

Social Security Reform: One More Time

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There has been much breast-beating lately about future entitlement spending burdens. The out-year liabilities of Social Security seem quite large—\$11 trillion in present value terms. And Medicare is even worse, with out-year liabilities roughly seven times greater. How can the nation ever deal with such major funding problems?

But before we get too gloomy, let's stand back. These out-year liabilities are caused mainly by demographics—birth rates have declined significantly in the United States, as they have in most other countries in the world. Life expectancies have grown significantly here, as they have in most other countries of the world. The combination leads to a growing share of the population in retirement years, here and elsewhere, and to rising out-year entitlement spending burdens.

Suppose the converse. If birth rates had not declined, the world would be looking at ever increasing population levels. Even productivity optimists would at some point have to fear rising pressures on finite supplies of world resources, pressures that are much ameliorated with falling birth rates. On the other side of the age spectrum, life expectancies are rising because medical technology has found a way to deal with formerly fatal diseases, and because health systems and the provision of health care are improved. The alternative is not very attractive.

Hence the so-called burdens of financing future entitlement spending are really by-products of two very positive trends—falling birth and death rates. Of course these financing burdens will have to be dealt with, but one would think a society could at least provide the funding to accommodate these highly positive trends.

Because both Social Security and Medicare are big programs, covering the whole population of certain age groups, and because there are by definition an infinite number of out years, even programs that are not quite in long-term actuarial balance can cumulate to pretty big

actuarial present value burdens over an indefinite horizon. Recent data from the report of the Trustees of Social Security and Medicare, shown in table 1, pegged the present value of out-year liabilities over this infinite horizon to be \$11 trillion for Social Security, 1.2 percent of GDP cumulated over the same period, and \$70 trillion for the various Medicare programs, 7.3 percent of cumulated GDP.¹

These are big deficits, and the normal marginal changes that politicians are fond of will not bring the system into balance. The numbers also suggest that between the two programs Social Security is far the more manageable challenge. Not only is its deficit smaller, but Social Security involves only money, with different groups getting somewhat more or somewhat less. Medicare, by contrast, involves much bigger numbers and the possible rationing of essential health care, raising much more significant philosophical and policy issues. In this paper I will focus mainly on Social Security, the topic of the conference, but since I believe that whatever is done for Social Security should be at least roughly consistent with what is done for Medicare, and mindful of the problems in Medicare, I will make occasional forays into the Medicare domain.

There has, of course, been a huge amount written about Social Security. Before the law was changed in the mid-1990s, advisory councils were mandated every four years. Not all of these took on Social Security financing burdens, but many did. To these official analyses of the system have been added writings of economists and other social scientists, sometimes in favor of touching up the present system, sometimes in favor of much more radical change. And there has been debate in other countries as well—Chile changed its system in the direction of privatization

¹ *2000 Annual Report of the Boards of Trustees of the Federal Old-Age and Survivors Insurance, Disability Insurance, Federal Hospital Insurance, and Federal Supplementary Medical Insurance Trust Funds.*

of Social Security two decades ago, Britain a few years ago, several other countries have shown interest, and yet others have modified their systems in less significant ways.

Popular discussions of Social Security often focus on competing plans—this person’s approach to Social Security would change x, y, and z; that person’s approach would change x or y but not z, and so on. Without being thoroughly steeped in the details, it can become difficult to follow such debates—one is never sure whether the plans work actuarially, how the different elements might be traded off, and so forth. While I have offered a specific plan in the past, most notably when I chaired one of the Social Security advisory councils ten years ago, in this paper I focus only on a broader strategy. While the present Social Security system is not by itself terribly far out of long term actuarial balance, when combined with Medicare, the country is facing major problems in funding projected entitlement spending down the road. One can imagine several ways to fill this funding gap:

- Raise payroll taxes (or other taxes);
- Cut benefit levels;
- Have people work longer careers before receiving benefits;
- Have people save more to supplement Social Security;
- Permit people to invest their funds differently and perhaps get a higher rate of return.

These are the logical options. Some may be wise or unwise, practical or impractical, politically popular or not. I will discuss the pros and cons of each general approach, and sensible ways of implementing each approach. At the end I will argue for a composite strategy that uses elements of all of the approaches.

Raise taxes

Social Security has existed for seventy years now, and whenever the actuarial forecasts have fallen out of balance, the dominant approach has been to raise payroll tax rates. In principle, any tax could have been raised to finance higher benefits, but from the beginning the program has been tied to employment—retiree benefits are based on years of work experience and wages—and financed by payroll taxes. Hence I will confine attention to the payroll tax, recognizing that it is at least theoretically possible to use other taxes to finance any Social Security funding shortfalls.

The basic problem with following past practice and raising the payroll tax rate whenever actuarial funding problems arise is that there is no natural end to the process. Payroll tax rates began at 2 percent (1 percent paid by the employee, 1 percent paid by the employer) on the first \$3000 of wages back in 1937; now they are 12.4 percent (6.2 percent on each) on the first \$90,000 of wages. Tax rates could march right up as the system gets more costly, as they have in the past—the rate that finances present estimated Social Security liabilities in perpetuity is on the order of 16 percent.

It may not be the worst outcome in the world to just go to 16 percent and make no other changes. Raising taxes (without a concomitant increase in spending) limits consumption and raises national saving, a macroeconomic shorthand for the share of output devoted to growing the economy. As will be discussed below, spending cuts are likely to take effect on a much slower pace, with much less immediate impact on resources devoted to growth. At the same time, higher payroll tax rates do become increasingly distortionary (the standard formula makes tax distortions proportional to the square of the tax rate), and they certainly are politically unpopular. Despite their positive saving impact, as time goes on it may make sense to change

the historical practice and not rely as dominantly on payroll tax rate increases to keep the system in balance.

But that is only part of the tax question. The other part involves how much of income should be taxed. Back in 1980 the maximum taxable wage level covered about 90 percent of wages. Recently, because of the sharp rise in the share of wage income in the upper tail, that same taxable ceiling now covers only about 84 percent of wages. Many have argued for taking the taxable maximum back up to 90 percent of wages, which would entail raising it to about \$140,000. Indeed, Medicare already taxes all wage income—were this approach used, there would be no taxable maximum at all. Raising the taxable maximum still has efficiency costs—workers in the newly covered range obviously are assessed with a tax increase—but the effects are not as broad as a general payroll tax increase, and there is an offsetting argument for changing the distribution of the tax burden to mirror changes in the underlying distribution of income.

Cut benefits

Social Security benefits now total more than \$500 billion, and it would seem possible to cut benefits at least a bit. Possible, but harder than one would think.

To begin with, there is a sociopolitical problem. Most benefits go to retirees or the disabled, and these groups are particularly vulnerable to cutbacks. Retirees have already quit working and have made their retirement plans. Social Security benefits are not promised in a legal sense, but they are at least implicitly promised, and related by formula to the past wages of retired households. If benefits for present retirees were to be cut, many vulnerable people would have to reprogram their retirement living arrangements, which they either could not do at all, or only could do with great difficulty. For this reason, in the entire seventy year history of Social

Security benefits to retirees have never been cut, and even conservative Social Security reformers typically do not recommend cutting benefits for present retirees.

But there are many proposals for cutting the growth of benefit levels over time. One class of proposals involves means-testing benefits—basically reducing benefits according to the other income of retirees. By this standard Ross Perot and Bill Gates would not receive any Social Security benefits. Such an approach sounds good politically, but the appeal is misleading. A systematic program of means-testing would involve cutting the benefits of those who have saved during their work years (and therefore have investment income in their retirement years), or those who continue working well into their retirement years. As will be argued below, society should want to encourage both saving and working longer. Means testing provides exactly the wrong incentives.

Another common approach to cutting benefits over time is to price-index benefits. Given the intense discussion of this issue this year, most people are now familiar with the broad details. Social Security wage indexes benefits up to age 60. This means that workers effectively get the benefit of economy-wide productivity during their working years, and that economy-wide replacement rates (the ratio of first year retirement income to last year wages for the average worker) are stable at about forty percent. Going to price indexing would effectively mean that replacement rates would slide downward for as long as the price indexing is in effect—replacement rates would asymptotically approach zero. So-called progressive indexing is a hybrid where low-income wages would continue to be wage-indexed while high-income benefits are price-indexed—if continued over time, this scheme would have the system gravitate to a nearly flat benefit system at the wage indexing threshold.

While these indexing plans again look superficially appealing, do we really want replacement rates to gravitate to either zero or to a nearly flat benefit system? Such a change would fly in the face of all the assumptions Social Security has been built on for these seventy years—a system that includes everybody, but is based on earnings so that those who put in more get out more. Going to low or flat benefits changes Social Security much more into a welfare system, with relatively scant retirement income protection for middle- and upper-income households. Over time the system would likely lose its political appeal.

If full-fledged perpetual price indexing is too much to swallow, there could be some form of price indexing for a while. In the 1970s Social Security was switched from a system where the indexing was discretionary, based on Congressional upgrading every few years, to an automatic system. At the time the indexing was set so that replacement rates were at 40 percent, above their historic levels, largely because of the fear of aged poverty. At this point there are other actual and potential defenses against aged poverty, and it would be possible to cut benefits somewhat by, say, instituting progressive indexing for a short time, letting replacement rates slide down to 30 or 35 percent, and then resuming full wage indexing.

Have people work longer careers

Back in 1940, at the dawn of Social Security, people arriving at age 65 could be expected to live another 14 years. People born today are likely to live an average of 21 years after age 65. Other things equal, this fact alone makes Social Security a much better deal for younger than older workers. Other things are obviously not equal in many ways, but I think there is still a strong intergenerational fairness issue in having younger and healthier workers work longer beyond age 65 before receiving Social Security benefits.

There are various standards for working out exactly how Social Security should adjust for increasing life expectancies. Using the age 65 standard, as was implicitly done above, average life expectancy has increased about two-thirds of a year per decade in the 20th century. Adopting a different standard, in 1940 twenty-year old workers looked forward to spending about 96 percent of their remaining expected lives working and 4 percent in retirement. At today's life expectancies that 96 percent ratio would entail workers retiring in their early 70s, a slightly more rapid effective rate of increase in the retirement age. Using various health status measures, typical health status in retirement years is improving even more rapidly. Summarizing all measures combined, I have earlier computed that a reasonable standard to achieve fairness across generations would have the age at which workers receive full benefits (known as the normal retirement age) increase slightly more than a year every decade.²

The standard objection to such a change is that many workers have had arduous physical careers, and are simply not in shape to work more years. But not as many workers as one might think. The Labor Department compiles statistics on the share of workers in jobs judged to be physically demanding. Back in 1950 this share was 20 percent. Now it is down to 6 percent and dropping. By the time any normal retirement age changes took effect, there would likely be only 3 to 4 percent of the workforce in such physically demanding jobs.³ With a broad program such as Social Security, it is impossible to find any policy change that works for everybody, and to me raising the normal retirement age has enough benefits to more than outweigh any costs imposed on the relatively few workers in demanding jobs who would have to work slightly longer careers.

² Edward M. Gramlich, *A First Step in Dealing with Growing Retirement Costs*, 2005 Banking and Finance Lecture, Widener University, April 21, 2005. The health numbers are taken from David Cutler, Jeffrey B. Liebman, and Seamus Smyth (forthcoming), *How Fast Should the Social Security Retirement Age Rise?* Harvard University, 2005.

³ My claim is based on numbers in Eugene Steuerle, Christopher Spiro, and Richard W. Johnson, *Can Americans Work Longer?* Urban Institute, August 15, 1999.

Social Security does have an early retirement option, where workers can retire at age 62 and take a fair actuarial reduction in benefits. Benefits for these workers begin earlier, but are reduced for the rest of the person's life. One could always keep this age of early eligibility at 62, but over long periods of time even that is probably a mistake. As the normal retirement age increases, it makes sense to raise the age of early eligibility in tandem, both to keep Social Security benefits for early retirees from getting too low, and to keep up the supply of workers. An aging society will need more workers, and it makes sense to keep the incentives for early retirement to a minimum. Just as workers at age 65 are getting steadily healthier, so also are workers at age 62.

Have people save more

One of the surprising economic facts about present day America is how little people save. Even including pension saving, the overall personal saving rate has just dropped to a big, fat zero. It is true that many of these people saving zero have become wealthy because of capital gains on their houses or common stocks. Conceivably people could convert these gains into retirement income, but many people still arrive at retirement with very small financial cushions outside of Social Security.

Looking at income directly, the Social Security Administration reports that in the lowest income quintile, households age 55 and over receive 78 percent of their income from Social Security, 11 from other transfer payments, only 2 percent from earnings and 5 percent from assets. The earnings percent stays in the single digits all the way up to the fourth quintile and the asset percent in single digits to the fifth quintile. For roughly half of the population of retirees Social Security and other transfers account for more than 90 percent of living support.⁴

⁴ Social Security Administration, *Income of the Population 55 or Older*, 2002, March 2005.

The obvious answer to questions raised by low personal saving, low national saving, and overwhelming reliance on Social Security is to get people to save outside of Social Security. In the Social Security plan I recommended a decade ago, I proposed a small mandatory saving account on top of Social Security. Such a plan would not have directly dealt with the financial problems of Social Security, but it would improve retirement saving more generally. I reasoned that a mandate made sense—it did not cost any budget resources, and it was automatically regulating. Those who already were saving could claim that saving to satisfy the mandate, and would not have to save any more. Those who were not saving would have to. Hence national saving would increase, roughly for those households that one might think were undersaving. But what had desirable properties in a policy sense was not all that popular in a political sense, and I now am forced to admit that a mandatory saving plan is probably not in the cards.

There are still ways of inducing more saving without costing budget revenue. Many employers have subsidized, tax-favored, defined contribution pension plans that are open to all employees, but often not highly-subscribed. The standard approach is to permit employees to sign up, the so-called “opt-in” approach, but it would be possible to do better by automatically enrolling employees and permitting them to “opt out.” Past research has shown that such a shift can significantly raise participation rates in defined contribution pension saving plans.⁵ Other countries have schemes to get all employers to offer such pension plans, with a government backstop for very small employers.

It is also possible to give tax inducements for added saving. The nation has been doing that since the early 1980s, with indifferent success. There is still a raging debate between those

⁵ Brigitte C. Madrian and Dennis F. Shea, *The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior*, NBER Working Paper #7682, May 2000.

who think the tax inducements have stimulated personal saving and those who think not.⁶ If there were no stimulus to personal saving, national saving would drop, because saving inducements clearly lower government revenue. An inconvenient fact in this debate is the fact that since the inducements started, the personal saving rate has dropped steadily downward, to its present level of zero. It is very possibly the case that upper-income households have converted other assets to tax-preferred form, not saved any more, cost the government revenue, and lowered national saving.

But there is still interest in tax inducements for added saving, on both sides of the political aisle. Inducements for lower income households are less likely to generate asset switching, because there are no assets to switch, but it is unclear how much positive saving they will create. Many low-income households already have the opportunity to gain public or private subsidies for their saving, and it remains to be seen whether added subsidies will be effective.

Permit people to invest their funds differently

A standard claim in the political debate about Social Security is that individuals should be able to invest at higher rates of return than are now realized from Social Security. A standard claim, but very misleading.

As Paul Samuelson showed long ago, a pure pay-as-you-go (PAYGO) pension plan has an equilibrium long run real rate of return equal to the growth of real earnings.⁷ The idea is that workers pay in a constant share of their own earnings, and get back their share of later tax collections, which are inflated by the growth of real earnings (whether this growth emanates

⁶ The Fall 1996 issue of the *Journal of Economic Perspectives* contained several articles summarizing empirical work on this question. To put it mildly, economists have continued to argue since that time.

⁷ Paul A. Samuelson, "An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money," *Journal of Political Economy*, December 1958.

from population growth or productivity growth). In a pure PAYGO system there are no assets to be invested.

The U.S. Social Security system is more or less on a PAYGO basis, but it does not satisfy the exact conditions of the Samuelson theorem. There are several complications that arise in computing long run effective real rates of return. For one thing, in the early years of the system relatively high benefits were paid out to workers who had not contributed before the system was started—these early cohorts got especially high rates of return with everybody else along the line paying for them (the so-called legacy cost).⁸ There is also redistribution within Social Security: other things equal lower-income households get higher rates of return than do higher income households. Finally, Social Security does not have exact matching of inflows and outflows, and in certain instances, such as the present time, it does build up a stock of assets, now invested in long term government bonds.

In the recent political debate, many have argued that workers should be able to invest in individual accounts, which in turn can be invested either in stocks or bonds. To assess these claims, it is helpful to invoke a macroeconomic principle: unless total capital in the economy is increased, there can be no increase in capital income, only its distribution between individuals. That is why it is important to ascertain the impact of individual accounts on national saving.

In more specific terms, suppose individual accounts were to be “carved out” of present payroll taxes, as proposed by President Bush. The carve out would not seem to increase overall saving, but it would create a hole in the financing of Social Security benefits that must be filled by yet other revenues. That is why the President charged an investment fee for the carve out,

⁸ Peter A. Diamond and Peter R. Orszag, *Saving Social Security*, The Brookings Institution, 2004, have a thorough discussion of the legacy cost issue.

equal to an approximate estimate of the normal return on Social Security. Whether the approach makes sense or not, it is hard to see how it could increase overall national saving.

Individual accounts could increase overall national saving if they were “added onto” the present system, either through mandated add-ons or a change in the opt-in rules for existing defined contribution accounts. The normal return on these accounts would then be the normal return on new investments in the whole economy, which for macroeconomic reasons is likely to be greater than the average returns on existing Social Security contributions.

Does it matter whether these funds are invested in stocks or bonds? According to orthodox capital theory, it should not, at least for the population as a whole. Generally stocks outperform bonds, but a significant component of that difference in returns reflects the fact that stocks also have greater investment risk. A basic proposition of finance is that expected future risk adjusted rates of return on stocks and bonds should be equal—if not, stock or bond prices should adjust to make them equal.

Not only does investment risk affect the return on stocks and bonds, it also bears on the overall wisdom of individual accounts. Social Security is what is known as a defined benefit pension plan—benefits depend on contributions through a legislative formula, and it does not matter to individuals how any assets of the fund are invested—the government bears the investment risk. Switching to carve out individual accounts would convert Social Security partially to a defined contribution pension plan. Some individuals would no doubt do better, and some would no doubt do worse. But individuals in the aggregate would bear much more of the investment risk. Add-on individual accounts might represent a compromise: on the normal Social Security component the government bears the risk, on the add-on component individuals bear the risk.

The upshot of this discussion is that the rate of return question is really pretty complicated, much more so than one might perceive from political advocacy arguments. Because of the underlying structure of Social Security, the basic rate of return is set by rates of economic growth less any legacy costs. Carve out individual accounts could make some individuals better off, but they will also make some individuals worse off, and they do add to individuals' financial risk. Add-on individual accounts will as well, but they may generate some new national saving and the existing defined benefit Social Security system will limit overall risk to individuals. Investment policy, stocks or bonds, will matter to particular individuals, if they are lucky or unlucky on their stock investments, but across the whole society the risk-adjusted rates of returns on the two asset types should be equal.

A composite approach

A standard principle of policy design is that there is often sense in relying on a menu of different policy measures, to limit the costs of extreme changes in any one measure. As applied to Social Security, this principle suggests a composite of the preceding approaches.

Before getting into specifics, a word on how large is the basic problem to be solved. Discussions of Social Security typically focus on a 75-year horizon. While 75 years seems like a long time, for Social Security purposes it can give very misleading answers because the population is gradually aging, and out-year deficits are typically much larger than near-term deficits. Hence as time passes, increasingly high-deficit years are added to the forecast horizon, and a plan that satisfied 75-year balance a year ago will not this year, even if no forecast variables change.

Responding to this problem, the Trustees now give permanent, or infinite horizon, estimates of out-year liabilities, and I will use those. Given the aging trends, any shorter horizon

is both arbitrary and misleading. I will also convert the discounted present value estimates mentioned previously to a percent of payroll. The percent of payroll deficits mean that an immediate rise in the payroll tax rate of x percent will make the system actuarially sound.

As table 1 shows, the Trustees now estimate of the infinite-horizon actuarial deficits to be 3.5 percent of payroll for Social Security and 5.8 percent of payroll for Part A of Medicare, covering hospitalization insurance. Since Parts B (physician costs) and D (drugs) of Medicare are financed by a combination of participant fees, general revenues, and state contributions, it is impossible to give a meaningful payroll deficiency number, but the share of GDP measures suggest that these deficits are in some sense about twice as high for Parts B and D of Medicare as for Part A.

Recalling my introductory discussion, these numbers result from positive long term trends. At the same time, they are big numbers. Even disregarding Parts B and D of Medicare, the United States is more than 9 percent of payroll out of long term actuarial balance for the main entitlement spending programs. At some point somebody will have to break some significant eggs to cook this omelet.

I will not give a full answer today, but I will give an illustrative menu to indicate the types of changes that are likely to be required. One possibility, for example, is to leave the payroll tax rate for Social Security and Medicare unchanged, but eliminate the taxable maximum for Social Security. Such a change would parallel what is already done for Medicare. The change would reduce the actuarial deficit by 2.1 percent of payroll. In so doing, a significant burden would be imposed on one share of the population, and this burden could be spread out by combining some payroll tax rate increases with some lifting of the taxable maximum.

On the spending side, increasing the normal retirement age by slightly more than a year a decade, or by three months every two years, reduces the actuarial deficit by another 1 percent of payroll. There are also minor measures (including state and local workers, changing the price index, etc.) that can reduce the deficit about half a point, and if we adopted progressive indexing for a decade or so, we could get up to 2 percentage points of deficit reduction on the spending side. Combining the tax and spending changes, both of which would cause huge political problems, the overall reduction in actuarial deficits would be about 4 percent of payroll, enough to solve the Social Security problem in totality and make a start on Medicare, but still less than half of the full job that needs to be done.

What about individual accounts? Given my reluctance to see workers, many of them not highly literate financially, bear a great deal of investment risk, I would leave the present Social Security program in place. I still have some affinity towards mandated add-on individual accounts, but in the spirit of political compromise, I think the most that can be done here is to get all employers featuring defined contribution pension plans to use an “opt out” approach. If past research is a guide, such a change should increase personal saving rates. This enhanced saving could be invested individually in a portfolio of stocks and bonds, though I would limit both forms of investment to mutual or index funds.

This menu, or something like it, uses a bit of each approach in partially resolving entitlement spending financing issues. There are some tax increases, some benefit cuts, some increases in the normal retirement age, a measure to improve saving on top of Social Security, and some freedom to invest the new individual accounts in the stock market. More will clearly have to be done to finance Medicare, but such an agenda would be a significant first step.

Conclusion

Because of the confluence of two welcome trends, decreasing birth rates and decreasing death rates, the United States does face significant burdens in financing both Social Security and Medicare. The burdens result from the long term implications of positive trends, which should make them less painful but does not solve the political problem of making the necessary changes. Indeed, these political problems will be quite difficult to manage, because there are no imminent short term dangers but very difficult long term imbalances, especially for Medicare.

There are no very attractive ways to deal with burdens this large. To me perhaps the best approach is to compromise on all policy margins—the country could raise the taxable maximum wage and payroll tax rates in some combination, raise the normal retirement age, trim benefits, add to saving on top of Social Security, and open up investment choices on add-on individual accounts. There are other strategies, but there is also logic in exploiting a variety of approaches, rather than relying entirely on one approach.

Table 1. Measures of Trust Fund Actuarial Deficiency
Infinite Horizon

<u>Trust Fund</u>	<u>Payroll Tax Shortfall (percent)</u>	<u>Open Group Liability (trillions of \$)</u>	<u>Share of GDP¹ (percent)</u>
OASDI	3.5	11.1	1.2
Medicare, Part A	5.8	24.1	2.5
Medicare, Parts B and D ²	--	45.8	4.8

¹GDP is the present discounted value of GDP over the relevant period.

²The present discounted value of gross expenditures less the 1.3 percent of GDP now devoted to parts B and D.

Source: 2005 Annual Report of the Boards of Trustees of the Federal Old-Age and Survivors Insurance, Disability Insurance, Federal Hospital Insurance, and Federal Supplementary Medical Insurance Trust Funds.