because the benefit yield related to the payroll taxes must decline.

Let us look at the growth in the aggregate payroll in the intermediate projections used for planning. Real wages after inflation are expected to grow by about 1% per year. The average annual rate of change in real wages was 0.9% over the last 40 years. However, the rate for 10-year periods varied considerably, starting at 1.8% in 1957-66 and trending down to 0.5% in 1987-96. Real wages are growing faster than 1% in certain sectors of the economy, but these sectors are slowly shrinking as a proportion of employment.

Aggregate payroll is also affected by the number of wage earners. In the 1960s and '70s, the workforce grew at rates of 2% per year or higher. The growth was driven by the baby boomers and women entering the workforce. With the percentage of females in the workforce at a maximum, fertility rates trending down, and the present policies on immigration, we cannot expect help from a rising number of workers.

While it lasted, the growth in the number of workers and in real wages combined to produce annual growth in payrolls of up to 5%. Even after the initial gain from pay-as-you-go financing had worn off, Social Security was a very good buy. Now, however, future growth and the internal rate of return look to be only 1% per year.

The investment option

The alternative to a pay-go system is to build funds for investment in capital markets. Until now, the effect on the federal budget of investing Social Security funds outside of government bonds was unacceptable politically. Today, many think that investing U.S. Social Security funds is best done by small, vested personal accounts, with investment limitations. This would be preferable to the federal government's investing Social Security trust funds in equities, a policy that, according to Alan Greenspan, would tempt politicians to interfere with companies in which the government was a shareholder.

Achieving the long-term average real rates of returns on bonds and stocks in personal accounts would require a very long-term view and holding that view regardless of short-term market changes. Investing retirement accounts entails the longest horizon that individuals or married couples have, some 40-50 years while working. A further 15-25 years in retirement can be added by variable annuities or life expectancy installments as distribution alternatives; these techniques have been proven in private plans like TIAA-CREF.

Index funds weighted by the market capitalization offer the potential of achieving the average real returns that have been recorded over the last 70 years. Index funds retain the risk and reward of the diversified market as a

whole and eliminate the greater risk/reward of investing in a single issue or market segment. They offer a simple way to focus on asset mix where so much of the risk can be managed.

Historic long-term rates serve as the basis of assumed future returns in the following analysis. The long government bond would yield a real rate of 2%. This is lower than the rates expected on the new 30-year inflation-indexed bonds. Corporate bonds would earn a real rate of 2.8% and equities a real rate of 6.5%-7%. Again, this is less than recent experience. In the long term, a balanced portfolio of index funds would earn a real rate of between 4 and 5%. Thus, unlike in many prior periods, the returns on personal accounts would be not only competitive with but superior to the rate of return on the pay-go system.

We are fortunate that there is a way to enlarge the returns for Social Security benefits. Even small accounts, for example based on a 1.6% contribution, under the above assumptions provide 30% of the benefits for lifetime participants.

Analysis of the rate of return requires more than this summary comparison. This analysis, however, is key to the policy decisions on structure. For a review of other investment issues in Social Security reform, see Dick Schreitmueller's article in this issue.

Finding a sensible route

As actuaries we are aware of how difficult it is for our models and assumptions to produce precise futures. Over the long term, a Social Security structure that adds a supplemental tier of modest investment accounts to a major program of defined benefits is preferable to a structure that relies too much on either defined benefits or investment accounts. It does not make any more sense for reform to exclude potentially high-return investment accounts than to abandon defined benefits that target needs.

Will it work? (continued from page 1)

specific proposal, mandatory contributions to such individual accounts could range from about 2% to 5% of wages (some 20% to 50% of total Social Security retirement contributions), perhaps supplemented by voluntary contributions, and presumably workers would allocate much of this money to equities.

Investing trust funds in stocks

By law, the U.S. government has always invested trust fund assets for its large retirement programs (Social Security plus plans for military personnel and other federal employees) entirely in U.S. Treasury bonds. Policy makers knew that equity investments could earn a higher long-range return but would involve government interference in private businesses if Uncle Sam selected the securities, voted proxies, etc., based in part on political agendas instead of investment objectives. At best this would reduce investment returns, and at worst damage the economy.

A breakthrough came in 1985-86 when Congress created and enacted the federal employee thrift savings plan (TSP), giving employees the option to invest in common stocks through an index fund administered by a new government agency under tight statutory control. Congress decided not to let employees invest TSP accounts in the open market, as if they were IRAs, because of administrative difficulties and costs. Since its inception in 1987, the TSP stock index fund has been very successful in earning high returns, keeping expenses low, and steering clear of politics. Today, advocates for investing Social Security trust funds in equities point to the TSP as proof that an index fund can avoid the classic dangers of government control. (See my 1988 paper in the *Transactions*, vol. 40, pp. 562-573, for more background on political-social investing, index funds, and operation of the TSP.)

But Social Security is a much bigger program — covering 145 million workers versus some 2 million eligible for the TSP — involving vast sums and reaching into the lives of all Americans. Before enacting Social Security reforms, policy makers need to make a diligent search for basic weaknesses and ask whether any fundamental flaw is fixable or fatal. Although I was present at the creation of the TSP index fund and am one of its biggest fans, I believe investing Social Security trust funds in an index fund raises questions that are troubling or unresolved.

Political temptation: Even with the best of intentions at the outset, can politicians resist the temptation to use the growing funds for political or social objectives? Under our current Constitution, Congress cannot be prevented from writing new laws that override an index fund's statutory controls. (The Canada Pension Plan's newly enacted reforms imply optimism about such issues, relying on fiduciary standards plus some indexing to make a politically appointed board manage equity funds at arm's length.)

Proxy voting: Is it feasible for Social Security to follow the TSP practice of delegating proxy voting to an outside fund manager who serves participants as a fiduciary? What are the dangers of concentrating so much government control over specific companies in one place? Is it better for nobody to exercise voting power with respect to stocks held centrally by Social Security?

Impact of the index: Mindful that including a given stock in the Social Security index fund will boost the price of that stock, how can Uncle Sam define the index to minimize market distortions or abuses? Could index funds held by Social Security and others become so dominant that stock prices no longer

(continued on page 4)