Social Security Status Quo versus Reform: What's the Tradeoff?

by Jagadeesh Gokhale

Executive Summary

The debate on Social Security reform has moved rapidly. Not too long ago, it was focused on whether the Social Security Trust Fund's holdings of Treasury obligations—now totaling \$1.7 trillion—implies that future benefits are secure. Recent studies suggest that, for each dollar of payroll tax surpluses made available to the federal government, federal consumption spending increases by much more than a dollar and the emergence of Social Security surpluses may have reduced, rather than increased, net domestic saving and investment. Because that implies smaller aggregate output and a smaller tax base, using the trust fund to pay future benefits will require higher non-Social Security taxes or deeper cuts in non-Social Security spending.

The value of the Social Security Trust Fund is minor compared to the accrued excess benefits of past and current generations of retirees and workers. Currently, those benefits amount to \$13.7 trillion. The federal government's apparent failure to conserve Social Security's surpluses and the poor prospective returns that the program provides current and future participants have prompted proposals for introducing personal Social Security accounts. Critics of personal accounts assert that the additional explicit debt ("transition costs")

needed to continue paying current benefits would likely give rise to negative reactions from financial markets, which would make personal accounts prohibitively expensive.

That criticism ignores several facts: The administration's latest proposals to gradually introduce personal accounts beginning in 2009 would, if enacted, cause a relatively small increase in federal debt—\$273 billion measured in present value as of 2005—during the decade after 2009. The increase in explicit debt would be matched by an equal or greater injection of funds in private markets. The associated future reduction in federal obligations could potentially improve the government's financial position. And a carefully crafted system of personal accounts would improve labor market incentives, making the economy better positioned to fulfill the needs of an aging population.

Options for Social Security reform must be weighed against the proper alternative—the financial implications of postponing policy adjustments. The program's massive financial shortfall implies an annual interest cost accrual of more than \$700 billion—far exceeding growth in the economy's capacity. If changes to Social Security policies are delayed, runaway growth in Social Security's financial shortfall is likely to ensure higher tax rates and more adverse reactions by financial markets in the future.

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Introduction

The debate on Social Security reform is moving very rapidly on some issues, but it is bogged down in others—especially the socalled transition cost of reform. Opponents of President Bush's Social Security proposals suggest that this cost would add up to \$2 trillion over the first 10 years, making the introduction of personal accounts hazardous. Federal Reserve chairman Alan Greenspan fueled that sentiment by suggesting during recent congressional testimony that financial markets' reactions to large accumulations of explicit federal debt would be difficult to gauge. Although the administration's approach to introducing personal accounts is similar to the president's 2001 Commission's Plan II, it does not amount to a complete proposal.² The Republican leadership is committed to reforming the program.

Obviously, personal accounts implemented in an actuarially fair manner would neither reduce nor increase Social Security's financial imbalance directly: The reduction of future benefits to those who participate in personal accounts would match dollar for dollar in present value the shift of payroll taxes into personal accounts. However, given that many young individuals heavily discount the likelihood of receiving benefits as currently promised, a larger reduction in promised future benefits may be feasible. Note that this does not require a cut in future benefits relative to current levels in real terms—only a reduction in the real growth rate in the benefits of successive retiree cohorts. Personal accounts would play a crucial role in facilitating such adjustments to Social Security's rules-which could potentially improve Social Security's (and the federal government's) sustainability.

Judgments about the merits of introducing personal accounts should not be based exclusively on whether such accounts address the program's imbalance; judgments should also be based on whether personal accounts would improve the operation of Social Security as an institution designed to safeguard (that is effectively save and invest) resources meant for financing retirement consumption. Many people who are engaged in the debate on Social Security reform apparently do not consider those indirect but important advantages of personal accounts. They also do not compare the cost of a reform that includes personal accounts

with the correct alternative: the cost (including possible adverse future reactions of financial markets) of maintaining the status quo in Social Security policy.

Total retiree consumption and the share of output devoted to it are both projected to grow rapidly as the baby boomers exit the workforce. The economically sound way to pay for this known future need is through prior saving and investment. The 1983 Social Security amendments led to payroll tax surpluses that are expected to last until 2017. Whether surplus accruals were intended by those who designed the amendments or whether they are accidental to the measures adopted in those amendments is a matter of debate. Regardless, the growing accumulation of Treasury securities in the trust fund serves as a test of the government's ability to save resources for a known future needbaby boomers' retirement consumption.

The debate on that issue is deeply divided with some people claiming that the trust fund is "real" and others that it is not. The correct approach to evaluating this issue is to examine whether payroll tax surpluses are being put to good use by the federal government. As discussed below, recent studies show that this 20-plus-year (and perhaps accidental) experiment in public saving appears to have failed to effectively save and invest payroll tax surpluses.

The implication of those studies is that, as long as the provision of "social security" remains a federal operation, its financing arrangements cannot be divorced from those of the rest of the federal government: whether the Social Security Trust Fund (or any other trust fund) can serve as an effective saving mechanism depends on whether the remainder of the federal budget can effectively avoid dissipating the accruals by spending them on non–Social Security programs.

If the Social Security Trust Fund's objective, indeed, is to increase public saving to partially prefund baby boomers' retirement costs, budget accounting conventions and budget process rules need to be consistent with that objective. Instead, current rules imply little consistency across programs with short- versus long-term saving needs. The budget process appears to be biased in favor of delivering short-term spending increases and against saving for programs that will have greater spending needs in the future. Inconsistent accounting and budget

process rules appear to be the main reason that policymakers face contradictory short-term and long-term incentives. That results in a misallocation of resources relative to the goals of different programs.

This paper briefly describes Social Security's large and growing financial shortfall as projected under the program's current rules. It discusses recent findings that suggest that the Social Security Trust Fund is ineffective as a mechanism for saving resources for paying future Social Security benefits. It also shows that specifying constraints on the government's budget and budget-making process in terms of shortterm cash-flow accounting fails to establish effective constraints on federal spending and tax policies for meeting long-term needs. The strong bias in incentives toward increasing short-term federal spending and cutting taxes also leads to excess spending commitments over the long term relative to available resources.

A new budget process based on long-term present-value accounting—that is, comprehensive forward-looking measures of the balance between long-term commitments and resources—appears to be necessary to restore balance in policymakers' incentives on short-term spending versus long-term commitments. Such a process would reveal binding tradeoffs in the timing of spending and tax policies and would show the costs that alternative policies impose on different population subgroups, including the unborn.

Supplementing current cash-flow budget measures with present-value accounting is likely to improve federal resource management and achieve a more consistent application of policies relative to the goals of different programs. In addition, that would generate a fairer distribution of fiscal burdens across generations. Finally, placing credible constraints on the federal budget process would improve private labor market incentives and boost economic growth.

The Social Security Trust Fund: A Failure as a Saving Mechanism

Policy advocates on all sides agree on some fundamental facts about the current Social Security system. They agree that the current system will be unable to fulfill its benefit obligations because of ongoing demographic changes, principally the retirement of the baby-

boom generation. Moreover, they agree that recent and continuing advances in medical care will mean longer life spans and more years spent in retirement by the baby boomers compared with earlier retirees. Finally, all agree that the population of workers is expected to grow very little compared with that of retirees during the next several decades.

Current demographic and economic projections imply a large financial problem for Social Security, which uses almost all current revenues to finance current benefits. The small payroll tax surpluses accruing currently are expected to last for another 12 years, but they won't help fund the surge in Social Security's benefits over the next two decades because the surpluses are lent to the federal government and used for current non–Social Security federal expenditures.

The important question, of course, is whether the "investment" of trust fund surpluses in Treasury securities results in genuine resource conservation for financing future benefit obligations. If not—if the surpluses are really being consumed despite the appearance of a reserve of assets created by the existence of the trust fund—the retirement benefits of baby boomers must be financed entirely out of higher future taxes.

Some observers suggest that government spending is essential for economic growth. However, the question really should be whether marginal federal spending—the increase financed by payroll tax surpluses—is growth enhancing. If so, using the surpluses to fund additional federal spending today would increase future output and the future payroll tax base, making it easier to pay future benefits. However, several studies provoke skepticism about such tax-base-increasing effects.³ Indeed, at the margin, government spending likely has a zero or negative impact on productivity and output because it withdraws resources from the private sector and allocates them to government consumption.

It is noteworthy that increases in government spending are not decided through markets but through political and bureaucratic preferences. To the extent that additional public spending replaces private consumption and investment, it is likely to have a zero or negative impact on economic growth. If additional federal spending is on investment-type goods or activities, it is unlikely to be undertaken efficiently because

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government decisions about resource allocation are not driven by market price signals that indicate which types of investments will lead to the highest returns. The late senator Moynihan may have had that in mind in 1990 when he proposed eliminating Social Security's surpluses by reducing payroll taxes.

There are yet more ways in which using payroll tax surpluses for non-Social Security spending slows output growth. Keeping payroll taxes high not only drains the private sector of resources, it reduces private work incentives. Those effects result in a permanently higher level of unemployment or a shift in employment from private- to government-sector jobs. They may also promote emigration by skilled domestic workers and discourage immigration by skilled foreign workers. Those effects imply lower total output and reduced living standards even were labor productivity high and growing in the private sector.⁴ A recent study on privatizations in Mexico, for example, shows that more than onehalf of the increased private-sector profitability can be traced to improved worker productivity. By implication, expansions of the public sector at the expense of the private sector would work in the reverse direction.

Finally, several recent studies have shown that making Social Security surpluses available for federal spending is associated with a more than dollar-for-dollar increase in non-Social Security federal spending.⁶ Indeed, those studies show that for every dollar of Social Security surpluses, federal non-Social Security spending increases by nearly two dollars. Not only are the payroll tax surpluses themselves spent unproductively by the government, the availability of those surpluses for federal spending stimulates yet additional federal expenditures. That implies that Social Security's current institutional setup promotes *negative* saving—that is, it reduces rather than increases the size of future output, earnings, and the payroll tax base. Taken together, the studies make it difficult to argue that the Social Security Trust Fund is effective as a mechanism for saving resources for the future.

The Size of the Federal Financial Shortfall due to Social Security

The prospective rapid growth in the population of longer-lived retirees coupled with a near-

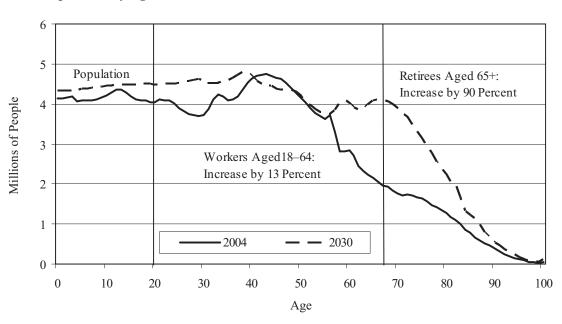
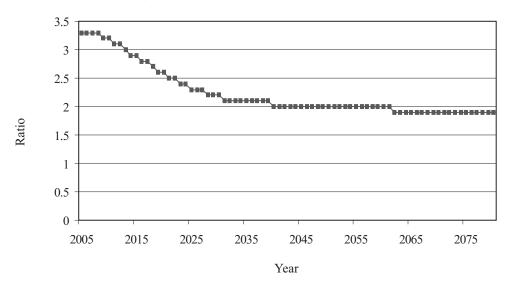


Figure 1 Total Population by Age

Source: Social Security Administration.

Figure 2 Worker-to-Beneficiary Ratio, 2005–2080



Source: Social Security Administration.

constant population of taxpaying workers underlies current projections of Social Security's escalating benefit outlays and stagnant revenues. How bad is the situation? Figure 1 shows the age distribution of the population for the years 2004 and 2030—based on the Social Security Administration's population data and projections. It indicates that the population of retirees is expected to almost double by 2030, but that of workers will increase by only 13 percent. Figure 2 shows the implications for the worker-to-beneficiary ratio. That ratio is a key statistic for any pay-as-you-go public pension program such as Social Security.

For Social Security to be able to pay out benefits in each future year, the worker-to-beneficiary ratio must be at least as large as the ratio of the system's replacement rate to the payroll tax rate. Under current rules, the average replacement rate equals 41.8 percent, and the average Social Security tax rate (for the OASDI program) equals 12.4 percent. Hence, to maintain a 41.8 percent replacement rate, the worker-to-beneficiary ratio must remain above 3.37. Figure 2 shows the projected evolution of the worker-to-beneficiary ratio through 2080. It indicates that the ratio is about 3.3 today but will decline to about 2.1 by 2030.

According to official demographic projections, the decline in the worker-to-beneficiary ratio will be rapid during the next three decades, after which it will permanently settle at a lower level.¹² That implies that future revenues will be permanently smaller than benefit outlays. Because scheduled benefits are wage indexed and will continue to grow as longevity continues to improve, the revenue shortfall will continue to become wider under current Social Security law.

Normally, Social Security's financial projections are evaluated through the next 75 years. Calculating the present value of the 75-year shortfall (that is, adjusting for both inflation and interest costs) reveals that it is \$4.0 trillion. However, because the demographic shift in the worker-to-beneficiary ratio is permanent, revenue shortfalls continue to accrue beyond the 75th year. According to the Social Security trustees, the program's total unfunded obligation amounts to \$11.1 trillion in present value when shortfalls beyond the 75th year are taken into account.

The \$11.1 trillion figure is calculated after subtracting the present value of projected revenues and the value of the trust fund from the present value of projected Social Security benefits. As discussed earlier, however, the trust fund's IOUs are a liability of the federal government. Because the original surpluses that gave rise to those securities are consumed on federal operations, they correspond to a net obligation to the federal government, and their

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redemption must be financed out of higher future borrowing, higher future taxes, or reduced future expenditures. From the perspective of federal fiscal policy, therefore, the government is short of resources on account of Social Security to the tune of \$12.8 trillion.

What's the correct interpretation of that figure? It is simply that the federal government must either have on hand an additional \$12.8 trillion invested at interest to be able to continue with the current Social Security payroll tax and benefit rules, or it must raise an equivalent amount of funds in present value by increasing payroll taxes or cutting future Social Security benefit obligations. Given the staggeringly large resource shortfall facing the federal government on account of Social Security, almost everyone agrees that the program is in need of reform.

It's Not That We Didn't Try . . .

Coming up with an extra \$12.8 trillion of resources for Social Security could be achieved in either of two ways: increasing taxes as and when necessary to meet growing benefit obligations or saving ahead of time to accumulate a reserve to prefund anticipated growth in benefits. Would it be possible for the payroll tax surpluses that are continuing to accrue in the form of Treasury securities in the Social Security Trust Fund to function as a prefunding mechanism? There is no firm consensus about whether the people who designed and negotiated the amendments had that role in mind.¹⁴ Nevertheless, the emergence of Social Security surpluses provides a test of whether current federal budget institutions can be effective in saving for the future costs of baby-boomer Social Security benefits.

The prohibition against trust fund investments in non-Treasury securities implies that payroll tax surpluses are available for the federal government to spend immediately. That could trigger three alternative changes in the rest of the government's budget (independently or in combination): Spending on non–Social Security federal operations may be increased—offsetting the trust fund surpluses with accumulations of additional non–Social Security (general government) deficits and debt. The extra non–Social Security spending could be on investment-type goods and services. However, only about 6 percent of the federal gov-

ernment's non–Social Security spending results in a net addition to physical capital—purchases of equipment and structures, research and development expenditures, and the like. So far, there is no conclusive evidence about whether expenditures other than purchases of physical goods and services—such as education subsidies and unemployment and child care transfers—result in additional human capital for the economy.¹⁵

Alternatively, payroll tax surpluses could trigger additional cuts in non-Social Security taxes. That change is equivalent to substituting payroll taxes for income or other taxes. Again, the accumulation of trust fund surpluses would be offset by an accumulation of federal deficits and debt. According to one recent study, substituting payroll taxes for income taxes should lead to higher national saving because income taxes are progressive and reduce the resources of higherincome taxpayers—those who tend to save greater proportions of their disposable incomes. Recent studies, however, find no empirical support for the latter effect. ¹⁶ Finally, if increases in trust fund surpluses do not result in either of those changes (increased federal non-Social Security outlays or cuts in non-Social Security federal taxes), they must lead to lower government borrowing from the public.

Trust fund surpluses can be effectively saved only if the third alternative is realized. That is, if trust fund surpluses produce an equal decline in rest-of-government (on-budget) deficits and reduce by the same amount total debt held by the public, then the total amount of resources that the federal government drains (borrows) from the private economy would decline. Those resources would remain with the private sector for investment in private assets. As a result, real domestic private investment would increase, or more of it would be financed out of American rather than foreign savings—leading to larger asset incomes for U.S. citizens in the future. Hence, if trust fund surpluses resulted in no additional government spending and no additional tax cuts, they would lead to correspondingly higher saving and investment in the economy, implying higher future output, a larger future tax base, and improved capacity to pay future benefit obligations.

Spiraling unified budget deficits during the mid-1980s following President Reagan's tax cuts and defense buildup meant that the Social Security surpluses were not effectively saved.¹⁸

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Escalating deficits and debt during the mid-1980s prompted Congress to reform its budget process via the Balanced Budget and Emergency Deficit Control Act of 1985. That law gave the comptroller general authority to order automatic acrossthe-board spending cuts if established deficit reduction targets were not attained. But such cuts via a presidential order for sequestration were declared unconstitutional, and the law was revised in 1987 (called the Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987).¹⁹ However, the new law was also unsuccessful in reducing deficits and was revised yet again in 1990. The revised budget-making rules called the Budget Enforcement Act-shifted focus from deficit targets to discretionary spending limits and introduced pay-go restrictions on new mandatory spending policies to ensure that they were deficit neutral. Federal budget deficits finally declined toward the end of the 1990s.

In hindsight, whether deficit reduction resulted from the BEA's constraints or because of the end of the Cold War and subsequent reductions in defense spending is a matter for debate. Almost all of the reduction in federal discretionary spending during the 1990s is accounted for by cuts in defense spending. Although income taxes increased under the Clinton administration in 1993, those tax hikes may not have resulted in significantly higher revenues. Higher revenues resulted from a boom in the information technology sector, the seeds of which were planted during the 1980s. That boom led to stock market gains and generated higher-than-anticipated revenues from capital gains taxes.

In addition, the "virtuous economic cycle" during the late 1990s—rapid growth in the tech sector fueling higher employment, output, and income in other sectors—caused sizable income gains by those paying income taxes at the highest marginal tax rates. Those outcomes led to unanticipated revenue increases and contributed to the emergence of unified budget surpluses during the late 1990s.²¹

The BEA was allowed to lapse in 2002 as budget projections around the turn of the century revealed large budget surpluses through the next 10 years and beyond. The abandonment in 2002 of the BEA was followed by steep tax cuts, enactment of large long-term unfunded obligations on account of Medicare prescription drug benefits, and a rapid expansion of spending on defense and nondefense discretionary programs. All of those fiscal changes led to the transforma-

tion of projected surpluses into a large deficit—all within a couple of years.

The abandonment of the BEA's constraints and the subsequent spending increases and tax cuts were defended by citing the need to "stimulate the economy," or to "return money to the people," or to ensure the existence of safe government securities for use in managing private portfolios, or to avoid a wasteful increase in the government's net asset position. The last would force public investments in private securities with attendant conflicts between the government's role as a regulator and as an investor. All of those rationales for eliminating the surplus appear to be reasonable, but only from a short-term perspective. They leave open a conflict between short-term objectives and the need to save for long-term needs. A short-term perspective argues for targeting the cash-flow federal deficit (or surplus) to maintain it close to zero. A long-term perspective would lend greater weight to accumulating assets to meet future growth in entitlement outlays without the need to increase future taxes.²²

Unfortunately, although many policymakers are aware of the long-term fiscal problems facing federal finances, they do not feel compelled to increase public saving ahead of time to "prefund" future increases in outlays. Pressures to provide continually increasing amounts of current public spending are intense and receive much greater weight in the political process in which future generations' economic interests cannot be adequately represented.

Another factor contributing to the lack of effective opposition to large and growing long-term fiscal imbalances is that those imbalances and their potential consequences have, until recently, remained hidden from the public. This is aided by the fact that the nation's official budget scorekeepers—the Congressional Budget Office, the Office of Management and Budget, and other groups—include overall spending and outlay projections only 10 years into the future in their main budget reports. Clearly reporting fiscal measures that inform policymakers and the public about the oncoming financial crunch appears to be an urgent necessity for minimizing the costs of future policy adjustments.

It's not that longer-term accounts of the nation's overcommitments to entitlement programs are unavailable. They, however, are generally limited or provided in technical and dense supplements to the budget reports. The Social Security and

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Medicare trustees regularly publish 75-year projections of those programs' finances—showing the large future excess spending commitments. The Social Security trustees' annual report began reporting infinite-horizon measures beginning in 2003, and the Medicare trustees began reporting such measures in 2004. However, those measures. which are conceptually better and more relevant for evaluating the programs' financial status, are accorded secondary importance compared to the 75-year measures, which are misleading: They include the taxes paid during the next 75 years but exclude the benefit obligations those taxes create beyond the 75-year time horizon. But even 75year measures of the Social Security and Medicare trustees that indicate considerable financial shortfalls for those programs over that period do not exert an effective constraint on current tax and spending policy decisions. The bottom line: The abandonment of the BEA-type budget constraints, escalations in federal spending, and repeated tax cuts after 2002 have caused the federal government's financial position to become worse than it was prior to the adoption of the BEA when unified federal deficits were rising.²³

This history of budget making and recent evidence about the inability of trust-fund-type institutions to save through the public sector suggest that saving for future retirement needs is infeasible through the public sector. Therefore, we will require initiatives on two fronts: providing greater and more effective private saving incentives-including funding higher future Social Security benefits through personal accounts and designing better and more sustainable budget accounting and budget process reforms that would prevent additional private saving from being eroded through increases in government spending and larger benefit commitments. A prerequisite for achieving the latter would be a budget accounting reform to include long-term forward-looking fiscal measures in official budget reports and a budget process reform anchored in such measures to prevent federal fiscal imbalances from growing larger.

Short-Term Cash-Flow Solvency versus Sustainability

In designing new budget accounting measures and budget process institutions, the first step is to clearly distinguish between achieving cash-flow solvency over a finite time horizon (budget window) and the program's (or budget's) sustainability. The latter implies not limiting budget projections to a finite time horizon but showing the implications of continuing current tax and spending policies indefinitely. This alternative approach leads to a new budget measure of the federal government's (or a program's) fiscal health—one intended to guide policymaking rather than predict or forecast the future course of the federal (or a program's) budget.

For Social Security, achieving cash-flow solvency through, say, the next 75 years implies that the program would have enough revenues on hand to pay out benefits (make expenditures) in each of those years. A policy that would achieve cash-flow solvency in this manner would not necessarily result in Social Security becoming permanently solvent—or *sustainable*. The latter requires, in addition, that the system's dedicated revenues (including the IOUs held in the trust fund) equal its projected outlays in present value, when projections are made through the *infinite future*. Again, sustainability does not necessarily imply cash-flow solvency over a finite period of time.

The problem in targeting the program's solvency through 75 years is well-known: It's simply that if large cash-flow deficits are projected for year 76 and beyond, cash-flow solvency will degrade after just a few years. This has already happened after the Social Security amendments of 1983 restored the program's solvency through 2063. Current projections also indicate that were cash-flow solvency attained through the next 75 years, Social Security cash-flow deficits in year 76 and beyond would regenerate today's degree of 75-year insolvency in another 20 years. Hence, achieving cash-flow solvency through a finite time horizon will only perpetuate the Social Security reform debate, requiring us to revisit: the same policy arguments and choices as the program's financial condition worsens over time.

One argument against adopting infinite horizon measures is that such projections involve considerable uncertainty. On the other hand, imposing an arbitrary (75-year) time limit implies an assumption that is even less desirable: that post-75-year cash flows are *always* balanced no matter which type of policy is in place today. Social Security's trustees have reported that the program's unfunded obligations amount to \$4.0

trillion over the next 75 years. Over the infinite horizon, unfunded obligations equal \$11.1 trillion, implying that *two-thirds* of the system's present value financial shortfall lies beyond the 75th year. The post-75-year shortfall remains significantly positive even under optimistic assumptions about future economic growth or demographic changes. Given these estimates, using an infinite horizon estimate—imperfect though it may be—as a basis for policymaking appears to be better than ignoring the post-75th-year shortfalls—that is, to explicitly assume that they will *always* equal zero.

Estimating the effect of future policy choices on Social Security's sustainability is the better approach—even if the policies finally adopted do not succeed in fully restoring the program to sustainability (by reducing the \$11.1 trillion unfunded obligation to zero). This measure would indicate the amount by which particular reform proposals would reduce the shortfall and the amount that remains unresolved. Hence, this measure provides more information and helps policymakers compare policy alternatives in a neutral manner—one that does not bias policymaking toward short-term goals.²⁴ Finally, measuring financial shortfalls without a finite time window finesses the argument that the distant future is uncertain: the same degree of uncertainty attaches to the underlying demographic projections under all reform proposals and does not affect comparisons of outcomes across reform options.

The Short-Term "Transition Cost" of the President's Personal Accounts Reform

Although the thesis of this paper is that short-term calculations of a program's unfunded obligations are inadequate as measures of federal fiscal health, discussion in the media about a \$2 trillion "transition cost" of introducing personal accounts under the administration's Social Security reform approach compels calculation of the cost on the same terms. This section reports calculations that show that the short-term increase in explicit debt would be much smaller under the administration's approach.

Under the president's approach, those born between 1950 and 1965 would be eligible to participate in personal accounts by diverting up to 4

percentage points (of their employee payroll taxes of 6.2 percent) into such accounts. The contributions are capped at \$1,000 in 2009, and the cap would be increased by \$100 every year thereafter. Introducing personal accounts in this "carve-out" manner implies a decline in revenues for financing Social Security benefits for current retirees. Consider personal account contributions for the year 2009 under the assumption that all those who would be eligible to participate in personal accounts do so: Estimates using a projected distribution of earnings based on data from the March 2000 Supplement of the Current Population Survey suggest that, without the \$1,000 limit on contributions applicable in 2009 and without the age restriction on eligibility, the maximum amount diverted into personal accounts in that year would be \$232 billion. Applying the \$1,000 limit, however, reduces the amount diverted to \$114 billion. Finally, restricting participation to those born between 1950 and 1965 further reduces the diverted total to just \$50.1 billion in 2009.²⁵

Under the president's new proposals, the cap on contributions increases to \$1,100 in 2010. In addition, those born between 1950 and 1978 would be eligible to participate after 2010. Those two factors increase the estimate of the maximum amount diverted in 2010 to \$88 billion. The total 10-year nominal "transition cost" estimate (without discounting) for the president's new proposals during 2009–18 is \$1.2 trillion. Discounted back to 2009 at a 6 percent nominal interest rate, the cost estimate becomes \$900 billion in constant 2009 dollars. In today's (constant 2005) dollars, it equals \$713 billion.²⁶

That, however, is not the amount that the federal government would have to borrow today to finance retiree benefits through 2018 under a personal accounts reform. Federal borrowing need not necessarily cover the payroll tax surpluses projected through 2018. The present value of future payroll tax surpluses in constant 2005 dollars equals \$442 billion. Hence, in present value, the cost between 2009 and 2018 of introducing personal accounts *could* be held down to just \$271 billion measured as a present value in today's dollars if the federal government were to respond to the loss of future Social Security surpluses by eliminating the non-Social Security federal spending that those surpluses would finance (that is, if the federal government were somehow able to adopt new

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institutions to effectively save future Social Security surpluses).

Labels Can Mislead

Regardless of the true size of the additional borrowing that results from a personal accounts reform, several problems arise with calling the higher short-term federal borrowing a transition "cost." First, that label neglects the "transition benefit" that accompanies the higher short-term debt, namely, the increase in funds flowing into private capital markets. Hence, net cash flows into financial markets (and, therefore, the net impact on interest rates) would be approximately zero.

Therefore, discussions about reform should focus not on the so-called transition cost but on the pros and cons of the institutional change being contemplated under a personal accounts reform of Social Security—fundamentally, whether the new system will enable resources intended for providing future retirement incomes to be effectively saved and invested. As discussed earlier, recent studies show that current institutions are failing to effectively save resources intended to fund future Social Security obligations.

Second, while guaranteeing the benefits of current retirees and those close to retirement at scheduled levels, President Bush has proposed a debate about adopting additional measures to either reduce scheduled benefit growth for future retirees or increase the resources available to pay benefits. Under either policy, personal accounts would constitute an inducement for workers to accept smaller future benefits from the traditional program in exchange for better benefits. Moreover, personal accounts would throw off additional retirement resources to leave participants at least as well off actuarially as under the current system, when benefits from personal accounts are evaluated on the basis of those that are payable rather than scheduled under current laws. Because personal accounts would be desired, especially by younger generations who report low expectation of benefits under the current system, the short-term increase in federal debt should really be viewed as a "transitional investment" from the perspective of the government's budget.

Finally, calling the short-term increase in debt held by the public a "transition cost" of a personal accounts reform is a misnomer simply because this cost exists under the current system as well. It remains hidden from policymakers because today's budget accounting conventions use a very short budget horizon—just 5 or 10 years. Indeed, as described earlier, even the 75-year reporting horizon adopted by the Social Security Administration hides a substantial portion of Social Security's unfunded obligations that accrue in year 76 and beyond. A personal accounts reform just makes this hidden cost explicit. Because the cost exists already, labeling it a "transition cost" misleads the public into thinking that it arises as the direct consequence of adopting personal accounts and that it wouldn't arise if personal accounts were not adopted.

The Costs of Reform versus the Status Quo

The true size of Social Security's unfunded obligation has been recognized only recently by its trustees. Their estimate of Social Security's unfunded obligations is \$11.1 trillion. The associated federal resource shortfall—that is, the shortfall including federal liabilities to the Social Security Trust Fund—amounts to \$12.8 trillion. Those estimates have received little attention in the media—presumably because many people do not appreciate their meaning or implications. Simply stated, the federal government must come up with \$12.8 trillion of resources for Social Security—either from the Social Security program itself-by reducing its future benefit commitments—or from other programs through tax increases or spending cuts.

The importance of the estimates becomes clearer when we consider the financial implications of postponing required policy adjustments. The necessary policy changes could be undertaken this year or postponed until next year. If they were postponed, we would face the same choice next year. What are the costs and benefits involved in this choice today?

Because the government must ultimately finance Social Security benefits by levying higher taxes or reducing benefit growth, the *gain* from postponing reform by one year accrues to those who escape higher taxes or avoid a reduction in benefits for another year. The cost of postponing the decision, however, arises because the date when the scheduled but unpayable benefits become due comes closer

by one year. That is similar to the outcome from not saving this year for a scheduled future expense: larger saving is required in each future year until the expense comes due.

Similarly, avoiding policy adjustment this year implies larger adjustments in future years. That's because failing to adjust policy this year represents a lost opportunity to save and invest additional resources this year for the future scheduled outlay. Subsequent adjustments must be larger because they must make up for the resources not saved this year plus the interest cost those savings would have accrued in each year until the year of the scheduled outlay.

Alternatively, Social Security's \$12.8 trillion resource shortfall can be viewed as a corpus of debt that accrues interest. Making no policy adjustments this year to reduce that shortfall implies accruing interest on it. The annual interest accrual can be estimated by applying the government's long-term interest rate—6.0 percent—to that amount, which yields a cost accrual of \$768 billion in 2005.

The foregoing discussion suggests that the current annual cost of maintaining the status quo in Social Security is staggeringly higher than the present value of the 10-year cost of adopting personal accounts as proposed under the president's

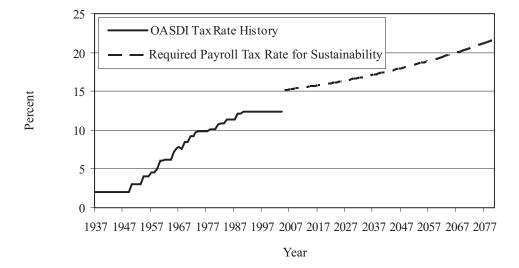
approach. Those debating Social Security reform should focus on how to make up the federal government's resource shortfall of \$12.8 trillion on account of Social Security. Alternatively, they must specify how the implied annual cost accrual of \$768 billion will be financed if reforms are postponed by one year. They should remember that delaying reforms by one year implies a larger total resource shortfall and a correspondingly larger interest cost accrual next year.

The rate of cost accrual on the existing federal resource shortfall of \$12.8 trillion on account of Social Security far exceeds growth in the U.S. economy's capacity to pay it. For example, our \$11 trillion economy will grow at about 4.5 percent this year (in nominal terms)—and will generate only \$495 billion in additional output compared to Social Security's \$768 billion cost accrual mentioned above. Because of that, each additional year of delay implies that the payroll tax rate required to make Social Security sustainable would be permanently higher. An estimate of how much higher the cost would be is shown in Figure 3.

Figure 3 shows the history of the payroll tax rate in the United States. This rate has increased over time because Congress consistently voted to increase benefit commitments by more than could

The current annual cost of maintaining the status quo in Social Security is staggeringly higher than the present value of the 10-year cost of adopting personal accounts.

Figure 3
Payroll Tax Rate Required for Sustainability of Social Security Policy



Note: The calculations are those of the author, not those of the Social Security Administration. These calculations are consistent with those in Kent Smetters and Jagadeesh Gokhale, "Measuring Social Security's Financial Problems," NBER Working Paper no. 11060, January 2005.

be sustained by the current payroll tax rate. That is, every year since the inception of the system, the payroll tax rate that would have made the system sustainable was higher than the current rate. Hence, the payroll tax rate had to be increased periodically to avoid defaulting on Social Security's benefit obligations. The last time the payroll tax rate was increased was in 1990 (as scheduled under the 1983 Social Security amendments).

Those amendments made the system solvent on

Those amendments made the system solvent on a cash-flow basis for slightly longer than the next 75 years—through 2063. However, the amendments did not make the Social Security system sustainable. The payroll tax rate that would have made the system sustainable was higher than the cumulative rate hike schedule established under the 1983 amendments; the last hike in that schedule was implemented in 1990. The difference between the sustainable rate and the current rate (as of 2004) is 2.7 percent. Were the current payroll tax rate increased immediately from 12.4 percent to 15.1 percent, that rate could be maintained forever without running short of funds to pay promised Social Security benefits assuming that the larger companies are saved. However, if the rate hike were postponed by another five years, the tax hike would have to be to 15.4 percent.

Some commentators are suggesting that there is no need to change policies until 2041 because the current system can finance scheduled benefits fully until then under current laws. Were we to follow such a course, however, the payroll tax hike in 2042 would have to be more than 5 percentage points—taking it from 12.4 percent to 17.5 percent in order to continue paying benefits forever under current eligibility and benefit formulas. That is, delaying reform until 2041 would reduce the tax bite on today's generations and workers until that year but would increase the payroll tax rate for workers after 2041. That implies a large shifting of fiscal burdens from the present to the future, or, what is the same thing. a redistribution of resources from the future to the present with attendant negative consequences for future economic growth.

Conclusion

Many people today believe that the Social Security Trust Fund contains sufficient resources for paying future benefits. That explains the usual eye-widening reaction of many when (mistakenly) informed of the potential \$2 trillion transition cost of reform. Were they, instead, made aware of the \$768 billion in *annual* interest cost accruing under the current system, their response to a personal accounts reform would be much more favorable.

The foregoing discussion suggests the following important conclusions: First, the history of the Social Security Trust Fund and various budget acts since the mid-1990s suggest that saving for a known future need via the public sector is infeasible. Second, evaluating the financial status of Social Security requires projecting its revenues and outlays without imposing a finite time limit. That's because such limits hide costs arising beyond the horizon. According to current official projections, for example, two-thirds of the cost arises in year 76 and later. Ignoring those costs—even those that arise after 75 years—can bias policies adopted today.

Third, labeling the short-term increases in deficits and debt as costs of personal accounts reform is a misnomer: Those costs exist already. They do not arise as a result of the reform and would not be avoided if personal accounts were not adopted. On the contrary, adopting personal accounts would make the existing costs visible and spur the adoption of other prudent fiscal policies.

An actuarially neutral personal accounts reform that replaced Social Security's payroll tax with privately invested funds would reduce perceived marginal tax rates and improve workers' labor market incentives. It is likely to provide workers with a stake in the economy and improve saving incentives.

By revealing the existing system's financial imbalance, personal accounts could pave the way for an early, and therefore cheaper, adoption of additional reform measures to reduce the program's unfunded obligations. In addition, by promoting adjustments to future benefits, it would help maintain a low-tax economic environment and foster rapid economic growth.

Notes

- 1. Alan Greenspan, Testimony before the Senate Banking Committee, February 16, 2005, http://www.federalewserve.gov/boarddocs/hh/2005/February/testimony.htm.
- 2. Under the new proposals, people born before 1950 would remain under the current system. In

Adopting personal accounts would make the existing costs visible and spur the adoption of other prudent fiscal policies.

2009 those born between 1950 and 1965 could voluntarily redirect 4 percentage points of their wages into personal accounts up to a maximum of \$1,000. The contribution limit would grow by about \$100 per year. In 2010 those born between 1950 and 1978 could choose to participate in personal accounts. Participants in personal accounts could choose from up to 5 diversified funds and a life-cycle fund that adjusts the mix of stocks and bonds in the personal account portfolio as the worker ages. When the worker retired, his traditional Social Security benefits would be reduced by an amount equivalent to his past personal account contributions accumulated at a real interest rate of 3 percent per year.

- 3. See, for example, Carl Shapiro and Robert Willig, "Economic Rationales for the Scope of Privatization," in *The Political Economy of Public Sector Privatizations*, ed. E. N. Suleiman and J. Waterbury (London: Westview, 1990), pp. 55–87.
- 4. Higher taxes are thought to reduce participation in the workforce and labor productivity. The greater job security and lower worker monitoring that generally attache to government-sector jobs would also tend to cause lower productivity of otherwise similar workers employed in the public rather than in the private sector. See, for example, John Vickers and George Yarrow, "Economic Perspectives on Privatization," Journal of Economic Perspectives 5, no. 2 (Spring 1991): 111-32. In addition, politically motivated decisions may result in overemployment, poor investment and location decisions, and ill-defined managerial incentives in public-sector enterprises. See Andrei Schleifer and Robert W. Vishny, "Politicians and Firms," Quarterly Journal of Economics 109, no. 4 (1994): 995–1025; and Shapiro and Willig.
- 5. See Rafael La Porta and Florencio Lopes-de-Silanes, "The Benefits from Privatization: Evidence from Mexico," National Bureau of Economic Research Working Paper no. 6215, 1997. See also William L. Megginson, Robert C. Nash, and Mathais van Randerborgh, "The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis," *Journal of Finance* 49 (1994): 403–52.
- 6. See Peter Diamond, "Social Security, the Government Budget and National Savings," unpublished mimeograph, MIT, March 24, 2003. See also Sita Nataraj and John Shoven, "Has the Unified Budget Undermined the Federal Government Trust Funds?" Mimeograph, Stanford University, 2004; and Kent Smetters, "Is the Social Security Trust Fund a Store of Value?" *American Economic Review, Papers and Proceedings* 94, no. 2 (May 2004): 176–81.
- 7. These projections are consistent with those underlying the 2005 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance

and Disability Insurance Trust Funds (Washington: Government Printing Office, 2005). Cited hereafter as 2005 Annual Report.

- 8. For Social Security to be able to pay out scheduled benefits, the following relationship must hold: $N_{wt}E_tr = N_{kt}E_tb$ Simply stated, the number of workers in year t, N_Wt , times annual earnings per worker, Et, times the payroll tax rate, r, determines the system's annual revenues; and the number of retirees in year t, N_Rt , times earnings per retiree, Et, times the replacement rate of scheduled benefits, b, determines the system's total annual outlays. (The system's administrative costs are small and negligible.) Since b and r are fixed in current Social Security law, the equality can be alternatively expressed as $N_{wt}/N_{rt} = b/r$. That is, the number of workers per beneficiary must equal the ratio of the replacement rate to the payroll tax rate.
- 9. The Social Security Trust Fund is prohibited from borrowing from the public in order to pay retirement and other benefits if payroll tax revenues fall short of required benefit payouts under current eligibility rules and benefit formulas.
- 10. These figures refer to 2004 and are taken from 2005 Annual Report, Table VI.F10, www.ss.gov/OA CT/TR/TR05/lr6F10-21.html..
- 11. This simple calculation abstracts from certain relevant features of the U.S. Social Security system. For example, some revenues are generated by subjecting benefits to income taxes—which causes the critical ratio to be lower. However, some individuals younger than the early retirement age of 62 receive Social Security child-dependent, survivor, and parent benefits. This tends to make the critical ratio higher. Finally, some retirees do not qualify for benefits because of an insufficient earnings history. This reduces the critical worker-to-beneficiary ratio.
- 12. The demographic projections refer to those of Social Security's Office of the Chief Actuary used in the *2005 Annual Report*, Table IV.B2, p. 48.
- 13. See 2005 Annual Report, p. 59.
- 14. Conversations with other Social Security experts about the conditions under which the 1983 amendments were constructed suggest that the designers were only motivated by achieving cash-flow balance over the next 75 years (through 2058). The collection of measures agreed upon—higher payroll tax rates, increases in the normal retirement age after 2003, and taxation of Social Security benefits—were included to deliver that result. The emergence of short-term payroll tax surpluses was incidental to the adoption of these measures. Others however believe that accumulating payroll tax surpluses in the Social Security

Trust Fund was an objective of the 1983 amendments—implemented to partially prefund future baby boomers' retirement benefits.

- 15. According to the National Income and Product Account Tables, federal gross fixed investment minus consumption of capital accounted for only 5.8 percent of total federal expenditures, on average, between 1960 and 2004.
- 16. See Diamond. See also Kent Smetters's comments on this paper, http://irm.wharton.upenn. edu/WP-Social-Smetters.pdf. Nataraj and Shoven find no empirical support for the proposition that replacing income with payroll taxes leads to higher private saving.
- 17. This would also have a salutary effect on the nation's foreign borrowing. Greater availability of domestically saved resources would reduce the need to fund domestic investment through such borrowing. Hence, a greater share of claims on future domestic output would remain with American citizens whose saving financed the prior investment.
- 18. Arguably, the defense buildup generated other benefits: the eventual termination of the Cold War and the "peace dividend" from reduced long-term defense spending during the 1990s and later. To the extent those expenditures were financed out of Social Security funds—through the trust fund mechanism-current generations were able to reap the benefits of such spending and yet retain a claim on future workers' earnings for their Social Security benefits. The question, then, is: Did current generations bequeath benefits of commensurate value to future generations by helping to end the Cold War? That is, how quickly are those benefits depreciating over time? Some observers might argue that the ending of the Cold War is a permanent legacy. Others may say that the nature of external threats is constantly changing and requires sustained federal expenditures, and that the Reagan defense buildup did not produce a lasting benefit for future generations. The latter view has gained considerable support since the terrorist attacks of September 11, 2001.
- 19. The constitutionality of the sequestration order was decided by the Supreme Court in *Bowsher v. Synar* (1986).
- 20. Some commentators do not credit the 1993 tax hikes with generating extra revenues; they claim that those tax hikes slowed the recovery from the 1991 recession instead. For example, see "Tax Policies, Economic Growth and American Families," *Economic Update*, Joint Economic Committee, July 20, 1995.
- 21. See, for example, Congressional Budget Office, "Historical Effective Tax Rates, 1979–97, May 2001.

22. It's worth recollecting that during the late 1990s and early 2000s there was considerable sentiment developing on the desirability of eliminating budget surpluses. Even Federal Reserve chairman Greenspan expressed qualified support for such a course of action prior to the enactment of tax cuts in 2001. See Alan Greenspan, "Current Fiscal Issues," testimony before the House Budget Committee, March 2, 2001.

The jury is still out on whether the tax cuts of the early 2000s were the correct policy or a mistake. To the extent they prove unsustainable (because future spending and deficits cannot be controlled) they would constitute a give-away to current tax-paying generations at the expense of future ones. However, to the extent they can be maintained and made credible, they would improve labor market and investment incentives and increase future economic growth. It's probably still too early to determine which effect may be more important.

- 23. The unified federal deficit totaled 2.8 percent of GDP in fiscal year 1989-just prior to the adoption of the BEA. The highest subsequent surplus was recorded at 2.4 percent of GDP in 2000-after 10 years of adhering to BEA's constraints. Just 2 years after BEA rules were abandoned, the unified deficit reached 3.6 percent-by fiscal year 2004. But to conclude that the BEA helped to improve the federal government's long-run fiscal position because without it the unified-deficit-to-GDP ratio would have been much worse than it is today would not necessarily be correct. That's because post-BEA legislation led to a much bigger expansion of future federal obligations-for example, the Medicare prescription drug benefit. Had there been no BEA, ballooning federal deficits might have dampened lawmakers' willingness to pass an expensive addition to Medicare and today's overall fiscal imbalance might have been smaller.
- 24. A detailed explanation of why current short-term cash-flow budget accounting biases policy-making is contained in Jagadeesh Gokhale and Kent Smetters, "Fiscal and Generational Imbalances: New Budget Measures for New Budget Priorities," http://www.aei.org/docLib/20030723_SmettersFinalCC.pdf.
- 25. Calculated as follows using the Current Population Survey's March 2001 supplement: First, the weighted total OASDI tax withholding is calculated for the year 2000 using survey data on wages and salaries. Second, a benchmarking factor is calculated as the ratio of OASDI's revenue from employee contributions (as reported by Social Security's trustees) to the CPS weighted total. This ratio is applied to each CPS individual's withholding. Next, each individual's withholding is multiplied by the factor, c = 4/6.2, the fraction of employee OASDI taxes that can be diverted into personal accounts. Third, each CPS individual's

withholding is increased by a growth factor reflecting population plus nominal wage and salary growth between 2001 and 2009. This growth factor (1.463) is calculated as the product of growth in nominal wages and growth in the size of working-aged population cumulated each year between 2001 and 2009. Both of these items are taken from the Social Security trustees' most recent projections through 2009. Finally, total personal account contributions in 2009 are estimated as the weighted aggregate of the lesser of each individual's estimated withholding or

\$1,000. The aggregation is restricted to CPS households aged 45 and 60 to approximate the population eligible to participate in personal accounts in 2009.

26. Similar methods and principles are applicable to other reform plans that propose the introduction of personal accounts, including the "6.2% Solution," proposed by Michael Tanner of the Cato Institute. See Michael Tanner, "The 6.2 Solution: A Plan for Reforming Social Security," Cato Institute Social Security Paper no. 32, February 17, 2004.

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