Introduction

The burdens of financing future entitlement spending for Social Security and Medicare are by-products of two very positive trends—falling birth and death rates. While these financing burdens are large and will have to be dealt with, one would think a society could at least provide the funding to accommodate 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 a long horizon. Recent data from the report of the Trustees of Social Security and Medicare pegged the present value of out-year liabilities over an 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.

With these big deficits, 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, with occasional forays into the Medicare domain.

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. While I have offered a specific plan in the past, this paper focuses on a broader strategy. 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.

I will discuss the pros and cons of each approach, and sensible ways of implementing each. I will then 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. Spending cuts are likely to take effect at 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, Social Security benefits to retirees have rarely 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. Such an approach sounds good politically, but the appeal is superficial. 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 retire-
ment 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. 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. But there are other 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.

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 expected 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 there is still a strong intergenerational fairness issue in having longer-lived and healthier workers work 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 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 translate to 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.
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. 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.

**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 zero. While many of these people saving zero have become wealthy because of capital gains on their assets, a large proportion of the population 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. 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. Earlier, 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, mainly for those households doing little saving. But what had desirable properties in a policy sense was not all that popular in a political sense, and my mandatory saving plan never received much support.

But there are still ways of inducing households to save more. Many employers have subsidized, tax-favored, defined contribution pension plans that are open to all employees, but often not highly subscribed. The present practice 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.

**Permit Different Investments**

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. 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 from population growth or productivity growth).

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. 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). There is also redistribution within Social Security: other things equal lower-income households get higher rates of return than do higher income households.

In the recent political debate, many have argued that workers would get larger returns from individual accounts, which in turn would 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 overall in capital returns, 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. Hence this approach is unlikely to increase national saving, and overall investment returns.

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 somewhat 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. 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, 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 uninformative. I will also convert the discounted present value estimates mentioned previously to a percent of payroll.

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.

On the other side, I will give an illustrative menu to indicate the types of changes that are likely to be required to correct these imbalances. One possibility is to leave the payroll tax rate for Social Security and Medicare unchanged but eliminate the taxable maximum for Social Security, conforming to 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 beyond the ages scheduled in present law, reduces the actuarial deficit by another 1 percent of payroll. There are also minor measures 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 in terms of Social Security and Medicare combined.

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 in dealing with our looming entitlement spending burden.
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This work was supported by a grant from the Social Security Administration through the Michigan Retirement Research Center (Grant # 10-P-98362-5). The findings and conclusions expressed are solely those of the authors and do not represent the views of the Social Security Administration, any agency of the Federal Government, or the Michigan Retirement Research Center.

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