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ACCOUNTING FOR SOCIAL SECURITY
AND ITS REFORM

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Howell E. Jackson *

ABSTRACT

How well did the Social Security system do last year? According to the most recent annual report prepared by system's Board of Trustees, the Social Security trust funds showed a \$165.4 billion net increase in assets in 2002 and reported accumulated reserves of nearly \$1.4 trillion by year end. Unfortunately, these glowing reports are a cash-flow illusion, revealing only the difference between the system's annual cash receipts and its yearly payments for benefits and administrative expenses. Were the finances of the Social Security system restated under principles of accrual accounting, which recognizes commitments to make future payments when those obligations are actually incurred, the Social Security trust funds would have had to report a loss of several hundred billion dollars in 2002. Moreover, as of December 31, 2002, an accrual-based balance sheet of the Social Security system would have revealed more than \$14.0 trillion of accrued liabilities to Social Security participants and beneficiaries. Even allowing for the system's \$1.4 trillion of accumulated reserves as well as the value of excess future taxes to be paid by current participants over the rest of their working lives, the Social Security trust funds had unfunded obligations on the order of \$10.5 trillion as of year-end 2002. This implicit debt of the Social Security system is several times greater than the explicit debt burden of the federal government and is growing by hundreds of billions of dollars each year.

In addition to misrepresenting the magnitude of the Social Security system's looming financial crisis, the current accounting system for Social Security distorts public debate over Social Security reform proposals and confuses the relationship between Social Security and the rest of the federal budget. Accrual accounting, in contrast, would provide clearer picture of the true state of the Social Security's current financial shortfall and the extent to which the system's burden on future generations is increasing each year. Accrual accounting would also create political incentives for our leaders to address Social Security's difficulties in a timely manner, and enhance the quality of public debate over the relative merits of competing reform proposals.

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This article proposes a change in the way we account for Social Security.

The financial problems of Social Security are widely acknowledged on editorial pages and in policy circles. For almost a decade, politicians and analysts have been warning of a looming crisis, and numerous commissions and pamphleteers have advanced a host of solutions to the system's problems, from reductions in benefits to increased taxes to a range of privatization proposals. Though much ink has been spilled and many speeches given, Social Security has undergone no fundamental changes in more than twenty years. The last substantial amendments to the program were adopted in 1983 and, as of this writing, there is no prospect for serious reform until at least the completion of the next presidential election and, most likely, not even then.

For a variety of reasons, politicians have difficulty addressing problems like Social Security reform. The stakes are high, both financially and politically. The primary beneficiaries of the program are the elderly, who are both politically active and well-represented. The most obvious solutions – raising taxes or cutting benefits – are politically unpalatable, perhaps even toxic. While stock market investments appeared to offer a painless fix for at least part of the system's difficulties a few years back, subsequent volatility in stock prices has deflated public support for reforms of this sort. So, for politicians, Social Security presents a problem with no easy answers and a lot of political risk.

But the current accounting system for Social Security also contributes to the current political gridlock. Almost all public discussion of Social Security finances are based on annual reports that the Social Security Board of Trustees publishes each spring. The trustees reports are, in essence, statements of annual cash flows, comparing the system's annual cash receipts against its yearly payments for benefits and administrative expenses. This presentation format highlights the system's current annual "surpluses" and its mounting reserves. These favorable financial reports undermine

efforts to address Social Security reform proposals locating the timing of the Social Security crisis far in the future. If, however, the financial statements of the Social Security system were prepared in accordance with the principle of accrual accounting – under which commitments to make future benefit payments are recognized when those obligations are incurred – the public would understand that the cause of Social Security’s financial problems are promises being made today and the political incentives to address the system’s difficulties in a timely manner would be greatly enhanced.

Consider, for example, the reported financial performance of the Social Security trust funds in 2002. According to the trustees report, the combined Social Security trust funds ran a cash-flow surplus of \$165.4 billion in 2002 and accumulated record levels of reserves, equal to \$1.4 trillion, by the end of the year. These financial facts, which are widely reported in the popular press and well known to political leaders, imply that the financial position of the Social Security trust funds at the end of last year were quite good. While the trustees’ longer-term projections suggest that Social Security will face serious problems several decades in the future, the short-term outlook is so favorable that there is little incentive for political leaders to explore the potentially painful choices that would be necessary to address the system’s problems by altering benefits or raising revenues.

If, however, the trust fund accounts were presented under a system of accrual accounting, public perceptions and political incentives would change dramatically. Restated under a system of accrual accounting, the Social Security trust funds would have had to report a loss on the order of several hundred billion for 2002 and comparable or even larger annual losses for much of the last decade. Were the Social Security trust funds required to prepare a balance sheet based on principles of accrual accounting, their financial statements with accrued liabilities of on the order of \$14.0 trillion at the end of 2002 — that is, more than ten times the system’s current reserves of \$1.4 trillion. In other words, as of December 31, 2002, the Social Security trust funds had unfunded accrued liabilities of \$12.6 trillion as of year-end 2002, or 122 percent of the country’s gross domestic product (GDP). Even if one factors in the present value of excess taxes that current participants will pay into the Social Security trust funds over the balance of their working lives, the system’s current unfunded obligations are on the order of \$10.5 trillion. If Social Security’s

financial position were reported in this more accurate but distressingly unfavorable light, the political incentives to address the system's difficulties would be greatly improved.

Moving Social Security to an accrual-based accounting system would greatly enhance the quality of debate over Social Security reform proposals. In a variety of ways, cash-flow accounting biases public debate over Social Security reform proposals, encouraging politicians to obscure the extent of Social Security's mounting liabilities and favoring certain kinds of reform, particularly those that increase short-term cash flow surpluses while simultaneously increasing the system's long-term fiscal obligations. Cash-flow accounting also makes certain kinds of reform proposals – notably some individual-account proposals and any reforms that include investments in private capital markets – look prohibitively expensive. An accrual-accounting system would clarify both the current status of Social Security's finances and the relative merits of competing reforms.

Another benefit of adopting accrual accounting for Social Security is the effect that such a change would have on the country's overall fiscal policy. Currently, the federal government regularly includes annual trust fund surpluses in the budgetary aggregates reported to the general public. Even though the trust funds are supposed to be "off-budget," current practice allows the federal government to use annual trust funds surpluses to support other spending programs and disguise the growth in financial obligations that future generations will have to shoulder. Were Social Security to restate its accounts in accordance with the principles of accrual accounting, politicians would be less likely to use trust funds reserves in this way and the public would gain a clearer picture of the country's mounting financial commitments.

This article is divided into four parts. In Part One, I present a critique of our current system of accounting for Social Security and advance my claim that accrual accounting offers a valuable alternative framework for evaluating the annual performance and overall solvency of the Social Security system. I focus first on the traditional accounting treatment of the Social Security trust funds and then consider the relationship between those trust funds and the overall federal budget. In both contexts I argue that current practices are inherently misleading and distort the debate over Social Security reform proposals in important ways.

Box One**The Rising Concern Over the Implicit Debt of the Federal Government**

Over the past year, commentators and government officials have begun to take a greater interest in the implicit obligations of the federal government. For example, in a recent study, Gokhale and Smetters have estimated the government's fiscal imbalance to be \$44.5 trillion at year-end 2002, of which they attribute a \$7.0 trillion long-term fiscal imbalance to Social Security. See Jagadeesh Gokhale & Kent Smetters, *Fiscal and Generational Imbalances: New Budget Measures For New Budget Priorities* (AEI Pamphlet No. 4, Apr. 2003); Liqun Liu et al., *Meaningful Measures of Fiscal Deficit and Debt: The Case for Incorporating Entitlement Debts* (May 2002) (Texas A&M Private Enterprise Research Paper No. 2010). The federal government itself has begun to compile and report similar measures of long-run shortfalls, see 2002 Financial Report of the United States 62-65 (Mar. 2003) (reporting \$4.6 trillion unfunded obligations of Social Security over next 75 years); *Analytical Perspectives: Budget of the United States Government: Fiscal Year 2004*, at 45-49 (similar), and even the most recent Social Security trustees report has supplemented its reports to include additional measures of the system's long-run unfunded obligations. See *infra* pages 55-56. These recent developments reflect concerns for fiscal imbalance similar to the ones that motivated this article. These broader analyses also indicate that the problems of Social Security are not unique. Other federal programs, most notably Medicare and other retiree health programs, are also seriously underfunded over the long-run. Accordingly, aspects of the accrual accounting proposals for Social Security advanced in this paper might profitably be extended to other contexts.

This article differs from these other writings in its focus on the significance of accrual accounting for a single, extremely important federal program. Unlike other work on fiscal imbalance, the emphasis here is arguing why a system of accrual accounting would provide a more accurate overview of the financial obligations of Social Security than do its current statements based largely on the presentation of annual cash flows. Also in contrast to other work on the subject, this article analyzes the manner in which the current Social Security trustees reports and most other official writing on the subject distort public understanding of the Social Security systems financial condition and needlessly complicates the debate over Social Security reform. While other studies that offer an birds-eye view of the federal government's overall fiscal imbalance, this article provides a ground-level assessment of how new system of financial reporting could improve our understanding of one major social insurance program and the prospects for its sensible reform.

In Part Two of the article, I present an alternative framework for Social Security accounting, one based on principles of accrual accounting. After reviewing the different kinds of assets and liabilities that might be recognized on a set of financial statements for Social Security, I sketch out a system of balance sheets and incomes for the trust funds in 2002 using an accrual-based system

of accounting. I then compare this system of accrual accounting with alternative measures of long-term solvency that experts sometimes use to assess Social Security solvency, and explore the relative merits of various approaches. Based on this analysis, I present a modified system of accrual accounting of Social Security that incorporates the strengths of both GAAP-style accrual accounting and alternative measures of long-term solvency. Part Two concludes with a brief discussion of how such a modified system of accrual accounting for Social Security might be integrated with other aspects of the federal budget in order to produce a more accurate and useful presentation of our government's overall financial position.

In Part Three, I explain how a modified system of accrual accounting could positively influence the ongoing debate over Social Security reform. Most obviously, a system of accrual accounting for Social Security – with substantial annual losses and growing unfunded obligations – would increase pressure on the political leadership to address the problems of Social Security in a timely manner. In addition, a system of accrual accounts would clarify the nature of the choices being presented to the American public and also improve the incentives for political leaders to adopt responsible reform proposals that promote the long-run stability of Social Security.

Part Four concludes with a postscript on normative baselines for my proposal and argues that my approach is more consistent with these baselines than is the current system of cash-flow accounting. As explained below, the essential problem of accounting for Social Security is that the government first makes commitments to Social Security participants while they are working and contributing payroll taxes and then, many years later, must honor these commitments by making payments after the workers retire. In other governmental contexts — where there is a substantial temporal disconnect between commitment and payment — government accounts are increasingly expressed on an accrual basis. What I am proposing in this article is simply an extension of this trend to our most important social-insurance program. I am, moreover, not the first to explore this territory. Several years ago, the accounting oversight body responsible for developing generally accepted accounting practices for governmental entities adopted new rules that require social-insurance programs, such as Social Security, to disclose certain accrual-accounting elements similar to, though not nearly as extensive as, the ones I recommend in this paper. The logic underlying

these reforms in government accounting supports my proposals. Finally, I argue, when economists and other public policy analysts attempt to estimate the true value of Social Security obligations, they employ techniques of accrual accounting that are much more similar to the approach I recommend in this article than to the program's current system of cash-flow accounting. In short, I believe that there is ample support for the proposition that accrual accounting is the way we should account for Social Security.

* * * * *

Before turning to the substance of my argument, a few additional introductory points are in order. While issues of governmental accounting will undoubtedly strike many as mundane and technocratic, this paper presents a radical, in some circles even heretical, proposition for a social insurance program such as Social Security. If adopted, this proposal could have a profound effect on the way the country thinks about Social Security and perhaps other social insurance programs for the elderly, such as Medicare. I am prepared to defend the position that such a change would be an appropriate and beneficial reform.

I am not, however, prepared to defend two more far-reaching propositions. First, I am not arguing that the accrual accounting system I advocate in this paper should be the only set of financial statements prepared with respect to Social Security trust funds. Cash flow statements and long-term projections of liquidity also provide valuable insight into the financial position of the Social Security system. My argument in this article is simply that accrual accounting should be the dominant lense through which the Social Security system presents its financial posture to the world. Cash flow analyses of the sort currently provided in the trustees reports should continue to be prepared, but as supplements and not as the basic format for Social Security accounting. The burden for critics of my approach is to explain why accrual accounting should be the dominant format of financial presentation in so many other areas of financial and economic analysis, but not for the Social Security trust funds.

The second proposition from which I wish to disassociate myself is the notion that the movement towards an accrual accounting system necessarily implies adoption of full advance

funding for social security: that each generation should pre-fund the full value of that generation's retirement benefits. It is perfectly possible to imagine – and I would personally favor – a Social Security system with partial pre-funding and financial statements prepared on an accrual basis. In a growing economy with an expanding population, it may make perfect sense for future generations to pay for a portion of the cost of the retirement benefits of current generations, particularly if current generations have borne the cost of retirement for generations of past workers. It is, however, critical to keep control over the magnitude of liabilities that are being passed on to future generations. One of the virtues of accrual accounting is that it offers a perfect tool for monitoring the size of these liabilities and therefore provides a superior framework for keeping the degree of pre-funding necessary to keep the Social Security system in balance with other economic and social goals.

I. A Critique of Current Accounting System for Social Security

Social Security historically has employed a cash-flow method of accounting. In part, this presentation reflects the traditional operating philosophy of the program. For many years, Congress and the Social Security Administration ran the program on a pay-as-you-go basis. The lion's share of annual revenues — raised primarily in the form of payroll taxes paid by workers and employees — were immediately transferred to current beneficiaries. As long as inflow was adequate to meet outflow, the system was considered to be in balance. Indeed, for many decades, if the inflow exceeded the promised benefits, Congress interpreted the cash-flow surpluses as a sign that benefits should be raised so as to make use of the system's excess cash reserves.¹

While generally consistent with traditional federal government accounting practices,² cash-flow accounting leaves much to be desired in the context of public retirement programs such as Social Security. This Part briefly summarizes current accounting practices for the Social Security program and then explains how these practices distort public understanding of the program. I begin with the Social Security trust funds themselves and then turn to the relationship between the trust funds and the unified federal budget.

A. Analysis of Accounting for the Trust Funds

Since the Social Security program's inception in the 1930s, Social Security revenues have been placed in "trust funds."³ These trust funds have little in common with traditional trusts.

¹ See Paul Light, *Artful Work: The Politics of Social Security Reform* 33-57 (1985); Merton C. Bernstein & Joan Brodshaug Bernstein, *Social Security: The System that Works* 34-35 (1988).

² As described below, see *infra* pages 106-07, the federal budget is increasingly making use of accrual accounting for certain programs. And, indeed, the traditional presentation of Social Security finances of the trustees annual reports no longer complies with generally accepted accounting standards for government entities. See *infra* pages 108-10 .

³ The trust funds were not included in the original Social Security legislation of 1935 but were added four years later in 1939 amendments. See Eric M. Patashnik, *Putting Trust in the US*

Assets are not legally segregated for particular classes of beneficiaries, nor do Social Security trustees have any legal obligation to protect the interests of program participants.⁴ Rather, the trust funds are accounting entries in the federal budget to which Social Security contributions and certain other accruals and payments are attributed and from which Social Security benefits and certain other expenses are paid. The trust funds are, however, the principal vehicles through which politicians and the public analyze the program's financial status and therefore provide a useful starting point for analysis of the program's current accounting treatment.

1. Standard Presentation

Each year, the trustees of the Social Security system produce an annual report of the trust funds' financial condition. A cursory review of the trustees' most recent report — for the calendar year ending December 31, 2002 — reveals two basic financial messages. In the short term, Social Security is doing quite well, but over the longer run, this program is on a course for financial ruin.⁵

a. Short-Range Projections

According to the 2003 Trustees Report (as well as most other contemporaneous commentary), the short-range prospects of Social Security are good because the combined Old Age, Survivors, and Disability Insurance (OASDI)⁶ trust funds have over a trillion dollars of reserves

Budget 67-69 (2000) (explain that concerns over constitutional challenges prevent initial legislation from including trusts.)

⁴ See 42 U.S.C.A. § 401(c) (West Supp. 2002) (“A person serving on the Board of Trustees shall not be considered to be a fiduciary and shall not be personally liable for actions taken in such capacity with respect to the Trust Funds.”).

⁵ See The 2003 Annual Report of the Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds (Mar. 17, 2003) [hereinafter 2003 Trustees Report]. See also The 2003 Annual Report of the Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds (Mar. 26, 2002) [hereinafter 2002 Trustees Report].

⁶ Throughout this paper, I will refer to the combined Old Age, Survivors and Disability Trust Funds. In fact, there are two separate trust funds – one for Old and Survivors Insurance and

deposited with the U.S. Treasury and are projected to take in more income than they put out in expenditures for at least the next decade. Table One is the sort of reassuring presentation that one

Table One	
Summary of Trust Fund Operations in 2002 (billions)	
(Source: Table II.B1 of 2003 Trustees Report)	
Trust Fund Assets (year end 2001)	\$ 1,212.5
Income During 2002:	
Payroll Taxes:	\$532.5
Taxation on Benefits:	13.8
Transfers	0.4
Interest on Assets:	<u>80.4</u>
<i>Total Income</i>	<i>\$ 627.1</i>
Expenditures During 2002:	
Benefit Payments:	\$ 453.8
Railroad Retirement	3.6
Administrative Expenses	<u>4.2</u>
<i>Total Expenditures</i>	<i>\$ 461.7</i>
Net Increase in Assets:	\$ 165.4
Trust Fund Assets (year end 2002)	\$ 1,378.0

finds in the opening pages of the most recent Trustees Report.⁷ It shows a rosy picture of current operations. The combined OASDI trust funds started the year with some \$1,212.5 billion in assets deposited with the U.S. Treasury. Over the course of the year, the funds took in \$532.5 billion in payroll taxes (from a levy of 12.40 percent imposed on taxable wages up to \$84,900 in 2003 and

the other for Disability Insurance – and their individual financial status differs somewhat from that of the combined fund. For the purposes of my analysis, however, these differences are not significant.

⁷ 2003 Trustees Report, *supra* note 5, at 5-6.

divided evenly into employee and employer shares of 6.20 percent each),⁸ another \$13.8 billion in taxes on Social Security benefits,⁹ plus \$80.4 billion from interest on trust fund assets deposited with the Treasury,¹⁰ for a combined income of \$627.1 billion for the year. Charged against this inflow, as can be seen in Table One, was some \$461.7 billion of expenditures, consisting almost entirely of benefit payments, resulting in a “net increase in assets” of \$165.4 billion during the year and increasing the funds’ total assets to \$1,378.0 billion at year end.¹¹

Another way that the trustees commonly describe the short-term favorable outlook for the Social Security system is by reference to a “trust fund ratio.”¹² This statistic is the ratio between the trust funds’ total assets at the beginning of the year and the projected total expenditures over the course of the year. (In 2002, the trust fund ratio for the combined funds was 263 percent: total assets at the beginning of the year of \$1,212.5 billion divided by total expenditures during the year of \$461.7 billion.) In assessing the trust fund ratio, the trustees have set 100 percent as a minimum acceptable ratio on the theory that, as long as the trust funds have at least a year’s worth of

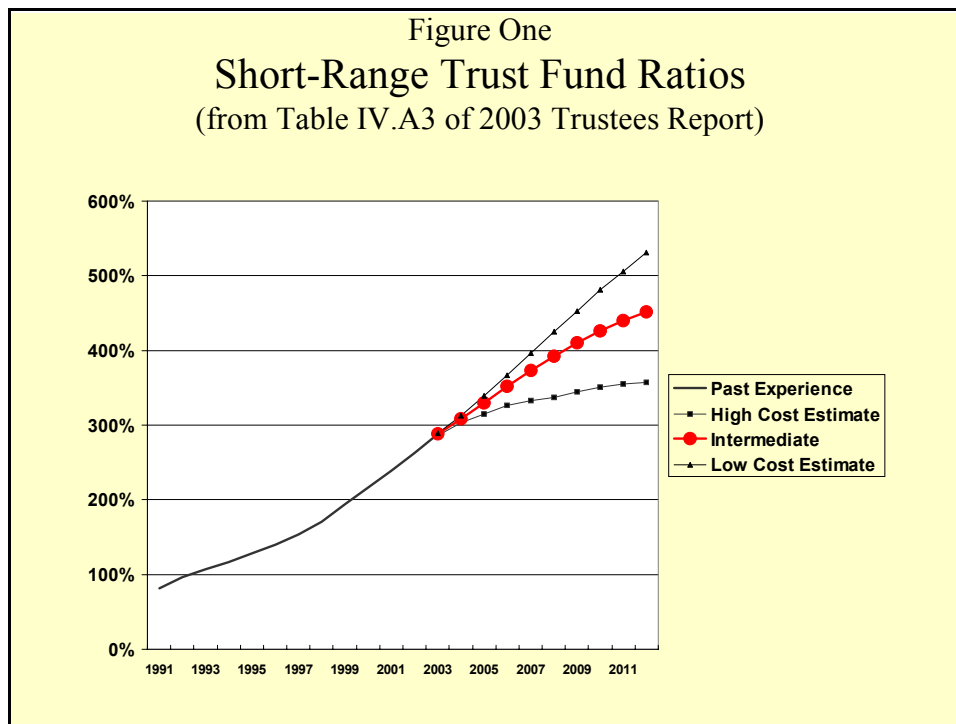
⁸ The level of covered payroll is adjusted annually to reflect-cost-of living increases. For current levels, see <http://www.ssa.gov/cola/cola2002.htm>.

⁹ This source of revenue comes from funds raised through the federal income tax system. A portion of Social Security benefits is treated as taxable income under the federal income tax , and a portion of the taxes levied in this manner is redirected to the trust funds. See I.R.C. § 86 (2002).

¹⁰ See 42 U.S.C.A. § 401(d) (West Supp. 2002). The effective interest rate on OASI trust fund assets in 2002 was 6.4 percent while the effective interest rate on DI trust fund assets was 6.3 percent. See 2003 Trustees Report, supra note 5, at 21, 25.

¹¹ The trust fund expenditures include administrative costs (\$4.2 billion) and transfers to the Railroad Retirement program (\$6.3 billion).

¹² See The 2000 Annual Report of the Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds 15 (Mar. 30, 2000) [hereinafter 2000 Trustees Report] (“The ratio of trust fund assets at the beginning of a year to expenditures during the year is termed the ‘trust fund ratio.’ This ratio serves as the primary measure of the fund’s financial adequacy in the short range.”).



expenditures on hand, Congress would have time to respond to any unexpected short-term crisis in the system's financing. In the extreme, as long as the trust fund ratio were 100 percent, the trust funds could receive no additional revenues for a year and still be able to pay benefits at current levels. Of course, at the end of the year, the funds would be totally depleted, but presumably by that time Congress would have responded to the crisis with legislative relief of some sort.

Measured in terms of trust fund ratios, the 2003 Trustees Report also shows a carefree short-term picture, as presented in Figure One. Based on the trustees' intermediate or best-guess economic forecasts, this chart shows the trust fund ratio increasing from 263 percent at the end of 2002 to a high of 452 percent a decade later — that is, cash reserves equal to nearly four-and-a-half years of projected expenditures in 2012. In the trustees' words, “[B]ecause the trust fund ratio for the combined funds is estimated to remain above 100 percent under the intermediate assumptions,

the combined funds meet the short-range test of financial adequacy.”¹³ Even under the pessimistic, high cost estimates, the trust funds were projected to remain above the 100 percent threshold throughout the coming decade.¹⁴

b. Long-Range Projections

When discussing the trust funds’ long-range prospects, the trustees reports become decidedly more pessimistic.¹⁵ Notwithstanding a much publicized bipartisan effort in the early 1980s to produce a permanent solution to the problem of Social Security, the trustees have for some time now been warning of serious dangers confronting the system in the next decade. The 2003 Trustees Report sounded the same alert:

Under current law the cost of Social Security will increase faster than the program’s income, because of the gain of the baby-boom generation, expected continuing low fertility, and increasing life expectancy. Based on the Trustees’ best estimates, expenditures will exceed tax revenues starting in 2018 and throughout the remainder of the 75-year projection period. Social Security’s combined trust funds are projected to allow full payment of benefits until they become exhausted in 2042. At that time annual tax income to the trust funds is projected to equal about 73 percent of program costs. . . . By 2077, however, annual tax income is projected to be only about two-thirds as large as the annual cost of the [] program.¹⁶

¹³ 2000 Trustees Report, supra note 12, at 15.

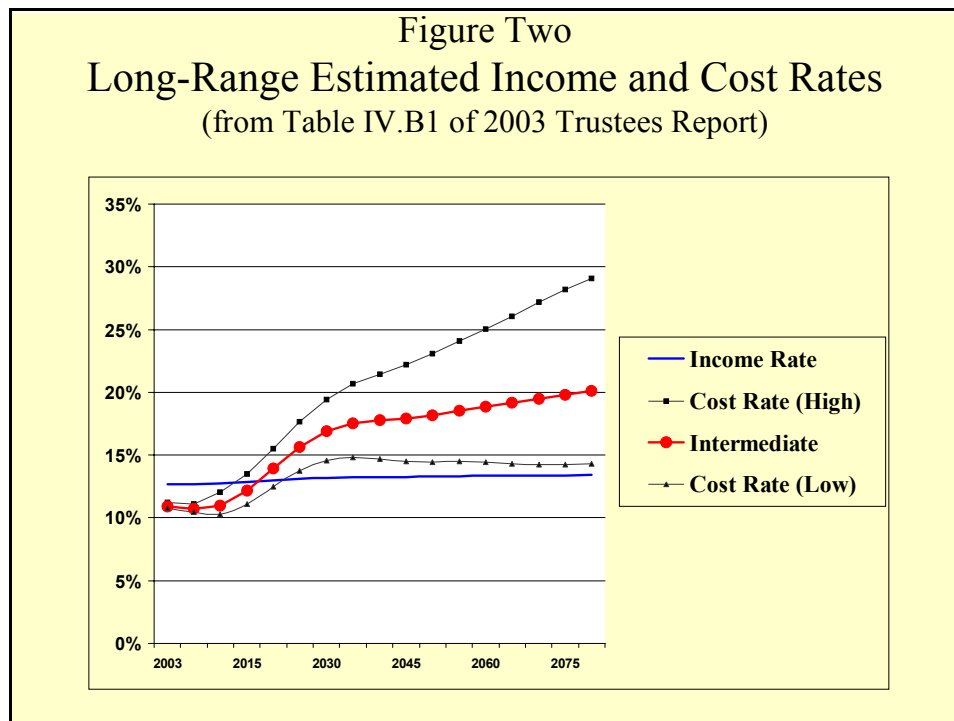
¹⁴ See also 2003 Trustees Report, supra note 5, at 7.

¹⁵ 2000 Trustees Report, supra note 12, at 3 (“On a combined basis, the OASDI program is not in ‘close actuarial balance’ over the next 75 years. In addition, the individual OASI and DI Trust Funds are not in close actuarial balance. These conclusions are the same as those shown in the 1999 Annual Report.”). See also 2003 Trustees Report, supra note 5, at 7-10.

¹⁶ 2003 Trustees Report, supra note 5, at 16. See also 2002 Trustees Report, supra note 5, at 18 (similar language).

Based on these projected long-range shortfalls, the trustees regularly urge Congress and the President to revisit the issue of Social Security and make appropriate adjustments to forestall the looming crisis.¹⁷

The 2003 Trustees Report includes several different accounting presentations to support the report's claims of long-range insolvency. One presentation, summarized in Figure Two, compares long-range estimated income rates to cost rates over the next seventy-five years (a period chosen because it includes the life expectancy of almost all current workers and retirees) The rates



¹⁷ See 2000 Trustees Report, *supra* note 12, at 30-31 (“In view of the size of the financial shortfall in the OASDI program over the next 75 years, we again urge that the long-range deficits of both the OASI and DI Trust Funds be addressed in a timely way.”). See also The 2001 Annual Report of the Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds 14 (Mar. 19, 2001) [hereinafter 2001 Trustees Report] (“The trust fund deficits projected for the longer run should be addressed in a timely way to allow for gradual phasing in of any necessary changes and to provide advance notice so that workers can adjust their plans to take account of those changes.”); 2002 Trustees Report, *supra* note 5, at 18 (same language); 2003 Trustees Report, *supra* note 5, at 17 (similar language).

represent the system's projected annual cash in-flows from income and out-flows for expenses and are expressed as a percentage of taxable wages. The income rates rise fairly modestly over the period, as payroll taxes are not scheduled to increase beyond their current 12.40 percent of taxable payroll, and income generated by the taxation of Social Security benefits has only a modest effect on overall inflow.¹⁸ The system's cost rates, in contrast, rise dramatically in the second and third decades of the century, surpassing income rates (under intermediate assumptions¹⁹) by 2018 and generating an annual combined trust fund deficit of 6.71 percent of payroll by 2077.

The substantial imbalance between projected income and benefit rates lies at the heart of the long-range crisis facing the Social Security system. It is, however, a somewhat complicated phenomenon to comprehend, as it combines the short-range surplus that will accumulate between now and some time in the next decade with longer-term deficits. Admittedly, a quick review of charts such as Figure Two suggests that the long-term deficit is, crudely speaking, bigger than the short-range surplus, but such eyeball assessments are unreliable, particularly when dealing with a period extending seventy-five years into the future. Moreover, a simple comparison of income and benefit rates does not take into account the current reserves of the combined trust funds (that is, the more than \$1,378 billion in assets deposited with the Treasury as of December 31, 2002) or the interest that can be expected to accrue on these reserves.²⁰ Recognizing that simply comparing cost

¹⁸ For example, under the trustees' intermediate projections, the combined income rate for OASDI funds increases by only 0.73 percent percentage points during the seventy-seventy-year period, from 12.70 percent of taxable wages in 2003 to 13.43 percent in 2080. See 2003 Trustees Report, *supra* note 5, at 47.

¹⁹ The trustees reports typically present three alternative cost estimates: high, low, and intermediate. Unless otherwise indicated, I will use the intermediate estimates, as these are the ones most commonly used in public discussions of Social Security. To the extent feasible, figures and tables will report all three estimates. For a discussion of the assumptions and methods underlying the actuarial estimates, see 2003 Trustees Report, *supra* note 5, at 74-128.

²⁰ In other words, the income rates reported in presentations such as Figure Two do not include income in the form of interest payments from the trust fund reserves. This interest does, however, figure into the annual report of trust fund activities summarized in Table One.

and income rates yields an incomplete picture, the trustees reports offer two different ways of conceptualizing the long-range imbalance of the combined OASDI trust funds.

Table Two
Components of Summarized Income and Cost Rates
 (from Table IV.B11 of 2003 Trustees Report)

Valuation Period	Income Rate			Cost Rate		
	Payroll Tax	Taxation of Benefits	Beginning Fund Balance Total	Disbursements	Ending Fund Balance	Total
Intermediate:						
25-years:						
2003-2027	12.39	0.47	1.48 14.34	12.53	0.56	13.09
50-years:						
2003-2052	12.39	0.62	0.88 13.89	14.59	0.25	14.84
75-years:						
2003-2077	12.39	0.70	0.69 13.78	15.56	0.14	15.70
Low Cost:						
25-years:						
2003-2027	12.39	0.43	1.47 14.28	11.50	0.48	11.98
50-years:						
2003-2052	12.39	0.54	0.87 13.80	12.77	0.20	12.97
75-years:						
2003-2077	12.39	0.58	0.67 13.65	13.12	0.11	13.23
High Cost:						
25-years:						
2003-2027	12.39	0.53	1.48 14.40	13.80	0.65	14.45
50-years:						
2003-2052	12.39	0.74	0.87 14.00	16.87	0.33	17.21
75-years:						
2003-2077	12.39	0.86	0.68 13.93	18.80	0.20	19.00

The first, which is illustrated in Tables Two and Three, presents what are known as summarized income and cost rates. In essence, these summarized figures attempt to normalize projected costs and benefits over three time periods (the following twenty-five, fifty, and seventy-five years), generating what are, in effect, average income and cost rates for the three periods.²¹ The summarized presentations offer a more complete picture of income and expenses than do the simple comparisons of annual income and benefit rates discussed above. As can be seen from Table Two, these presentations include information not just about payroll tax and revenues from the taxation of benefits but also about the annualized value of the current trust fund reserves (spread over the

²¹ The summarized data reflect, not an arithmetic mean, but an average of the discounted value of various components over the relevant period. Thus, the summarized rates take into account the time-value of money as well as the projected accrued interest on trust fund reserves.

relevant period) plus the cost of building up a final trust fund balance equal to 100 percent of benefits projected for the year following the end of the period.²²

The value of summarized revenue and cost rates is that they allow analysts to compare the relative magnitudes of various components of the trust funds' long-term balance. These tables show,

Table Three
Summarized and Combined Income and Cost Rates
 (from Table IV.B5 of 2003 Trustees Report)

Valuation Period	Income Rate	Cost Rate	Combined Rate
Intermediate:			
25-years:			
2003-2027	14.34	13.09	1.26
50-years:			
2003-2053	13.89	14.84	-0.95
75-years:			
2003-2077	13.78	15.70	-1.92 ←
Low Cost:			
25-years:			
2003-2027	14.28	11.98	2.31
50-years:			
2003-2052	13.80	12.97	0.83
75-years:			
2003-2077	13.65	13.23	0.42
High Cost:			
25-years:			
2003-2027	14.40	14.45	-0.05
50-years:			
2003-2052	14.40	17.20	-3.20
75-years:			
2003-2077	13.93	19.00	-5.07

among other things, the relatively minor long-run significance of the trust funds' current reserves of \$1,378 billion.²³ An analysis of the summarized components also confirms the accuracy of an eyeball assessment of Figure Two — the long-run deficits of the outyears substantially outweigh the

²² As discussed above, 100 percent of projected annual expenditures is the level of assets assumed to be required for short-range solvency.

²³ For example, if one were to assume (under the intermediate-cost estimates) that the entire current reserves (\$1,378 billion) would be amortized over the next twenty-five years, the reserves would be equivalent to an increase of 1.48 percent in payroll taxes, and, if adjustment were made for the 0.56 percent cost rate associated with building an adequately funded reserve at the end of the period, the increase would be only 0.92 percent. Over longer periods, the current trust reserves have even less significance.

funds' near-term surpluses in all but the trustees' low-cost estimates and do so by a considerable margin.

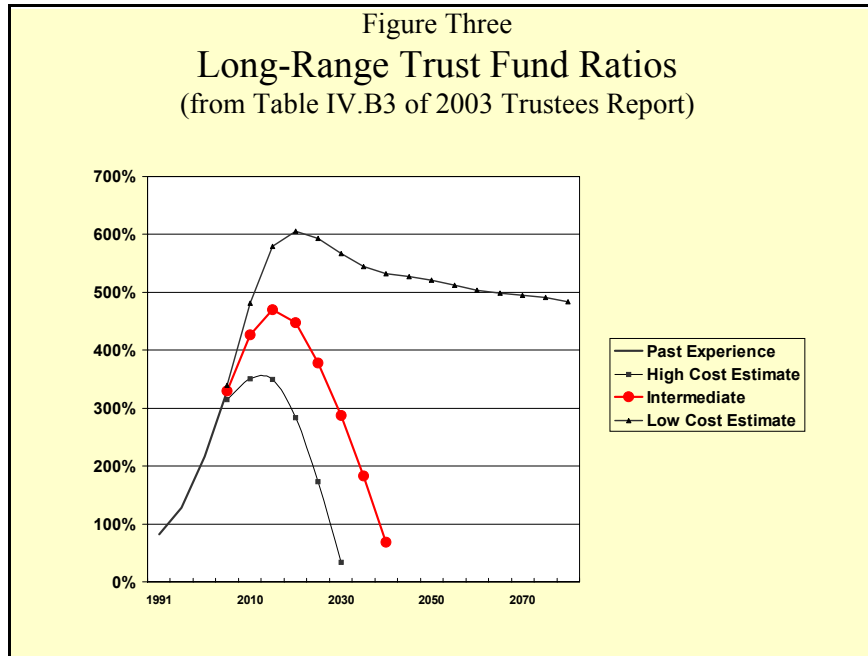
The statistic that encapsulates all of this information can be found in Table Three, showing summarized and combined income and cost rates. The table restates the total income and cost rates shown in Table Two and then indicates the difference between those two rates for each period of analysis. The figure that the arrow points to — minus 1.92 — is the one that policy analysts often employ as a shorthand measure of Social Security's long-term problems. This measure, sometimes referred to as the "actuarial deficit," reflects the difference between seventy-five-year revenue and costs rates under the trustees' intermediate assumptions. The actuarial deficit is often described as the amount that the payroll tax rate would have to be increased (starting today and continuing for the full seventy-five-year period of analysis) in order to bring the Social Security trust funds back into long-range balance.²⁴ Typically, reform measures — ranging from reductions in benefits to increases in the taxation of Social Security benefits to gains from improving the yield on trust fund assets — are measured in terms of their effect on reducing or eliminating the current actuarial deficit.²⁵

According to standards of long-range "close" actuarial balance that the trustees have established, a 1.92 percent actuarial deficit in the combined rate for the seventy-five-year horizon is unacceptable. According to the trustees' standards, the combined ratio for this period should be no greater than five percent of the summarized cost rate for the same period (that is, five percent

²⁴ See 2003 Trustees Report, *supra* note 5, at 16 ("This deficit indicates that financial adequacy of the program for the next 75 years could be restored if the Social Security payroll tax were immediately and permanently increased, from its current level of 12.4 percent (for employees and employers combined) to 14.32 percent.").

²⁵ For example, President Bush's Commission on Social Security used this measure as a benchmark for evaluating various reform proposals. See Report of the President's Commission: Strengthening Social Security and Creating Personal Wealth for All Americans 69-70 (Dec. 2001) [hereinafter Bush Commission Report]. See also 1 Report of the 1994-1996 Advisory Council on Social Security: Findings and Recommendations (1997). [hereinafter 1994-1996 Advisory Council Report], which uses the same measure of insolvency to assess proposed reforms.

of 15.70 percent, or 0.79 percent).²⁶ The intuition underlying this standard is that over the long run the trust funds should be considered in actuarial balance only if projected revenues meet 95 percent



of projected costs.

Another way of presenting the trust funds' long-range solvency are charts showing the projected trust fund balances in future years. In essence, these charts reflect a continuation of those in Figure One, which was limited to ten years of trust fund ratios. Figure Three is an example of this sort of long-range presentation. This figure reveals that (under intermediate estimates) the trust fund ratios will begin to decline in approximately 2016, will pass the trustees' minimum prudent reserve level (100 percent of projected annual benefits) in 2039, and will be entirely depleted of resources

²⁶ See 2003 Trustees Report, *supra* note 5, at 63-66. In their assessment of combined rates, the trustees actually use a sliding scale, under which combined rates must precisely match cost rates over a ten-year period (that is, over the short range) and are allowed to gradually deviate by up to 5.0 percent over the full seventy-five-year horizon.

in 2042.²⁷ At that point, if this scenario were to come to pass and no intervening legislation were enacted, the combined trust funds would have insufficient resources to honor the projected cost of all promised benefits. In fact, the funds' projected income for that year (roughly 13.26 percent of taxable payroll) could cover less than three-quarters of projected benefits (roughly 17.80 percent of taxable payroll).²⁸ By the end of the seventy-five years, the trust funds' projected coverage would be about two-thirds of projected benefits (that is, 13.42 percent of taxable payroll in income versus 19.92 percent of taxable payroll in benefits.)²⁹ In some contexts, the long-term solvency of Social Security is measured in terms of the date at which trust fund reserves are projected to be exhausted.³⁰

2. Criticisms of the Standard Presentation

While the information embodied in the trustees reports is well presented and of considerable value, there are serious limitations in the standard presentations featured in these reports. Put simply, the optimistic short-range projections are too optimistic, and the pessimistic long-range projections are also too optimistic. Moreover, in many respects, these presentations distort public debate over competing reform proposals.

a. Short-Range Projections

²⁷ See 2003 Trustees Report, *supra* note 5, at 16. Annual estimates of projected trust fund ratios are available from the SSA Office of the Chief Actuary at <http://www.ssa.gov/OACT/TR/TR03/lr4B3.html>.

²⁸ See Table IV.B1 of 2003 Trustees Report (projected cost and income rates for 2040 and 2075). These ratios reflect the differences in projected income and benefit rates shown in Figure Two above (intermediate estimate). Annual estimated projections of cost and income rates are available from the Office of the Chief Actuary at <http://www.ssa.gov/OACT/TR/TR03/lr4B1-2.html>.

²⁹ See sources cited *supra* note 28.

³⁰ See, e.g., *infra* pages 28-29 (discussing Wall Street Journal coverage of 2003 report).

As explained above, the take-home message of the trustees' short-range projections is that the next ten years look pretty good for the Social Security trust funds. To be sure, there is some truth to this message, at least in the sense that the trust fund reserves on deposit in the Treasury will grow during the coming decade. But this is a criterion of assessment based exclusively on an analysis of cash flow. It takes no account of changes in the system's liabilities over the course of the year, either the liabilities that were liquidated over the course of the year (in the sense of benefit promises fulfilled) or the new liabilities generated (in the sense of new benefits promised). Indeed, the trustees reports have a somewhat curious attitude with respect to the system's liabilities. Reading through reports, one is constantly warned that the primary problem facing the Social Security system is the retirement of the baby-boomer generation starting a decade or two in the future. At this point, the reports advise, the system will owe this generation a substantial level of benefits, which it will be unable to pay even after drawing down substantial reserves that will have accumulated over the intervening years. Thus, the short-range surplus will be overwhelmed by liabilities arising fully formed several decades in the future.

But the dichotomy between short-range feast and long-range famine is inaccurate and misleading. The reason the Social Security system faces a long-term crisis is that it has accumulated substantial pension promises to current workers and retirees. Moreover, each year it promises to make additional pension payments to most current workers. When the 2003 Trustees Report suggests that 2002 was a good year for the Social Security system and emphasizes a \$165.4 billion increase in the system's assets in that year (see Table One), the data presented give no sense of how the growing cash surpluses compare to other aspects of the system's operations during the year. To be sure, an astute reader might infer that all was not well with the system in that the report provides ample evidence that current surpluses will be insufficient to meet long-run benefit commitments. But it is all but impossible to determine from the 2003 Trustees Report whether these long-run problems are the consequence of promises made before 2002 (that is, promises made to current retirees and older workers) or a result of promises to be made to baby boomers and others at some point in the future. In short, the 2003 Trustees Report gives little sense of whether, all things considered, 2002 really was a good year for the Social Security trust funds.

In making references to liabilities of the Social Security system, I recognize that the character of Social Security's pension promises is complex and contestable. As a purely legal matter, Social Security benefits do not constitute binding obligations on the part of the federal government. (Box Two summarizes the legal status of Social Security benefits.) Since Social Security beneficiaries have no constitutionally protected right to receive any particular level of Social Security benefit, it remains problematic to define how individual benefits accrue over time. While some might argue that the absence of enforceable legal rights on the part of Social Security beneficiaries wholly justifies the formats adopted in the trustee's reports,³¹ I believe there are strong grounds for objecting to this approach.

For one thing, there is the statutory basis for the payment of Social Security benefits. As defined under the Social Security Act, an individual's Social Security benefits are based on the number of years the individual participates in the system. Individuals become eligible to receive retirement benefits once they made contributions for forty calendar quarters (or ten years), and the individual's statutory entitlements grow larger as the individual worker makes contributions to the system. The amount of benefits ultimately paid out of the trust funds are a function of a participant's lifetime earnings, based on the highest thirty-five years of wages over the course of his or her working career. When economists want to calculate the value of Social Security benefits, they routinely look to these statutory formulas to estimate how large a benefit a particular individual has accrued at a particular time or at the individual's retirement.³² The trust funds' financial statements, however, make no effort to quantify this gradual accretion of statutory entitlements for individual beneficiaries.

³¹ For example, in a recent exposure draft regarding the accounting treatment of Fiduciary Activities, the Federal Accounting Standards Advisory Board (FASAB) proposed to apply the new standards only to fiduciary activities in which non-federal parties had "ownership interests that the Federal Government must uphold" thus exempting social insurance programs such as Social Security. See Statement of Federal Financial Accounting Standards Exposure Draft: Accounting for Fiduciary Activities (Apr. 2003) (available at <http://www.fasab.gov> . . .). For further discussion of FASAB pronouncements in this area, see *infra* pages 108-13.

³² See *infra* pages 120-21 (life cycle-savings and household wealth studies).

Box Two

The Legal Status of Social Security Benefits

Once there was the question of whether Congress had the authority to reduce or eliminate Social Security benefits for individuals who had paid Social Security taxes under a statutory regimen that provided for a certain level of benefits. In particular, there was uncertainty as to whether Social Security participants had some form of property interest in Social Security benefits that, under the Fifth Amendment of the U.S. Constitution, could not be diminished without just compensation. In the case of *Fleming v. Nestor*, 363 U.S. 603 (1960), the Supreme Court ruled that “a person covered by the [Social Security] Act has no[. . .] right in benefit payments as would make every [statutory] defeasance of ‘accrued’ interests violative of the Due Process Clause.” *Id.* at 611.

The *Fleming* case involved a Bulgarian immigrant named Ephram Nestor, who had arrived in the United States in 1913 and had paid Social Security taxes from 1936 until his retirement in 1955, at which point he was eligible for retirement benefits. *Id.* at 605. In 1954, however, Congress had amended the Social Security Act to deny retirement benefits to any beneficiary deported from the United States on the grounds of being or having been a member of the Communist party, and Nestor was deported on that basis in 1956. *Id.* Nestor’s Social Security benefits were thereupon revoked, and he challenged the revocation as violating the Fifth Amendment. *Id.* at 606. Writing for a majority, Justice Harlan rejected Nestor’s claims, emphasizing that giving Congress flexibility to recalibrate Social Security benefits from time to time is a practical necessity and that the Social Security Act expressly reserves for Congress the right to “alter, amend or repeal any provision.” *Id.* at 611 (quoting 42 U.S.C. § 1304).

Though occasionally criticized and distinguished in subsequent decisions, the core holding of *Fleming v. Nestor* retains vitality: Congress can reduce or eliminate accrued Social Security benefits without having to provide just compensation to participants and other beneficiaries whose entitlements are thereby diminished. Section 1104 of the Social Security Act still preserves this authority by providing that “the right to alter, amend or repeal any provision of this Act is hereby reserved to the Congress.”

The only significant constitutional protection afforded Social Security participants is that individualized decisions to reduce or eliminate benefits must be conducted in accordance with statutory standards and effected through procedures meeting the requirements of the Due Process Clause of the Fifth Amendment. For a review of the doctrine in this area, see Julie A. Nice & Louise G. Trubek, *Cases and Materials on Poverty Law: Theory and Practice* 284-374 (1997).

The trustees reports also do not reflect the political reality of the trust funds' benefit structure. According to Social Security lore,³³ President Roosevelt wanted Americans to think of themselves as having contributed to individual Social Security accounts — that is, accounts held in trust and funded through individual contributions — so as to create a sense of personal connection to the Social Security program and thereby increase public support for the system. If this was, in fact, President Roosevelt's intention, history has seen his vision realized. Public opinion surveys confirm that older workers and retirees do feel a strong sense of entitlement for their Social Security benefits.³⁴ Upon retirement, the elderly feel that the federal government has an obligation (that is, has incurred a liability) to pay Social Security benefits as promised. And, although it is difficult to say exactly when that obligation arises (that is, accrues), there is, I believe, a national consensus that somewhere between entry into the workforce and the age of retirement, workers and their families do accrue — politically, if not constitutionally — an undeniable and unassailable entitlement to receive Social Security benefits at approximately the levels indicated by the statutory structure under which they and their employers had paid Social Security taxes. The trustees' statement of financial performance in 2002 makes no effort to account for this accrual of politically sacrosanct obligations over the working life of participants.

In addition, there is the analogy of private pension plans. Under generally accepted accounting principles (GAAP), private firms are not permitted to ignore retirement benefits promised to current workers. Whether offering pension or retiree health benefits, companies must accrue the costs of retiree benefits while employees are still in the workforce. The required rates of accrual are not based simply on the legal entitlements of workers, but rather on the projected level of benefits that workers are actually expected to receive — levels of projected benefits that are often much higher than legal entitlements of workers. The premise of this GAAP requirement is that

³³ See C. Eugene Steuerle & Jon M. Bakija, *Retooling Social Security for the 21st Century* 25-27 (1994).

³⁴ See Lawrence R. Jacobs & Robert Y. Shapiro, *Myths and Misunderstandings about Public Opinion Towards Social Security in Framing the Social Security Debate: Values, Politics and Economics* 355, 365-74 (1998) (R. Douglas Arnold, et al., eds.).

retiree benefits should be recognized on corporate financial statements as soon as it is reasonably clear that the benefits will have to be paid. Even though it is widely recognized that Social Security benefits are politically and practically sacrosanct by the time workers near retirement – that is, the benefits will almost certainly be paid as promised – the trustees reports do not recognize any benefit obligations until the year of payment. In other words, the financial statements of Social Security omit the central feature of GAAP for private pensions.³⁵

Finally, one could look at the accountant’s own definition of the term liabilities: “Liabilities are probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions.”³⁶ This definition is intentionally expansive. The commitments need not be definite, so long as obligation are probable – “that which can reasonably be expected or believed on the basis of available evidence or logic but is neither certain nor proved.”³⁷ Such commitments moreover need not be legally enforceable obligations; rather the term obligations as used in the definition of liabilities is broader, and includes duties which “one is bound to do by contract, promise, moral responsibility and so forth.”³⁸ At the heart of my complaint about the trustees report is that it fails to recognize in a timely manner the substantial financial commitments that the trust funds will in all likelihood have to honor as a result of past contributions to the system.

³⁵ As discussed *infra* 106-07, federal government budgeting procedures are increasingly making use of accrual techniques to account for government activities that entail long-term commitments. Recognizing the value of accrual accounting, the Bush Administration recently proposed that all retirement benefits for government employees also be accounted for in this way, at least for internal management purposes. See The President’s Proposal to Accrue Retirement Costs for Federal Employees (June 2002) (CBO paper available at <ftp://ftp.cbo.gov/35xx/doc3580/Accrual.pdf>).

³⁶ See Financial Accounting Standards Board, *Accounting Standards: Statements of Financial Accounting Concepts* 191 (1999).

³⁷ *Id.* n.21.

³⁸ *Id.* n.22.

The notion of timeliness is of critical importance to the construction of financial accountants. Liabilities are recognized when they become probable economic commitments so that managers and other readers of those statements will be aware of the creation of financial commitments at the time those obligations are incurred and can be controlled. As a matter of political reality and individual equity, the Social Security system's obligations to pay retirement benefits are incurred during the course of the working life of individual participants. That is the timeframe in which a system of accrual accounting would locate the recognition of those obligations. The trustees reports, however, place those commitments much further in the future only after the participants have retired and begun to receive payments. At that point – regardless of the constitutional status of Social Security benefits – the federal government has long since been obligated to honor these commitments. A fatal weakness of the trustees report format is that it fails to recognize the liabilities of the system during the periods in which the federal government assumes the practical responsibility to make those payments.

b. Long-Range Projections

Although the trustees' long-range projections quite properly warn of a looming crisis, these projections are, in my view, also misleading and incomplete. Recall for a moment the basic message of this aspect of recent trustees reports: Over the next seventy-five years, the projected revenues of the trust funds will be insufficient to cover projected costs. The summary statistic for this fact is the 1.92 percent actuarial deficit (marked with the arrow in Table Three) for the trust funds' combined rate. The usual interpretation of this statistic is that it is the amount by which payroll taxes would have to be raised over the seventy-five year period to bring the system into perfect balance. If one were to convert this tax into a present value number, it would mean that if the Social Security trust funds had received on December 31, 2002, a lump-sum contribution of roughly \$3.8 trillion, the programs long-range problems would be solved.³⁹ (To put this number in

³⁹ See 2003 Trustees Report, *supra* note 5, at 61 (explaining components of this estimate). This figure is slightly higher than the estimate of the 75-year open-group unfunded obligation discussed below (\$3.5 trillion), see *infra* page 70, because this estimate factors in the additional present value cost of building up a reserve at the end of the 75 year projection period (\$280

context, the total revenues of the United States government in fiscal year 2002 were \$1.85 trillion.⁴⁰⁾

Assume for a moment that the federal government were to raise this staggering sum through a special assessment of some sort. Would the long-range problems of Social Security be solved once and for all? The trustees' long-range projections suggest that it would, but this is not true. The trust funds would begin to fall out of actuarial balance again the very next year. Consider the long-range estimated income and cost rates shown in Figure Two. In 2078, at the end of the long-range projection period, the revenues of the Social Security system and its income will be substantially out of balance. Even if we were to "solve" the long-range Social Security problem defined in the 2003 Trustees Report, a new long-range problem requiring a similar solution would emerge in a decade or two.⁴¹ This defect in traditional Social Security accounting is sometimes referred to as the "cliff" problem.

The trustees' long-range projections suffer from the same defect as their short-range projections do in failing to account for the accrual of future obligations. As described earlier, the long-range projections are designed to take into account all benefits paid and revenues received from current and future participants over the projection period.⁴² Thus, the long-range projections encompass the trust funds' obligations to these individuals inasmuch as all of the obligations are liquidated over the seventy-five-year period. What the long-run projections fail to consider are the trust funds' accrued liabilities to generations of workers who will receive benefits after this period.

billion).

⁴⁰ See Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2004-2013*, at 4 (Jan. 2003) (hereinafter CBO January 2003 Report) (table 1-2).

⁴¹ See Bush Commission Report, *supra* note 25, at 70. A good example of this phenomenon is the growth of the Social Security trust fund deficits in the years immediately following the 1983 reforms. At the beginning of this period, when the reforms had just been enacted, the system was in long-range balance, although the system quickly fell into long-range imbalance again. See Figure Five *infra*.

⁴² See *supra* pp. 13-20.

After seventy-five years, at the end of 2077, millions of workers and retirees will have substantial claims on the system, and the trust funds will have neither reserves to honor these claims nor revenue streams to support them. The reason that the actuarial deficit measure, large though it is, underestimates the true long-range shortfall of the system is that the measure fails to account for the future accrual of Social Security promises to individuals who have not yet entered the workforce but will have substantial claims on the system at the end of seventy-five years.⁴³

In short, even an immediate injection of more than \$3 trillion would not be enough to provide a permanent solution to the problems of Social Security.

c. Biases with Respect to Reform Proposals

The way in which the trustees reports present the financial problems of Social Security also significantly distorts the public debate over reform proposals. To begin with, the take-home message of these reports – short-range surplus/long-range deficits – invites politicians to postpone the difficult and politically charged problems of Social Security reform. The trustees report's repeated dichotomy between short and long-term prospects suggests that the system is currently making some sort of profit – which it is not – and can safely be left alone until the real problems appear somewhere down the road. Experts in the field know this is not true and regularly warn that it will be much harder to solve the system's problem if the reform efforts are delayed. But the trustees reports undercut this warning by emphasizing the magnitude of the system's short-term cash surpluses.

Consider, for example, the press coverage that followed the release of the 2003 Trustees Report described above. Excerpted below are the relevant sections of the Wall Street Journal story that appeared the day after the report's release:

⁴³ Admittedly, the long-range measures of actuarial balance do contemplate the accumulation of trust fund reserves at 100 percent of projected annual expenditures at the end of the period. However, this level of reserves does not ensure long-run solvency. After all, the trust funds currently have reserves in excess of 200 percent of annual expenditures, see *supra* page 12, and the system is widely perceived to be on the edge of crisis.

“ . . . Social Security's long-term prognosis brightened a bit.

“In annual reports released yesterday, . . . Social Security gained a year on its expected life span, to 2042. . . .[M]ore-optimistic assumptions about future immigration trends . . . could help Social Security.

“ . . . [T]he findings slightly diminished the political pressure to shore up Social Security.

“

“As he often has in the past, Mr. Bush again said Social Security is ‘unsustainable for the long term.’ But he emphasized the need for ‘bipartisan solutions.’ That suggests that the White House's moribund campaign to revamp the retirement-security program isn't likely to be revived anytime soon. Few congressional Democrats have embraced Mr. Bush's vision for Social Security, which includes using a portion of payroll-tax revenues to fund personal investment accounts.

Yesterday, the leading House Democrat on Social Security, Rep. Robert Matsui of California, said the report showed that ‘those who claim that Social Security is bankrupt are misleading the public.’ He also called again on the administration to produce details of its plan for individual accounts.”⁴⁴

In many respects this account is typical of the kind of press coverage the trustees reports generate. The problem, to the extent that it exists, is located far in the future. Indeed, because the estimated exhaustion date of the trust funds was pushed back a year, the Wall Street Journal's lead was that the trust funds financial health improved in 2003.⁴⁵ And, of course, the trustees report provided ample support for Representative Matsui's assertion that Social Security was not bankrupt, confirming the Journal's assessment that release of the 2003 report “somewhat diminished political pressure to shore up Social Security.”

The trustees' principal measure of long-range actuarial deficit – the negative 1.92 percent of total payroll highlighted in Table Three – introduces another more subtle but equally pernicious bias in reform debates. This bias is best illustrated by reference to a report of the Social Security

⁴⁴ See Wall St. J., Mar. 18, 2003 (reporting on both Social Security and Medicare Reports).

⁴⁵ Id.

Advisory Council released in early 1997.⁴⁶ The Advisory Council Report included three different ways of solving the financial problems of Social Security, each proposal supported by a different coalition of council members. The criterion for each solution was that it eliminate the (then-estimated) 2.19 percent actuarial deficit over the seventy-five-year long-range projection period. What the Council Report reveals is the extent to which this measure of actuarial deficit encourages reformers to backload their solutions. All of the Council's proposals included elements that increased short-term costs for the trust funds, and one of the groups proposed a series of reforms that would substantially increase the trust funds' deficits for the next few decades, only to recoup these losses with new (and unspecified) tax increases starting far in the future.⁴⁷ Nevertheless, even this reform proposal met the criterion of eliminating the combined rate deficit. In the extreme, one could imagine "solving" the combined deficit problem through a single lump-sum contribution several decades down the road. Narrowly speaking, this would be an acceptable solution.⁴⁸ One of the unfortunate consequences of focusing on long-range actuarial deficits is that doing so encourages this sort of irresponsible recommendation, which depends on future sacrifices of an unrealistic magnitude.⁴⁹

⁴⁶ See 1994-1996 Advisory Council Report, *supra* note 25.

⁴⁷ See *id.* at 30-33 (Option III).

⁴⁸ To be fair, the trustees' standard for long-range actuarial balance also requires that certain standards be met for interim periods beginning ten years from the beginning of the period of analysis. See *supra* note 26. Under these more complex requirements, a lump-sum future payment would not suffice. Reform proposals, however, routinely are evaluated solely in terms of their effect on seventy-five-year actuarial deficit, confirming my basic point that the seventy-five-year projection tends to become the dominant measure of long-range solvency.

⁴⁹ There are, I recognize, legitimate grounds for structuring reform proposals that gradually come into effect. Indeed, my claim is that one of the advantages of accrual accounting is that it facilitates transitional reforms that are more difficult to impose under current practices. See *infra* pages 95-98. At some point, however, reform proposals are so severely backloaded as to exceed any legitimate claim of transitional relief. In my opinion, the advisory report recommendation discussed in the text passed this boundary line. Whether or not one agrees with this assessment, it remains that the actuarial deficit measure for reform proposals does not distinguish between changes instituted in the near term from those scheduled to be implemented at the end of the seventy-five year period of analysis.

President Bush's Social Security Commission faced the flipped side of the same problem.⁵⁰ A key component of the Bush Commission's proposals was a reduction in Social Security benefits to offset voluntary contributions to individual retirement accounts. Under cash-flow accounting, payments into the privatized accounts constitute an immediate diminution in trust fund resources and an immediate expense. The reduction in benefits associated with these contributions, however, is not reflected until the benefits were actually due to be paid. Typically these benefits will not be payable until many years in the future, and often times outside of the seventy-five year estimation period. Accordingly, under cash-flow accounting, the fiscal benefits of the Bush Commission's proposal were substantially understated. The cash-flow effects greatly complicated public discussions of the relative merits of the Bush Commission's approach.

B. Consolidation within the Federal Budget Process

I turn now from the financial status of the trust funds to the relationship between trust fund accounting and the larger federal budget. This section reviews the manner in which the finances of the trust funds are currently integrated into other federal budgetary accounts. After reviewing current practices, I offer several criticisms of the present approach and then discuss their distorting effect on public debate of Social Security reform.

1. Current Approach to Consolidating Social Security Trust Funds

Several different federal agencies routinely prepare information on the federal budget. For purposes of exposition, I focus here on the presentations of the Congressional Budget Office (CBO), but a similar analysis would follow if I were to substitute the work of the executive branch's Office of Management and Budget (OMB) or the independent General Accounting Office (GAO), both of which also produce budgetary information.⁵¹

⁵⁰ See Bush Commission Report, *supra* note 25.

⁵¹ See, e.g., Statement of David M. Walker, Comptroller General, Social Security: Long-Term Financing Shortfall Drives Need for Reform (June 19, 2002) (GAO-02-845T) (testimony before the House Budget Committee) [hereinafter GAO Testimony]; Mid-Session Review: Fiscal

To introduce the subject, consider the opening paragraphs and accompanying summary table (reproduced in slightly altered form below in Table Four) from an August 1998 CBO report, which was issued when the federal government was just beginning to report the surpluses of the late 1990s:⁵²

The Congressional Budget Office (CBO) projects that the federal budget for fiscal year 1998 will record a total surplus of \$63 billion, or 0.8 percent of gross domestic product (GDP). If current policies remain unchanged, the surplus is expected to rise to \$80 billion in 1999 and reach \$251 billion (nearly 2 percent of GDP) by 2008 (See Summary Table 1.) Excluding the surplus in Social Security and the net outlays of the Postal Service (both of which are legally classified as off-budget), the CBO's new projections show an on-budget deficit of \$41 billion in 1998, which gives way to surpluses in 2002 and in 2005 through 2008.⁵³

This artfully drafted prose encapsulates a common approach to discussing budgetary aggregates in Washington, D.C.

The first sentence provides the report's bottom line: the federal government was projected to run up a \$63 billion surplus in fiscal year 1998.⁵⁴ This figure — \$63 billion — was repeated in the report's second paragraph and has been restated on numerous other occasions throughout the report. It was picked up in numerous press accounts heralding what has been widely reported as the first federal budgetary surplus since 1969.⁵⁵ Most readers could, therefore, be excused for not lingering over the third sentence of the opening paragraph, in which the report notes a distinction

Year 2003 (July 15, 2002)[hereinafter 2002 Mid-Session Review] (OMB budgetary analysis).

⁵² Several times a year, the CBO prepares reports of this sort for the Senate and House Committees on the Budget. The principal report comes in January, and updates are issued periodically throughout the year.

⁵³ Congressional Budget Office, *The Economic and Budget Outlook: An Update* at ix (Aug. 1998) [hereinafter CBO August 1998 Update].

⁵⁴ Ultimately, the total surplus for Fiscal 1998 was \$69 billion. See *Budget of the United States: Historical Tables: Fiscal Year 2003*, at 22 (Table 1.1) (2002) (available at <http://www.whitehouse.gov/omb/budget/fy2003/pdf/hist.pdf>). [hereinafter FY2003 Historical Tables].

⁵⁵ See CBO August 1998 Update, *supra* note 53, at xiii, xviii, 3.

between off-budget surpluses and on-budget deficits for the year. What that convoluted construction explains is that certain sources of revenue — that is, those associated with Social Security and the U.S. Postal Service — are “legally classified as off-budget,” meaning that Congress has voted to exclude these items from budget aggregates.⁵⁶ The sentence further informs that if those were so excluded, something called the “on-budget” would show a deficit for 1998 and four of the five following years. This on-budget figure was projected to eventually reach a surplus on the order of \$60 billion, but not until ten years into the future, in 2008.

The first summary table of the CBO August 1998 Update Report, reproduced in abbreviated form in Table Four, delivers much the same message. Although the table also includes information about off-budget and on-budget deficits, the top and most visible line of the table highlights the good news of total-budget surpluses stretching out through the first decade of the following century.

Apart from the political appeal of trumpeting budgetary surpluses, total-budget figures are undoubtedly useful statistics to compile. Several dozen pages into its analysis, the CBO August 1998 Update explains the importance of this budgetary measure, its relationship to the amount of government debt held by the public:

The Congressional Budget Office projects that total federal revenues will exceed total government expenditures by \$63 billion in 1998, the first surplus in the total budget since 1969. During the period since the last surplus — 1970 through 1997 — spending outstripped tax receipts by a cumulative \$3.4 trillion. The government financed those deficits by borrowing from private credit markets, driving up federal debt held by the public from \$278 billion at the end of 1969 to nearly \$3.8 trillion at the end of 1997.

Under current laws and policies, and providing that the economy performs as CBO assumes, the excess of total federal revenues over total outlays is estimated to grow over the next years, rising from \$80 billion in 1999 to \$251 billion in 2008. If these projected surpluses are actually realized, past borrowings from the public will be partially repaid, and the debt held by the public will fall to \$2.3 trillion by the end of 2008. As a percentage of gross domestic product, the decline in debt held by

⁵⁶ See Stanley Collender: *The Guide to the Federal Budget: Fiscal 1996*, at 22-23 & n. 11 (1995) (describing section 13301 of the Budget Enforcement Act of 1990, as amended).

the public will be even more dramatic, plummeting from 47 percent in 1997 to 18 percent in 2008 (See Figure [Four]). Such a reduction in borrowing by the Department of the Treasury will release resources for private investment, thereby enhancing productivity and economic growth.

Total government inflows and outflows include the Social Security trust funds — Old-Age and Survivors Insurance and Disability Insurance — which have their own earmarked sources of revenue. Currently, income flowing into those funds

Table Four
The CBO Budget Outlook in August 1998
(By Fiscal Year, in Billions of Dollars)

	Actual							
	1997	1998	1999	2000	2001	2002	2003 . . .	2008
Total Deficit (-) or Surplus	-22	63	80	79	86	139	136	... 251
Off-Budget Surplus	81	104	117	125	131	138	146	... 186
On-Budget Deficit (-) or Surplus (Excluding Social Security and Postal Service)	-103	-41	-39	-46	-45	1	-10	... 64
Memorandum:								
Off-Budget Surplus								
Social Security	81	105	117	126	130	138	146	... 186
Postal Service	<u>a</u>	<u>a</u>	<u>a</u>	<u>a</u>	<u>1</u>	<u>0</u>	<u>0</u>	... <u>0</u>
Total	81	104	117	125	131	138	146	... 186

^a Less than \$500 million

Source: Congressional Budget Office, The Economic and Budget Outlook: An Update at x, 35 (Aug. 1998) (Summary Table 1 & Table 2-1. The Budget Outlook Under Current Policies).

excludes outlays for benefits and program administration. The trust funds surpluses have, by law, been invested in interest bearing government securities, and that interest is part of the funds' income. Those investments have, in turn, reduced the need to borrow from the public to finance other programs.⁵⁷

The compilation of and emphasis on total-budget aggregates are thus justified on the grounds that they represent the net amount that the federal government must borrow from (in years of deficits) and can repay to (in years of surplus) the general public. Under this logic, Social Security trust fund surpluses are properly included in this aggregate because these funds reduce the

⁵⁷ CBO August 1998 Update, supra note 53, at 33.

government's need to obtain funds from the private sector, both decreasing the government's net borrowing and "freeing up" financial resources for other investments.⁵⁸

Since 1998, the overall budgetary picture of the United States has followed a tortuous path, first improving further through 1999 and 2000 and then, starting in 2001, deteriorating significantly.⁵⁹ For a time, particularly during the final years of the Clinton Administration, budget officials became somewhat more circumspect in their casual combination of Social Security trust fund surpluses and those of the on-budget accounts.⁶⁰ However, confusion and obfuscation still prevailed. The repeated and often incoherent references to Social Security lockboxes in the 2000 presidential campaigns are striking illustrations of this confusion,⁶¹ but even current publications of budgetary agencies include many of the problems noted above. Consider the opening two paragraphs of the CBO's January 2001 report on the federal budget:

In the absence of significant legislative changes and assuming the economy follows the path described in this report, the Congressional Budget Office (CBO) projects that the total surplus will reach \$281 billion in 2001. Such surpluses are projected to rise in the future, approaching \$889 billion in 2011 and accumulating to \$5.6 trillion over the 2002-2011 period. That total is about \$1 trillion higher than the cumulative surplus projected for 2001 through 2010 in CBO's July 2000 report. About \$600 billion of the \$1 trillion is due simply to shifting the 10-year horizon out one year, to 2011, and dropping 2001 from the total. The remaining \$441 billion results mostly from changes in the economic forecast, which are offset in part by the cost of legislation enacted since CBO's previous report.

⁵⁸ It was for reasons of this sort that a presidential commission under President Johnson recommended that Social Security be brought on-budget. See Report of the President's Commission on Budget Concepts 26-27 (Oct. 1967).

⁵⁹ As it turned out, the total federal surplus was \$124 billion in fiscal year 1999; \$236 billion in fiscal year 2000, and \$127 billion in fiscal year 2001. See FY 2003 Historical Tables, *supra* note 54, at 22 (Table 1.1).

⁶⁰ For an interesting discussion of efforts to clarify the distinction between on-budget and off-budget surpluses during the final years of the Clinton administration, see Douglas W. Elmendorf, Jeffrey B. Liebman, and David W. Wilcox, *Fiscal Policy and Social Security Policy During the 1990's* (July 2001).

⁶¹ For a discussion of the lockbox debate, see *infra* page 74.

Perhaps more important to some policymakers, the on-budget surplus (which excludes the spending and revenues of Social Security and the Postal Service) is anticipated to equal \$125 billion in 2001 — a nearly \$40 billion increase from its level in 2000. The on-budget surplus will continue growing over the 10-year period, CBO projects, exceeding \$550 billion in 2011 and totaling over \$3.1 trillion between 2002 and 2011.⁶²

While the report's second paragraph notes that there is another measure of surplus — the on-budget surplus — that may be more important for “some” policymakers, the figure that made its way into newspaper headlines and factored heavily in ensuring political debate over the Bush administration's tax cuts was the “total surplus” of \$5.6 trillion projected over the following ten years.

With the reemergence of budgetary shortfalls, the CBO's January 2002 report had a very different tone, and its treatment of Social Security surpluses became even more contorted. Reproduced below are the opening paragraphs and an accompanying summary table (Table Five) from the January 2002 CBO report :

The economic recession and recent laws have combined to sharply reduce the budget surplus projected a year ago. In January 2001, the Congressional Budget Office (CBO) projected that under the laws and policies then in force, the federal government would run surpluses in fiscal years 2002 through 2011 totaling \$5.6 trillion. In CBO's new projections, that cumulative surplus has fallen to \$1.6 trillion—a drop of \$4 trillion

About 60 percent of that decline results from legislation — primarily the tax cuts enacted in June and additional discretionary spending — and from its effect on the cost of paying interest on the federal debt. Changes in the economic outlook and various technical revisions since last January account for the other 40 percent of that decline.

For both 2002 and 2003, CBO now projects that, instead of surpluses, the total budget will show small deficits, if current policies remain the same and the economy follows the path that CBO is forecasting. In 2001, by contrast, the federal government ran a surplus of \$127 billion

⁶² Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2002-2011*, at viii (Jan. 2001)

The deficit projected for this year [2002] — \$21 billion — represents a change of more than \$300 billion from last January’s projection. Over 70 percent of that reduction results from the weak economy and related technical factors, which have considerably lowered the revenues for this year and next.

For the current 10-year projection period, 2003 through 2012, CBO estimates a total surplus of nearly \$2.3 trillion. However, almost half of that total comes from the surpluses projected for 2011 and 2012 — the last two years of the projection period and thus the most uncertain. The surpluses for those years also reflect the scheduled expiration in December 2010 of the tax cuts enacted last June.

Table Five											
The CBO Budget Outlook in January 2002											
(By Fiscal Year, in Billions of Dollars)											
	Actual										Total
	2001	2002	2003	2004	...	2009	2010	2011	2012	...	2003-2012
On-Budget Surplus or											
Deficit (-)	-33	-181	-193	-141	...	-23	4	131	319	...	-242
Off Budget Surplus *	<u>161</u>	<u>160</u>	<u>178</u>	<u>195</u>	...	<u>274</u>	<u>290</u>	<u>307</u>	<u>322</u>	...	<u>2,505</u>
Total Surplus or											
Deficit (-)	127	-21	-14	54	...	250	294	439	641	...	2,263
Memorandum:											
Social Security Surplus	163	163	179	195	...	274	290	307	322	...	2,505
Postal Service Outlays	2	3	1	a	...	0	0	0	0	...	a
Total Surplus or Deficit (-)											
as a percentage of GDP	1.3	-0.2	-0.1	0.5	...	1.7	1.9	2.7	3.7	...	1.6
a. Less than \$500 million											
* Off Budget surpluses comprise surpluses in the Social Security trust funds as well as the net cash flow of the Postal Service											
Source: Congressional Budget Office, The Economic and Budget Outlook: Fiscal Years 2003-2012, at 2 (Jan. 2002) (Summary Table 1 & Table 2-1. The Budget Outlook Under Current Policies).											

In CBO’s new baseline, the off-budget accounts (which reflect the spending and revenues of Social Security and the Postal Service) run surpluses throughout the projection period. In the on-budget accounts, by contrast, surpluses do not reemerge until 2010.⁶³

In many respects, the January 2002 report is even more misleading than prior reports. Whereas prior reports were precise, even in summary statements, to speak in terms of “total”

⁶³ See Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2003-2012 (Jan. 2002) [hereinafter January 2002 CBO Outlook].

surpluses or deficits (which in turn were decomposed into on-budget and off-budget components), the January 2002 report is more casual in its terminology, referring simply to “the budget surplus” in its opening sentence. While knowledgeable readers could undoubtedly recognize that this reference is to the total-budget surplus of prior reports (see Table Five for details), less-informed audiences could easily miss this point. Indeed, when the introductory paragraphs do turn to the off-budget component of the total-budget picture, the presentation is particularly convoluted. The text explains that off-budget surpluses run throughout the period but that on-budget surpluses do not “reemerge” until 2010, three years before the end of the ten-year projection. Again, the astute might infer that the on-budget accounts must therefore be in deficit before 2010. But what the summary doesn’t say — and what many readers would likely find salient — is that without Social Security cash-flow surpluses, the on-budget deficits for 2003 and 2004 were projected to be in the range of \$180 to \$190 billion.⁶⁴ This information is contained in tables appearing elsewhere in the 2002 report (summarized in Table Five) but does not factor into the introductory paragraphs.⁶⁵

⁶⁴ These projections substantially exceeded actual results. See January 2003 Report, *supra* note 40, at xvi (reporting on-budget deficits of \$317 billion in 2002 and total budget deficits of \$158 billion); CBO August 2003 Monthly Budget Review (available at [ftp://ftp.cbo.gov/44xx/doc4491/08-2003-MBR.pdf](http://ftp.cbo.gov/44xx/doc4491/08-2003-MBR.pdf)) (projecting total budget deficits of \$405 billion in 2003.)

⁶⁵ See also CBO January 2003 Report, *supra* note 40, at xvii-xix (not carefully distinguishing on-budget and total budget deficits in summary paragraphs on budget outlook). As further evidence that the public is not picking up on the difference between total budget and on-budget aggregates, I reviewed the general press stories immediately following CBO’s August 2003 report estimating total budgetary deficits of \$401 billion in FY 2003 and \$480 billion in FY 2004. See Congressional Budget Office, *The Budget and Economic Outlook: An Update* (Aug. 2003) (available at <http://www.cbo.gov/showdoc.cfm?index=4493&sequence=0>). The vast majority of accounts uncritically accepted the CBO’s projected total deficits, which included Social Security cash-flow surpluses. See, e.g., *Chicago Tribune*, Aug. 31, 2003, at C1; *Christian Scientist Monitor*, Aug. 28, 2003, at 2; *Los Angeles Times*, Aug. 28, 2003, pt. 2, at 16; *Minneapolis Star Tribune*, Aug. 31, 2003, at 12AA; *The New York Times*, Aug. 28, 2003, at c7; *San Francisco Chronicle*, Aug. 29, 2003, at B1; *St. Louis Post-Dispatch*, Aug. 31, 2003, at B2; *Washington Post*, Aug. 29, 2003, at A22. In only one paper that I found — *Boston Globe*, Aug. 30, 2003, at A10, in a Saturday editorial — was it noted the projected deficit in FY2003 would have been \$562 billion if limited to the government’s operating budget.

2. Criticisms of Standard Presentation

A principled critique for the manner in which Social Security trust funds are currently aggregated with other federal account depends on some sort of normative criteria of what purpose budgetary aggregates are supposed to fulfill. To the extent that the purpose of budgetary aggregates is to communicate to Treasury Department officials the net amount of federal bonds to be sold to (or redeemed from) the general public in the course of a year, the current emphasis on total budget deficits (and occasionally surpluses) is fully justified. Total budget aggregates communicate precisely the amount of net government sales or repurchases from the general public.

The management of public debt auction is not, however, the most important function of federal budgetary aggregates. The principal reason for compiling these budgetary figures is to communicate to the general public and their representatives in Washington the amount by which overall financial claims on the federal government increased or decreased over the course of the reporting period.⁶⁶ Measured against this standard, the current practices of the federal government fall far short of the ideal. In particular, the government's total-budget surplus or deficit is not, in my view, the most salient number for the CBO or other government agencies to present to the general public as the best measures of the change in the government's overall financial obligations over the course of the year. At a minimum it would be preferable if reporting agencies were to emphasize what the CBO refers to as the "on-budget" aggregates. However, it would also be preferable if federal budgetary reports would highlight the annual growth in both the total explicit government debt and also the implicit debt associated with government programs such as Social Security.

⁶⁶ To the extent that the composition of the federal government's financial obligations changed over the course of the year, federal budgetary statements should also communicate these changes. For this reason, I favor more comprehensive measures of the government's fiscal imbalance along the lines proposed in Jagadeesh Gokhale & Kent Smetters, *Fiscal and Generational Imbalances: New Budget Measures For New Budget Priorities* (AEI Pamphlet No. 4, Apr. 2003). In Section II. D below, I explain how an accrual-based system of accounting for Social Security could help compare the system's mounting levels of implicit debt to the growth of the federal government's explicit debt.

a. Misleading Features of the Standard Presentation

A threshold complaint about the CBO presentation of budgetary aggregates is that it is arguably inconsistent with federal law. Several times in the 1980s and again in 1990, Congress, with some fanfare, voted to move Social Security off-budget, and from time to time, politicians point to this fact with pride.⁶⁷ The CBO alludes in its report of August 1998 to this fact when it mentions parenthetically that the trust funds are legally required to be off-budget. Throughout the report, however, it speaks almost exclusively in terms of total-budget figures, which consolidate off-budget accounts. At a minimum, this approach seems unfaithful to congressional intent.⁶⁸

To make matters worse, the CBO further obscures the significance of trust fund surpluses through a misleading aggregation of another off-budget entity — the Postal Service — with the Social Security trust funds. A reader of these references to the Postal Service might reasonably infer that, since the CBO gives both entities the same degree of prominence, both entities must make roughly comparable contributions to the total-budget aggregates. The memorandum items set forth in Tables Four and Five above — information typically not included in CBO's own summary tables — reveal that the Postal Service has no meaningful effect on budgetary surpluses.⁶⁹ Someone predisposed to skepticism about the motives of government officials might conclude that the CBO's

⁶⁷ For a good summary of this history, see David S. Koitz, *Social Security and the Federal Budget: What Does Social Security's Being "Off Budget" Mean?* (Feb. 2, 2001) (Congressional Research Service Report No. 98-422).

⁶⁸ Congress's own record in this regard is hardly exemplary. Back in the 1960s, Social Security was added to the unified federal budget in response to recommendations from the President's Commission on Budget Concepts (1967). Through the 1980s, when public concern over mounting federal deficits led to the passage of the Gramm-Rudman-Hollings Act, Social Security surpluses were included in budgetary aggregates, although Social Security expenditures were largely exempt from the act's automatic sequestration procedures. In 1990, with the passage of the Budget Enforcement Act, Social Security was officially moved off-budget. Deficit targets were, however, statutorily adjusted downward (that is, higher total-budget deficits were permitted) in recognition of the fact that the movement of Social Security off-budget would otherwise impose increased pressure for on-budget accounts. See generally Koitz, *supra* note 67.

⁶⁹ Cf. CBO August 1998 Update, *supra* note 53, at 33-34 (acknowledging minor role of Postal Service surpluses).

references to the Postal Service surpluses were included only to obfuscate the one truly material off-budget entry — the Social Security trust funds.

b. Familiar Criticisms of Relying on Total-Budget Aggregates

I will now turn to more substantive complaints regarding the decision of the CBO and other government accounting agencies to rely on total-budget aggregates that consolidate Social Security's cash-flow surpluses as the principal summary statistic measuring the government's overall operations for any given year.

i. Proper Characterization of Trust Fund Reserves

For those who follow federal budgetary policy closely, there is a familiar complaint about the consolidation of Social Security surpluses with on-budget accounts.⁷⁰ While the trust funds are statutorily required to invest their surplus reserves in government securities, the funds are not available to finance general federal expenditures in the same sense that income tax revenues or proceeds from the issuance of Treasury bonds are. Social Security reserves are earmarked for the payment of Social Security benefits and benefits are limited to reserve balances.⁷¹ And, if one thinks back to the manner in which the Social Security trustees account for these reserves in their annual reports, these funds have already been factored into the long-range estimates for trust fund

⁷⁰ See Alan J. Auerbach et al., *The Budget Output and Options for Fiscal Policy*, 91 *Tax Notes* 1639, 1639 (June 10, 2002). See also *Wall St. J.*, Feb. 2, 1999, at A9 (“The [FY 2000 proposed] budget reiterates Mr. Clinton’s pledge to devote 62 percent of the budget surplus over the next 15 years to bolstering Social Security. But that is less definitive than it sounds. Most of the budget surplus already comes from the payroll taxes that fund Social Security payments. The administration is counting the same money twice, many critics charge.”); *Outlook*, *Wall St. J.*, Dec. 7, 1998, at A1 (“For the next few years, the surplus exists only because Social Security is collecting more taxes than it’s paying in benefits; the rest of the federal budget isn’t projected to go into the black until 2002.”).

⁷¹ See 42 U.S.C.A. § 401(h) (West 2003). See Stith at note 145 (discussion of commitments during Reagan administration.)

revenues.⁷² The Social Security surpluses have, in essence, already been allocated for a particular use — one with a high degree of political support. In light of this reality, the critique runs, it invites misunderstanding for the CBO to trumpet a budgetary aggregate that absorbs the trust funds' current surpluses — and it encourages politicians to behave as if they had an extra several hundred billion extra dollars to spend. Indeed, the Clinton administration appears to have fallen into this trap in the late 1990s, when it called for total-budget surpluses to be used to solve the problems of the Social Security system.⁷³ And, of course, the 2000 presidential campaign devolved into dueling lockbox proposals, which became fodder for late-night-television comedy routines.⁷⁴

In essence, this critique rests on a challenge to the way in which the federal government currently classifies the ownership of trust fund assets. The premise of a unified federal budget — that is, a budget that turns on total-budget aggregates — is that intragovernmental transactions should be consolidated in order to get a complete picture of the government's cash flows and hence of its financing needs.⁷⁵ Critics of current practices dispute this premise, arguing that Social Security trust

⁷² See Table Two, *supra*, where, under intermediate estimates, current trust fund balances contribute a summarized revenue rate of 0.54 percent of taxable payroll over the next seventy-five years.

⁷³ See Elmendorf et al., *supra* note 60, at 43 (discussing internal debate within Clinton Administration on this point.)

⁷⁴ The lockbox concept was never clearly defined. Often, the term seemed to refer to the allocation of Social Security surpluses to the trust funds. At other times, the term seemed to be used to refer to the allocation of a portion of on-budget surpluses to the Social Security trust funds. Exactly how this second formulation was to have been implemented is unclear. Conceivably, retired public debt could have been allocated to the trust funds. Or, to similar effect, general revenues could have been directed to the trust funds and then used to purchase government bonds in the secondary market. However, before any lockbox concept could be implemented, the unified surplus disappeared, and references to lockboxes have largely fallen out of the public debate. See Douglas W. Elmendorf & Jeffrey B. Liebman, *Social Security Reform and National Savings in an Era of Budget Surpluses*, 2 *Brookings Papers on Economic Activity* 11-18 (2000). See also Rudolph G. Penner, et al., *Saving the Surplus to Save Social Security: What Does It Mean?* (Oct. 1999) (Urban Institute Briefing Series No. 7).

⁷⁵ See Report of the President's Commission on Budget Concepts (Oct. 1967). In a unified budget, intragovernmental transactions are consolidated. When this approach is applied, the critical question is whether a particular entity should be characterized as governmental or

fund reserves are fundamentally different from the accounts of other departments maintained with the Treasury and even from other kinds of federal trust-fund accounts, such as the government's highway trust reserves (which are deposited with the Treasury pending passage of appropriation bills and distributed periodically to the states and other recipients). Critics of the consolidated approach regard the government's obligation to pay Social Security benefits as among the most substantial of our government's commitments, even if those obligations are not legally enforceable.⁷⁶ For this reason, critics would regard obligations to the Social Security trust funds as equivalent, for accounting purposes, to debt held by the general public and thus not properly consolidated with other intergovernmental transfers.⁷⁷

The implications of this critique – which is familiar in budget policy circles – is that on-budget aggregates should replace total-budget aggregates as the principal measure of fiscal balance.

ii. The Economic Realities of Social Security

One can also criticize reliance on total-budget aggregates as inconsistent with the economic realities of Social Security. A fair reading of the CBO reports described above and similar publications reveals that the decision to include Social Security surpluses in budgetary aggregates

nongovernmental. The notion that the Social Security trust funds should be classified as governmental is not altogether implausible. As mentioned above, the trusts are an accounting fiction managed by a group of six trustees, four of whom are ex officio government officials and two of whom are public representatives appointed by the President and confirmed by the Senate. The putative beneficiaries of the trust funds are current and future participants and their family members. But the legal rights of these beneficiaries to trust assets are not robust, particularly with respect to prospective changes in benefit formulas and rates of taxation. See supra pages 23. It is for this reason that supporters of consolidation of Social Security surpluses can credibly assert that the trust funds should be considered governmental agencies.

⁷⁶ See supra page 24 (discussion of public consensus as to the inviolability of Social Security retirement benefits).

⁷⁷ Note that “debt held by the public” is the standard against which government accounting officials measure aggregate borrowings of the federal government in charts such as Figure Four. As currently used, this formulation does not include federal debt held in the Social Security trust funds.

is not simply based on a formal classification of the trust funds as governmental entities but also reflects a desire to present a complete picture of the government's financial obligations and the net effect of governmental borrowing from capital markets. But is it really accurate to view the transactions between the trust funds and the rest of the federal government in a year like 2002 as reducing the government's borrowing or enhancing the availability of capital to other borrowers?

Consider the consequences of the \$165.4 billion net increase in trust fund assets deposited with the Treasury in 2002.⁷⁸ The Treasury is required to repay these funds, with interest, just as it would have to pay back interest and principal on securities issued directly into the capital markets. As discussed above, the trustees of the Social Security system are counting on their accumulated surpluses and the interest payments thereon to provide for more than five percent of the trust funds' summarized income rates over the following seventy-five years.⁷⁹ If the trustees were to distribute the entire accumulated reserves of \$1.4 trillion to currently covered workers and retirees and make an offsetting deduction in the benefits of these individuals, there would be no change in the financial status of the trust funds (although the funds' liquidity would be entirely eliminated). This distribution would, however, unambiguously transform Treasury fund obligations to the trust funds into debt held by the public, suggesting that, as a practical matter, Social Security trust fund assets deposited in the Treasury are functionally equivalent to debt held by the public.⁸⁰

⁷⁸ See supra Table Two (of the 13.78 percent income rate for the 75 year projection period under intermediate assumptions, 0.69 percent was to come from fund reserves).

⁷⁹ See supra Figure Two (under intermediate assumptions over the seventy-five year period, the beginning fund balance accounts for summarized income rate equal to 0.63 percent of payroll as compared with a total summarized income rate of 13.72 percent of payroll).

⁸⁰ To be sure, one could resist this point by arguing, once again, that obligations to the trust funds are different from other government securities because the government has the legal right to reduce the amount of Social Security benefits or increase the amount of Social Security payroll taxes, thereby eliminating the need for the Treasury to honor its obligations to the fund. In my view, this is a dubious point, given the magnitude of changes necessary to obviate the trust funds' need for current reserves and projected operating surpluses over the coming decade.

It is also a debatable point whether the current operations of the Social Security system should be understood to increase the availability of capital for other forms of investment. For some time, economists have theorized that pay-as-you-go public pension systems such as Social Security might actually reduce the supply of capital, as individuals reduce their private savings for retirement in anticipation of receiving benefits promised from their public pensions. There is a growing body of theoretical and empirical literature estimating the actual value of the retirement income of Social Security benefits and measuring the effect of these benefits on other types of individual savings.⁸¹ While the results of this research are not without ambiguities, the weight of current evidence does seem to come down on the side that Social Security promises depress somewhat private savings rates.⁸² If true, this phenomenon is at odds with the opinion expressed in the CBO's August 1998 report that Social Security's current operations should be understood as "releas[ing] resources for private investment, thereby enhancing productivity and economic growth."⁸³

c. A Deeper Critique

While I am sympathetic with the familiar criticisms of total-budget aggregates outlined above, I also believe that the proponents of these criticisms have not pursued the criticisms to their

⁸¹ For a summary of this literature, see CBO Memorandum, *Social Security and Private Savings: A Review of the Empirical Evidence* (July 1998).

⁸² *Id.*, at 3 ("Cross-section research suggests that Social Security reduces the private wealth held by people.").

⁸³ See *supra* pages 33-34. A few more words about the relationship between pre-funding and Social Security's negative effect on savings may be in order here. My basic point in the text is that the promises that Social Security makes to U.S. workers each year diminishes other forms of savings to some degree. Having a portion of the Social Security system's new commitments funded each year (through the purchase of government securities) to some degree offsets the system's negative effect on savings. So the net effect of Social Security on national savings would require a comparison of the extent of pre-funding and the size of the system's negative impact on savings each year. My assumption is that, since the annual accrual of obligations of the system are so much larger than the annual increase in its funding, the negative effects would likely outweigh the positive effects of pre-funding, but this is simply a conjecture, which is subject to empirical validation or rebuttal. Even without such further inquiry, however, my basic point — that annual gross increases in funding likely overstate the net savings effect — remains valid.

logical conclusions. Generally speaking, the issue has been framed as whether or not annual Social Security operating surpluses should be consolidated with the rest of the government's operating budget. The sole remedy sought by critics of current practices is the removal of these off-budget surpluses from budgetary aggregates. For a variety of reasons, this response strikes me as incomplete and unsatisfactory.

Consider for a moment a year in which both the on-budget aggregates and the Social Security trust funds are in perfect balance.⁸⁴ In such a year, would it be correct to conceptualize the federal government's overall financial posture as being in equipoise with respect to the Social Security system? Clearly, the trust funds would have made no net deposits with the Treasury in such a year. However, it is equally clear that the amount of pension benefits implicitly promised by the Social Security system might have increased in the course of this year. Even though the level of the trust fund reserves may not have increased, covered workers and their families could have accrued additional benefits from the system. If one thinks back to the reasons why critics object to total-budget aggregates, their arguments turn on the special nature of Social Security benefits, not on the contractual arrangements governing trust fund deposits with the Treasury. In a year in which trust fund balances do not increase, the value of the Social Security system's "sacred obligations to the American people" might well grow.⁸⁵ Simply moving the trust fund surpluses off-budget" fails to reflect this basic truth. Those who want federal budget aggregates to faithfully reflect the special nature of Social Security's obligations must do more than move the trust funds off-budget. They must support an accounting system that does a much better job at estimating the size and growth of the system's actual obligations to pay future benefits.

⁸⁴ As revealed in Figure Two, the revenue and cost rates of the trust funds are expected to be in balance at some point during the next decade. On-budget accounts are currently projected to be in rough balance in 2011. See CBO August 2002 Update, *supra* note 64, at 2.

⁸⁵ As will be explored in Part III, this was the case during the late 1980s and early 1990s, when the size of the trust funds were relatively stable, and, absent intervening legislation, it will likely again be the case several decades into this century, when trust fund balances stabilize for a few years before declining precipitously. October 10, 2003

Similarly, to the extent that one is looking to federal budgetary aggregates to get a better sense of the net effect of government operations on capital markets, simple off-budget accounting treatment for Social Security is inadequate. Consider again a year in which the trust funds and the federal budget are in perfect balance. The net sale of government securities to the capital markets would be zero for this year. What is the overall effect of government activities, including operation of the Social Security system, on private capital markets? If, as is assumed in the preceding paragraph, covered workers and retirees continue to accrue pension benefits from the Social Security system, economic theory predicts that there will continue to be some sort of offsetting reduction in retirement savings that these individuals would otherwise make. In the extreme, if there were a one-for-one reduction in other savings, for each dollar of newly accrued Social Security benefits, there would be a dollar reduction in private savings.⁸⁶

In short, simple off-budget treatment of Social Security obscures two important and related effects. Properly constructed budgetary aggregates cannot ignore changes in the overall financial status of the Social Security system — in either its assets or its liabilities. Increases in the system's liabilities — not increases in its cash reserves — necessitate (in a practical, if not a legal sense) future expenditures of federal resources, in much the same way as the issuance of government securities does. Similarly, increases in the system's liabilities (that is, its promised benefits) are what make private individuals change their savings patterns and thereby reduce funds available for other forms of investment. In short, the only way that budgetary aggregates can reflect these factors is by relying on financial accounts that reflect the accrual of Social Security liabilities.

⁸⁶ Of course, the actual effect is unlikely to be this strong. In a 1974 study, Martin Feldstein originally estimated the reduction in private savings to be on the order of 30 to 50 percent of Social Security benefits. See Martin Feldstein, *Social Security, Induced Retirement and Aggregate Capital Accumulation*, 82 *J. Pol. Econ.* 905 (1974) (updated in Martin Feldstein, *Social Security and Private Savings: Reply*, in 90 *J. Pol. Econ.* 630 (1982)). However, the direction of the effect, not its magnitude, is what is important here. See also *infra* pages 120-21 (review of the life-cycle literature). For a recent review and critique of related literature on the overall impact of private pensions on overall savings, see William G. Gale, *The Effects of Pension on Household Wealth: A Reevaluation of Theory and Evidence*, 106 *J. Political Econ.* 706 (1999).

d. Biases for Reform Proposals

Beyond the failure of current budget presentations to incorporate a complete picture of the financial effect of the Social Security system, the current primacy of total-budget aggregates distorts the public debate over Social Security reforms in numerous ways.

i. Perverse Budgetary Incentives for Social Security Reforms

To begin with, the time horizon for federal budgetary politics is much shorter than the seventy-five-year perspective that the trustees of Social Security consider in their annual reports. Typically, budgetary calculations look out only five or ten years, so the effect of reform proposals over this horizon is the most salient for budgetary politics. Accordingly, reform initiatives that trade short-range cash surpluses for long-range growth in expenditures are favored in budget-driven compromises. Illustrations of this phenomenon are manifold in the budget wars of the past fifteen years. For example, reform proposals often entail the extension of Social Security participation to all state and local workers, many of whom are currently exempt. Such reforms bring an immediate infusion of payroll taxes into Social Security – and additional total-budget surpluses for the federal government – into the system, but no increase in benefit payments until later years. From the perspective of the federal budget, this is a highly attractive reform, irrespective whether the reform actually improves the long-term viability of Social Security.⁸⁷

⁸⁷ To assess such a proposal's long-term effect, one would have to analyze the wage structure and other demographic facts about the new state and local workers brought into the system. Conceivably, if a sufficient percentage of these workers were low-income, the progressive nature of Social Security benefits could make their participation a long-run net loss for the system. Measured in terms of near term (say five to ten year) total-budgetary effects, however, the inclusion of these workers would be a clear benefit. For an otherwise careful study of the inclusion of state and local workers in the Social Security system, see Alicia H. Munnell, *The Impact of Mandatory Social Security Coverage of State and Local Workers: A Multi-State Review* (AARP Public Policy Institute Paper No. 2000-11) (Aug. 2000) (based on an analysis limited to the 75-year time frame, reporting that the inclusion of state and local workers would reduce ten percent of the system's actuarial deficit).

To make the same point in slightly more abstract terms, consider the desirability of doubling the size of the Social Security system immediately. Having worked their way through my discussion of the long-range deficit problems of the Social Security system, most readers, I assume, would readily agree that doubling benefits and payroll taxes would be a very dubious choice for the federal government. But such a move would, if viewed through the lense of total-budget aggregates, generate the positive outcome of decreasing the current total-budget deficit by more than \$165 billion. An accounting convention that rewards such a reform is dangerously misleading.⁸⁸

ii. Distorting Effects from Reforms that Change Trust Fund Operations

A separate problem with total-budget aggregates is that they generate substantial budgetary consequences for relatively modest reforms in the operation of the trust funds. The perceived budgetary consequences of certain reform are so great, in fact, that some proposals are summarily rejected as politically infeasible, or at least bear excessively high (apparent) budgetary costs.

A good example is a proposal to invest some portion of trust fund assets in the stock market. There is much to be said for and against such a reform, but the merits of the idea are not what concern me here. Under a total-budget approach, moving trust fund assets into the stock market has a significant budgetary cost. If the trust funds were to move \$500 billion into the capital markets over the next five years — a not implausible figure — the full amount would be deducted from total-budget aggregates, as these funds would no longer be invested in intragovernment accounts.⁸⁹ The

⁸⁸ This example is not entirely fanciful. A common reform proposal is to expand Social Security coverage to include either certain exempt state and local employees or larger groups of immigrants. See, e.g., Bush Commission Report, *supra* note 25. Such reforms generate immediate improvements in cash flow (now reflected in total-budget surpluses), but they impose offsetting liabilities that are not recognized within relevant budgetary time-frames and that may even not be fully reflected in the seventy-five-year long-range horizon of the trustees annual reports.

⁸⁹ A similar budgetary effect would occur if trust fund assets were transferred to individual accounts. See CBO Memorandum, Budgetary Treatment of Personal Retirement

accounting effect would be to exacerbate total-budget deficits over the five-year-period, which would be a distortion in that the wealth of the trust funds would not be diminished and, from a macroeconomic perspective, the transaction is largely a wash, albeit one with potential distributional consequences.⁹⁰

A similar kind of distortion could follow from changes in the structure of the trust funds themselves. Suppose that Congress were to decide that the Social Security program should be more independent from the executive branch so as to ensure, for example, that the collection of trust fund taxes or the investment of trust fund assets not be used to manipulate budgetary aggregates.⁹¹ If the management of trust assets were moved to truly independent trusts bound by traditional trust principles, the trusts could well lose governmental status for budget-scoring purposes, with the result that the trusts would be entirely off-budget entities even for purposes of budgetary aggregates. Because this change in classification would remove Social Security's cash flow surpluses from total-budget aggregates, there would be a large apparent cost to the reform, a cost with little bearing to the reform's actual significance.

Accounts (Mar. 2000).

⁹⁰ There is something of a cottage industry in articles by economists discussing the macroeconomic effects of moving Social Security reserves into the stock markets. The Treasury Department would have to issue new government securities to replace whatever funds were withdrawn for this purpose, but, as a first approximation, an equivalent amount of private capital would be freed up by the sale of equity securities to the fund. In theory, these freed-up funds would be available for investment in the new government securities that the Treasury Department would be issuing. For an overview of the economic efforts of stock market investments, see Peter A. Diamond, *The Economics of Social Security Reform*, in *Framing the Social Security Debate: Values, Politics, and Economics* (1998) (R. Douglas Arnold, et al. eds.).

⁹¹ Such a scenario is not entirely far-fetched. In a budgetary controversy a few years ago, when Congress's failure to increase the limit on the national debt was seen to give the legislative branch a tactical advantage over the executive, the Secretary of the Treasury delayed investments of other trust funds in government securities in order to keep the debt within legal limitations and thereby diminished the bargaining power of Congress. Increasing the independence of the Social Security trust funds is one way to prevent such behavior with respect to Social Security reserves in the future.

iii. Generating Reform Proposals with Ulterior Motives

Another problem with total-budget aggregates is their tendency to generate reform proposals designed primarily to have effects on other parts of the budget. Perhaps the best example of this phenomenon is former Senator Moynihan's perennial suggestion that Social Security trust fund taxes be cut to eliminate their distorting effect on total-budget aggregates.⁹² Moynihan, who was one of Congress's leading experts on Social Security and a strong supporter of the benefits it affords, perceived other members of Congress as using the Social Security surplus — as reflected in total-budget aggregates — as a vehicle for cutting income taxes. In Moynihan's view, this behavior of his congressional colleagues was using a regressive payroll tax as a substitute for a progressive income tax. While his first-order preference would have been, I think, to move to off-budget treatment for Social Security and to keep payroll taxes and income taxes at their then current levels, he perceived this solution to be politically impossible. So, if forced to choose a tax cut, he preferred a cut in Social Security taxes over one in income taxes, notwithstanding the deleterious effect on the system's long-range solvency.⁹³ Whatever one thinks of the wisdom of Senator Moynihan's political judgments, his strategy revealed the twisted effect of our current reliance on total-budget aggregates as the principal measure of fiscal balance.

⁹² See Eric M. Patashnik, *Putting Trust in the US Budget: Federal Trust Funds and the Politics of Commitment* 88-90 (2000).

⁹³ *Id.*

II. An Accrual Accounting System for Social Security

What would an accrual accounting system for Social Security look like? In this part, I attempt to sketch out an answer to this question. I begin with a brief discussion of the assets and liabilities that might in theory be recognized under a system of accrual accounting. I then sketch out a set of GAAP-style accrual-based financial statements for Social Security, including rough estimates of what such a system of accounts would have looked like for the calendar year ending December 31, 2002.⁹⁴ Next I compare this system of accounting to other measures of solvency that academic writers and other experts sometimes use to assess the long-term solvency of Social Security and explain the principal differences between these measures and accrual accounting. I then discuss how a modified form of accrual accounting, incorporating some of the valuable attributes of alternative solvency measures, could be used to frame and enhance public debate over proposals to reform the Social Security system. The part concludes with an exploration of how such a modified system of accrual accounting might be consolidated with federal budgetary aggregates.

A. Possible Components of an Accrual Based System of Accounting

Before constructing a system of accrual accounting for Social Security, one must consider which liabilities and assets such an accounting system should recognize. For this purpose, it is useful to distinguish between three different groups of participants: retirees who have completed their working careers; workers who are in mid-career; and future workers, born and unborn, who have not entered the workforce. Box Three summarizes their positions with respect to both contributions to the Social Security system and statutory entitlements to receive benefits. Current

⁹⁴ I am extremely grateful to the Office of the Chief Actuary and, in particular, Stephen Goss, the Chief Actuary of the Social Security Administration, for making this information available to me.

retirees have paid most their taxes and earned their full statutory entitlements to benefits.⁹⁵ Workers in mid-career have paid some, but not all, of their taxes and earned some, but not all of, their statutory entitlements to benefits. Future workers have not yet started to pay payroll taxes nor to earn statutory entitlements.

Box Three		
Contributions and Statutory Entitlements of Social Security Participants		
<i>Participants</i>	<i>Contributions</i>	<i>Statutory Entitlement to Benefits</i>
Retirees	Most Taxes Paid	All Entitlements Earned
Workers in Mid-Career	Some Taxes Paid	Some Entitlements Earned
	Some Taxes to be Paid	Some Entitlements to be Earned
Future Workers		
- Over Next 75 years	All Taxes to be Paid.	All Entitlements to be Earned.
- After 75 years	All Taxes to be Paid.	All Entitlements to be Earned.

The basic presentation of the trust funds’ current financial position in the Trustees Report (illustrated earlier in Figure One showing a net increase in asset of \$165.4 billion in 2002) recognizes only a limited number of the elements shown in Box Three. Specifically, this basic presentation reflects all taxes that retirees and mid-career workers paid during the year. Past tax payments are also reflected in the trust funds accumulated reserves, which accrue interest during the year.⁹⁶ In terms of benefits, the basic presentation of the trustees report explicitly recognizes only

⁹⁵ Retirees have paid most, but not all, of their taxes, because Social Security trust fund revenues include some income taxes paid on Social Security benefits. See supra pages 42-56. Retirees pay some of these taxes after leaving the workforce and ceasing to pay payroll taxes.

⁹⁶ As explained in the 2002 Trustees Report, the current value of the trust funds equal “the accumulated value of past OASDI taxes [plus accrued interest] less cost.” 2002 Trustees Report, supra note 5, at 62.

benefit payments that are paid during the course of the year.⁹⁷ Accordingly, the basic presentation reflects only a fraction of the statutory entitlements that retirees have earned to date, and essentially none of the statutory entitlements earned to date by mid-career workers.⁹⁸ These recognition principles largely follow the logic of cash-flow accounting, under which the transfer of cash is the essential requirement of income or expense recognition.⁹⁹

Were one to model accounting of Social Security on principles of accrual accounting developed under GAAP for the private sector,¹⁰⁰ the system's financial statements would have to recognize substantially more liabilities for the systems' obligations to pay future benefits. Under GAAP, liabilities are probable future economic sacrifices based on past transactions or events. Inherent in the definition is a degree of subjectivity, as there is room for disagreement regarding the probability that benefits promised under current statutory formula will be paid in the future. The Social Security Act currently requires those payments, but Congress is constitutionally free to alter benefit formulas by statutory amendment. As explained above,¹⁰¹ my own sense is that the likelihood of full payment of Social Security benefits for current retirees is sufficiently high to warrant recognition of liabilities for all future benefits of retirees under GAAP. Moreover, the probability of payments to mid-career workers is sufficiently likely to warrant some recognition of obligations to these participants under GAAP, with a larger fraction of benefits recognized for older

⁹⁷ Implicitly, past benefits payments are also recognized in the sense that they have been offset against past tax contributions.

⁹⁸ I use the qualifier "essentially" because some mid-career workers will have been paid temporary disability benefits and perhaps other ancillary benefits.

⁹⁹ The basic presentation is not fully consistent with cash flow accounting because it recognizes the accrual of interest on reserves even though there is no corresponding cash payment.

¹⁰⁰ As discussed below, see pages 105-13, government entities are typically governed by a different set of accounting principles, including rules governing social insurance programs such as Social Security.

¹⁰¹ See *supra* pages 21-26.

mid-career workers and a smaller fraction of benefits for younger workers. I will shortly construct a GAAP-style accrual accounting statement that incorporates a specific rule of accrual for mid-career participants. But the key theoretical point to make here is that a GAAP-style accrual accounting system would recognize the system's obligations to mid-career participants in a gradual manner over the course of their working life, reflecting the growing probability that benefits will be paid in accordance with applicable statutory standards as workers approach retirement age. In Box Three and in subsequent discussions, I will refer to a benefit as "earned" if there is a sufficient probability that the benefit would be recognized as a liability under a GAAP-style accrual accounting system.

In the field of social insurance, financial analysts have not followed GAAP accounting. Indeed, the dominant presentations of the financial posture of the Social Security system are the ones outlined and critiqued in Part I of this article, under which benefits are not recognized until paid. Within limited circles of experts, however, accrual-like concepts have been employed to estimate the present value of the system's total obligations. Following the logic of cash flow projections emphasized in the trustees reports, these alternative measures typically focus on the amount by which the present value of the system's future benefit payments exceed the present value of future revenues and current reserves.¹⁰² Unlike GAAP-style principles of accrual accounting, these measures do not seek to assess the likelihood these future taxes will be contributed or future benefits paid. Rather, these measures recognize the present value of all future taxes and projected benefits of covered participants under current statutory rules. These measures are thus broader than GAAP-

¹⁰² Accrual accounting also employs present value concepts for liabilities, such as retirement benefits, that are to be paid in the future. The present value of the benefit is recognized at the time the obligation is incurred, and then each year the obligation accrues an interest charge until the obligation equals the full amount of the benefit at the time of payment. The illustrative income statements presented below distinguish between the initial accrual of benefit obligations and the annual accrual of interest on previously accrued benefits. See *infra* pages 61-65.

style accrual accounting.¹⁰³ On the liability side, these alternative approaches recognize the present value of both benefits that have been earned to date and benefits that will be earned in the future. On the assets side, they recognize the present value of contributions to be made in the future plus, in some instances, residual reserves representing the excess contributions over benefits payments that have been made in the past.

By convention, there are two populations for which these broader measures are calculated: the closed group and the open group. The closed group is the group of people already within the Social Security System: current retirees and mid-career workers (typically defined as everyone currently 15-years or older). The open group is the closed group plus all future workers. In the past, the Social Security's Office of Chief Actuary has typically calculated the open group system over a 75-year time horizon, but recently independent experts have been pushing for the measure to be calculated over an infinite horizon, thereby taking into account all future contributions to the trust funds and all future benefit payments.¹⁰⁴

Having outlined the range of Social Security assets and liabilities that an accrual-based accounting system might recognize, I now present a series of financial statements applying these possible approaches.

B. A GAAP-Style Accrual Accounting System for Social Security

The bare bones of an accrual accounting system for Social Security are straightforward. They should, at a minimum, include an annual balance sheet and an income statement. In this section, I explain how these elements can be roughly approximated from publicly available

¹⁰³ Accrual accounting, thus, occupies an area between the trustees reports' basic presentation, which recognizes a narrower set of taxes and benefits, and the alternative measures of long-term solvency, which reflect a broader range of taxes and benefits.

¹⁰⁴ See, e.g., Gokhale & Smetters, *supra* note 66.

information and then present an estimated GAAP-style balance sheet and income statement for Social Security for the calendar year 2002.

1. Balance Sheet

The chief difficulty in constructing a GAAP-style balance sheet for Social Security is deriving an estimate of the system's accrued liabilities – that is, the present value of all benefits to be paid to retirees and the portion of benefits the mid-career workers have earned to date. While the Social Security Administration does not publish its own estimate of the system's accrued liabilities, its Office of the Chief Actuary does report a statistic from which accrued liabilities can be derived. Each Spring, the Chief Actuary calculates an estimate of the system's "maximum transition cost" as of the beginning of the year.¹⁰⁵ This measure, estimated to be \$12.6 trillion as of December 31, 2002, represents an estimate of the amount by which the system's accrued liabilities – that is, its benefits earned to date for both retirees and mid-career workers – exceed the system's accumulated reserves. The Chief Actuary's methodology for accruing benefits for mid-career workers under the maximum transition cost measure is relatively conservative. Projected benefits are accrued on a forty-year straight line basis reflecting the typical working life of participants. While one could propose alternative formulas for accruing benefits to mid-career participants (See Box Four), the Chief Actuary's approach is plausible and close enough to other reasonable systems of accrual to

¹⁰⁵ What this measure reflects is the amount that the federal government would have to pay if the Social Security system were to be shut down at the point of measurement. The maximum transition cost reveals how much money it would take beyond the amounts currently held in the trust fund reserves to pay all future payments of participants and beneficiaries accrued to date. In policy debates, this measure is sometimes described as the cost of completely shutting down the Social Security system. The measure is sometimes rejected as irrelevant to public discussion of Social Security finances because it is widely agreed that there is no political support for entirely ending Social Security. For my purposes, however, the maximum transition cost is a most useful statistic because it is quite similar to the measures of accrued liabilities that GAAP requires of private pensions. The maximum transition cost makes no allowance for future revenues nor does it consider benefits that would accrue in the future. It simply represents the difference between the total value of Social Security benefits that have earned to date and the current level of trust fund reserves.

provide useful illustrations for purposes of this article. Were Social Security to move formally to a system of accrual accounting, more care would need to be given to the precise accrual formula used. But for current purposes, I will rely on the principles of accrual implicit in the Chief

Box Four

How Should Social Security Benefits Accrue?

Accrual accounting for Social Security would spread the costs of retirement benefits over the working lives of participants. Under such a system, retirement benefits should be fully accrued when workers retire, but there are a range of methods under which the growth of benefits could be recognized over the working lives of participants.

The actual statutory requirements of the Social Security Act, for example, could be used to determine the accrual formula. Under this approach, the trust funds would recognize retirement benefit obligations when participants have earned the legal right to receive those benefits under current statutory requirements. This approach, however, would produce a number of anomalies. Forty quarters – that is, ten years – of participants is required before participants are entitled to retirement benefits. So under this formula, workers would not, strictly speaking, earn any benefits until they have worked for ten years. On the other hand, because Social Security benefit formulas are highly progressive, participants earn relatively large amounts of benefits once they pass the ten-year vesting threshold and relatively smaller amounts of benefits in their later years of work force participation.

The Chief Actuary's estimate of maximum termination cost uses a 40-year straight line method of accrual, in which projected benefits are allocated evenly over an assumed 40-year working life for participants. The illustrations of accrual accounting presented in this article are based on this methodology. Compared to the Social Security statutory formula, the 40-year straight-line approach accrues benefits at a faster rate during the first ten years of participation and at a slower rate thereafter. While not tracking statutory requirements, this accrual formula provides a defensible allocation of costs over time. But one could also imagine accrual formulas with shorter periods of accrual or more complex accrual formulas.

For purposes of developing a sensible formula of accruing Social Security benefits, a number of considerations would be relevant. In addition to the statutory formula and actual experience of participants, one would also want to recognize that benefits accrued under this formula might become more difficult for Congress to change than benefits that have yet to accrue. In addition, special rules of realization might be appropriate for disability and other non-retirement benefits paid out from the trust funds.

Actuary's maximum transition cost estimate.

With the Chief Actuary's estimates of maximum transition costs, it is a relatively straightforward matter to sketch out a GAAP-style accrual-based balance sheet. The system's only material assets are the reserves of the trust funds, which at year end 2002 equaled about \$1.4 trillion. The system's accrued liabilities equal the sum of its current reserves (\$1.4 trillion) and the Maximum Transition Cost (\$12.6 trillion), and therefore reached \$14.0 trillion as of December 31, 2002.¹⁰⁶ Based on these estimates, Figure Four presents a balance sheet as of December 31, 2002, with one slight embellishment. I have segmented the liabilities into classes based on the age cohort of the participants for which the accrued benefits are associated. From information reported in the Social Security Administration's own annual report (as opposed to the trustees annual reports discussed above),¹⁰⁷ I have been able to estimate that about one-third of the system's current liabilities or roughly \$4.6 trillion of claims represent accrued obligations to participants at or above the age of 62, that age at which Social Security retirement benefits are generally available. In other words, the Social Security system owes current retirees accrued benefits with a present value equal to more than three times the system's current reserves. The remaining accrued liabilities – roughly \$9.4 trillion in accrued claims – consist of obligations to younger participants. A full-blown system of

¹⁰⁶ This estimate probably understates the level of accrued liabilities that would be reported if the financial statements of Social Security were constructed in accordance with the actual GAAP rule for private pension plans. The Office of the Chief Actuary assumes that benefits accrue over a 40-year period in calculating the system's maximum transition cost. See Stephen C. Goss, *Measuring Solvency in the Social Security System* 16, 34 in *Prospects for Social Security Reform* (Olivia S. Mitchell, et al., eds. 1999). This is a longer period than the 35-year period under which benefits accrue under the Social Security Act. See *supra* page 22. It is also longer than comparable periods of accrual for purposes of private pension plans. See Dan M. McGill & Donald S. Grubbs, *Fundamentals of Private Pension* 239-64 (6th ed. 1989). Shorter periods of accrual tend to raise the net present value of accrued liabilities. For illustrative purposes, however, the Office of the Chief Actuary's estimate is good enough.

¹⁰⁷ See SSA FY 2002 Performance and Financial Report 91 (estimating the actuarial present value of estimated benefits for participants 62 years of age and over to be \$4,401 billion as of January 1, 2002, which was 32.9 percent of the system's total accrued liabilities at the time: \$13,374 billion).

accrual accounting could easily distinguish among other classes of claimants, for example, separating out accrued liabilities by generational cohorts.¹⁰⁸

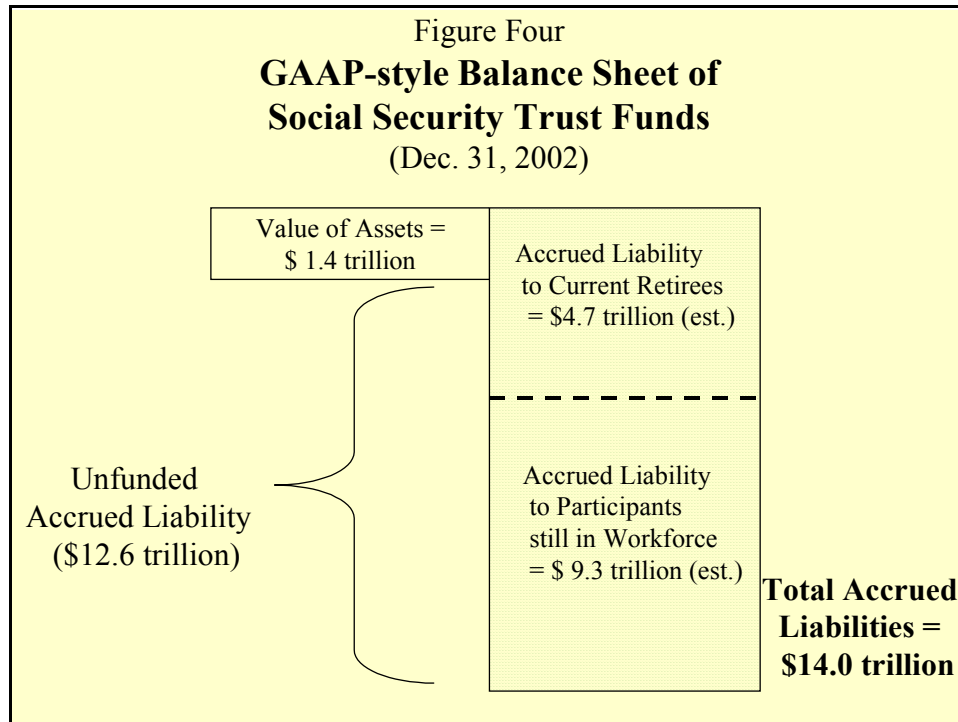


Figure Four conveys an important message, and one strikingly at odds with the basic presentation found in the trustees reports. It indicates that the accrued commitments of the Social Security system to current retirees and mid-career workers (\$14 trillion) is ten times the value of accumulated reserves (\$1.4 trillion). The difference between these two figures, \$12.6 trillion, is the amount of funding required to honor Social Security benefits that have been earned to date, using the definition of accrual implicit in the maximum-transition-cost estimate. Were Social Security to

¹⁰⁸ As explained infra pages 95-98, these distinction could be useful in explaining the differing impacts of various reform proposals.

conform to GAAP accounting requirement of private pension plans, the system's unfunded accrued liability would have magnitude approximately equal to the one depicted in Figure Seven.

2. Income Statement

Faced with balance sheet reporting Social Security's substantial unfunded accrued liabilities as of year end 2002, one might naturally ask whether the system's overall solvency has improved or worsened in the course of the past year. An Income Statement for the past year is the accounting format best suited to answer this question. In Table Six, I have attempted to construct an accrual-based income statement for the Social Security system for the past year, comparable to the balance sheet present in Figure Seven.

Under accrual accounting, an entity's income during a period is equal to the difference between its net worth at the beginning of the period and its net worth at the end of the period (adjusting for dividends and capital contributions, which are not at issue here). We know the Social Security system's net worth at the end of 2002 — negative \$12.6 trillion.¹⁰⁹ And, we also know the system's net worth a year earlier — negative \$ 12.2 trillion.¹¹⁰ Thus, simple accounting logic dictates that the system suffered a loss of some \$467.8 billion during the course of the year.

With this estimate of the system's annual loss for the 2002 calendar year, one can construct a rough approximation of the system's income statement as well. The system's revenues for the year are known and consist of payroll taxes (\$532.5 billion), tax receipts (\$14.2 billion) and the yield on assets in the trust fund (\$80.4 billion), for total revenues of \$627.1 billion. Estimating the system's expenses on an accrual basis is a bit more complex but possible. Two expenses of the system are known: the administrative expense of operating the system during the year (\$4.2 billion) and a

¹⁰⁹ Estimates of the system's unfunded accrued liabilities for the last six years are presented below in Table Eight.

¹¹⁰ This is the Chief Actuary's estimate of the maximum transition cost as of December 31, 2001.

limited number of other expenses (\$3.7 billion).¹¹¹ However, since the system lost \$467.5 billion in 2002, it must have incurred some \$1,049.8 billion in additional expenses during the year.¹¹² Conceptually, we know that these expenses must be divided principally between the accrual of new benefit promises and the accrued interest on previously accrued benefit promises. Since the amount of pension promises that were outstanding at the beginning of 2002 and the amount of pension

Table Six	
Income Statement for Trust Funds (est.)	
(Jan 1, 2002 through Dec. 31, 2002)	
Revenues	
Payroll Taxes [known]	\$ 532.5 billion
Income from Taxation [known]	\$ 14.2 billion
Interest on Trust Fund Assets [known]	<u>\$ 80.4 billion</u>
	\$ 627.1 billion
Expenses	
Administrative Expenses [known]	(\$ 4.2 billion)
Other Costs [known]	(\$ 3.7 billion)
Interest Charge [derived]	(\$ 786.9 billion)
Net Accrual of Liabilities [derived]	<u>(\$ 299.8 billion)</u>
	(\$ 1,094.6 billion)
Profit (Loss) from Operations	(\$ 467.5 billion)

¹¹¹ The other expenses consist principally of annual contributions to another pension system, one for retired railway workers.

¹¹² The \$467.5 billion in annual loss is explained above as the amount by which the system's maximum transition cost (or net deficit) increased in 2002. This implies that the system's expenses must have exceeded its revenues by \$467.5. Total revenues have been calculated above to be \$627.1 billion. This means that total expenses were \$1,094.6 billion (the difference between positive \$627.1 and negative \$467.5). So far, I have only identified \$7.9 billion in expenses in 2002 (\$4.2 billion in administrative expenses plus \$3.7 billion in other costs). Therefore, \$1,086.7 billion of expenses remain to be identified.

promises that were liquidated in the course of the year are known, it is possible to estimate the interest cost of the Social Security system at \$786.9 billion in 2002.¹¹³ This means that the amount of newly accrued benefit promises must have been on the order of \$299.8 billion.¹¹⁴

Using the same methodology, I have also constructed a series of income statements for the trust funds for the past five years. These statements appear below in Table Seven. This series of statements reveals that the \$467.5 billion loss in 2002 was not an anomaly. Indeed, when this loss is compared to the system's results for the past half decade, the 2002 performance was a relatively good year. On average, the Social Security system lost \$623.7 billion a year between 1998 and 2002 on an accrual accounting basis.

¹¹³ At the beginning of 2002, the trust funds had \$13,374.6 billion of total accrued liabilities (\$1,212.5 billion of which were supported with cash reserves and the remaining \$12,161.8 billion of which were unfunded liabilities). According to the 2003 Trustees Report, \$454 billion in benefits were paid during the course of 2002, implying that \$12,920.5 billion of the accrued liabilities remained outstanding. A 6.09 percent interest rate — the ultimate valuation interest rate utilized in the estimates of Office of the Chief Actuary — suggests an interest charge of \$786.9 billion for the year.

¹¹⁴ This figure represents the difference between the amount of expenses, derived above in note 101, minus the \$ 786.9 billion in interest charge derived in the preceding footnote. As a residual category, this net accrual of liabilities incorporates a number of factors (such as changes in a variety of technical estimates) and thus can fluctuate considerably from year to year. A better estimate of the annual rate of accrual of net liabilities can be obtained by averaging the net accruals over a number of years. See Table Seven below (presenting five years of income statements.)

Table Seven
Estimated Income Statement for Trust Funds
 Five Years: 1998 to 2002
 (billions of dollars)

	1998	1999	2000	2001	2002
Revenues					
Payroll Tax	\$430.2	\$459.6	\$492.5	\$516.4	\$532.5
Income from Taxation	\$9.7	\$11.6	\$12.3	\$12.7	\$13.8
Interest on Trust Fund Assets	\$49.3	\$55.5	\$64.5	\$72.9	\$80.4
Other	\$0.0	\$0.0	(\$0.8)	\$0.0	\$0.4
Total Revenues	\$489.2	\$526.6	\$568.4	\$602.0	\$627.1
Expenses					
Administrative Expenses	(\$3.5)	(\$3.3)	(\$3.8)	(\$3.7)	(\$4.2)
Other Costs	(\$3.8)	(\$3.8)	(\$3.7)	(\$3.3)	(\$3.7)
Interest Cost on Previously Accrued Liabilities	(\$626.6)	(\$674.9)	(\$724.3)	(\$750.6)	(\$786.9)
Net Accrual of New Liabilities	(\$513.7)	(\$503.7)	(\$713.8)	(\$299.2)	(\$299.8)
Total Expenses	(\$1,147.6)	(\$1,185.8)	(\$1,445.5)	(\$1,056.8)	(\$1,094.6)
Net Profit (loss)	(\$658.4)	(\$659.2)	(\$877.1)	(\$454.8)	(\$467.5)

Another way to present the financial position of the Social Security trust funds over the past five years is to chart the system's unfunded accrued liability over that period. Table Eight below offers such a presentation, first providing the level of unfunded deficit at year end in current dollars and then presenting the deficit figure as a percentage of GDP.¹¹⁵ Under both measures, the system's financial posture has clearly deteriorated. In the five years, between year-end 1997 and year-end 2002, the unfunded accrued liabilities of the system increased by more than \$3 trillion from \$9,512 billion in year-end 1997 to \$12,629 billion in year-end 2002. Even expressed as a percentage of GDP, the deficit increased from 116.1% of the GDP to 122.2 % of GDP.

¹¹⁵ By construction, the decline in system's unfunded accrued liabilities each year is the same as the trust funds' operating losses for the year. So, the difference between the system's accrued liability between year-end 1997 (\$9,512 billion) and year-end 1998 (\$10,170 billion) was \$658 billion, the same as its net loss for 1998 as reported in Table Seven.

Table Eight
Unfunded Accrued Liabilities of Trust Funds
1992-2002 (year end)

	1997	1998	1999	2000	2001	2001
Current Dollars (billions)	\$9,512	\$10,170	\$10,829	\$11,707	\$12,161	\$12,629
Percent of GDP	116.09%	117.51%	118.48%	120.50%	121.23%	122.18%

In subsequent discussions, I will address the difficult normative question whether this magnitude of unfunded accrued liabilities should be viewed as problematic. For current purposes, all that I intend to demonstrate is that the stark contrast between the direction Social Security appears to be going under an accrual based accounting system as opposed to the basic presentation that the trustees reports currently emphasize. Under the latter approach, the system has been adding approximately \$150 billion to its cash reserves for each of the past five year. Under a GAAP-style accrual accounting, the system's annual returns have been at least \$600 billion lower, incurring losses in excess of \$450 billion a year.

C. Comparing Accrual-based Financial Statements with Other Measures of Long-Term Solvency

As mentioned earlier, academic writers and other experts sometimes use other summary statistics to estimate the long-term solvency of the Social Security system. Since these measures sometimes factor into expert discussions of Social Security solvency and have recently been reported

as supplementary information in the trustees reports, I will contrast them to the GAAP-style accrual-based system outlined above and then discuss the relative advantages of the two different approaches. I will conclude this part with an explanation of how some of the additional information reflected in the alternative measures might be grafted onto a modified accrual-based system of accounting for Social Security.

1. Closed-Group Unfunded Obligation

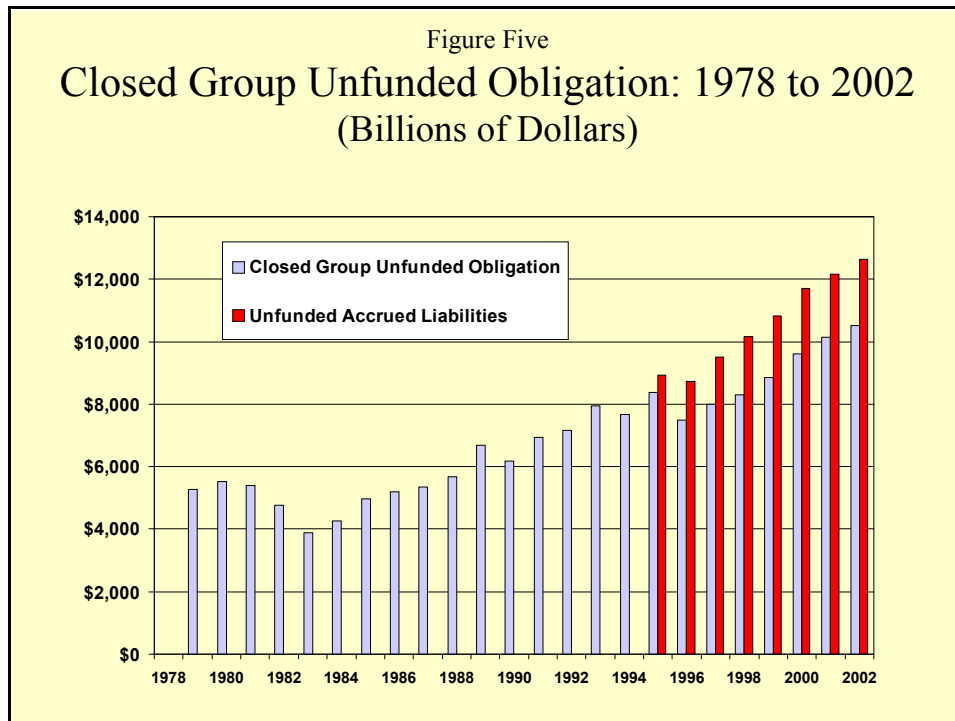
One common measure of the Social Security system's long-term solvency is the closed group unfunded obligation or closed group liability.¹¹⁶ This measure equals the present value of future contributions that mid-career participants will make to the system plus the current reserves in the trust funds minus the present value of all payments to be made to current retirees and mid-career participants in the future. The measure assumes that no new participants are allowed to enter the system but that current participants continue in the system under the current rules for the rest of their lives and the lives of their beneficiaries. In other words, the system's closed group liability represents what the net obligations due under the current system would be if the system were closed to new entrants. For this reason, the measure is sometimes referred to as the closed group transition cost. This measure would be particularly appropriate if one were trying to evaluate the solvency of a system under which all current participants were to be grandfathered into the existing system and all new workers were to be steered into a new system.

Figure Five shows the Office of the Chief Actuary's estimate of the closed group unfunded obligation of the Social Security system over the past few decades. Also included are estimates of

¹¹⁶ Under generally accepted accounting practices for government entities, the Federal Accounting Standards Advisory Board requires that this measure, and its component parts, be included as supplementary information. This information now appears in the Financial Report of the United States and the annual financial statements of the Social Security Administration. In the 2003 Trustees Report, the closed group unfunded obligation was also reported in new section of the report titled "Additional Measures of OASDI Unfunded Obligations. See 2003 Trustees Report, *supra* note 5.

the system's accrued unfunded liabilities for the years in which such estimates are available. As of December 31, 2002, the system's closed group unfunded obligation was \$10.5 trillion. This is how much money the federal government would have to raise today to finance fully a grandfathered Social Security system for current retirees and mid-career workers. Notice that this figure is roughly \$2 trillion less than the system's unfunded accrued liability of the same date (\$12.6 trillion). What this difference represents is the amount by which the present value of future taxes to be paid by mid-career workers (and some retirees) exceeds the present value additional entitlements that mid-career workers will accrue in the future.¹¹⁷ The system's overall deficit shrinks a bit if all current participants are required to stay in the system for the rest of their lives. Put slightly differently, one could say that this \$2 trillion represents the excess taxes that current participants are going to pay into the Social Security System for the privilege of earning additional benefits from the system over

¹¹⁷ One could decompose this figure into the net present value of future taxes and the next present value of future benefits. As of December 31, 2001, the present value of future contributions from current participants was in excess of \$13 trillion, and the present value of benefits to be earned by current participants in the future over and above the benefits accrued to date was approximately \$11 trillion. See SSA Performance and Accountability Report: Fiscal Year 2002, at 77 (available at <http://www.ssa.gov/finance/2002/fy02PAR.pdf>).



the balance of their working lives.

2. Open-Group Unfunded Obligation: 75 Year Horizon

Another summary statistic representing the long-term solvency of the trust funds – and the measure most commonly cited by the Social Security Administration – is the open-group unfunded obligation estimated over a 75-year horizon or, for short, the 75-year open-group liability.¹¹⁸ Like the closed-group liability measure, this open group measure reflects the difference between the present value of future tax revenues and the present value of future benefit. The open-group measure is, however, broader than the closed-group measure in that it includes taxes paid by and benefit paid to future participants in so far as these payments are made over the next seventy-five

¹¹⁸ For a more complete description of open group unfunded obligations as well as the other measures of accrued liability discussed in this section, see Goss, *supra* note 106, at 31-33

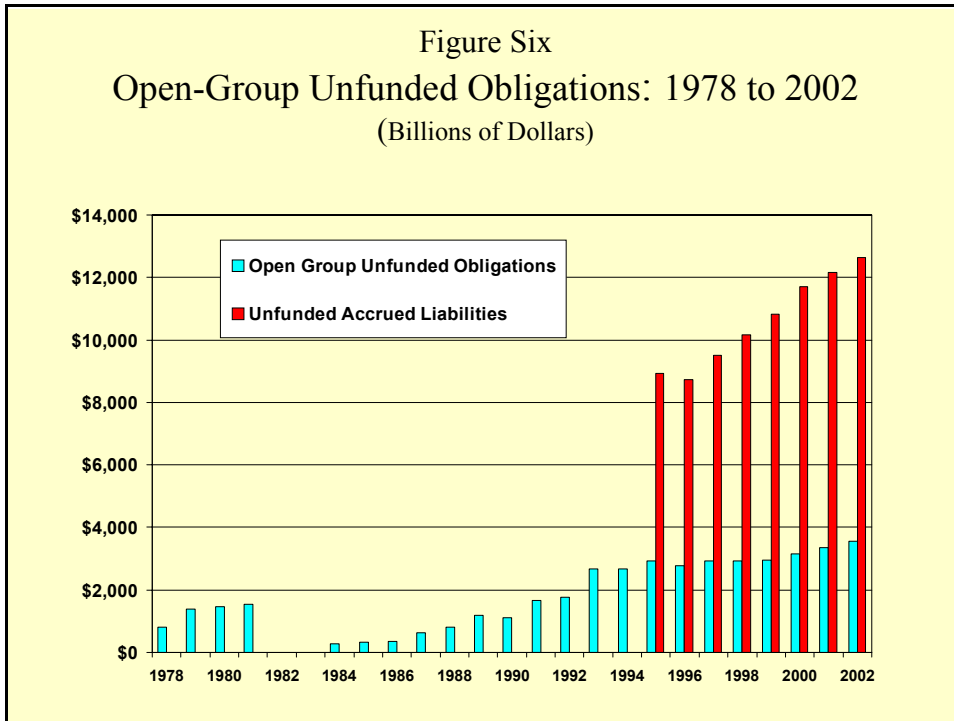
years.¹¹⁹ The 75-year open-group liability is closely related to the trust fund actuarial deficits discussed above. The actuarial deficit (negative 1.92 percent of payroll as of year-end 2002) is the amount by which payroll taxes would have to be increased over the next seventy-five years in order for the system to meet its projected obligations. The 75-year open-group liability is the net present value of these additional taxes.

As of December 31, 2002, the system's 75-year open group liability was estimated to be negative \$3.5 trillion. Figure Four reports the open group obligations over the past few decades. Notice that around 1983, the 75-year open group liability fell to zero. This is because, after the 1983 reforms, the system was projected to meet its obligation for the relevant period of reference: seventy-five years. After 1983, the open group unfunded liability began to grow. This reflects the cliff effect mentioned earlier as well as unrelated changes in actuarial assumptions.¹²⁰ After 1983, as the period of analysis for these seventy-five year projects includes an increasing number of years in the latter half of the twenty-first century – when cash payments to the system will substantially exceed cash inflows – the system's 75-year open-group liability increases.

¹¹⁹ To a limited degree, the 75-year open group liability measure is also narrower than the closed group measure. First, some current participants – e.g., very young mid-career participants – will receive benefits more than 75 years in the future. These payments factor into the closed-group liability measure but not the 75-year open-group liability measure. Also, the current reserves of the trust funds are typically deducted from the closed-group liability measure on the assumption that these reserves would be used to finance the benefits of current participants if these participants were grandfathered under current law. Since the open-group measure is generally considered to be an estimate used to evaluate the solvency of the system on an on-going basis, the reserves are not fully available to finance benefits over the next 75 years. At least a portion of these benefits must be set aside to maintain minimum acceptable trust fund ratios as of the end of the period of analysis. See *supra* pages 15-16 (discussing costs of accumulating reserves).

¹²⁰ See *supra* page 27.

Figure Six also includes estimates of the system’s unfunded accrued liabilities for the years in which these estimates are available. Notice the substantial differential between the unfunded accrued liabilities and the 75-year open-group liability. As of year-end 2002, the system’s unfunded accrued liabilities (\$12.6 trillion) exceeded its 75-year open-group liability (\$3.5 trillion) by about



\$9.1 trillion. Since we know from our analysis of the closed-group liability given above that current participants will contribute excess taxes of about \$2 trillion over the balance of their lives (predominantly within the next 75 years), the remaining \$7.1 trillion must come from excess of the present value of taxes to be paid by future participants over benefits to be paid to future participants in the next seventy five years. Even with these excess taxes, the 75-year open group liability is negative \$3.5 trillion. But what the foregoing discussion reveals is that the relatively small size of the 75-year open group liability measure is largely explained by excess tax revenues to be contributed by future participants over the next seventy-five year.

3. Open-Group Unfunded Obligation: Infinite Horizon

The 75-year open group liability measure is, perhaps, an understandable extension of traditional Social Security accounting. The trustees reports' long-term projections go out only 75 years; the principal measure for long-term actuarial balance under the trustees report is the actuarial deficit (negative 1.92 percent of payroll as of year-end 2002); and the 75-year open-group liability measure reflects the same time frame. But for the reasons outlined in Part One of this article, limiting analysis to cash flows over 75 years is inherently misleading. It ignores all benefits to which future workers will be entitled at the end of the 75-year horizon and it produces the cliff effect described earlier. For this reason, many academic writers prefer a measure long-term balance that looks beyond the 75-year horizon. The infinite-horizon open group liability measure offers precisely such a tool. It continues the open-group methodology indefinitely, factoring in all future tax revenues and all future benefits.

The Office of the Chief Actuary has not yet developed a times series of infinite-horizon open group liability estimates. The 2003 Trustees Report did, however, for the first time include a single estimate of the system's infinite-horizon open group liability as of December 31, 2002. The estimate was \$10.5 trillion, or exactly the same as the Chief Actuary's estimate of the system's closed-group liability as of the same time.¹²¹ What this equality implies is that the present value of benefits to be paid to future participants is exactly equal to the present value of the future taxes that these participants will pay. Other academic experts have estimated that the present value of taxes to be paid by future participant is \$3.5 trillion greater than the present value of their benefits, implying an infinite horizon open-group liability of about \$7 trillion.¹²² The distances between these estimates comes from differences in the demographic projections about future life expectancies and economic assumptions about discount rates. But the main point to recognize is that both estimates agree that

¹²¹ See 2003 Trustees Report, *supra* note 5, at 63.

¹²² See Gokhale & Smetters, *supra* note 66.

the infinite horizon open-group liability is a good deal larger than the Chief Actuary's estimate of the 75-year open group liability.

4. GAAP-Style Accrual Accounting v. Alternative Measures of Long-Term Solvency

Putting aside superficial differences in presentation format,¹²³ there are two important theoretical differences between GAAP-style accrual accounts and alternative measures of long-term solvency. First, the GAAP-style measures distinguish between benefits that have been earned (or accrued) to date as opposed to benefits to be earned (or accrued) in the future, whereas the alternative measures factor in all benefits to covered participants, regardless of when they are earned. Second, the alternative measures factor in taxes to be paid in the future, whereas GAAP-style accrual accounts do not. These differences reflect, to a large degree, the goals that the two approaches are designed to achieve, and each approach has its advantages.

a. Distinguishing Benefits Earned-to-Date from Total Benefits

¹²³ Although the alternative measures are typically expressed in terms of a single statistic (the closed-group liability or infinite-horizon open-group obligation), one could decompose these measures into a series of assets – current reserves plus the net present value of future tax revenues from various groups of participation – and liabilities – such as the present value of future benefits to various groups of participants. As explained below, see *infra* pages 108-13, the FASAB requirements for social insurance require these elements to be reported in the Required Supplementary Stewardship Information section of financial statements for government entities that seek to comply with GAAP for federal entities, although FASAB does not require these elements to be included as balance sheet entries. (The trustees reports do not attempt to comply to FASAB requirements.) In the summer of 2003, FASAB amended its rules governing the placement of this information, calling for a more prominent display of the information in a Statement of Social Insurance or SOSI. See FASAB Statement of Federal Financial Accounting Standards No. 25: Reclassification of Stewardship Responsibilities and Eliminating the Current Services Assessment (July 17, 2003) (available at <http://www.fasab.gov/pdf/sffas-25.pdf>). Unlike the prior supplementary information, the SOSI is considered to be a basic financial statement and subject to audit requirements. It remains to be seen how this change will affect the Trustees Report and other public disclosures regarding Social Security.

Deriving as they do from traditional long-term cash-flow analyses of payments, the alternative measures are concerned with estimating the present value of all payments projected to be made for the relevant time horizon to covered participants assuming the continuing of current statutory benefit and tax formulae. For these purposes, it makes no difference to distinguish between benefits earned before or after the date of the forecast. All benefits, whenever earned, are appropriate subjects of analysis. The rules of accrual under GAAP, however, recognize liabilities only when they arise out of past transactions or events and have a sufficient probability of being paid. For obligations to make payments that arise as a result of an earnings record stretched over multiple decades, GAAP-style accounting demands differentiation between benefits earned to date and benefits earned in the future.¹²⁴

The key question, of course, is which approach for recognizing the government's obligations to pay benefits is more appropriate for the financial statements of Social Security. In contrast to alternative measures, GAAP-style recognition principles privilege benefits earned to date. But is this privileging appropriate for the financial statements of Social Security?

The statutory requirements for private pension plans may offer some guidance here. Under ERISA employers are prohibited from reducing pension benefits that have accrued, whereas they are free to change or even eliminate the accrual of additional benefits in the future.¹²⁵ The justification for this restriction is that workers should be entitled to rely on employer promises to pay benefits that have accrued. While Congress remains constitutionally free to impose retroactive reductions in the benefits formulas of Social Security, one might still find useful normative guidance in the rules governing private employers. At least for purposes of accounting recognition – where

¹²⁴ Of course, the difficulty of applying GAAP-style accounting to Social Security benefits is the fact that the government is not constitutionally committed to make these payments. This fact, however, is not determinative for purposes of GAAP standards because GAAP does not require absolute certainty as a prerequisite for recognizing liabilities, only the probability of future economic sacrifice.

¹²⁵ See ERISA § 204(g), 29 U.S.C. § 1054(g) (2003).

a collective estimate of the trust funds' obligations is made – we should arguably hold the government to at least as high a standard for benefit obligations as we impose on private employers for their pension promises.

Another justification for recognizing only earned benefits is the underlying logic of GAAP recognition rules. Earned benefits are the ones that, in all likelihood, are going to result in economic sacrifice (that is, payment) in the future, and GAAP-style financial statements recognize such commitments because a principal purposes of these statements is to demonstrate the relationship between an entity's current economic resources and its current obligations. Arguably, the financial statements of Social Security should also highlight the difference between the system's current assets and the value of all benefits that are sufficiently probable of payment to warrant recognition under GAAP for private firms. With this recognition principle, the moment when the commitments become probable obligations of the federal government is the moment when they appear on the financial statements of Social Security and are included in other federal budgetary aggregates. Particularly to the extent that financial statements are intended to help monitor and control the creation of financial obligations, this feature of accrual accounting has undeniable appeal.

Finally there is the issue of transitional costs. In discussions of reform proposal, particularly those involving the partial privatization of Social Security benefits, analysts sometimes overlook the accrued claims of current workers and retirees. Requiring the trust funds to produce financial statements that recognize the level of these accrued liabilities would make it much less likely that these important obligations would be ignored.

b. The Inclusion of Benefits-to-be-Earned and Future Taxes

The case against privileging earned benefits over to-be-earned benefits and for relying on the broader alternative measures described above has two separate strains: one political and one financial. The political argument rejects the suggestion that benefits to be earned in the future are any less binding than benefits that have been earned to date. Often advanced by defenders of a

strong social welfare safety net, this view regards the government's obligation to pay future generations Social Security obligations under current indexed formulae as indistinguishable from its commitments to pay the next benefit check of current retirees. Sensing, one suspects, that distinguishing between earned benefits and benefits to be earned will begin the unraveling of the traditional Social Security system, proponents of this view prefer alternative measures of long-term solvency that treat all benefit payments the same. While I am agnostic with respect to the political prediction regarding the implications of adopting a system of accrual accounting for Social Security, my principal objection to this line of argument is what I regard as its unpersuasive claim that the government's obligation to make payments to future generations under current statutory formulae are appropriately considered to be equivalent to the government's obligations either to current retirees or to mid-career workers nearing retirement age.

A separate, financially oriented argument against privileging earned benefits proceeds from the claim that the logic of GAAP-style accrual accounts do not apply to government programs such as Social Security. With private employers, we are critically concerned about unfunded accrued liabilities because we worry that unfunded promises will not be paid. With public pension programs, on the other hand, the amount of unfunded accrued liabilities is not that important because the government's power to tax can always cover the shortfall. According to this line of argument, the alternative measures of long-term solvency are more appropriate for public pension plans because they factor in the economic resources – tax contributions in the future – that are intended to finance both benefits earned to date and benefits to be earned in the future.¹²⁶ The closed-group and infinite-horizon group liability measures are, under this line of reasoning, a better presentation of the system's financial posture than GAAP-style accounts because they embrace this reality of public finance.¹²⁷

¹²⁶ Notice that this the goal here is to calculate the net value of future taxes, alternative measures have to take into account both future taxes and future benefit payments.

¹²⁷ The 75-year open group measure is not defensible on this ground because it does not provide an accurate measure of net tax contributions, truncated as it is after 75 years.

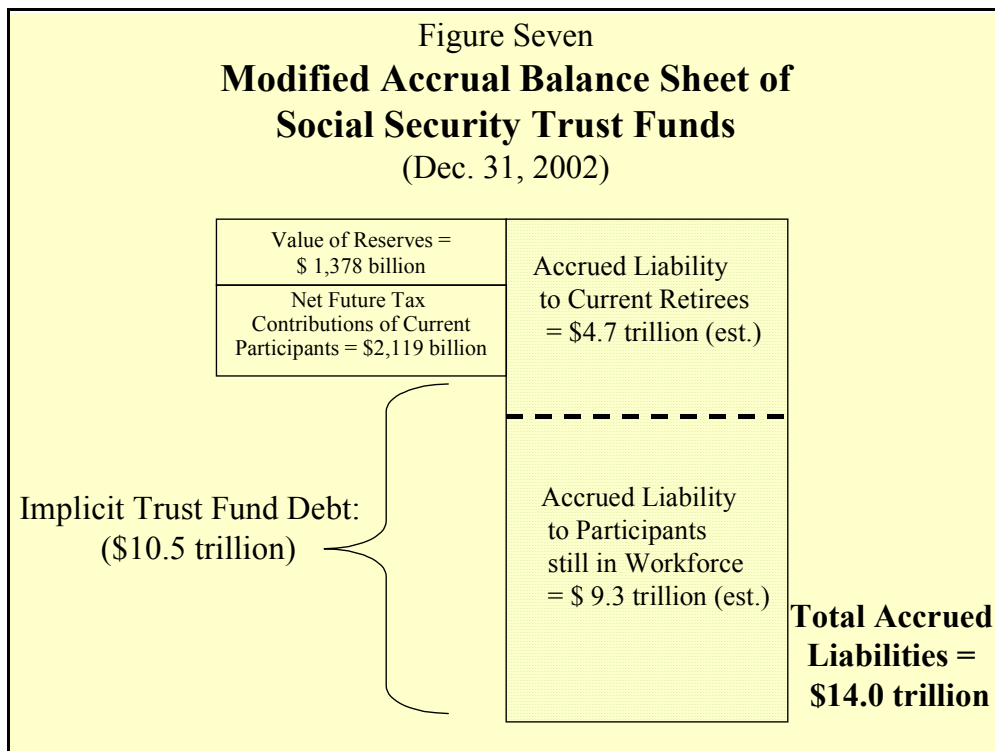
In contrast to the political argument against accrual accounting, the financial defense of alternative measures is well founded and important. By reflecting future excess tax revenues, the alternative measures of long-term solvency do have some advantages over GAAP-style accrual accounting statements. The question, to which I turn in the following section, is how GAAP-style accounts might be modified to incorporate the advantages of these alternative measures, while at the same time retaining the clarity of GAAP accrual accounting, which highlights the value of accrued liabilities.

5. Modified Accrual Accounting Statements for Social Security

I would propose to resolve this dilemma by augmenting GAAP-style accrual accounting statements of Social Security to recognize as a “quasi” asset an amount equal to the present value of excess revenues to be contributed by system participants over the additional benefits that they will accrue over the balance of their working lives. Such a compromise does not diminish the privileged status of earned benefits, because only benefits accrued to date would appear on the liabilities side of the Social Security trust fund balance sheet. But such a modified system of accrual accounting would also reveal how much of those accrued liabilities was matched by the present value of excess contributions. The difference between the system’s accrued liabilities and the sum of its reserves and excess tax contributions could be denominated the system’s implicit debt: the amount of additional government resources required to honor the system’s accrued liabilities over and above current reserves and excess future tax revenues already committed under current law.

Figure Seven presents a modified accrual balance sheet for December 31, 2002, along the lines outlines above. The balance sheet's assets consist of the value of current reserves (\$1.4 trillion) plus the present value of excess future tax contributions of current participants (\$2.1 trillion). The amount by which the system's accrued liabilities (\$14.0 trillion) exceed the sum of these assets represents the trust funds' implicit debt as of December 31, 2002, and equals \$10.5 trillion. (Notice that this figure is the same as the closed-group liability of year-end 2002, as only the excess tax contributions of current participants, and not future participants, were included.) A reader of this balance sheet could readily ascertain the system's unfunded accrued liabilities: the \$12.6 trillion difference between accrued liabilities (\$14 trillion) and current reserves (\$1.2 trillion),

which is the deficit featured in a GAAP-style accrual accounting statement. But this format would also reveal the key additional information contained in the alternative measures of long-term solvency, the amount by which accrued



liabilities are expected to be reduced by excess future taxes.

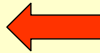
Following similar logic, one can also construct a modified income statement for the trust funds in 2002. (See Table Nine.) The only difference between this income statement and the GAAP-style income statement presented in Table Six above is the inclusion of income items reflecting the increase in projected net tax contributions (\$97.1 billion) resulting principally from the addition of a new annual cohort of participants – those turning 15 in 2002. Even with the recognition of this additional future net tax revenue, the trust funds still showed a \$370.4 billion loss in 2002: its closed group unfunded obligations increased from \$10,140.1 billion at year-end 2001 to \$10,510.5 billion at year-end 2002, a deterioration of \$370.4 billion. (Measured as a percentage of GDP, the closed group liability increased from 101.08 % to 101.68 % over the course of 2002.)

One could imagine amplifying these modified financial statements further, adding in the net tax contributions of future participants and aligning the fiscal imbalance with the infinite-horizon open group measures. For largely pragmatic considerations, I will not take that additional step here. First, on the practical level, we lack time series for the infinite-horizon open group measure, and so it is not possible to construct income statements or multiple year estimates of fiscal imbalance. Also, on the practical level, the Chief Actuary's most recent estimate of the infinite-horizon closed group liability is the same as the closed group liability, so there does not seem to be much to be gained from using another measure that will generate roughly the same results. Finally, projections of infinite horizon open group liability are inherently more speculative than closed-group estimates, which are themselves more speculative than estimates of unfunded accrued liabilities. While all estimates of long-term solvency entail some degree of speculation and approximation, the infinite-horizon open group measure is at the extreme.

D. Accrual Accounting and the Unified Federal Budget

Imagine, for a moment, that future trustees reports of the Social Security system were revised along the lines outlined above, using a modified system of accrual accounting as the principal presentation format for the report and relegating cash flow projections to supplemental status. For the foreseeable future, the system would report annual losses on the order of several hundred billion dollars and the implicit debt of the trust funds would be mounting each year, both in absolute terms

Table Nine
Modified Income Statement for Trust Funds (est.)
 (Jan 1, 2002 through Dec. 31, 2002)

Revenues	
Payroll Taxes [known]	\$ 532.5 billion
Income from Taxation [known]	\$ 14.2 billion
Interest on Trust Fund Assets [known]	<u>\$ 80.4 billion</u>
	\$ 627.1 billion
Expenses	
Administrative Expenses [known]	(\$ 4.2 billion)
Other Costs [known]	(\$ 3.7 billion)
Interest Charge [derived]	(\$ 786.9 billion)**
Net Accrual of Liabilities [derived]	<u>(\$ 299.8 billion)**</u>
	(\$ 1,094.6 billion)
Profit (Loss) from Operations	(\$ 467.5 billion)
Increase in Projected Net Contributions	\$ 97.1 billion
Adjusted Profit (or Loss)	(\$ 370.4 billion) 

and (probably) as a fraction of current GDP. Both of these facts – annual losses and mounting implicit debt – would present major challenges for budgetary officials when the time comes to aggregate the finances of Social Security with other federal budgetary accounts.

In this section, I speculate how this aggregation of accounts might be accomplished. Two basic approaches are possible, and both of them could have important implications for budgetary politics. The first is a fully consolidated approach, the second fully unconsolidated. Throughout this section, I use the terms *fully consolidated* and *fully unconsolidated* to describe these two

alternatives and to distinguish them from the total-budget and on-budget aggregates that are currently used when Social Security cash-flow surpluses are combined with or kept separate from on-budget accounts. As will be evident, my consolidated and unconsolidated approaches represent more radical alternatives than do total-budget and on-budget aggregates. They also, I believe, offer more accurate presentations of the true impact of Social Security on public finances.

Let me preface my analysis here by acknowledging that there is considerable uncertainty as to how politicians and political forces would react to changes in accounting systems. In the view of some, reported levels of budgetary aggregates have little effect on substantive choices of politicians. In addition, there remains the possibility that, even if trustees reports were to adopt a modified system of accrual accounting, politicians would still rely on the system's current cash flow surpluses for purposes of discussing federal budgetary aggregates. While one cannot exclude the possibility that financial formats may be politically irrelevant, it also is plausible that changing the way in which the public understands the financial status of the Social Security trust funds would have a substantial impact on the manner in which the trust funds are combined with federal budgetary aggregates and it is the admittedly speculative goal of this section to explore what the impact would be.

1. Full Consolidation within the Federal Budget

One approach to combining accrual-based Social Security with the broader federal budget is to establish a system of full consolidation. Under this technique, the profit or loss of the Social Security system each year would be included in the unified budget. For 2002, under this approach, Social Security would have put a \$370.4 billion drag on the unified budget (as opposed to the \$160.3 billion positive effect under current cash-flow accounting).¹²⁸ Thus restated, the consolidated federal

¹²⁸ See CBO January 2003 Report, *supra* note 40, at 148. In this section, I will generally use measures of profit and loss based on the modified accrual accounting approach outlined above. This measure reflects the value of future net tax contributions of current participants and is equivalent to the annual change in the system's closed-group obligation. Were the losses based on a GAAP-style accrual accounting system, without current recognition of future excess

deficit for the year would have been on the order of negative \$ 688.6 billion (rather than \$157 billion total-budget deficit as reported). While this \$500-billion-plus deterioration in results is jarring, it is an accurate reflection of the amount by which the federal government's express promises to public debt holders and implicit unfunded promises to Social Security beneficiaries increased over the course of the year. To give readers a sense of the magnitude of this change, I present in Table Ten restated budgetary aggregates for the federal government over the five years 1998 to 2002 with Social Security operations reported on a fully-consolidated modified accrual basis.

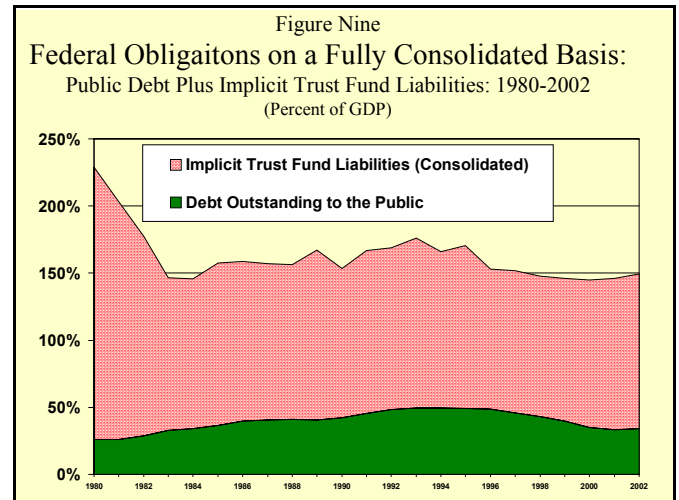
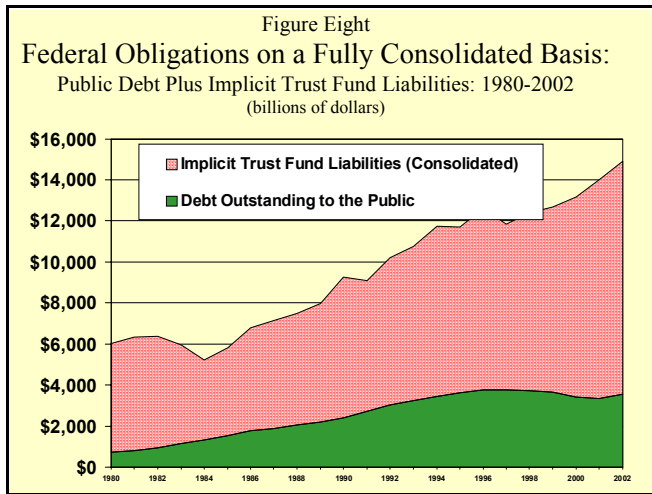
tax contributions, the levels of loss would be approximately \$100 billion higher per year.

Table Ten Restated Annual Budgets With Fully Consolidated Trust Funds Five Years: 1998 through 2002 (By Fiscal Year, in Billions of Dollars)						
	1998	1999	2000	2001	2002	Total 1998-2002
On-Budget Surplus or Deficit (-)	-30.0	1.9	86.6	-33.4	-317.5	-292.4
Social Security Profit or Loss (-)	-287.1	-549.7	-761.4	-535.2	-370.4	-2,503.9
<u>Postal Service Outlays</u>	<u>0.2</u>	<u>-1.0</u>	<u>-2.0</u>	<u>-2.3</u>	<u>-0.7</u>	<u>-5.8</u>
Consolidated Surplus or Deficit (-)	-316.9	-548.8	-676.8	-570.9	-688.6	-2,802.1
<i>Consolidated Surplus or Deficit (-) as a percentage of GDP</i>	-3.66%	-6.00%	-6.97%	-5.69%	-6.66%	<i>n.a.</i>
Source: Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2004-2013, at 148 (Jan. 2003) (for historical data for on-budget deficits and surpluses and Post Office Outlays).						

Were one to extend the logic of consolidation to the federal government's balance sheet, one might also present the growth of the trust funds implicit obligations alongside the growth of the government's debt held by the public. After all, once the accrued liabilities of Social Security are recognized on its balance sheets, there is a logic to including these obligations alongside the federal government's explicit debt particularly if one opts for a consolidated presentation. Such a presentation is offered in Figures Eight and Nine, first with debt figures measured in current dollars and next as measured as a percent of GDP. This figure reveals two important points. First, the magnitude of Social Security's implicit trust fund obligations is much greater than federal debt outstanding to the general public (\$11.9 trillion of implicit trust fund obligations, when measured on a consolidated basis,¹²⁹ versus \$3.5 trillion in federal debt held by the public as of December 31,

¹²⁹ Under principles of consolidation, inter-government transactions are netted out. For that reason, trust fund reserves are excluded for both the calculation of public debt and are also not counted against trust fund accrued liabilities. Thus, the implicit trust fund obligations (consolidated) presented in Figures Nine and Ten are equal to the Closed Group Liability plus trust fund reserves.

2002). Second, over the past two decades the growth in accrued liabilities of Social Security greatly surpassed increases in publicly held debt, and also more than offset the small reductions in public



debt outstanding over the 1998-2001 years, when the total-budget accounts were in surplus.

2. An Unconsolidated Approach to Social Security Accounting

Politicians, undoubtedly, would find full budgetary consolidation of Social Security under the terms proposed in the preceding section an unpalatable option. And, indeed, there could be real costs in terms of explaining to the public why the levels of reported federal deficits are so much higher than previously reported. Some might also object to combining explicit and implicit debt to consolidate aggregates.¹³⁰ Accordingly, a more plausible and, in many respects, preferable solution would be to use a fully unconsolidated approach. Treating Social Security as an unconsolidated

¹³⁰ I personally do not find this combination inappropriate, as the accrued liabilities presented in Figures Eight and Nine are, by definition, obligations that the federal government is, in all probability, going to honor. A third of these liabilities are owed to retirees, and therefore politically sacrosanct. The balance are due to mid-career workers, but have been recognized based on an accrual formula that reflects the probability that they will be honored. See supra Box Four.

entity is, in a sense, an extension of the off-budget treatment that the system purportedly, but only episodically, enjoys today.¹³¹

The unconsolidated treatment of the trust funds would have a number of additional advantages for the political debate over Social Security and its reform, and I will turn to these advantages in the final part of this article. For now, however, let me sketch out the details of how this fully unconsolidated treatment would work

a. Budgetary Aggregates

To begin with, if Social Security trust funds were to be treated on a fully unconsolidated basis, the annual operations of the trust funds would not be included in the federal budgetary aggregates. This is similar to the Clinton administration's efforts in 1999 and 2000 to focus attention on what is conventionally referred to as on-budget figures.¹³² However, there would be substantially less incentive for politicians to revert to using consolidated budgetary aggregates, because as described above, the effect of consolidation would be to substantially detract from total-budget aggregates.

b. Interest Payments and Other General Revenue Contributions

Under an unconsolidated approach, transactions between Social Security and other federal budget accounts would be treated in the same way as transactions between the federal government and unrelated third parties. As a result, all payments to the Social Security trust funds, including interest payments on federal bonds held by Social Security plus any contributions to Social Security from general revenues, would count as expenses of the federal government in the year they were

¹³¹ See supra pages 31-48 & accompanying notes (discussing off-budget status of trust funds).

¹³² See Elmendorf et al., supra note 60.

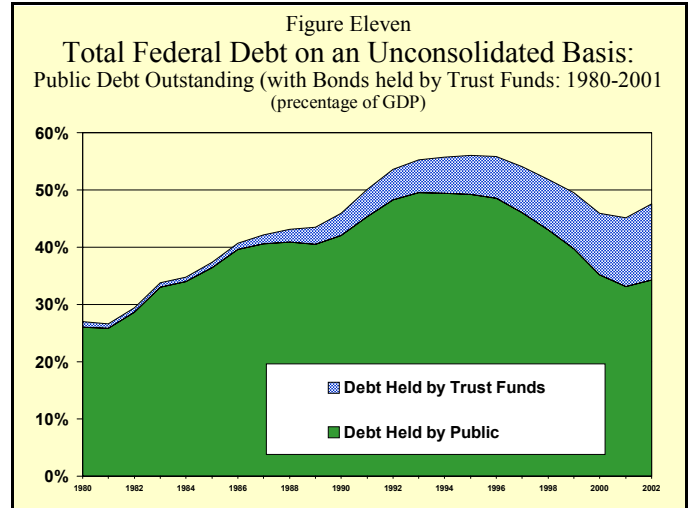
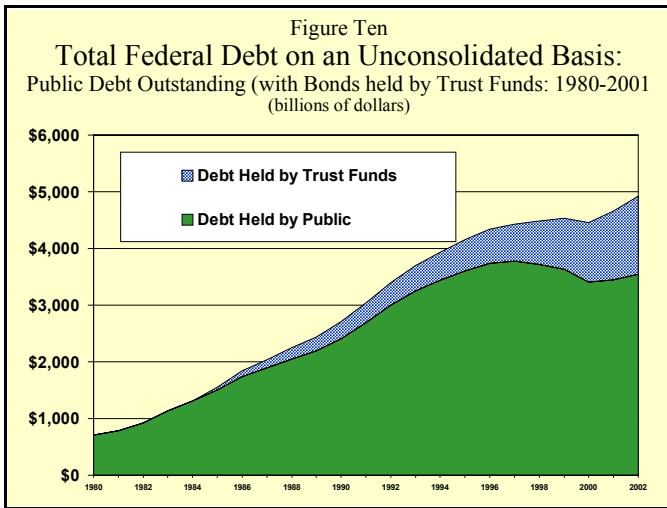
paid.¹³³ In contrast to the rhetoric of lock-boxes, this approach would clarify the extent to which general revenues were actually used to enhance the solvency of Social Security.

c. Measures of Public Debt Outstanding

Another important change that would flow from a fully unconsolidated presentation of Social Security finances would be that bonds held by the trust funds would be included in the calculation of total federal debt outstanding. Not only would this treatment reflect the political reality that the federal government will undoubtedly honor its commitment to redeem these bonds when the trust funds require, but the approach would also present a more accurate picture of the federal government's future burden from explicit debt.¹³⁴ Figures Ten and Eleven provide a graphic presentation of the relative size of these debt holdings over the past twenty years, revealing the increasingly important but largely unrecognized share of public debt held by the Social Security trust funds. Figure Ten presents the series in current dollars, whereas Figure Eleven presents the series as a percentage of GDP.

¹³³ An open question is how income taxes currently allocated to the Social Security trust funds should be treated. As described above, the trust funds' revenues include a portion of the income taxes imposed on certain Social Security benefits. Although these payments are not typically characterized as the allocation of general revenues to the trust funds, that is, arguably, what they are.

¹³⁴ When the Social Security was first included in the unified budget in the late 1960s, the commission recommending the change contemplated that debt issued to the trust funds would be reported in an aggregate measure of gross federal debt. See President's Commission on Budget Concepts 85 (1967). Over time, public accounting has focused nearly exclusively on federal debt held by the general public, see, e.g., CBO January 2002 Outlook, *supra* note 64, at xv (Summary Table 2), and has rarely given measures of gross federal debt much prominence.



d. Separate Financial Statements for Trust Funds.

Finally, the Social Security trust funds would maintain their own separate financial statements — both balance sheets and income statements prepared on the basis of modified accrual accounting described above. An important element of these financial statements would be the prominent reporting of increases in the system’s annual performance as well as its implicit debt. Table Eleven presents summary statistics that Social Security financial statements, presented on a fully unconsolidated basis, would provide. As explained below, monitoring these liabilities and their relationship to other forms of public debt as well as to the overall economy would have important benefits for public debate over Social Security and its reform.

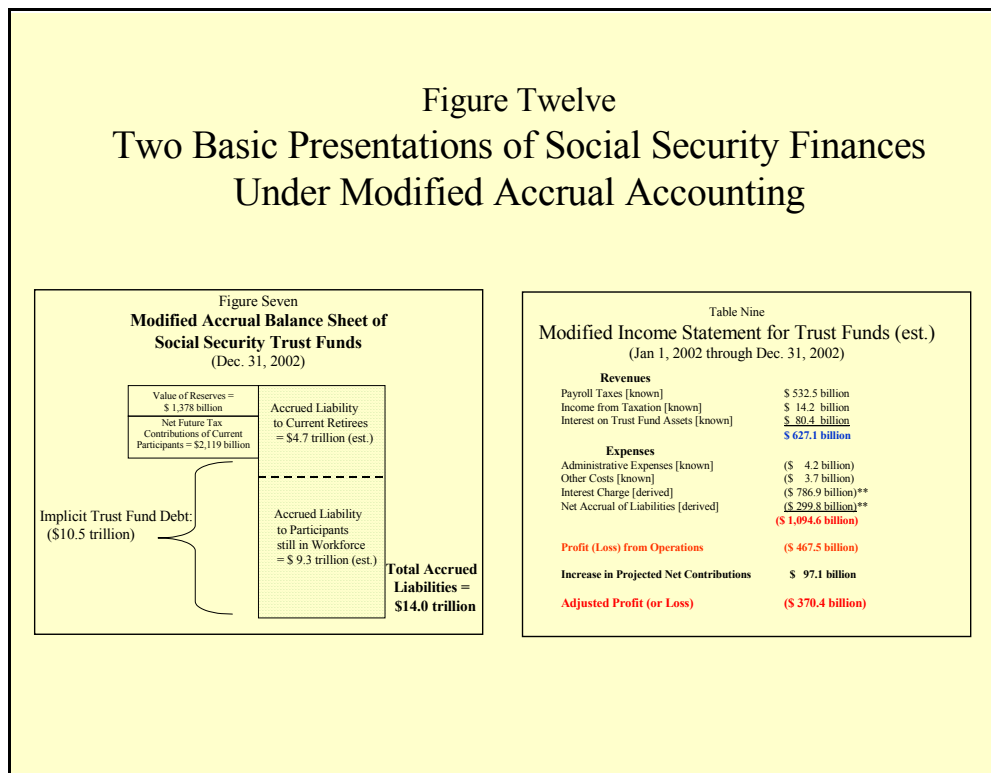
Table Eleven
Key Statistics for Social Security Financial Statements
Reported on a Fully Unconsolidated Basis
1992-2002

	1998	1999	2000	2001	2002
Adjusted Profit or Loss (\$ billions)	- \$ 287.1	- \$ 549.8	- \$ 761.4	- \$ 535.2	- \$ 370.4
Adjusted Profit or Loss (% of GDP)	- 3.3 %	- 6.0 %	- 7.8 %	- 5.3 %	- 3.6 %
Implicit Debt (\$ billions)	\$ 8,294	\$ 8,844	\$ 9,605	\$ 10,140	\$ 10,511
Implicit Debt (% of GDP)	95.8%	96.8 %	98.8 %	101.1 %	101.7 %

III. Accrual Accounting and Social Security Reform

Beyond presenting a clearer picture of the true financial posture of the Social Security trust funds, modified accrual accounting statements of the sort outlined above could have a profound impact on the public debate over Social Security reform. In this part, I sketch out the potentially salutary ways in which an accrual based accounting system might affect public policy in this area. For purposes of this section, I invite the reader to assume for a moment that the modified system of

a c c r u a l
accounting were
accepted as the
d o m i n a n t
format for
p r e s e n t i n g
Social Security
finances. In
other words,
p u b l i c
discussions of
current Social
S e c u r i t y
finances would
be framed by a
2002 income



statement showing a \$370 billion loss and a year-end balance sheet showing implicit unfunded obligations of \$10.5 trillion (even after crediting excess projected tax payments of current participants and current reserves). See Figure Twelve.

If the foregoing financial presentations, rather than the current trustees reports, framed public discussions of Social Security finances, what would be the effect on the debate over Social Security reform?

A. Clarifying the True Nature of Social Security Finances

1. Debunking the Debilitating Myth of Current Surpluses

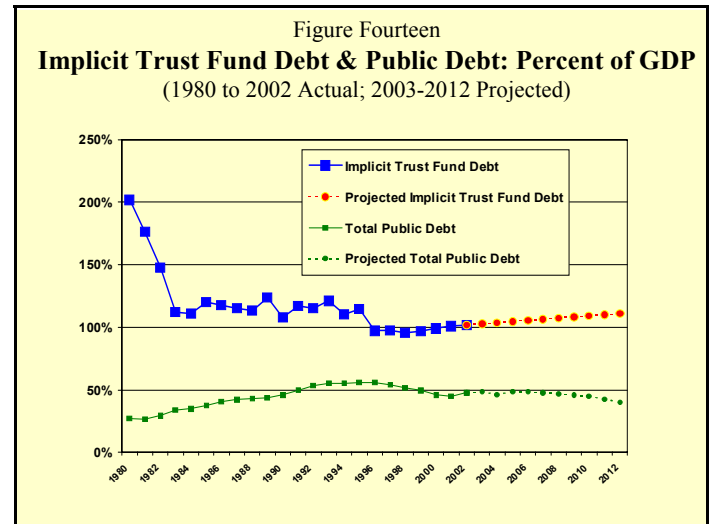
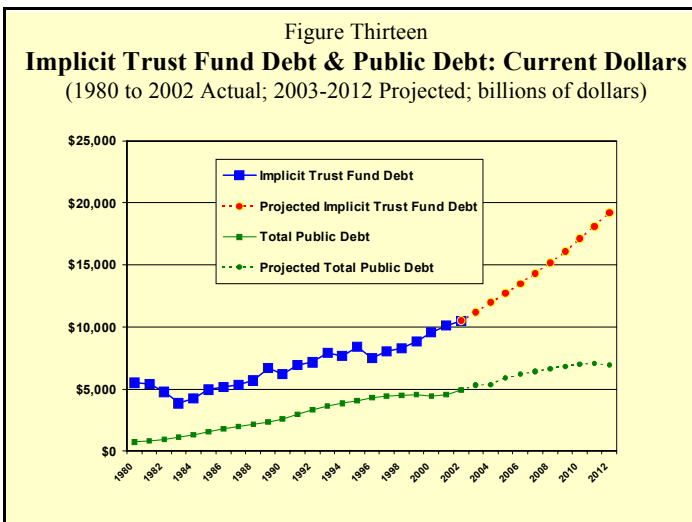
Perhaps the most important impact of restating the financial posture of Social Security on the basis of accrual accounting would be to alert the general public of the true financial posture of the program. Reports of annual losses on the order of several hundred billion dollars a year would have a dramatically different impact on public debate than recent trustees' reports heralding annual cash flow surpluses of hundreds of billions of dollars and locating the time of the trust funds' difficulties several decades in the future. In addition, publicizing both the trust funds' mounting accrued liabilities — in excess of \$14 trillion — and the \$10.5 trillion dollars by which those liabilities exceed both current reserves and the present value of future excess taxes of current participants would likely have a profound effect on public discourse, stiffening the resolve of politicians to address the system's problems expeditiously and the willingness of the general public to accept at least some modicum of pain in reform proposals.

2. Focusing Public Attention on the Trust Funds' Mounting Implicit Debt

By recognizing the trust funds' current obligations, a modified accrual accounting system would also focus public attention on the implicit debt that the Social Security system is imposing on future generations. Absent changes in benefit formula or other structural reforms, these obligations will have to be borne by future generations in the form of higher direct contributions to the Social Security trust funds or general revenue support.

For example, revised trustees reports under this new regime would presumably include projections of the future trends in implicit trust fund debt in coming years. While I lack the

data to make such projections myself, I can approximate the general feel that such projections would have. In Figures Thirteen and Fourteen, I project a plausible path of growth over implicit trust fund debt in the next decade, both in absolute terms and as a percent of GDP.¹³⁵ Also included in these figures are levels of total public debt – that is, debt held by the general public plus debt held by the Social Security trust funds. Once Social Security’s finances are restated in accordance with modified principles of accrual accounting, such comparisons between implicit trust fund debt and explicit public debt will be both inevitable and useful, as the general public will quickly learn that mounting financial commitments of Social Security are both larger and growing faster than the public debt, even once restated to include debt held by the trust funds.



3. Developing Appropriate Targets for the Implicit Debt of Social Security

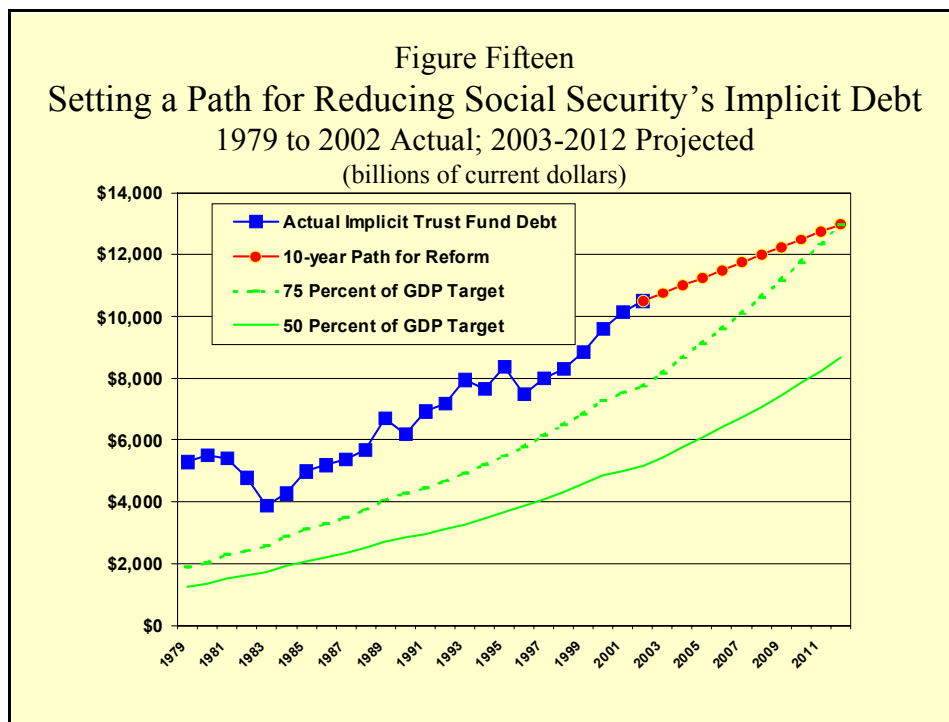
¹³⁵ For purposes of this projection, the critical unknown is the future rate of growth of implicit trust fund debt. These figures are based on the assumption that the debt will exceed GDP growth by the same percentage it has exceeded GDP growth (17 percent) over the past five years. (In earlier periods this relationship does not always hold, but the different is difficult to interpret because of changes in actuarial assumptions and (in some years) program design.) Rates of GDP growth and rates of public debt growth are taken from CBO January 2003 projections.

A further advantage of highlighting the size of Social Security's implicit debt and that debt's relationship to explicit federal debt is the possibility that we would then be able to begin a sensible national debate over the appropriate level of these obligations. While economists often speak in terms of acceptable level of explicit federal debt relative to the size of the economy, similar discussions about the appropriate levels of other kinds of governmental obligations, particularly public pension obligations, at least in the United States, are rare.¹³⁶ Once the implicit debt of the Social Security system is quantified through accrual accounting, one might reasonably expect such discussions to begin. While it is beyond the scope of this article to engage in such speculation,¹³⁷ it is useful to imagine how discussions of Social Security reform might proceed were such a consensus to emerge. Suppose, for example, that economists generally agreed that the implicit debt associated with Social Security should be limited to no more than fifty percent of GDP. And suppose further that a bi-partisan consensus were reached that Social Security reform legislation should attempt to get the system's implicit debt to at least seventy-five percent of GDP over the next ten years – roughly half way to the 50-percent target from the current level of Social Security implicit debt, which is slightly more than 100 percent of the GDP. Such an agreement would provide a baseline for evaluating various Social Security reform proposals.

¹³⁶ As discussed below, economists do, however, routinely estimate and criticize the unfunded pension obligations of other countries. See *infra* pages 114-19.

¹³⁷ I would imagine that acceptable levels of implicit debt for Social Security would depend on a number of factors, including the size of other entitlement programs (most notably Medicare and other health benefits for the elderly), projected growth rates of the economy and population, and a host of other technical factors.

Figure Fifteen illustrates this hypothetical path for reform. The line with circles reflects a ten-year path for reform necessary to achieve this goal of reducing implicit trust fund debt to 75-percent of the GDP at the end of ten years. If this framework for reform were adopted, one of the criteria for evaluating reform proposals would be to assess whether they reduced the system’s implicit debt within the time frame specified. Essentially, one could use figures similar to Figure Fifteen to map the projected financial impact of competing reform proposals.



Box Five

The Normative Implications of Accrual Accounting: Funding and Profitability

Once the financial statements of Social Security are restated in terms of accrual accounting, one might reasonably inquire whether this accounting format has normative implications for the system's funding or profitability. In particular, does accrual accounting imply that Social Security should be fully funded – that is, that the system's accrued liabilities should not exceed its assets – or that its annual income statement should ordinarily show a profit or at least the absence of substantial losses. The answer to both of these questions is no.

Although this is principally a question of public finance, there is no reason to suppose that a public pension system needs necessarily to be fully pre-funded or even that its accrued liabilities not exceed the sum of current reserves plus the net present value of excess taxes for current participants – that is, that the system's implicit debt be zero. What is important, however, is that the system's level of implicit debt not be allowed to grow in an unbounded manner in comparison to overall growth in the economy. Ideally, that level of this implicit debt should stay within some target ratio to GDP. Perhaps, the current level of implicit Social Security debt equal to slightly more than one hundred percent of GDP is appropriate, although I expect that most experts would prefer a lower target, such as seventy-five percent or fifty-percent of GDP targets illustrated in Figure Fifteen.

The appropriate level of annual level of profit or loss for a Social Security system following principles of accrual accounting follows from the target level of implicit debt for the system. If the system were at the target level, then it would be acceptable for the system to report annual losses as long as those losses did not cause the system's implicit debt to grow faster than the overall economy. If, on the other hand, the system's implicit debt were greater than target levels, better performance on annual income statements would be appropriate. Even under these conditions, however, annual profitability would not be required as the implicit debt to GDP ratio of the trust funds will decline as long as the system's implicit debt grows more slowly than the overall economy. For example, the hypothetical reform path illustrated in Figure Fifteen implies adjusted annual losses for the system on the order of \$200 billion over the next decade. Even with this level of annual loss, the system's implicit debt will gradually decline as a percentage of GDP over the coming decade.

B. Enhancing the Quality of Public Debate over Reform Proposals

As compared with the seventy-five year actuarial deficit (negative 1.92 percent of payroll), which currently frames most reform discussions, modified accrual accounting statements and a target path for reducing implicit trust fund debt as a percentage of GDP would offer a far preferable framework for public discussions.

A modified system of accrual accounting would make it considerably more transparent how various elements of reform proposals were affecting the implicit trust fund debt. Consider the five basic ways in which the financial condition of Social Security might be improved. 1) Reductions in benefits to be accrued in the future would appear initially as increases in the “quasi asset” representing excess tax contributions on the trust fund balance sheet, and later as smaller increases in the system’s accrued liabilities as those benefits were accrued. 2) Higher payroll taxes to be imposed in the future would also appear first as increases in the “quasi asset” representing excess future tax contributions and later as greater trust fund reserves once those taxes were paid into the system. 3) Direct contributions of general revenues would be recognized in the year in which the contributions were made, presumably as increases in trust fund reserves. 4) Similarly, higher returns from trust fund reserves – through stock market or other investments – would be recognized in the year those returns were earned. 5) To the extent that reform plans included reductions in benefits accrued to date for retirees or mid-career workers, those reductions would be immediately recognized as reductions in the system’s accrued liabilities.

1. Exposing Short-Range Cash-Flow Effects

One certain advantage of accrual accounting is that it would expose the limitations of reform proposals that rely principally on short-range cash-flow effects. For example, on a cash-flow basis, bringing new participants into the Social Security system always has a positive cash-flow effect in the short term because the new participants initially pay large amounts of taxes and receive few benefits. On a modified accrual-accounting basis (and in terms of economic reality), the gains from

such proposals are typically much smaller and may in fact be negative, depending on the composition of the new entrants and the kinds of benefits they will enjoy. For example, pools of new low-income workers can detract from the system's solvency in the long term, even though their participation might have a positive cash-flow effect in the short term. Whatever the long-term impact, there would be no short-term advantage in terms of either trust fund finances or federal aggregates to pursuing such strategies.

2. Recognizing the Value of Reforms with Future Cash-Flow Effects

Conversely, some reform proposals have a positive economic effect on the trust funds solvency, but their benefits are understated in the current accounting system because their cash-flow effects occur in the future, even beyond the seventy-five-year long-range perspective. A good example of this phenomenon can be found in the proposals of the President's Commission on Social Security Reform. A principal feature of the Commission's proposals was the imposition of an offset in traditional Social Security benefits for contributions made to individual accounts. Under accrual accounting, such offsets would reduce the trust funds' accrued liabilities in the year of the contributions, whereas under traditional Social Security accounting, they would not be recognized until far into the future, partially beyond the 75-year projection period.

3. Flagging Reform Proposals that Expand Accrued Liabilities

A further advantage of accrual accounting is its ability to flag reform proposals that include retroactive benefit enhancements. (Examples include improved benefits for elderly widows and various efforts to increase the level of benefits for participants who have had lower wages.) While there is much to recommend these proposals on the merits and while the ultimate solution to the problems of Social Security will almost certainly include a combination of sticks and carrots, our current accounting system makes it, in my view, too easy to slip in these often-expensive improvements because the yardstick for evaluating reform proposals is their long-range impact on cash-flow solvency. An accrual-accounting system would highlight such proposals — at least when

applied on a retroactive basis — as immediate increases in the system’s accrued liabilities. An advantage of accrual accounting is that it would reflect the true costs of such reforms and facilitate a more informed debate on their merits.

4. Eliminating the Cliff Effect

A further advantage of accrual accounting (and its emphasis on the system’s implicit debt) is that it would eliminate the cliff effect, which plagues reform proposals evaluated solely on the basis of the actuarial deficit. (The cliff effect arises because the trust funds’ tax base is much lower than projected expenditures at the end of the seventy-five-year projection period.) As explained earlier, a reform proposal can eliminate the seventy-five-year actuarial deficit for the current measurement period, only to have insolvency return to the system a few years later, as the period of analysis shifts forward to include additional years of cash-flow imbalance. Proposals that bring the Social Security system’s implicit debt to a sustainable ratio to the GDP will be much more likely to achieve long-range balance than will proposals that only eliminate the seventy-five-year actuarial deficit.

5. Identifying Back-loaded Reform Proposals

Another way in which accrual accounting would improve the quality of debate over reform proposals is by unmasking reform proposals that are substantially back loaded. A good case in point are the reform options that the 1996 Advisory Council proposed. While all of the proposals purported to eliminate the long-range actuarial deficit (then estimated at 2.19 percent of payroll), several proposals accomplished this goal at least partially through new tax to be imposed several decades in the future.¹³⁸ If these proposals were evaluated through the lens of accrued accounting and pro forma income statements for the near term, it would be readily apparent that the future taxes did nothing to reduce the system’s accrued liabilities. The only impact would be on the amount of the system’s “quasi-asset” for excess future tax contributions and the amount of the impact would

¹³⁸ See 1994-1996 Advisory Council Report, *supra* note 25 (Options I and III).

likely be smaller than the Advisory Council estimated as the impact of the increased taxes could have been offset by increases in benefits to be accrued in the future.

6. Flagging the Amount of Excess Future Taxes

A final advantage of the modified system of accrual accounting is its capacity to demonstrate the extent to which the system's accrued liabilities are being funded with excess taxes to be charged to participants in the future. While there is nothing inherently wrong with levying on participants taxes that exceed the value of benefits to be accrued in the future, there is presumably some limit to the extent to which a social insurance system should rely on such excess taxes, lest public support for the system be undermined in the future. So, for example, a reform proposal that relied on higher payroll taxes in the future might substantially reduce the Social Security system's implicit debt, but it might be a proposal with significant long-term political weakness. A modified accrual accounting system would expose concerns of this sort.¹³⁹

C. Altering the Optics of Reform Proposals

In addition to the direct benefits of accrual accounting described above, this mode of analysis could, I believe, bring a number of additional, albeit somewhat more subjective benefits to reform debates.

1. Distinguishing Accrued Rights of the Elderly and Other Participants

An essential element of accrual accounting would be the recognition of the benefits that participants have accrued to date. As explained above, these liabilities would be recognized on an annual basis on the system's income statement and reflected on the system's balance sheet at

¹³⁹ This again raises an interesting question of public finance: the extent to which accrued liabilities of social insurance programs should be funded by excess payroll tax contributions as opposed to other potential sources of support, such as general revenues. For an interesting discussion of this issues, see Peter Diamond, Social Security, The Government Budget, and National Savings (Mar. 2003).

the end of each year. In a sense, accrued benefits are privileged over benefits that accrue in the future.¹⁴⁰ Arguably, if accrued benefits were presented in this way, long-term participants in the system — particularly retirees and near retirees — might be persuaded that their interests would not be adversely affected by reform proposals. One could imagine policy analysts (or politicians) using Social Security balance sheets as a tool for persuading nervous constituencies that their expectations for retirement income will not be compromised. In other words, analysts would be able to distinguish between the fully accrued rights of retirees and the only-partially-accrued rights of other participants. The elision of the interests of these two groups, in my view, often complicates current discussion of reform proposals. Accrual accounting offers a possible path out of this quagmire.

2. Differentiating Prospective and Retroactive Effects

A related point is the capacity of accrual accounting to offer a new way to differentiate between the retrospective and prospective effects of reform proposals. Given the way we typically think about Social Security, changes usually apply to both previously accrued and to-be-accrued benefits. For example, the 1983 change in retirement age applied to covered workers both for benefits accrued before 1983 and for those that would accrue thereafter.¹⁴¹ Similarly, enhancements in benefit provisions, for example, linkage of benefit increases to productivity improvements in the 1970s, also apply both retroactively and prospectively. In my view, one of the advantages of accrual accounting is that it offers reformers more options in the way they structure changes to the system. The availability of more options may be critical to the development of a politically viable reform package.

¹⁴⁰ For private pension plans, federal statutes prohibit the elimination of all accrued interest in pensions and thus also privileges accrued benefits over benefits that will accrue in the future.

¹⁴¹ The effect did not go into effect for many years after 1983, but once it went into effect for a particular age cohort, the change applied to all of that cohort's benefits.

a. The Possibility of Prospective Benefit Cuts

Consider if benefit cuts were imposed, not on an all-or-nothing basis, but rather only on benefits that would accrue in the future. For example, imagine that, rather than switching over fully to cost-of-living indexation of initial benefit levels, a reform proposal were structured to preserve the existing productivity-adjusted formulas for accrued benefits and cost-of-living indexing for benefits that accrue in this future. Such a reform package could be characterized as honoring existing commitments (and expectations) while still offering immediate improvements in the system's financial posture through the reduction of the rate of accrual of benefits in all future years. This strikes me as both preferable to and more equitable than the current practice of imposing benefit cuts with effective dates that are postponed for years (or even decades) but then imposed on a fully retroactive basis.

b. More Modest Methods of Enhancing Benefits

A similar point could be made about benefit enhancements. Accrual accounting would invite benefit improvements to be imposed only with respect to benefits accrued in the future. This option would allow politicians a means to address the significant weaknesses in the Social Security system without imposing on it the substantial costs of fully retroactive application.

3. Changing Expectations of the General Public

The general point that runs through all of these examples is that accrual accounting offers a way to change the expectations of the general public in a subtle, but important, way. Through a complicated combination of factors, American workers have been encouraged to think of themselves as being entitled to the level of retirement benefits authorized under current law, even though their retirement may not occur for many years or even many decades. The implicit understanding seems to be that, as long as participants make their payroll-tax contributions as currently structured, they are entitled to receive their benefits as scheduled. The current system of Social Security accounting reinforces this understanding, because it is designed to measure the balance between projected

benefits and projected taxes. This linkage is even more apparent in the personal statements that the Social Security Administration sends out to all participants, estimating their projected level of future benefits on the assumption that they maintain their current level of employment until retirement. Lobbyists and politicians regularly defend this understanding by opposing any change in promised levels of benefits. Accrual accounting offers a different perspective on Social Security benefits. It privileges a subset of benefits — those that have already accrued — and invites participants to ratchet downward their sense of entitlement to benefits that have not yet accrued.

D. Accrual Accounting and Individual Accounts

The reforms proposed in this article could also affect the policy debate surrounding the creation of individual accounts in a number of ways, although the overall direction of the effects is ambiguous.

1. Posing the Problem of Transition Costs

Perhaps the most significant effect would be to make the magnitude of unfunded accrued liabilities of the trust funds more prominent. Some proponents of individual accounts emphasize the higher returns that participants could realize on these accounts without addressing the question of how the unfunded liabilities of the current system would be addressed. Indeed, one of the problems of the public debate over individual accounts is the difficulty of comparing the rates of return under traditional Social Security, which address a portion of the system's unfunded accrued liabilities, and the rates of return on individual account proposals, which leave the question of unfunded transition costs unresolved. If individual account plans were vetted through the screen of accrual accounting, the issue of accrued unfunded liabilities would be unavoidable.

2. Eliminating Budgetary Anomalies

A further effect of accrual accounting would be to eliminate a number of budgetary accounting anomalies that can cast individual account proposals (and certain other reforms) in an

unfavorable light. Under current accounting rules, funds transferred to individual accounts are treated as expenditures, as are investments of trust fund assets in any sort of financial asset other than government bonds. These conventions mean that the creation of individual accounts and proposals to invest trust funds assets in the stock market all give rise to the appearance of budgetary costs. Given current budgetary imperatives, these anomalies make it difficult for politicians to adopt such reforms, regardless of their substantive merit. If the Social Security trust funds were accounted for on the fully unconsolidated basis I outlined above, anomalies of this sort would disappear. Neither the creation of individual accounts nor the transfer of trust fund assets into the stock market would have a budgetary effect.

3. Comparing Traditional Benefits and Individual Accounts

A final benefit of accrual accounting would be the enhancement of the comparability of traditional Social Security retirement benefits and individual accounts. A problem in the current debate over individual accounts is the difficulty that both experts and the general public face when comparing the relative merits of these two benefit structures. Individual accounts are usually valued in terms of the current amount of assets in a particular individual's account. Traditional benefits, by contrast, are typically described as future payments, often made on a monthly basis, beginning at a point in the future (for example, the participant's 65th birthday) and continuing for the remainder of the combined lives of the participant and the participant's spouse with various adjustments for inflation as well as spousal and survivors' benefits. To a large degree, proponents of individual accounts are asking the public to accept the first kind of benefit as a substitute for the second. Comparing these two is extraordinarily difficult. But, if we began to evaluate Social Security benefits on an accrued basis, restating the benefits of individuals in a similar manner — that is, the net present value of expected benefits for each individual — would be a fairly simple step. The widespread disclosure of such individual restatements — perhaps as part of the annual statements sent to each participant — could greatly improve the public's understanding of traditional Social Security benefits and rationalize public debate over the relative merits of individual accounts.

E. Social Security Reform, the Federal Fisc, and National Savings

Adopting a system of accrual accounting for Social Security and implementing this system on a fully unconsolidated basis could also have important benefits for federal budgetary politics and, by implication, for national savings. To be sure, the gains to be had in this area are highly speculative, but there are good reasons to believe that the impact would be positive.

1. Budgetary Effects of Fully Unconsolidated Treatment

An initial impact of moving the Social Security trust funds to a fully unconsolidated basis would be to shift the attention of politicians and analysts to what is now referred to as the on-budget surplus or deficit. Unlike the current budgetary treatment, which encourages politicians to resort to total-budget aggregates (eliding on-budget and off-budget accounts), my proposed reforms would discourage combination of annual trust fund results because, as explained above, on an accrual-accounting basis the trust funds experience substantial annual losses. By keeping national attention on on-budget aggregates, my proposal would increase the likelihood that the on-budget accounts remain in or near balance.¹⁴² In effect, this would mean that cash-flow surpluses on Social Security trust funds would be used to decrease the amount of public debt held by the general public and thereby increase national savings.

2. Budgetary Effects of General Revenue Contributions

My proposals would also untangle the budgetary confusions that surround proposals to allocate additional general revenues to the Social Security system. As explained above, one of the great confusions of the lockbox debates of 1999 and 2000 was the question of how to characterize and account for general revenues committed to Social Security. Under my proposals, their

¹⁴² To be sure, there is considerable uncertainty whether changes in budgetary targets actually effects budgetary decisions, and simply focusing attention on on-budget aggregates does not mean that the political branches will keep these budgetary accounts in balance. However, the moving from total budgetary aggregates to on-budget aggregates should tend to reduce (if not eliminate) on federal deficits.

accounting would be quite simple. Any contribution to the trust funds would be treated as an on-budget expense in the year the contribution was made. Were on-budget accounts otherwise in balance for that year, the contribution would move the on-budget accounts into deficit. So, if Congress wished to make such a contribution without borrowing additional funds from the general public, new general revenues would need to be raised or other expenses reduced. This treatment would, in my view, impose appropriate discipline on the federal budget process, and discourage the federal government from honoring its commitments to Social Security simply through the issuance of new debt to the general public.¹⁴³

3. Tracking Gross Public Debt and Unfunded Trust Fund Liabilities

A final advantage of my proposal is that it would encourage the presentation of a more accurate picture of the overall size of federal obligations. To begin with, the approach would highlight the gross amount of public debt — that is, the combination of debt held by the general public and debt held by the trust funds. In my view, this figure would be a more accurate representation of the debt burden that taxpayers will have to shoulder in the future and therefore the one that politicians and analysts should monitor. Of course, accrual accounting would also highlight the implicit trust fund debt of the Social Security system, another form of public obligation passed on to future generations and one with significant implications for overall national savings. Bringing these combined measures of public obligation into the limelight would further enhance public debate of the issues.

F. Substantive Implications of Accrual Accounting

¹⁴³ From the perspective of the trust funds, these contributions would count as revenues in the year in which they were contributed. They could then be invested in government bonds or other financial assets. As explained above, because the trust funds would be on a fully unconsolidated basis, the choice of investments would not have budgetary implications for the unified federal budget.

Some readers will no doubt be curious about the substantive implications of restating Social Security finances on the basis of accrual accounting. My view is that the impact here is ambiguous. Consider, for example, the hot button issue of privatization. Defenders of traditional Social Security benefits recoil from estimates of the system's accrued liabilities out of fear that reports of unfunded obligations in excess of \$10 trillion would weaken political support for the system. On the other hand, supporters of individual accounts resist references to accrued liabilities because they would highlight the transition costs of moving to a fully privatized Social Security system. It is not clear to me which of these groups would fare better under an accrual-accounting system, but I am confident that the general public would be in a better position to evaluate the merits of the traditional system as compared with those of a system of privatized accounts if the comparison were made in terms of accrual accounting.

Another important substantive dimension of Social Security is the system's role in redistributing wealth from rich to poor and from young to old. How might accrual accounting influence this redistribution? Some fear that accrual accounting would more clearly expose Social Security's redistributive elements. After all, if we went to a complete system of accrual accounting and participant benefits were reported annually on an accrual basis, then the relationship between a participant's annual taxes and his or her accrued benefits would be entirely clear to each participant. Each participant would then see the net expected tax (or net expected subsidy) of his or her annual participation in Social Security. Conceivably, such information would diminish public support for Social Security and its redistributive role. However, I am not so sure. Recent studies suggest that many younger workers believe that they will never receive any Social Security benefits. Presumably, these participants think that they get no benefit from their annual Social Security contributions. A fully implemented system of accrual accounting would reveal to these individuals that their annual contributions are generating real expected benefits in terms of retirement security (as well as life insurance and disability benefits). Perhaps for these individuals, accrual accounting would increase support for the system.

Finally, objections to accrual accounting on the basis of substantive concerns are, in the end, deeply undemocratic. Such objections reduce to arguments that we should not present the finances of the Social Security system in the most realistic manner because the general public would react badly. The moral weakness of such claims aside, intentional obfuscation of government finances cannot be the right way to build sustained public support for our most important social insurance program.

IV. Postscript on Normative Baselines

The accrual-accounting proposal for Social Security outlined in this Article generates surprisingly impassioned responses in some circles. The source of this passion is not always clear. Sometimes, the criticism seems to be based on an intuition that cash-flow accounting is the only appropriate method for recording government programs. Other times, defenders of the status quo stress that Social Security is a social insurance program and assert that this characterization constitutes a complete explanation of current accounting practices.¹⁴⁴ In this postscript, I respond to these reactions, and explain why my recommendations are consistent with recent trends in government accounting, including recent reforms in federal accounting standards for social insurance programs.

I then present several additional normative perspectives that support my claim that accrual accounting is the most nearly accurate way to present the finances of the Social Security system.

¹⁴⁴ Others argue that the pay-as-you-go nature of the Social Security system justifies the system's current accounting treatment. I do not regard this claim as particularly strong. To begin with, the Social Security system is no longer operating on a purely pay-as-you-go basis. The combined trust funds are now pre-funded to the tune of \$1.2 trillion and the level of pre-funding will continue to grow for a number of years. More importantly, the central problem with Social Security finances is that, even with this substantial amount of pre-funding, the system is promising benefits that will not be sustainable from projected revenues in the future. In other words, without substantial reforms, the system's projected level of pay-as-you-go financing will be inadequate to meet projected benefits. A central component of my argument is that our current accounting system does a relatively poor job of flagging the system's mounting imbalances. Given demographic trends, the pay-as-you-go aspect of Social Security financing is more a cause of the system's problems than a justification of its current accounting practices.

A separate, but equally insubstantial, objection is that accrual accounting is appropriate only for fully funded public pension systems. Nothing about accrual accounting necessitates any particular level of pre-funding. See *supra* Box Five. Indeed, my assumption is that Social Security would likely remain substantially underfunded on an accrual-accounting basis. My only argument is that we should keep careful track of the level of under-funding. Accrual accounting is uniquely suited to provide the sort of monitoring that is necessary to do so.

First, I review how the problem of unfunded public pension plans is generally discussed in the international context. As explained below, when multinational organizations, such as the International Monetary Fund (IMF), and other analysts examine the financial posture of public pension programs in other countries, they generally speak in terms of accrued liabilities as well as the sort of long-term cash-flow projections that dominate the trustees reports. While various measures of accrued liabilities are employed, accrual accounting is the principal metric against which the solvency of public pension schemes is tested. Second, I offer a brief sketch of how public policy analysts value Social Security benefits in a variety of other academic settings. When trying to assess the economic impact of Social Security, economists regularly use a form of accrual accounting to estimate the value of benefits. If these experts believe that accrual accounting is the best way to estimate the value of participants' benefits in Social Security, then, in my view, it follows that accrual accounting is also the best way to estimate the liabilities associated with the obligations of the trust funds to pay those benefits.¹⁴⁵

A. Accrual Accounting and the Federal Government

Although cash-flow accounting is the norm in the federal budget, the notion that elements of accrual accounting might be grafted onto federal accounting standards is not new,¹⁴⁶ and examples of accrual accounting in current federal budgeting and accounting standards are increasingly common.

¹⁴⁵ In another paper, I described the accounting treatment of the closest analogy to Social Security in the private realm: defined-benefit pension plans. See Howell Jackson, A Comparison of Social Security Benefits and Private Pension Plans (Sept. 3, 2002) (draft on file with author). As explained in that paper, the structure of private pension benefits are more similar to that of traditional Social Security benefits than is often appreciated, and the accounting rules for private pension plans offer a good model for fleshing out the accrual-accounting proposal I have advocated here.

¹⁴⁶ For example, the 1967 presidential commission on budget concepts — the same group that initially recommended that Social Security be brought on-budget — also advocated introducing accrual accounting techniques to certain governmental operations. See Report of the President's Commission on Budget Concepts ch. 4 (Oct. 1967).

1. Accrual Accounting in General

One prominent illustration of accrual accounting in the federal budget is the Federal Credit Reform Act of 1990 (FCRA), which established accrual accounting for a wide range of federal programs, including loan and credit-guarantee programs.¹⁴⁷ With the passage of the FCRA, Congress recognized that, for some kinds of government programs, cash-flow accounting offers a misleading picture of true government costs. For example, with a loan program, cash outflows in the year the loans are made tend to overstate the cost to the federal government because many loans will be repaid in future years. Conversely, guarantee programs may have no cash outflows in the year a guarantee is made (or even positive cash flows, if a guarantee fee is charged), even though the issuance of a guarantee can represent a significant liability for the government because payments may have to be made in the future when the guarantee comes due. The FCRA requires the government to recognize the expected cost of government credit programs in the year in which the obligations are incurred. Thus, the FCRA mandates accrual, as opposed to cash-flow, accounting for an important segment of the federal budget.

Federal insurance programs, such as deposit insurance or flood insurance, are expressly exempted from the coverage of the FCRA. Nevertheless, the accounting challenges of public insurance programs are quite similar to those of credit programs. When underwriting insurance, the government receives payments in the current period in exchange for a commitment to shoulder costs in the future. Accrual accounting is a natural way in which to account for these obligations as they arise. As a result, over the past twelve years, a number of government studies have called for the extension of accrual-accounting concepts to this area. For example, in a 1997 report, the GAO explored the extension of accrual-accounting treatments to federal insurance programs (such as federal deposit insurance and other insurance programs run by the federal government, but not

¹⁴⁷ For an overview of the FCRA, see General Accounting Office, *Credit Reform: Great Effort Needed to Overcome Persistent Cost Estimation Problems* (Mar. 1998) (GAO/AIMD-98-4). See also Michael R. Pompeo, *Accrual Accounting for Federal Credit Programs: An Evaluation of the Federal Credit Reform Act of 1990*, Tax Notes, Jan. 9, 1995, at 257.

Social Security) and generally endorsed such an expansion, with the caveats that, in many areas, the development of accrual-accounting systems would be complex and that, as an initial matter, supplemental reporting of risk estimates should be undertaken.¹⁴⁸ Representatives of the GAO recently reiterated their support for this expansion of accrual accounting,¹⁴⁹ and a proposal to account for the retirement benefits of federal employees on an accrual accounting basis is currently being debated in Washington.¹⁵⁰

Clearly, therefore, accrual accounting is not inherently inappropriate for government programs.¹⁵¹

¹⁴⁸ Budget Issues: Budgeting for Federal Insurance Programs (Sept. 1997) (GAO/AIMD-97-16),.

¹⁴⁹ See Budget Process: Extending Budget Controls (Apr. 25, 2002) (GAO-02-682T) (testimony of Susan J. Irving).

¹⁵⁰ See Congressional Budget Office, The President's Proposal to Accrue Retirement Costs for Federal Employees (June 2002).

¹⁵¹ The federal government's adoption of accrual-accounting methods is part of a broader trend toward accrual accounting in governments around the world. See International Federation of Accountants, Guidelines for Government Financial Reporting: Exposure Draft (July 1998) (IFAC Public Sector Committee). As discussed in the IFAC report, accrual accounting is an increasingly prominent alternative form of presentation for public accounting systems with numerous advantages over traditional cash-flow accounting. Over the past decade or two, accounting reforms in New Zealand, the United Kingdom, and Australia have incorporated elements of accrual accounting into their governmental financial statements, some of which extend to public pension systems. See General Accounting Office, Accrual Budgeting: Experience of Other Nations and Implications for the United States 10 (Feb. 2000) (GAO/AIMD-00-57) [hereinafter GAO Accrual Budgeting Report] ("For some activities, such as credit and pension programs, cash-based measurement is incomplete and potentially misleading.").

2. Accrual Accounting for Social Insurance

As a social insurance program, Social Security has typically been excluded from past proposals for accrual accounting within the federal government. However, an analogous initiative among government accountants has addressed the accounting statements for social insurance. This initiative came from the Federal Accounting Standards Advisory Board (FASAB) — the board responsible for developing generally accepted accounting practices for federal entities.¹⁵² In the mid-1990s, FASAB began an extensive review of the appropriate accounting treatment of social insurance, paying particular attention to Social Security, the federal government's largest social insurance program. The process included a series of exposure drafts and public comments, culminating in the August 1999 Statement on Social Insurance,¹⁵³ which established important new standards of disclosure for social insurance programs, including Social Security.

Although little known outside of government accounting circles, the FASAB Statement on Social Insurance represents an extensive and sophisticated consideration of the special problems of accounting for social insurance. While some participants in the FASAB process opposed any use of accrual accounting in financial statements for social insurance programs, others argued for reforms that are quite similar in spirit to, albeit less extensive than, my own proposal. In particular, one camp advocated that the Social Security Administration's balance sheets be expanded to include a liability reflecting either the present value of all participants eligible to obtain retirement benefits (that is, those 62 years of age or older) or the net present value of future benefits and payments of all current participants. This second measure is quite similar to the closed-group liability measure discussed above and the implicit trust fund debt measure that my modified accrual accounting statements would highlight. The arguments advanced in favor of recognizing some form of accrued

¹⁵² The Board consists of nine members selected by the Secretary of the Treasury, the Director of the Office of Management and Budget, and the Comptroller General. See FASAB Facts: 2002 (available at <http://www.fasab.gov/pdf/fasabfacts.pdf>).

¹⁵³ See Statement of Federal Financial Accounting Standards No. 17 — Social Insurance (Aug. 1999) (available at http://www.fasab.gov/pdf/17_ss.pdf).

liability on the balance sheets of Social Security were quite similar to the ones I have made in this Article,¹⁵⁴ and they stressed the fact that existing financial statements are “inherently misleading” because they “fail to quantify the size of the promise that is continuously being made and on which people are being told they can rely.”¹⁵⁵ Both to be consistent with generally accepted accounting standards for the private sector and to give the public a more nearly accurate picture of the financial posture of the Social Security program, proponents argued, Social Security financial statements should include some actuarial estimate of the future value of benefits.

After extensive debate, FASAB crafted a compromise between those who favored imposing a form of accrual accounting on social insurance programs and those who advocated no change from current practice. The final FASAB Statement on Social Insurance mandates that financial statements of government insurance programs include an elaborate system of supplementary information, known as Required Supplementary Stewardship Information (RSSI), which includes specific disclosures about the actuarial value of future benefits as well as a substantial amount of

¹⁵⁴ The Board summarized the arguments as follows:

[Proponents] argue that social insurance programs possess certain characteristics that, taken together, cause the criteria for recognizing a liability to be met long before payments are due and payable. Those characteristics are:

1. The contributory nature of the program (i.e., benefits are predicated to some extent on prior payments),
2. Time in covered employment,
3. Government sponsorship, and
4. Specific accounting entity (e.g., the trust fund) and long-range financing.

. . . These characteristics, in conjunction with the historical experience and political climate affecting these programs, create obligations and societal expectations that make the outflow of resources highly probable — far more than 50 percent. Therefore, an accounting liability should be recognized at an earlier point than when payments are due and payable; and the liability should be based on long-term or actuarial estimates of future payments.

FASAB, Accounting for Social Insurance: Proposed Statement of Recommended Accounting Standards ¶¶ 73-74 (Feb. 20, 1998) (exposure draft).

¹⁵⁵ Id. ¶ 79.

additional material about program sustainability. With respect to Social Security, FASAB rules require disclosure of the actuarial present value of all future benefits payable to participants eligible to receive retirement benefits (those 62 years of age or older). The Social Security RSSI also must include separate disclosures of the actuarial present value of future benefits to be paid and taxes to be received from those currently in the system (those 15 to 61 years old) and those not yet in the system but projected to join the system over the next seventy-five years. Taken together, these numbers sum to what was described above as the open-group liability of the system, and with the component line-item entries, users can calculate a number quite similar to the closed-group liability measure.¹⁵⁶ (In the summer of 2003, FASAB revised its rules governing social insurance to place the information in a new Statement on Social Insurance, which will have greater prominence than the previous RSSI format.¹⁵⁷)

As the FASAB establishes generally accepted accounting standards for government entities, its statement on social insurance is binding on the Social Security Administration. And, indeed, if one consults the annual financial statements of the Social Security Administration — as opposed to the trustees annual reports — one can find the supplementary statements of net present values of future benefits and taxes clearly disclosed along the lines FASAB requires¹⁵⁸ For example, the most recent report estimates the present value of benefits payable to participants 62 years old or older to have been \$4.4 trillion as of January 2, 2002.¹⁵⁹ (Curiously, budgetary presentations of the OBM,

¹⁵⁶ The closed-group liability number for purposes of SAFFAS No. 17 is based on a 75-year projection, as opposed to the 100-year projection that the Office of the Chief Actuary typically uses.

¹⁵⁷ See *supra* note 123.

¹⁵⁸ See SSA's Performance and Accountability Report: FY 2002, *supra* note 117. Starting with the 2003 report, the trustees have begun to report alternative long-term measures of insolvency, see *supra* note 117, but not the line-by-line components that FASAB requires.

¹⁵⁹ See *id.* at 77.

though purporting to comply with FASAB standards, do not include RSSI information for Social Security or net present values of benefits and taxes.¹⁶⁰)

While the FASAB Statement on Social Insurance clearly does not go as far as the reforms I propose, its provisions indicate that applying accrual accounting concepts to Social Security is not an entirely heretical idea. In the debate leading up to the adoption of the statement, industry experts made arguments similar to the ones I am advancing in this Article.¹⁶¹ And, the FASAB has recently embarked on a new rule-making process that would move the location of supplementary information about actuarial net present values of future benefits to an earlier section of financial statements, further emphasizing their importance.¹⁶² Reading between the lines, one senses that the Board's unwillingness to advance reforms even closer to my own is dictated more by political resistance in Washington than by a conviction that a more nearly complete system of accrual accounting for Social Security would not be appropriate.

More important for purposes of my argument is that the FASAB statement is based on a normative vision of the purpose of governmental accounting practices that is quite similar to my

¹⁶⁰ See, e.g., Office of Management and Budget, *Analytical Perspectives: Fiscal Year 2003*, at 32-33 (2002).

¹⁶¹ A key difference between my proposals and the most analogous proposals advocated in the development of the FASAB statement is my recommendation that a distinction be made between benefits accrued to date and benefits that will accrue in the future. While the FASAB approach employs an accrued-liability concept for participants who are already eligible for retirement, it uses a net present value computation for future benefits and payments for other participants — in effect, lumping accrued benefits with those to be accrued in the future and then deducting future taxes from those amounts. As explained above, see *supra* pages 95-97, I think that there are a number of advantages for distinguishing accrued benefits from those that will accrue in the future. Among other things, this distinction reflects the great moral obligation of the government to honor accrued benefits. In addition, it removes some of the uncertainty that complicates projections based on future benefit accruals and tax receipts, factors that must be worked into the FASAB measures of net present values.

¹⁶² See FASAB, *Reclassification of Stewardship Responsibilities and Eliminating the Current Services Assessment* (Feb. 19, 2002) (exposure draft).

own. Drawing on its prior concept release on the Objectives of Federal Financial Reporting, the Board emphasized the relevance of Objective No. 3 for the financial statements of governmental entities underwriting social insurance:

Federal financial reporting should assist report users in assessing the impact on the country of the government's operations and investments for the period and how, as a result, the government's and the nation's financial condition has changed and may change in the future.¹⁶³

The Board elaborates:

... [F]ederal financial reporting should provide information that helps the reader to determine

- o whether the government's financial position improved or deteriorated over the period;
- o whether future budgetary resources will likely be sufficient to sustain public services and to meet obligations as they come due; and
- o whether the government's operations contributed to the nation's current and future well-being.¹⁶⁴

My argument in this article is that the current accounting presentation of Social Security does a very poor job on these dimensions and that my proposed alternative approach would represent a substantial improvement. In particular, the current financial statements of the trust funds are ineffective in explaining whether the system's financial position improved or deteriorated during a particular year.¹⁶⁵ Moreover, the absence of any measure of the system's accrued liabilities makes it quite difficult to tell whether our budgetary resources will be able to sustain the current level of promised benefits.¹⁶⁶

¹⁶³ See FASAB, Statement on Social Insurance ¶ 7 (Aug. 1999).

¹⁶⁴ Id.

¹⁶⁵ See supra pages 8-26 (describing how difficult it is to determine from the 2003 Trustees Report whether 2002 was a good or bad year for the system).

¹⁶⁶ See supra pages 26-28 (discussing inadequacies of trustees' measures of long-term solvency).

In conclusion, Social Security's status as a social insurance program is not a strong argument against reflecting the system's mounting liabilities in its financial statements. Indeed, under generally accepted accounting standards for federal entities, these liabilities must currently be reported in supplementary notes, and a number of commentators have argued (correctly, I think) that these liabilities should also be reflected on the balance sheets of social insurance programs. In other words, the experts on government accounting have adopted an accounting standard that is substantially different from the one that the trustees follow in their annual reports and that dominates public debate over Social Security financing. Clearly, there is strong intellectual support within the accounting community for the kinds of reforms I am proposing in this Article.

B. The Estimate of Public Pension Plan Obligations in Other Contexts

Another way to approach the question of how the obligations of the Social Security system should best be estimated is to consider how the issue is addressed in other contexts. As explained below, public policy analysts — principally economists — often need to calculate the size of public-pension-plan obligations. In this section, I review two prominent illustrations. The first is the public-finance literature dealing with the size of public-pension-plan obligations in various countries, often, but not exclusively, developing countries. The second context is a separate set of economic writings in which economists attempt to value Social Security benefits of workers, typically either to assess the impact of Social Security on other forms of savings or to present a full picture of household wealth. In both contexts, the standard approach is to estimate the present value of benefits to be paid in the future. Sometimes the calculation presents a net-present-value figure that includes both accrued and to-be-accrued benefits minus taxes to be paid. Increasingly, however, analysts are employing a benefits-accrued-to-date formulation similar to unfunded accrued liabilities measures that GAAP-style accrual accounting would highlight.

While these analogies are not directly related to financial accounting or government budgetary issues, the methodologies employed in these other areas are relevant to my arguments. In all of the following examples, analysts are trying to estimate the economic reality of public

pension obligations — whether in terms of the obligation they impose on the public fisc or in terms of the amount of value they add to individual wealth. In these contexts, analysts invariably resort to net-present-value calculations, often limited to benefits accrued to date. Within the literature, these measures have emerged as the most appropriate way to value Social Security obligations. That our traditional system of accounting for Social Security financing entirely neglects comparable measures is noteworthy and, in my view, deeply troubling.

1. Measures of National Public-Pension-Plan Obligations

Over the past decade, as the crisis of Social Security financing has emerged as a major issue of public policy in the United States, a similar debate has emerged in a number of other countries, where the problem of unfunded public pension plans (and often the private-pension-plan system) is even more severe than in the United States. Many countries with the most seriously underfunded pension plans are in the developing world; however, other industrialized nations are not devoid of serious deficits. Since the mid-1990s, a number of economists have written about the problem of underfunded public pension plans and have offered a variety of ways to address distressed systems, ranging from privatization to more incremental solutions. For my purposes, what is important about this literature is not the specific reforms advocated but, rather, the manner in which analysts quantify the magnitude of underfunded pension obligations in various countries and then present cross-country comparisons of pension underfunding.

For many years, the leading article on this subject was one written by two economists with the International Monetary Fund – Sheetal K. Chand and Albert Jaeger. Their 1996 working paper proposed techniques for estimating the public-pension-plan liabilities and then applied the techniques to the public systems of eight industrialized nations, including the United States.¹⁶⁷ The approach begins with a measure of accrued pension obligations for all pensioners and current

¹⁶⁷ Sheetal K. Chand & Albert Jaeger, *Aging Populations and Public Pension Schemes* (Dec. 1996) (IMF Occasional Paper No. 147).

workers.¹⁶⁸ These accrued liabilities, in Chang and Jaeger’s terminology, constitute “recognition bonds” — the amount it would cost a government to terminate its public pension program (analogous to the Social Security system’s maximum termination cost discussed above).¹⁶⁹ The Chand and Jaeger framework continues by adding benefits that will accrue in the future (to generate a “gross pension liability” figure) and then netting off projected contributions (to generate a “net pension liability” figure analogous to the open-group liability number discussed above). The balance of the Chand and Jaeger analysis relies principally on the net-pension-liability figure to evaluate various reform proposals.

As a seminal work on public pension financing, the Chand and Jaeger paper is an important precedent for evaluating the appropriateness of the traditional approach to Social Security financial statements. While elements of the Chand and Jaeger framework overlap with aspects of long-range financing estimations included in the annual trustees reports, their organizing principles are strikingly different. Chand and Jaeger’s approach is squarely grounded in present value calculations of future benefits, and it begins with a measure of the net present value of benefits accrued to date of the sort that I am proposing. Subsequent studies of public pension systems routinely adopt a similar perspective.¹⁷⁰ The trustees reports have traditionally been wholly devoid of net present

¹⁶⁸ *Id.* at 36 (Appendix I).

¹⁶⁹ *Id.*

¹⁷⁰ A good example of this literature is Robert Holzman, *Financing the Transition to Multi-Pillar* (1998) (World Bank Social Protection Discussion Paper No. 9809) (estimating the implicit pension debt of OECD member countries). Other examples abound. See, e.g., Sergio Clavijo, *Fiscal Effects of the 1993 Columbian Pension Reform* (1998) (IMF Working Paper WP/98/158); Edward Whitehouse, *Pension Reform in Britain* (1998) (World Bank Social Protection Discussion Paper 9810); World Bank, *Brazil: Social Insurance and Private Pensions* (1995) (World Bank Report No. 12336-BR); World Bank, *China Pension System Reform* (1996) (World Bank Report No. 15121-CHA). See also International Monetary Fund’s *Draft Manual on Fiscal Transparency* 47 (Oct. 19, 1998) (endorsing measurement of “unfunded public pension liabilities alongside public debt in assessing sustainability” of current fiscal policies).

To be fair, other studies of the pension liabilities in the international context employ cash-

value calculations, and even the 2003 report includes these measures in only a limited manner, located some sixty pages into the document and entirely absent from introductory materials. Not surprisingly, general press coverage of the 2003 trustees report made not mention of these measures of insolvency.¹⁷¹

Another important aspect of the public-finance literature on unfunded pension obligations is the practice of comparing the size of these liabilities to the GDP of particular countries and then making explicit comparisons of this ratio with the ratio of traditional public debt to GDP. For example, in the Chand and Jaeger paper, the level of accrued liabilities of the U.S. Social Security system is reported as 108.3 percent of GDP in 1990 (31.7 percent representing obligations to retirees and 76.6 percent representing accrued obligations to workers).¹⁷² Elsewhere, the paper aggregates the U.S. government's net public pension plan obligations in 1990 (25.7 percent of GDP) with its other public debt (63.3 percent of GDP) to come up with a "combined" net debt liability (89.0 percent of GDP). Other writers in the literature use a similar approach.¹⁷³ As explained above, one

flow analyses similar to the ones included in the trustees reports. See Dave Turner, et al., *The Macroeconomic Implications of Ageing in a Global Context* (1998) (OECD Ageing Working Papers No 1.2 Eng). See also Louise Fox & Edward Palmer, *Latvian Pension Reform* (1999) (World Bank Social Protection Discussion Paper No. 9922); Manfred Koch & Christian Thimann, *From Generosity to Sustainability: The Austrian Pension System and Options for its Reform* (1997) (IMF Working Paper 97/10). Even Chand and Jaeger have written papers that employ cash-flow analyses. See Sheetal I. Chand & Albert Jaeger, *Reform Options for Pay-As-You-Go Public Pension Systems* (2000) (Social Protection Discussion Paper 9927).

¹⁷¹ See supra pages 28-30 (discussing WSJ coverage).

¹⁷² Chand & Jaeger, supra note 169, at 27 (table 16).

¹⁷³ A good illustration is a recent paper by a group of World Bank economists on pension reform in China, where a major element of their analysis is a discussion of the implicit pension debt of a wide range of countries measured as a percentage of their GDP. See Yan Wang et al., *Implicit Pension Debt, Transition Cost, Options and Impact of China's Pension Reform – a Computable General Equilibrium Analysis 9-13* (2000) (World Bank Policy Research Paper No. 2555) (estimating US implicit pension debt at 113 percent of GDP). See also Robert Holzman, et al., *Pension Systems in East Asian and the Pacific: Challenges and Opportunities 30-32* (2000) (World Bank Social Protection Discussion Series No. 0014) (estimating implicit pension debt as a

of the principal advantages of recognizing the actual present value of unfunded public pension obligations is that doing so facilitates comparisons of this sort and, presumably, better informed discussions of public policy. With our traditional approach to Social Security accounting, such comparisons are extremely difficult. The failure of our system to report net public pension liabilities as a percentage of GDP is, at a minimum, curious, since when analysts want to compare the financial status of the public pension countries to that of the United States, this is the measure typically employed.

Within the community of public economists, the principal issue of disagreement is not whether a country's unfunded pension liability should be measured on a present-value basis but rather which kind of present value measure should be used. As explained above, the initial Chand and Jaeger paper utilized a net-pension-liability measure, decomposed into accrued and to-be-accrued components. This is reminiscent of the RSSI data that FASAB requires, but it more sharply distinguishes accrued obligations to current workers and is substantially more informative than the single open-group liability figure that U.S. officials tend to report when required to estimate Social Security's unfunded obligations.¹⁷⁴ Within the community of policy analysts, however, there are those who think that the Chand and Jaeger net-pension-liability measure should be dropped as the principal summary statistic for measuring a country's unfunded public pension obligations and replaced with a figure that estimates the country's unfunded accrued obligations to date — that is, the measure of unfunded accrued liabilities highlighted in GAAP-style accrual accounting.

percentage of GDP in Korea, the Philippines, and Thailand); Richard Disney, *OECD Public Pension Programs in Crisis: An Evaluation of Reform Options* (1999) (World Bank Social Protection Discussion Paper No. 9921).

¹⁷⁴ See *supra* pages 68-72 (describing open-group liability).

A forceful advocate of this view is the U.K.'s Richard Disney, who writes about the measures of pension liabilities in the context of the European Union, where the debt burden of member states is an important issue.¹⁷⁵ He summarizes his argument as follows:

European governments should move from an *ad hoc* combination of cash flow accounting and projected liabilities in measuring the sustainability of pension schemes to a proper accrual basis, as is now taking place in other components of the government budget . . . On an accrual basis, the budgetary report should provide a calculation of the change in accrued pension liabilities as a result of the government's receipt of pension contributions, net of pension payments, during the budget period. This should be supplemented by, but not confused with, additional analyses including actuarial confirmation that, at current contribution rates, *current* pension expenditure is indeed covered by current contribution receipts, and by actuarial projections of future liabilities with, perhaps, some calculation of the contribution rates required to finance these prospective liabilities.

By cumulating accrued liabilities up to the end of the current accounting period, the government would also arrive at the measure of the implicit or current accrued liabilities of the pension scheme. This measure is not the same as the prospective liability arising from the continuation of the pension scheme into the future. An attraction of providing a measure of implicit "debt" along these lines is that it provides an exact measure of the current termination liability of the existing unfunded scheme. One reason why governments are so reluctant to consider greater pre-funding of pensions, especially if it involves a greater degree of private provision, is that funded reforms of this type make implicit debt explicit. . . .¹⁷⁶

The views expressed in this excerpt closely track my own, particularly in their recognition that the failure to expressly acknowledge the magnitude of accrued pension obligations biases consideration of certain reform proposals, such as pre-funded individual accounts.¹⁷⁷

¹⁷⁵ See Richard Disney, How Should We Measure Pension Liabilities in EU Countries?, in *Pensions: More Information, Less Ideology* 95-111 (2001) (Tito Boeri, et al. eds.).

¹⁷⁶ *Id.* at 102.

¹⁷⁷ In more recent work, many other economists are using measures of accrued liabilities as the appropriate estimate of implicit pension debt. See, e.g., Yan Wang, et al., *supra* note 172, at 9 ("*Implicit pension debt (IPD)* refers to the benefit promises a pension scheme makes to workers and pensioners and is measured by adding the present value of pension rights that current workers have already earned and would have to be paid if the system were terminated today.")

In short, the financial statements of the Social Security trust funds deviate from emerging international standards for the evaluation of the solvency of public pension plans. In addition, an important camp in these debates, epitomized by Disney, advocates solvency measures strikingly similar to the ones I propose.

2. Economic Estimates of the Value of Social Security Benefits

Yet another way to estimate the extent of Social Security obligations is to consider the value of benefits due to participants. After all, every liability of the Social Security system reflects an asset of a participant or beneficiary. If the system truly had no outstanding liabilities — the fiction upon which the financial statements of the system now rest — then the interests of participants and beneficiaries must have no true value. But this is clearly not the case. As a matter of political reality, we know that Americans have a strong sense of entitlement to their Social Security benefits. More important, when economists model consumer behavior, they routinely classify Social Security benefits as assets and estimate their value based on the present value of expected benefits. If the economists are right that Social Security benefits are best characterized as financial assets of individual participants, then the obligations of the Social Security system to honor those benefits are best characterized as liabilities of the system.

Examples of economic valuations of Social Security benefits for individuals abound, so I will simply summarize some prominent examples. In all cases, the goal of the analyst was to estimate the true economic effect of retirement benefits. In all cases, some sort of discounted-value technique was employed, typically using projections based on actual or assumed contributions to the Social Security system. (Not included below are other economic studies that also use discounted cash-flow

(emphasis in original). For a recent overview, endorsing an accrued liability definition of implicit pension debt for purposes of international comparison, see Robert Holzmann, Robert Palacios, & Asta Zviniene, *Implicit Pension Debt: Issues, Measurement and Scope in International Perspective* (Aug. 2001).

analyses to estimate the unfunded liability of the Social Security system or to calculate the implicit rate of return on Social Security contributions.¹⁷⁸⁾

a. Life Cycle Savings Literature

A familiar illustration of this approach to valuing Social Security benefits is a series of papers in which economists attempt to estimate the effect of Social Security benefits on individual savings. As mentioned earlier, many economists believe that public pension programs such as Social Security reduce other forms of savings¹⁷⁹ and a number of economists have done empirical work exploring the relationship between Social Security benefits and savings. In a recent survey of literature on the subject, the CBO described the basic research methodology for the largest group of these studies:

Most studies begin by estimating the total value of Social Security benefits that a person is expected to claim less the taxes to be paid, adjust for the length of time before the benefits will be received (or taxes paid) and the probability that the recipient will survive – the “present value” of benefits minus taxes. That sum is referred to as Social Security wealth. Then, using regression analysis, a researcher tests whether the private wealth held by people is related to their Social Security wealth, controlling for other factors such as age and income.¹⁸⁰

¹⁷⁸ Examples of economists’ estimates of the system’s unfunded liabilities are cited above in note 94. A well-known example of economists using discounted cash flow analyses to estimate rates of return on Social Security contributions is John Geanakoplos, Olivia S. Mitchell, & Stephen P. Zeldes, *Social Security Money’s Worth*, in *Prospects for Social Security Reform* (Olivia S. Mitchell et al., eds. 1999). See also 1 Report of the 1994-1996 Advisory Council on Social Security (1997) (making extensive use of moneys-worth analysis for various reform options); Steuerle & Bakija, *supra* note 33, at 106-15 (estimating net transfers from Social Security for various income groups and generational cohorts). Lawrence Kotlikoff’s work on generational accounting is similarly spirited in its comparison of the net present value of Social Security contributions and benefits by generational cohort. See, e.g., Laurence J. Kotlikoff, *Generational Accounting: Knowing Who Pays, and When, for What We Spend* ch.5 (1992).

¹⁷⁹ See *supra* pages 76-78.

¹⁸⁰ See CBO Memorandum, *Social Security and Private Saving: A Review of Empirical Evidence* 10 (July 1998) (reviewing 30 empirical studies of the effects of Social Security on

This approach is telling. When trying to estimate the significance of Social Security for individual behavior, economists routinely invoke discounted cash flow analyses to estimate Social Security wealth of individual recipients. Their regression models are exploring the relationship between this asset – Social Security wealth – and other forms of private savings.

If one were to analogize this methodology to my earlier discussion of Social Security's unfunded obligations, the approach used in these studies is conceptually similar to the closed-group-liability measure, which is also the measure of implicit trust debt reflected in my modified accrual accounting approach. The study is limited to current participants in the system, and combines the present value of accrued and to-be-accrued benefits and then deducts the present value of to-be-contributed pay-roll taxes. If one were to aggregate this measure of Social Security wealth over all current participants and beneficiaries – that is current worker, retirees, and their beneficiaries – one should in theory generate a level of assets equal to the trust funds' closed-group liability or implicit trust fund debt (\$10.5 trillion as of December 31, 2002).¹⁸¹ If, as this literature implies, Social Security wealth is an appropriate way to estimate the value of Social Security benefits to current participants and beneficiaries, then why is a comparable methodology not appropriate for the liabilities of the Social Security trust funds?

b. Household Wealth Literature

A separate body of economic literature explores the composition of individual wealth in the United States. A prominent example of this literature is the 1992 Health and Retirement Study of a nationally representative sample of households, which includes considerable information on Social Security benefits.¹⁸² The study presents several different valuations of the Social Security

savings).

¹⁸¹ See *supra* pages 76-78.

¹⁸² See Olivia S. Mitchell, Jan Olson, & Thomas L. Steinmeier, *Social Security Earnings and Projected Benefits*, in *Forecasting Retirement Needs and Retirement Wealth* (2000) (Olivia S. Mitchell et al., eds, 2000) (describing study's methodology for valuing Social Security benefits).

wealth of study participants. All of the study's valuations represent the present value of expected Social Security benefits discounted by an appropriate interest rate and adjusted for the life expectancies of beneficiaries. The study's first valuation technique limits itself to the present value of benefits that individuals have accrued as of the date of the study.¹⁸³ Two subsequent estimates represent the value of the participants' total projected benefits – either to the age of 62 or the individuals normal retirement age.

When economists want to explore the wealth of individual households – for example, to consider variation in wealth across income levels – they routinely rely on data sources such as the 1992 Health and Retirement Study, and they routinely include measures of Social Security wealth as important components of overall household wealth. Typically, researchers take one of two approaches to estimate the value of Social Security wealth.

First, some economists use a measure of Social Security wealth that is similar to the one used in the life-cycle savings literature – that is, a measure based on the present value of accrued and to-be-accrued benefits minus the present value of to-be-paid payroll taxes. As explained above, this approach is analytically similar to the closed-group liability figure and the implicit trust fund debt measures of my modified accrual accounting.¹⁸⁴ It includes within the definition of Social Security wealth the present value of accrued benefits plus the net present value of benefits expected to accrue in the future and payroll taxes to be paid in the future.¹⁸⁵

¹⁸³ Id. at 345-50.

¹⁸⁴ See, e.g., Arthur B. Kennickell and Annika E. Sunden, Pensions, Social Security, and the Distribution of Wealth 7-9 (Nov. 6, 1997) (FEDS Discussion Paper No. 97-55) (analysis based on Survey of Consumer Finances, a study sponsored by the Federal Reserve Board and Internal Revenue Service triennially).

¹⁸⁵ In the Kennickell and Sunden paper, only employee contributions are deducted (as opposed to combined employer and employee contributions. See id. at 9 n.11.

A second approach, is to estimate Social Security wealth based solely on accrued benefits to date.¹⁸⁶ These estimates of the value of Social Security benefits are analogous to GAAP-style accrual accounting, and are sometimes used to estimate both asset values for accrued Social Security benefits and also annual Social Security accruals as a component of overall household income.¹⁸⁷

These surveys on household wealth are noteworthy in two respects. First, they demonstrate that economists clearly regard Social Security benefits as financial assets that are appropriately combined with other assets, such as private pensions, bank accounts, and home ownership. Second, the technique these economists use to value Social Security benefits is highly comparable to the valuation techniques I recommend for valuing Social Security trust funds liabilities. A review of these and many other economic studies¹⁸⁸ reveal that it is common practice for economists to attribute real economic value to Social Security benefits and to use net present value techniques to estimate those values. Again, the question for defenders of current Social Security accounting

¹⁸⁶ See, e.g. Alan L. Gustman et al., Pension and Social Security Wealth in the Health and Retirement Study, in *Wealth, Work and Health: Innovations in Survey Measurement in Social Sciences* 150 (Robert Willis, ed., 1999) (using Health and Retirement Study data to estimate Social Security wealth).

¹⁸⁷ See *id.* at 162 (table 2).

¹⁸⁸ There are numerous other cases where economists quantify Social Security benefits in a similar manner. For example, studies that explore the effect of Social Security on retirement decisions often quantify the effect of Social Security by estimating the amount by which the accrued value of Social Security benefits increase over the course of a year. See, e.g., Courtney Coile & Jonathan Gruber, *Social Security and Retirement* 14 (2000) (Center for Retirement Research Working Paper 2000-11) (“We initially follow the literature and focus on accrual, the change in [Social Security Wealth] resulting from an additional year of work.”).

Other economic writing looks at the relationship between the accrual of Social Security benefits and the accumulation of pension wealth. See, e.g., Christopher M. Bone, *Actuarial Perspectives on Implications of Social Security Reform for Employer Sponsored Pension Plans* (1997) (Pension Research Council Working Paper 97-01). See also Peter R. Orszag, *Should A Lump-Sum Payment Replace Social Security’s Delayed Retirement Credit?* BC Center for Retirement Research Issue Brief No. 6 (Apr. 2001) (estimating the value of delayed retirement by taking the discounted present value of additional benefits accrued).

practices is to explain why similar techniques are not used to estimate the liabilities of the Social Security trust funds.