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United States General Accounting Office  
Washington, DC 20548

Accounting and Information  
Management Division

B-285914

July 26, 2000

The Honorable John M. Spratt, Jr.  
Ranking Minority Member  
Committee on the Budget  
House of Representatives

Subject: Budget Issues: July 2000 Update of GAO's Long-Term Fiscal Simulations

Dear Mr. Spratt:

At your request, we updated our long-term economic model using the latest economic and budget assumptions from the Congressional Budget Office (CBO).<sup>1</sup> Since 1992, GAO has provided the Congress with a long-term perspective on alternative fiscal policy paths.<sup>2</sup> This perspective is important for broad fiscal policy as well as for budget decisions on individual programs. At the macro level, the budget needs to provide a long-term framework grounded on a linkage of fiscal policy with the long-term economic outlook. This requires a focus on both overall fiscal policy and the composition of federal activity.

Long-term simulations are useful for comparing the potential outcomes of alternative fiscal policies within a common economic framework. Such simulations can help Congress assess the long-term implications of fiscal policy decisions that are made today. This is especially true where a longer time horizon is necessary to understand the fiscal and spending implications of the government's commitment. For example, the profound demographic changes forecast for our population, beginning just beyond the 10-year budget window, will have enormous consequences for Social Security and Medicare as well as the budget and the economy as a whole.

While long-term simulations provide a useful perspective that is often lacking in budget debates, they should be interpreted carefully. Given the range of uncertainty about future economic changes and the responses to those changes, these simulations should not be viewed as forecasts of budgetary or economic outcomes 50 or 75 years in the future. Rather,

<sup>1</sup>Congressional Budget Office, *The Economic and Budget Outlook: An Update*, July 2000.

<sup>2</sup>*Budget Issues: Long-Term Fiscal Outlook* (GAO/T-AIMD/OCE-98-83, February 25, 1998); *Budget Issues: Analysis of Long-Term Fiscal Outlook* (GAO/AIMD/OCE-98-19, October 22, 1997); *Budget Issues: Deficit Reduction and the Long Term* (GAO/T-AIMD-96-66, March 13, 1996); *The Deficit and The Economy: An Update of Long-Term Simulations* (GAO/AIMD/OCE-95-119, April 26, 1995); and *Budget Policy: Prompt Action Necessary to Avert Long-Term Damage to the Economy* (GAO/OCG-92-2, June 5, 1992).

GAO/AIMD-00-272R July 2000 Long-Term Fiscal Simulations

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they should be seen only as illustrations of the different budget and economic outcomes associated with alternative policy paths based on common demographic and economic assumptions.

### **Updated Simulations**

Our simulations are based on the budget and economic assumptions contained in CBO's updated July 2000 10-year projections. As agreed with your office, we simulated the following three alternative fiscal policy scenarios.

- *Save the Social Security Surpluses* assumes that the Social Security surpluses are retained and used to reduce debt held by the public. Unspecified policy actions (i.e., spending increases and/or tax cuts) are taken that eliminate the non-Social Security (i.e. on-budget) surpluses through 2009 but retain the Social Security surpluses. These unspecified actions are left in place through the end of the simulation period.
- *Save the Social Security and Medicare Part A Surpluses* assumes that both the Social Security surpluses and the Medicare Part A surpluses are retained and used to reduce debt held by the public. Unspecified policy actions (i.e., spending increases and/or tax cuts) are taken through 2009 that result in unified surpluses equal to the Social Security surpluses plus the Medicare Part A (Hospital Insurance) trust fund surpluses. These unspecified actions are left in place through the end of the simulation period.
- *Save the Unified Surpluses* assumes that unified surpluses are used to reduce debt held by the public and thereafter are allowed to accumulate and generate income. This simulation follows CBO's 10-year inflated baseline projections, which assume that budget authority for discretionary spending grows with inflation from 2001 through 2009. Thereafter, we assume discretionary spending grows with the economy. This scenario could be viewed as implausible, as the federal government would accumulate considerable assets for a period of over 60 years once publicly held debt is retired. Nonetheless, it provides a useful reference point against which to compare alternative fiscal policy paths such as those discussed above.

The continued strength of the U.S. economy and the significant improvement in the budget projections released by CBO this month compared to those released in January are reflected in GAO's updated long-term simulations. The results of these simulations are provided in the enclosure to this letter. Figure 1 shows the fiscal paths under the three alternative scenarios.

Saving the Social Security surplus—a fiscal path receiving widespread endorsement—produces unified budget surpluses for almost 20 years and eliminates the publicly held debt by 2015. Under this scenario, deficits emerge again in 2019 (figure 1)—just as the Social Security and Medicare programs are being strained by the retiring baby boom generation. Saving both Social Security and Medicare Part A surpluses extends surpluses for one additional year.

Deficits under the Save the Social Security Surplus scenario emerge sooner than in the comparable simulations modeled under the January baseline. The larger on-budget surpluses in the new CBO forecast mean that the actions required under this simulation to eliminate

those surpluses are correspondingly greater. Since this path assumes that those actions remain in place, a larger spending and revenue imbalance materializes sooner as entitlement spending pressures grow.

If all future unified surpluses were saved, deficits would not emerge until the second half of the century. Our model implicitly assumes that once debt held by the public is retired in 2009, unified surpluses will continue to be saved. These surpluses accumulate as assets of the government that would have to be invested. Again, the plausibility of this scenario is open to question, particularly at the asset levels (negative debt) implied by the model shown in figure 2.

Figures 3 and 4 show the composition of spending under two scenarios—Save the Social Security Surpluses and Save the Unified Surpluses. By 2030, saving the Social Security surpluses results in a “haircut” for spending on programs other than Social Security, Medicare, and Medicaid. Under this scenario, there is increasingly less room for spending on programs for national defense, the young, infrastructure, and law enforcement. Budget flexibility declines drastically so that by 2050 Social Security and health absorb nearly all federal revenue.

This suggests that the level of public savings resulting from saving the Social Security surpluses will not by itself be sufficient to promote the budgetary flexibility needed to accommodate both the projected growth in Social Security and health entitlements as well as other important national priorities. Figure 5 illustrates the consequences of this simulation for long-term economic growth: if only the Social Security surpluses are saved and no changes are made in our health and retirement programs, GDP per capita growth slows and eventually turns negative, resulting in a lower standard of living.

### **Model Assumptions**

Our simulations are based on the budget and economic assumptions contained in CBO's updated July 2000 10-year projections. After 10 years, we rely on the long-term actuarial assumptions for the Social Security and Medicare programs.<sup>3</sup> For Medicaid, we use the growth rates assumed by CBO in its December 1999 report on long-term simulations.<sup>4</sup> Interest spending is determined by interest rates—which are held constant over the long term—and the level of federal debt held by the public, which depends on the path of deficits/surpluses within each simulation. All other spending, along with federal revenue, is assumed to grow at essentially the same rate as the economy.<sup>5</sup> Table 1 summarizes the key assumptions used in our model.<sup>6</sup>

<sup>3</sup>*The 2000 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, The 2000 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund, and The 2000 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund.*

<sup>4</sup>Congressional Budget Office, *The Long-Term Budget Outlook: An Update*, December 1999.

<sup>5</sup>This means that both revenues and other spending remain constant as a share of GDP.

<sup>6</sup>For more information on our long-term model, see GAO/T-AIMD/OCE-98-83.

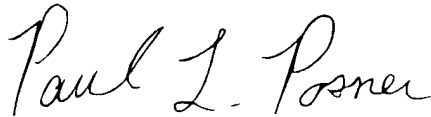
It is important to reiterate that these results are sensitive to changes in the economy and the budget. For instance, only 3 months ago, our simulation of the Save the Unified Surpluses path showed deficits emerging in the 2030s, while the our updated simulation indicates that deficits would emerge more than 20 years later under this scenario. The difference in these results was driven by the significant increases in CBO's projected 10-year surpluses from January to July of this year. Correspondingly, a reduction in projected surpluses of a similar or greater size—whether due to policy actions or economic changes—would significantly worsen the long-term budget outlook.<sup>7</sup>

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We will send copies of this letter to Representative John Kasich, the Chairman of your committee; Senator Pete Domenici, Chairman, and Senator Frank Lautenberg, Ranking Member, Senate Committee on the Budget; and the Honorable Jacob J. Lew, Director, Office of Management and Budget. Copies will be made available to others on request.

Please contact me at (202) 512-9573 if you or your staff have any questions concerning this letter.

Sincerely yours,



Paul L. Posner  
Director, Budget Issues

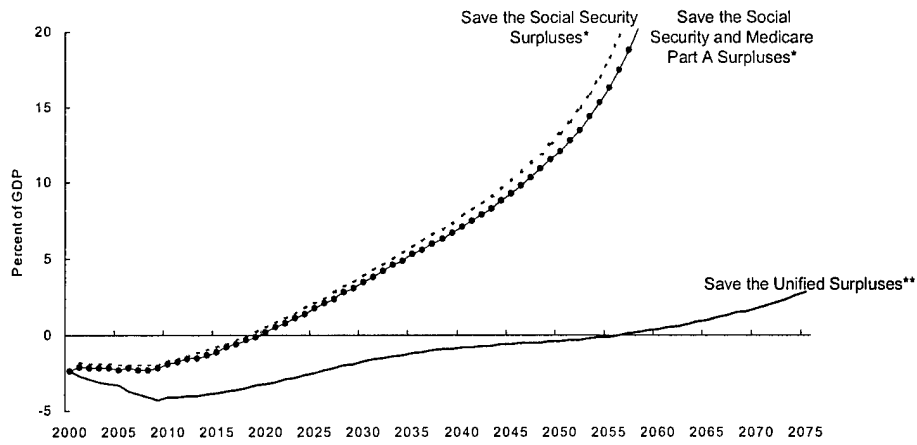
Enclosure

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<sup>7</sup>For example, CBO estimates that if real economic growth is just 0.5 percent higher or lower each year than projected, the surplus in 2010 could be \$250 billion higher or lower. See *The Budget and Economic Outlook: An Update*, July 2000, p. 22.

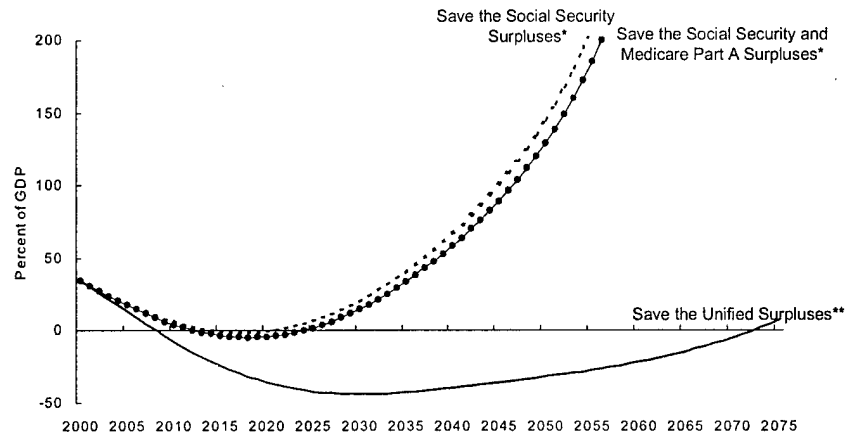
Results of GAO's Long-Term Simulations

**Figure 1: Unified Deficits as a Share of GDP Under Alternative Fiscal Policy Simulations**



\*Data end when deficits reach 20 percent of GDP.  
\*\*Incorporates CBO's inflated baseline through 2009.  
Source: GAO's July 2000 analysis.

**Figure 2: Debt Held by the Public as a Share of GDP Under Alternative Fiscal Policy Simulations**



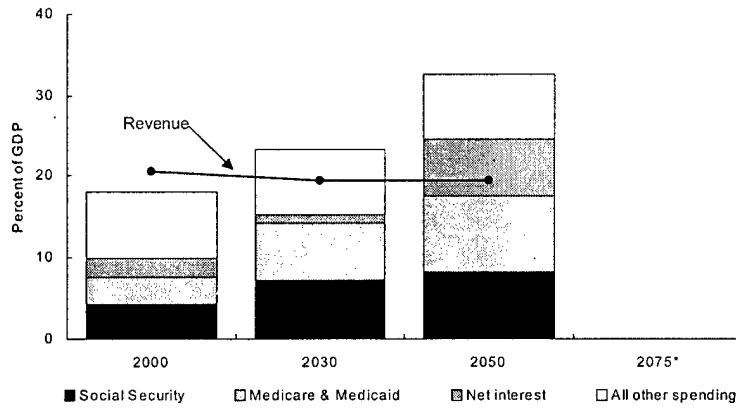
\*Data end when debt reaches 200 percent of GDP.

\*\*Incorporates CBO's baseline through 2009, which assumes discretionary spending grows with inflation from 2000-2009.

Note: Although unified deficits emerge in 2056 under the Save the Unified Surpluses simulation, the stock of assets acquired up to that point are not depleted until 2073.

Source: GAO's July 2000 analysis.

**Figure 3: Composition of Spending as a Share of GDP Under the Save the Social Security Surpluses Simulation**

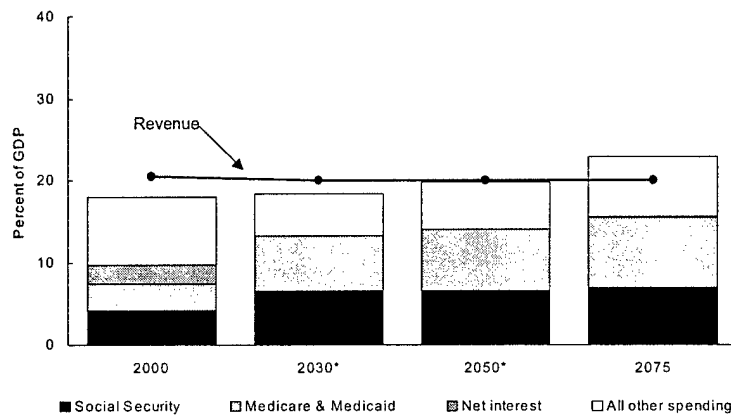


Note: Revenue as a share of GDP declines from its 2000 level of 20.5 percent due to unspecified permanent policy actions that reduce revenue and increase spending to eliminate the non-Social Security surpluses.

\*The Save the Social Security Surpluses simulation can only be run through 2061 due to the elimination of the capital stock.

Source: GAO's July 2000 analysis.

**Figure 4: Composition of Spending as a Share of GDP Under the Save the Unified Surpluses Simulation**

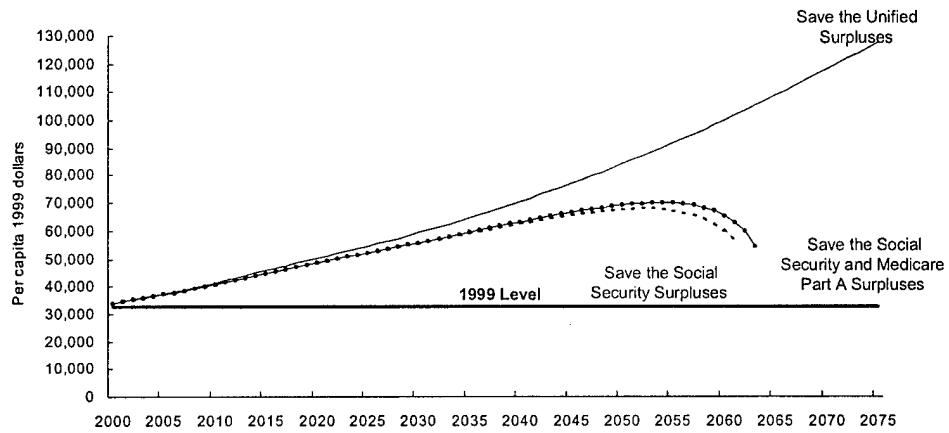


Note: Revenue as a share of GDP falls from its 2000 level of 20.5 percent to CBO's 2009 level and is held constant at this level for the remainder of the simulation period.

\*In 2030 and 2050, all other spending is net of offsetting interest receipts.

Source: GAO's July 2000 analysis.

**Figure 5: GDP per Capita  
Under Alternative Fiscal Policy Simulations**



Note: The Save the Social Security Surpluses simulation can only be run through 2061 and the Save the Social Security and Medicare Surpluses simulation can only be run through 2063 due to the elimination of the capital stock.  
Source: GAO's July 2000 analysis.

**Table 1: Model Assumption Summary**

<b>Model inputs</b>	<b>Assumptions</b>
Surplus/deficit	CBO's July 2000 inflated baseline through 2009; GAO simulations thereafter
Social Security spending (OASDI)	2000 Social Security Trustees' intermediate projections
Medicare spending (HI and SMI)	2000 Medicare Trustees' intermediate projections
Medicaid spending	CBO's December 1999 long-term projections
Other mandatory spending	CBO's July 2000 inflated baseline through 2009; thereafter increases at the rate of economic growth (i.e., remains constant as a share of GDP)
Discretionary spending	CBO's July 2000 inflated baseline through 2009; thereafter increases at the rate of economic growth
Revenue	CBO's July 2000 inflated baseline through 2009; in subsequent years, receipts held constant at 20.0% of GDP (CBO's ratio in 2009)
Saving rate: gross saving of the private sector and state and local government sector	16.4%
Net foreign investment	CBO's projected 2000 nominal dollar level plus one third of any change in gross national saving
Labor: growth in hours worked	2000 Social Security Trustees' intermediate projections
Total factor productivity growth	1.5% (CBO's July 2000 assumption)
Inflation (GDP price index)	CBO through 2010; 1.8% thereafter (CBO's projection in 2010)
Interest rate (average on the national debt)	Average rate implied by CBO's July 2000 inflated baseline interest payment projections through 2007; 5.3% thereafter (based on CBO's assumption for the average rate on Treasury securities)

Notes:  
 (1) These assumptions apply to our base simulation, Save Unified Surpluses. For alternative fiscal policy simulations, certain assumptions are varied, which are noted in the discussion of the alternative paths.  
 (2) In our work, all CBO budget projections were converted from a fiscal year to a calendar year basis. The last year of CBO's projection period is fiscal year 2010, permitting the calculations of calendar year values through 2009.

Source: GAO's July 2000 analysis.